Students who encounter difficulty in their courses because of the English proficiency of their instructors should speak directly with their instructors. If additional assistance is needed, they may contact the UMKC Help Line at (816) 235-2222.
The purpose of this manual is two-fold. First, it’s meant to provide all students, clinical faculty and staff with the rules, procedures and guidelines by which the UMKC School of Dentistry clinic facilities operate. As such, those involved in clinical activities are required to know and adhere to the policies and procedures described in this manual.

The second purpose is to provide a general guide for students during their clinical education experience. This manual contains information related to comprehensive patient care and discipline-specific clinical expectations and competency exams. The School reserves the right to revise any part of this manual at any time. Students are responsible at all times for the information in this manual and any additions, changes and/or corrections. Individual departments have provided the information contained in this manual and are responsible for any errors and/or omissions. Questions should be directed to the specific department/program.

Yours professionally,

Linda M. Wells, DMD, MBA
Associate Dean for Clinical Programs
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Welcome

Welcome to the University of Missouri dental clinics! Your time spent in clinical work will provide you with a high level of expertise in your specific degree area (D.D.S., B.S.D.H., Advanced Education). At least, it should — provided you take the time to understand what will be expected of you in the clinical program you are beginning.

Beginning your clinical work is a landmark in your progression toward your degree. The School of Dentistry’s expectations of you change at this point in your program. You are seen as a student dentist or hygienist rather than a dental or dental hygiene student. You are actively involved in the practice of dentistry, and you have an effect on other people — i.e., your patients!

Purpose of Clinical Facilities

The clinical facilities serve a twofold purpose: one, to prepare you, the student, for future professional work; and two, to provide excellent dental care for patients in the community.

Philosophy of “Comprehensive Patient Care”

“Comprehensive patient care” is an important concept in the School of Dentistry clinical program. Patients are assigned to students with an emphasis on total care — in most cases you will be responsible for developing a treatment plan, presenting it to your patient, and arranging for payment. You will provide all the patient’s dental care in a comprehensive manner just as in private practice.

Continuity of Care

This process allows for continuity of treatment — an important plus for you and your patient. Your patient won’t be frustrated by delays caused by treatment by several students, and you will have the opportunity to learn dentistry in an environment that is closely modeled after most private practice situations.

Patient Availability

Thousands of patients seek treatment in the dental clinics each year. A brochure for potential patients, Caring for You, is available from the clinical reception areas. Clinical staff and faculty initially screen all potential patients in order to ensure that patients selected for treatment will enable students to fulfill their requirements. However, it is your responsibility to ensure you have demonstrated competency and that your requirements for graduation are completed.
Clinic Participation

As a general rule, you will appoint yourself into adult patient clinics. Your active participation is a key factor in the smooth operation of the clinics, and ensures that you will graduate on time. Use your clinical time wisely!

Liability Insurance

You are not required to have your own liability/malpractice insurance while working in the UMKC dental clinics.

All students in the School of Dentistry who provide patient care within the framework of their educational programs and requirements are covered by comprehensive general and professional liability insurance as long as they are registered in School of Dentistry programs.

Students are also covered while working in remote site clinics.

Student/Patient Relations

Based on simple common sense practices, these guidelines for student/patient interaction are included here to help you succeed in developing your patients’ trust and respect.

Be considerate of your patients!

Professionalism

Look like a professional. Report to your clinic appointments in clean clothing and footwear that conveys that you are there to work, not play. Jeans are not appropriate; if you wear them, you will be asked to change.

Your personal hygiene is your own business, to a point. Don’t risk offending your patients by excessive use of colognes or perfumes; do use deodorant regularly; don’t wear dangling bracelets or rings that could disturb your patient or catch on clothing; do wash your hands thoroughly each time you begin or end a treatment session, including after short breaks to use the bathroom or check on supplies. (See infection control guidelines.)

Act like the professional you are becoming. Respect is a mutual achievement. Treat your patients as you would want to be treated.
HUMAN RIGHTS POLICY

Statement

The Board of Curators and UMKC are committed to the policy of equal opportunity, regardless of race, color, religion, sex, sexual orientation, national origin, age, disability and status as a Vietnam era veteran. The Equal Opportunity and Affirmative Action Office, 223 Administrative Center, 5115 Oak St., is responsible for all relevant programs. Call 816-235-1323 for information or go to www.umkc.edu/adminfinance/eoaa.

PATIENT BILL OF RIGHTS

We Will Respect Your Rights

To make you more comfortable as you begin treatment, we have prepared this notice of your rights as a patient at the UMKC School of Dentistry.

Our faculty, staff and student doctors strive to give you the finest and most complete dental care possible without regard to race, religion, sex, nationality or handicap.

What follows is a list of our responsibilities to our patients:

Right #1 We will explain your diagnosis, the treatment we recommend, the cost of treatment, and the results we expect from your treatment. We will answer any questions you may have about your treatment.

Right #2 We will provide as much information as you request before we begin treatment.

Right #3 We will respect your right to privacy in health care. Your dental records are confidential and will be released only with your consent.

Right #4 We will give you considerate and respectful care, complete treatment for your dental needs, and a treatment plan that progresses steadily and continuously.

Right #5 Should you decide to refuse our treatment, we will do our best to offer alternative treatment. If you decide not to pursue any treatment, we must explain the possible risks to your health.

Right #6 We will respond promptly to your requests for service, help and relief from pain.
Right #7 We will offer you the opportunity to participate in research studies or procedures. You do not have to accept.

Right #8 The Coordinator of Patient Services (COPS) can address your concerns during or following treatment.

The COPS serves as a channel to faculty, staff and students by working with them to solve any problem that might arise with clinical services or procedures.

You can call COPS at (816) 235–6271. If the patient coordinator is not in the office, leave a message, and the coordinator will contact you promptly.

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**PURPOSE AND PHILOSOPHY OF COMPREHENSIVE CARE PROGRAM — PREDOCTORAL CLINICS**

The UMKC School of Dentistry operates its predoctoral clinics under the Comprehensive Care Approach to dental education. This section will explain the comprehensive care system and a student’s privileges and obligations under that system.

**Definition**

The Comprehensive Care Approach is a system of clinical instruction and practice that permits the student to be responsible for and provide all aspects of a patient’s treatment needs in a manner that closely resembles the way the dentist will provide health care in private practice after graduation.

**Objectives**

1. Provide competent care in a timely manner while respecting the patient’s values and interests.
2. Provide comprehensive oral health care in a professional manner.
3. Provide a clinical experience that resembles a general dental practice.

**Competency**

Professional competence is the ability essential for a graduate to begin safe and independent practice. Demonstration of clinical competency includes the following characteristics:

1. **Continued satisfactory** evaluation by clinical faculty of typical and recognized parts of the general practice of dentistry in a clinical setting or clinical context.
2. Demonstration of a combination of knowledge, understanding, and attitude regarding the clinical care of patients, along with associated psychomotor skills, and communication skills.
3. **Continued** performance at or above the UMKC/SOD Standards of Care (see pages 1.2–1.5).

**Team Evaluation Form**

1. **Diagnosis and Judgment**
   - Considers health history in treatment
   - Appropriate and accurate data collection and diagnosis
   - Considers all dental conditions in treatment
   - Works within limits of knowledge and skill; obtains the proper consultations/referrals

2. **Technical Skill**
   - Applies appropriate biomedical & behavioral theory and concepts
   - Adapts procedures based on patient’s needs
   - Works within limits of skill
   - Works independently as appropriate — not overly dependent on faculty
   - All patients are treated comprehensively with their needs paramount

3. **Patient/practice management**
   - Prepared, organized, efficient in procedures; proper record management
   - Proper infection control
   - Exhibits professional manner, good rapport, builds patient confidence, communicates effectively
   - Respects the patient’s rights to self-determination, informed consent and confidentiality
   - Faculty, staff and patients are treated respectfully and without prejudice

4. **Critical Thinking/Self-Assessment**
   - Applies critical thinking and problem-solving skills to provide evidence-based, patient-centered care
   - Ability to self-assess and evaluate outcomes of care

**Clinical Privileges**

Clinical practice is a **privilege** not a right. A student must possess preclinical competency and a satisfactory level of professionalism as evaluated by dental school faculty and administrators before he/she can progress into the clinical program. Once in the clinic, the student must show **continuing competency** in clinical skills and professional conduct to retain his/her clinical privileges. If a student does not meet these standards, the
Due Process Regarding Clinical Privileges

If a student has allegedly breached clinical standards of care in such a way that there is a reasonable concern that injury or harm may come to patients, faculty, staff, students, or the facility, action may be taken in the best interest of the individuals involved and the School. Upon receipt of a written report alleging a breach of clinical standards of care by a student, the Associate Dean for Clinical Programs will meet with the student, complainant, and other witnesses to discuss the allegation. Following this meeting, the Associate Dean for Clinical Programs may find it necessary to suspend the student’s clinical privileges. If clinical privileges are suspended, the student will be provided a written statement of the cause and duration of the suspension. Suspension lasting longer than one week or two instances of suspension will result in immediate referral to appropriate channels. (See the Academic Standards of Professional conduct in the *UMKC SOD Student Handbook*).

Commission on Dental Accreditation Complaint Policy

Notice of Opportunity to File Complaints with the Commission on Dental Accreditation:
The Commission on Dental Accreditation will review complaints that relate to a program’s compliance with the accreditation standards. The Commission is interested in the sustained quality and continued improvement of dental and dental-related education programs but does not intervene on behalf of individuals or act as a court of appeal for individuals in matters of admission, appointment, promotion or dismissal of faculty, staff, or students.

A copy of the appropriate accreditation standards and/or the Commission’s policy and procedure for submission of complaints may be obtained by contacting the Commission at 211 East Chicago Avenue, Chicago, IL 60611 or by calling 1-800-621-8099 extension 2719.
SECTION 1 STANDARDS OF CARE, COMPETENCIES, AND QUALITY ASSURANCE

Contents

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OVERVIEW:
CLINICAL DENTAL EDUCATION

Pertinent Terms

1. Standards of Care describe the proper care for the patient. The standards should be patient-centered, focused on comprehensive care, and written in a format that facilitates assessment with measurable criteria.

2. Competencies establish those skills expected of our graduates. Competency is a combination of knowledge and attitude, psychomotor and communication skills expected of the beginning, independent practitioner. A competency-based curriculum involves students who demonstrate their competence by consistently performing at a defined skill level rather than complete a certain number of procedures.

3. Outcomes Assessment is the process that measures the competence of students and provides them with feedback about how to improve their performance. Methods include many sources of feedback such as course grades, clinical progress exams, surveys (patient and faculty), student self-assessments, performance on standardized tests, etc.

4. Quality Assurance (QA) provides the mechanism that assures the Standards of Care are met. Quality assessments include chart audits, infection control reviews, patient questionnaires, outcomes assessment, remakes/refunds review, and post-treatment complaints.

By closing the “loop” between Standards of Care, competencies, and quality assurance (QA), our dental school will be attuned to quality issues that will lead to self-improvement and better overall patient care.
GENERAL CARE STANDARDS

Standards of Patient Care

1. **ALL PATIENTS ARE OFFERED AND, IF THEY ACCEPT IT, PROVIDED COMPREHENSIVE PATIENT CARE TO MEET THEIR ORAL HEALTH NEEDS.**

Guidelines

*Comprehensive Care Patients are to:*

1. Receive information concerning the school, its policies and procedures.
2. Receive a comprehensive dental examination (including necessary radiographs) and treatment plan to address their oral health needs.
3. Consent to the planned treatment.
4. Receive the planned treatment.
5. Receive maintenance of their oral health during active treatment.
6. Have access to emergency care and after-hours emergency care.
7. Receive an exit examination at the completion of comprehensive care.
8. Be placed on recall to maintain their oral health.

*Emergency Care Only Patients are to:*

1. Be seen in a timely manner for management of their emergency concern.
2. Receive information concerning the school and its policies and procedures for emergency patients.
3. Receive an examination to address their emergency concern.
4. Receive treatment and/or referral to manage their emergency concern.
5. Have access to our after-hours emergency clinic once they have been seen in our emergency clinic (having become an emergency patient of record).
Limited Care Patients are to:
1. Receive information concerning the school and its policies and procedures for limited care.
2. Receive a comprehensive dental examination.
3. Consent to limited care with the limitations clearly documented.
4. Have access to emergency care and after-hours emergency care.

2. Patient care is provided in a timely manner to ensure treatment progresses appropriately to the patient’s clinical needs.

Guidelines
1. Comprehensive care patients will be assigned to a student or a patient-waiting bank within two months of the screening appointment. Patients will be informed during screening the approximate date of assignment to a dental student.
2. Patients will be scheduled for a comprehensive clinical examination within four weeks of their assignment to a student.
3. Treatment plans will be developed and approved by a faculty member and the patient within three weeks of completion of the comprehensive examination.
4. Patients will be seen in a timely manner as indicated by their treatment needs. During the active phase of treatment, the patient will be seen at least once every 30 days.
5. Re-examination and treatment plan update will occur every six months.
6. Each patient will have an appropriate recall/maintenance schedule established to maintain optimal oral health.

3. Patients receive high quality care.

Guidelines
1. At various stages in the active phase of treatment independent reviews of quality are built into the system. This includes:
   • Radiographic diagnostic reviews.
   • Consultation/re-evaluation assessment reports.
   • Treatment planning assessment reports.
   • Treatment plan presentation audits.
   • Patient record audits.
• Dental laboratory quality assurance reports.
• Recall patients not seen reports.

2. At the end of the active phase of treatment comprehensive care patients receive an exit examination that verifies that all necessary dental treatment has been satisfactorily completed.

(Additional criteria and guidelines for evaluating the quality of procedures in each area of dentistry are established and disseminated by the individual clinical departments.)

3. After-hours emergency visits by active patients of record are reviewed and analyzed for any trends or recurring problems by the Director of Quality Assurance.

4. Patient grievances and concerns reported to the patient representative are dealt with and reported to the Associate Dean for Clinical Programs and/or the Director of Quality Assurance to be analyzed for trends or recurring problems.

4. PATIENTS ARE SATISFIED WITH THE CARE THEY RECEIVE.

Guidelines
1. Surveys of patient satisfaction are developed, distributed, analyzed and reported to the Patient Care and Quality Assurance Committee and the clinic administration at least once per year.

2. A summary of patient grievances and their resolution is prepared annually and reported to the Patient Care and Quality Assurance Committee and the clinic administration.

3. After-hours emergencies involving patients of record are reported to the Director of Quality Assurance for his analysis and distribution to appropriate faculty. An annual report dealing with the number and types of emergencies by department and team is reported to the Patient Care and Quality Assurance Committee and the clinic administration.

5. CONFIDENTIALLY OF PATIENT RECORDS IS MAINTAINED.

Guidelines
1. Paper records are maintained in a secure area that is only available to authorized faculty and staff.

2. Electronic records are protected by appropriate levels of biometric authentication and/or password security to prevent unauthorized use.
3. Monitor displays of patient records have an auto shut-off to minimize unauthorized viewing of information.

6. **FEDERAL, STATE, LOCAL AND INSTITUTIONAL GUIDELINES AND POLICIES ARE FOLLOWED TO INSURE THE SAFETY AND RIGHTS OF OUR PATIENTS.**

**Guidelines**

1. All patients will be treated according to the Health Insurance Protection and Portability Act (HIPAA), the posted Human Rights Policy and the Patient Bill of Rights.
2. Infection control, biohazard, radiation safety, and waste management policies will be enforced.
3. All providers of care are prepared to recognize medical emergencies in the clinical setting and to activate emergency procedures.
4. All clinical faculty, students, and appropriate staff are certified in basic life support.
5. Appropriate, well-stocked current medical equipment and devices, drug kits and first aid kits are available.
6. Patient records conform to legal and institutional standards.

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**UMKC School of Dentistry**

**Competencies for the Graduating Dentist** (1/23/09)

**Introduction**

The competencies listed below are the **minimum** levels of performance that are expected of the dentist graduate of UMKC School of Dentistry. Due to special interests, experiences and opportunities many students will exceed these minimums in various areas. However, every dental student must demonstrate these minimum competencies to graduate.

**Competencies**

1. Apply the fundamental principles of the biomedical and behavioral sciences as they relate to the promotion and provision of oral health care. (CODA 2-12-16; ADEA Domain 3)
2. Apply legal, ethical and regulatory principles to the provision of oral health care, including practice management. (CODA 2-19-21; ADEA Domain 2, 3 & 5)
3. Apply interpersonal and communication skills to empathetically and effectively care for diverse patient popula-
tions and function in the health care environment. (CODA 2-17, 2-19; ADEA Domain 3 & 4).

4. Apply critical thinking and problem solving skills to provide evidence-based patient-centered care. (CODA 2-23; ADEA Domain 1).

5. Evaluate various models of oral health management and care delivery. (CODA 2-18; ADEA Domain 5).

6. Participate in improving the oral health of individuals, families, and groups in the community through oral health promotion, education and interaction with other health professions. (CODA 2-17, 2-19; ADEA Domain 3 & 4)

7. Manage medical emergencies and complications that may occur during dental treatment. (CODA 2-25, 2-27; ADEA Domain 6).

8. Recognize and manage pain and anxiety, trauma, hemorrhage, and infection of the orofacial complex by selection, administration or prescription of pharmacological or non-pharmacologic agents in the treatment of dental patients. (CODA 2-25; ADEA Domain 6).

9. Demonstrate competence in providing oral health care within the scope of general dentistry for children, adolescents, adults, and special needs patients. (CODA 2-25; ADEA Domain 6). This includes:
   a. Perform a complete dental examination to arrive at a diagnosis of the patient’s oral condition/s.
   b. Develop, present and implement an integrated treatment plan to address a patient’s oral health needs.
   c. Prevent, identify and manage periodontal conditions.
   d. Prevent, identify and manage pulpal and periradicular conditions.
   e. Identify and manage patients with oral surgical needs.
   f. Identify and manage malocclusions.
   g. Manage restorative procedures for single defective teeth, or to restore function in patients with partial or complete edentulism.
   h. Treat patients with soft tissue lesions and oral manifestations of systemic diseases.

10. Demonstrate the ability to self-assess competency and the outcomes of care. (CODA 2-22; ADEA Domain 6).
QUALITY ASSURANCE AND PATIENT CARE SERVICES

Introduction

UMKC School of Dentistry conducts a system of quality assurance for the patient care program that demonstrates evidence of:

1. Standards of care that are patient centered, focused on comprehensive care and written in a format that facilitates assessment with measurable criteria;
2. An ongoing review of a representative sample of patient records to assess the appropriateness, necessity, and quality of the care provided;
3. Mechanisms to determine the cause(s) of treatment deficiencies; and
4. Patient review policies, procedures, outcomes, and corrective measures.

The UMKC School of Dentistry operates its clinics under the Comprehensive Care Approach to dental education. The Comprehensive Care Approach is a system of clinical instruction and practice that permits the student to be responsible for and provide all aspects of a patient’s treatment needs in a manner that closely resembles the way practitioners will provide health care in private practice after graduation.

QUALITY ASSURANCE PROGRAM AT UMKC SCHOOL OF DENTISTRY

Purpose

The purpose of the UMKC School of Dentistry’s Quality Assurance Program is to continually assess quality indicators defined by the School’s Standards of Care, to assure that deficiencies in patient care are corrected, that corrective measures will be made in the didactic or clinical curriculum as a result of these reviews, and that follow-up assessments measure the success of these didactic and clinical interventions. The appropriateness, necessity, and quality of care provided are part of the audit systems. The Office of Clinical Administration under the direction of the Associate Dean for Clinical Programs and the Director of Quality Assurance is responsible for oversight of the Quality Assurance Program.

Components

The following are components of this process:

Patient Reviews

2. Corrected Chart Audit — Changes made during treatment planning are compared with initial diagnosis.

3. Exit Examination — Students and faculty examine the patient and review the patient record following completion of treatment prior to placing a patient on recall.

**Record Audits**

4. Treatment Plan Presentation Reviews — The Director of Quality Assurance performs a global review of patient records who have had recent treatment plan presentations.

5. Periodic Record Audits — Clinical faculty review patient records who are within two months from their initial examination. Patient records will be reviewed by faculty who did not treat or supervise treatment themselves.

**Other Reports**

6. Incident Reports — Profile of clinical incidents.

7. Patient Satisfaction Survey — Annual survey of completed and inactivated patients.


9. Reduced Fees, Remakes, and Refunds.

10. After Hours Dental Emergencies.


12. Fixed Prosthodontics Laboratory Log — Record of cases submitted to the fixed prosthodontics laboratory with data of cases submitted and rejected.

13. Complete Removable Prosthodontics Laboratory Log — Record of cases submitted to the complete removable prosthodontics laboratory with data of cases submitted and rejected.

14. Partial Removable Prosthodontics Laboratory Log — Record of cases submitted to the partial removable prosthodontics laboratory with data of cases submitted and rejected.

**Details of Components**

1. Patient Screening Reviews

Following preliminary screening by clinical faculty and taking radiographs, the Director of Quality Assurance reviews demographics, screening notes, radiographs, and makes recommendation for assignment. Monthly reports for screening banks are given to the Associate Dean for Clinical Programs and Team Coordinators.
2. Corrected Chart Audit

During treatment planning sessions, data collected and review of radiographs are made by dental faculty who are working with students in developing appropriate treatment plans for their patients. Corrected charts are developed by the faculty during treatment planning sessions. On a monthly basis, differences between initial diagnosis and corrected chart data is generated by CMS. This information will be analyzed and a report will be given to the Team Coordinators and Dental Hygiene who will discuss concerns with appropriate faculty and students. A summary report will also be provided to the Associate Dean for Clinical Programs.

3. Exit Examination

The purpose of the exit examination is to evaluate the quality of care received by our patients and to assess the competency of students in evaluating completion of treatment. The exit examination is a quality assurance self-assessment by the student conducted at the patient’s last appointment or appointment scheduled specifically for this purpose. A parallel faculty assessment by the team coordinators or their designee(s) will be performed at the same appointment. Treatment deficiencies are identified by criteria based on the Standards of Care. Deficiencies are described as “unacceptable” and are identified for replacement or retreatment if possible. Treatment needs, if any, are identified by the team coordinators or their designee(s) who are responsible for conducting this audit. Reports are accessed from the Clinic Management System (CMS) by the Director of Quality Assurance and/or the Associate Dean for Clinical Programs for cataloging and tracking. Information is given periodically to the appropriate team coordinators, department chairs, involved faculty, and students. These issues will be addressed and documented in the CMS by a new treatment plan with new exit examination to review completion of all treatment before placing the patient on recall. See Appendix A.

4. Treatment Plan Presentation Reviews

The Director of Quality Assurance reviews patient records of recently completed treatment plan presentations. This global review of the record addresses issues of concern, questions, reminders, etc. of the patient’s record. These issues are submitted where appropriate via memoranda on a monthly basis to coordinators, directors, chairs, Associate Dean for Clinical
Programs. Response as to how concerns and issues are resolved are returned to the Director of Quality Assurance.

5. Record Audits

Record audits will be performed periodically by clinic faculty for patients of record who were neither treated by or treatment supervised by the auditing faculty. A list of patients who had their initial examination two months prior to audit is provided. Results of audits are given to administrative assistants who will summarize data. Information of needed corrections are given to appropriate coordinators, directors, chairs, students, and Associate Dean for Clinical Programs.

6. Incident Reports

These reports are a quality assurance measure that allow detailed documentation of any adverse event within UMKC School of Dentistry which premises that injury occurred. These reports include clinical incidents that involve an occupational exposure of a student, employee, faculty, or patient of bloodborne pathogens. All incident reports are forwarded to, and cataloged by, the Coordinator of Risk Management regarding the frequency and type of injuries that occur.

7. Patient Satisfaction Survey

The survey is conducted annually and is a standard survey form mailed to approximately 300 patients (50% incomplete treatment and 50% complete treatment from each of the three teams). The data is compiled and maintained in the Office of Clinical Administration and the information serves to direct activities in such areas as institutional policy, physical plant, and the teaching program. The Patient Care and Quality Assurance Committee along with the clinical administration pursues ways to improve patient satisfaction.

8. Patient Services Coordinator Report

This report is a quality assurance indicator of patient satisfaction. The Patient Services Coordinator holds a staff position in the Office of Clinical Administration. It is the Patient Services Coordinator’s responsibility to interview patients who have expressed concerns about some aspect of their experience at the dental school. The statistics from the Patient Services Coordinator are compiled and maintained in the Office of Clinical Administration and the information serves to direct changes by the Associate Dean for Clinical Programs regarding institutional policies and procedures.
9. Reduced Fees, Remakes, and Refunds

The Code 13 report is a quality assurance measure that provides detailed documentation on repeating a procedure previously completed at UMKC School of Dentistry and subsequently deemed unsatisfactory. Reduced fees for teaching purposes are not included in this report. The Coordinator of Patient Financial Services provides monthly reports to the Associate Dean for Clinical Programs. Appropriate feedback is then given to the team coordinators and/or specific department chairs for subsequent action.

10. After Hours Dental Emergencies

This report is a quality assurance measure that provides detailed documentation on patients of record emergencies outside normal school hours. Assigned faculty receive emergency after hours calls and complete an incident report on the patient’s care. The incident reports are filed weekly with the Office of Clinical Administration. The reports are reviewed and appropriate feedback is given to the team coordinator or director of a specific graduate program and/or departmental chair. The Director of Quality Assurance retains copies of the reports and forwards the original reports to the Records Department for scanning in CMS.


The Coordinator of Patient Financial Services provides a report twice during the summer semester and three times each during the winter and fall semesters on the timely treatment of patients by their student. This report is given to the team coordinators and the Associate Dean for Clinical Programs. This report describes timely care as not allowing more than sixty (60) days to lapse between a patient’s appointments. This report is also divided into three reporting categories: current (timely care), not seen for 61-90 days, and not seen in 91+ days. Students who see 80% or more of their patients within sixty (60) days are considered in good standing. Those students below 80% will receive feedback and mentoring from the team coordinator and/or mentor.

12. Fixed Prosthodontics Quality Assurance Laboratory Log

Quarterly reports of the fixed prosthodontics quality assurance laboratory log are provided for the Director of Quality Assurance and Associate Dean for Clinical Programs. This log is generated for each fixed case by the manager of the laboratory. Categories of evaluation of dies, mounting, preparation(s), and incisal guide tables are evaluated. Trends
of rejections and individual matters of concern are given to appropriate team coordinators, chairs, directors, and students.

13. Compete Removable Prosthodontics Quality Assurance Laboratory Log

Quarterly reports of complete removable prosthodontics quality assurance laboratory log are provided for the Director of Quality Assurance and Associate Dean for Clinical Programs. This log is generated for each complete removable case by the manager of the laboratory. Categories of casts with trial bases and wax occlusal rims, waxed dentures mounted on articulator after final verification appointment, and polished dentures ready for insertion appointment are evaluated. Trends of rejections and individual matters of concern are given to appropriate team coordinators, chairs, directors, and students.

14. Partial Removable Prosthodontics Quality Assurance Laboratory Log

Quarterly reports of partial removable prosthodontics quality assurance laboratory log are provided for the Director of Quality Assurance and the Associate Dean for Clinical Programs. This log is generated for each completed partial removable case by the manager of the laboratory. Categories of quality assurance worksheet with definitive treatment plan, master cast, design cast, opposing cast, work authorization form, and waxed partial denture(s) mounted on articulator are evaluated. Trends of rejections and individual matters of concern are given to appropriate team coordinators, chairs, directors, and students.
QUALITY ASSURANCE COMMITTEE

Purpose

To assure that each patient seeking comprehensive and emergency care at the UMKC School of Dentistry is given quality dental care.

Quality Assurance

Objectives

Optimal oral health can be achieved if each patient receives:

1. A current health history.
2. A complete oral examination.
3. Pertinent diagnostic aids (e.g. radiographs, diagnostic models).
4. A description of noted dental problems, appropriate solutions, an estimate of cost and a time frame for completion of treatment.
5. A consent form based on the reasonable patient standard.
6. Clinical treatment to restore the oral conditions to an optimal functional and cosmetic state that can be maintained with home care and regular dental maintenance visits.
7. Preventive information, devices and techniques to enable maintenance of oral health.
8. A recall program for continued maintenance of oral health.
9. Timely and convenient access to treatment including emergency care.

Committee Activities for Quality Assurance

2. Assess policies relative to patient satisfaction.
3. Review patient record forms to assure they reflect the objectives of quality assurance.
4. Seek patient, student, and faculty opinions regarding quality of dental care and patient satisfaction.
5. Evaluate incidents and trends regarding patient dissatisfaction.
6. Make recommendations to the Director of Quality Assurance and Associate Dean for Clinical Programs relating to quality assurance issues.
APPENDIX A

STUDENT AND FACULTY EXIT EXAMINATIONS

The exit examination is a clinical evaluation of the status of the patient’s optimal oral health and quality of care received by our patients. The experience gained from performing exit examinations should be carried forward into their dental practice so that they may monitor the oral health status of their own patients following an active treatment plan.

Student Exit Examination

The student will perform a clinical assessment (Student Exit Examination) of any changes in patient health/medical conditions, hard and soft tissue evaluation, periodontal and restorative evaluations. The student will note the timeliness of recall/maintenance and six-month re-diagnosis, completion of any medical/dental consults, and current/diagnostic radiographs. If there are no diagnostic, maintenance, or treatment needs and the faculty independently concur with a faculty exit examination schema, then the student should receive “Credit” for the exit examination in the treatment plan and “Credit” for Completed Patient.

If the student identifies any maintenance, diagnostic, pathology, or treatment needs, appropriate documentation is made in the student exit examination schema. If the faculty concur, then “Credit” should be awarded for the exit examination. Completed Patient will not be graded. Any additions to the treatment plan are added including a new exit examination. The student and faculty (who evaluated the exit examination prior to treatment additions) will independently perform an exit examination upon completion of added treatment. If student and faculty agree that there are no further needs, then the exit examination will be graded as “Credit” and Completed Patient will be graded as “Credit”.

If the student performs a student exit examination and does not find any problems but the faculty does, then the grade for the exit examination should be “No Credit.” Completed Patient should not be graded. Any additions to the treatment plan including a new exit examination is to be added. Upon successful completion of a student exit examination and independent evaluation by faculty (who evaluated the exit examination prior to treatment additions) finding no needs, then the exit examination that was added should be “Credit” and Completed Patient may be graded “Credit” as well.
Faculty Exit Examination

The faculty will independently perform the Faculty Exit Examination schema. Further treatment needs, pathology, or iatrogenic issues needed are to be charted on the graph and comments on details of the specify section of the faculty exit examination schema must be followed.

Evaluation of the exit examinations by faculty are described in the three scenarios in the student exit examination section above.

It is possible to have several “No Credit” and “Credit” exit examinations prior to one “Credit” exit examination immediately prior to one completed patient “Credit” per treatment plan sequence. Students are not to be penalized if patient refuses treatment or does not have funds at this time for continued active treatment.

Steps in Performing Student and Faculty Exit Examinations

Student Exit Examination

1. Review Medical History and Medications for changes
2. Review Dental History
3. Reevaluate the following procedures/treatment:
   a. Diagnosis within 6 months
   b. Radiographs current (relative and necessary to patient need)
      General guidelines: Full mouth survey — every 3 to 5 years
      Bite wings — every 6 months to 1 year
   c. Appropriate radiographs taken or retaken
   d. All consults have been completed and recommended treatment or rejected
   e. Periodontal therapy and charting is current, accurate and effective (must check notes for recall interval and possible re-evaluation results)
   f. Review charting for accuracy from radiographs and intra-oral examination
   g. Make sure all edentulous spaces were treated, rejected, or treatment deemed unnecessary and noted accordingly
4. Perform intra-oral and extra-oral examination
5. Correct chart as necessary
6. Ask patient about any concerns or problems and determine if patient is satisfied
7. Follow student exit examination schema
Faculty Exit Examination

1. Review Medical History and Medications for changes
2. Review Dental History
3. Reevaluate the following procedures/treatment:
   a. Diagnosis within 6 months
   b. Radiographs current (relative and necessary to patient need)
      General guidelines: Full mouth survey — every 3 to 5 years
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   c. Appropriate radiographs taken or retaken
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   e. Periodontal therapy and charting is current, accurate and effective (must check notes for recall interval and possible re-evaluation results)
   f. Review charting for accuracy from radiographs and intra-oral examination
   g. Make sure all edentulous spaces were treated, rejected, or treatment deemed unnecessary and noted accordingly
4. Perform intra-oral and extra-oral examination
5. Correct chart as necessary
6. Ask patient about any concerns or problems and determine if patient is satisfied
7. Review student exit examination note
8. Follow faculty exit examination schema

EXIT EXAMINATION SCHEMA

ANSWERS TO QUESTIONS SHOULD REFLECT THE PATIENT’S CURRENT STATUS EVEN IF THE STUDENT DID NOT PERFORM THE PROCEDURE(S). Choosing N/A indicates the patient has never had this treatment (not that the student did not perform this particular treatment).

1. Radiology: Self explanatory
2. Oral Medicine/Oral Diagnosis: Self explanatory
3. Maintenance during active treatment: The student has been seeing the patient in a timely manner and diagnosis and recall/maintenance is current.
4. Periodontal treatment needed: If the periodontal treatment is current and effective then this should be N/A. If appropriate periodontal therapy was not treatment planned initially or current treatment was not effective, then choose the appropriate treatment necessary. Note in Specify as to reason for need for periodontal treatment.
5. Endodontics: Self explanatory
6. Amalgam: Self explanatory
7. Composite: Self explanatory
8. Crown: Self explanatory
9. Bridge: Self explanatory
10. Veneer: Self explanatory
11. Complete Denture: Self explanatory
12. Removable Partial Denture: Self explanatory
13. Patient satisfaction: Self explanatory
14. All planned treatment has been completed: If the patient rejected treatment or possible treatment deemed unnecessary or not recommended, then specify what and why.
15. Other Comments: If any concerns were noted, you need to specify what, why, or watch on a tooth. If you determine treatment is not necessary, make a note as to why.

*Documenting noted concerns or unaddressed charting problem(s) is very important. Otherwise, there will be no meaning to the information provided.*

If all treatment was completed and nothing new was found, run the note for completed patient. The patient is now ready to be placed on recall on appropriate date when all treatment has been paid. It is the student’s responsibility to remember to place the patient on recall. If the patient does not owe any fees at the time of the exit examinations, the patient can immediately be placed on recall by marking the recall button when signing out. The computer will prompt you for a date. The date should be entered for the appropriate recall interval.

**Notes**

Faculty should discuss their findings for further treatment with patient and student.

If the student made too many errors and there is a need for multiple corrections to the charting, the student should perform a re-diagnosis at no charge.
Outcomes of Care

A competency evaluation has been designed for student assessment of the outcomes of care. These evaluations are administered by the Team Coordinators or their representative. This can be taken in the third or fourth year, but must be successfully completed prior to graduation. The supervising faculty will determine if the case is of sufficient difficulty to qualify for this procedure. If any of the criteria are marked “Unacceptable,” remediation with a faculty member will be necessary, and a new competency exam will need to be taken until a passing grade is achieved. Remediation will include student self-study, with retaking of the examination until successful.

COMPETENCY ASSESSMENT FOR EVALUATING OUTCOMES OF CARE

Student ________________________________ Date __________________

Faculty ________________________________

Place a checkmark ( √ ) in the appropriate box for each criterion under "CA" for clinically acceptable performance or under "U" for unacceptable performance.

<table>
<thead>
<tr>
<th>Criteria for Assessment</th>
<th>CA</th>
<th>U</th>
</tr>
</thead>
<tbody>
<tr>
<td>1 Accurately reviews medical history and medications.</td>
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<tr>
<td>2 Correctly reviews radiographs and need for retakes.</td>
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<td></td>
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<tr>
<td>3 Capable of assessing the accuracy of periodontal and restorative charting and determining if they are current.</td>
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<tr>
<td>4 Able to perform correct intra-oral and extra-oral examination.</td>
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<tr>
<td>5 Appropriate recall interval determined.</td>
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<tr>
<td>6 Maintains proper infection control throughout procedure.</td>
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<tr>
<td>7 Patient satisfaction assessed.</td>
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</tbody>
</table>

Student must complete all items to a clinically acceptable level.

Comments:

Oxygen Tank and Code Blue

Competency evaluations for Use of the Oxygen Tank and Medical Emergency Procedures (Code Blue) for students in the clinic are designed to correlate the didactic training in emergency management with the students’ clinical training. These unannounced evaluations are administered by the Team Coordinators or their representative. These can be taken in the third
or fourth year, but must be successfully completed prior to graduation.

If any of the criteria are marked “Unacceptable,” remediation with a faculty member will be necessary, and a new competency exam will need to be taken until a passing grade is achieved. Remediation will include student self-study, with retaking of the examination until successful.

### Competency Assessment for Evaluating Use of the Oxygen Tank

<table>
<thead>
<tr>
<th>Criteria for Assessment</th>
<th>CA</th>
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<tbody>
<tr>
<td>1. Recognizes conscious patient conditions requiring supplemental oxygen and steps to</td>
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<tr>
<td>implement emergency procedures.</td>
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<tr>
<td>2. Identifies location of tank.</td>
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<tr>
<td>3. Locates and turns oxygen tank valve counter-clockwise, observing dial indicating</td>
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<tr>
<td>oxygen level in the tank.**</td>
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<tr>
<td>4. Locates valve regulating flow and adjusts 6-8 L/min.</td>
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<td>5. Places oxygen mask over patient’s nose and mouth, sealing firmly.</td>
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<tr>
<td>6. Monitors patient until emergency team takes over, or until oxygen is no longer</td>
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<tr>
<td>needed.</td>
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<tr>
<td>7. After emergency, removes oxygen mask and hose from unit, takes to central sterilization area and requests an exchange.</td>
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<tr>
<td>8. Attaches clean, sterile mask and hose to oxygen unit.</td>
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<td>9. Returns oxygen unit to its storage area.</td>
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<tr>
<td>10. Completes a written report and submits to the Dean of Clinical Affairs.</td>
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</tbody>
</table>

** A setting of 500 or below indicates that the tank needs to be replaced with a full tank.

Student must complete all items to a clinically acceptable level.

Comments:
COMPETENCY ASSESSMENT FOR EVALUATING MEDICAL EMERGENCY PROCEDURES (CODE BLUE)

Student __________________________________________ Date ________________

Faculty __________________________________________

Cubicle __________________________________________ Score _______________

Place a checkmark (✓) in the appropriate box for each criterion under "CA" for clinically acceptable performance or under "U" for unacceptable performance.

<table>
<thead>
<tr>
<th>Criteria for Assessment</th>
<th>CA</th>
<th>U</th>
</tr>
</thead>
<tbody>
<tr>
<td>1 Recognizes the signs of a person in distress.</td>
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<tr>
<td>2 Asks someone to call the emergency number (x4444) and alerts clinical faculty.</td>
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<tr>
<td>3 Instructs that person to then proceed at once to the stairway by the elevator on first floor, to wait for ER team to arrive and to lead them to the emergency site.</td>
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<tr>
<td>4 Instructs another person to get the AED.</td>
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<tr>
<td>5 Begins assessment (the R, A, B, C's) associated with the Basic Life Support System and attaches the AED, based on assessment results.</td>
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<tr>
<td>6 Monitors patient, maintaining basic life support until emergency team arrives.</td>
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<tr>
<td>7 Allows emergency team to take over care of person in distress.</td>
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<tr>
<td>8 Assists attending faculty in submitting a comprehensive written report of the Incident to Dana Linville.</td>
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Student must complete all items to a clinically acceptable level.

Comments:
SECTION 2  ACADEMIC STANDARDS

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Introduction

Professional education in the health sciences manifests characteristics that are unique among advanced educational programs. Academic Standards of the School of Dentistry are established to ensure that the public, whose health will be entrusted to graduates of its programs, will receive care of professionally acceptable quality and that the care will be provided in an ethical and professional manner.

STANDARDS OF SCHOLARSHIP

Enrollment & GPA

A predoctoral dental or prebaccalaureate dental hygiene student must maintain at least a 2.5 grade point average each semester in dental school. Failure to attain a 2.5 in any semester will result in the student being placed on probation for the next semester. In order for a semester to count toward removing a student from probation, the student must be enrolled full time — at least five hours in summer or 12 hours in fall or winter.

Probation & Dismissal

All students who are placed on probation must review their academic progress with the Chair of the Academic Standards Committee and may be asked to appear before the Committee. A second consecutive semester of a below 2.5 grade point average will result in dismissal from dental school. A total of three semesters with GPA’s below 2.5 will result in dismissal from dental school. Two semesters separated by a summer session in which the student is enrolled in less than five graded hours will count as consecutive semesters.
**Failing Grades**

The failure of any course (receiving a grade of F or no credit) will necessitate additional work to remove or replace the F or no credit. The course may be repeated at another dental school or dental hygiene program with the approval of the Associate Dean for Academic Affairs or during the next offering of the course at this school. If a course is repeated, the student will receive whatever grade he or she earns in the repeated course.

Both grades will appear on the student’s transcript and will be included in the student’s grade point average. If the student fails only one course in a given semester and if failure was the result of performance slightly below that acceptable — i.e., 60 percent where 65 percent is required for passing — or poor performance on one section of the course with acceptable performance in other sections, the student may petition the course instructor for a remediation program.

**Remediation Programs**

The remediation program can take whatever form the course instructor deems appropriate. Some examples are:

1. Independent study for a number of weeks followed by an examination.
2. Remedial summer laboratory work followed by a laboratory examination.
3. A series of written exercises followed by an examination.

If a student successfully completes a remediation program, his or her grade of F or No Credit will be changed to a grade of D (no credit to credit). A second failure or No Credit in the remediated or repeated course will result in dismissal from the program.

**Altered Curriculum Plans**

All students who fail a course, including a clinical course, will be required to pursue an altered curriculum plan that includes completing the failed courses. An approved altered curriculum plan may result in an extension of the student’s academic program since the student has demonstrated difficulty in dealing with the standard curriculum and may need additional course work, review, and/or supplemental instruction in order to successfully complete the curriculum. Altered curriculum plans will be prepared with the approval of the Associate Deans for Academic and Clinical Affairs, and may include repeating previously passed courses.

As of the Summer session of 2004, UMKC has implemented a Latin Honors system of recognition for graduating undergraduate and first professional students. This recognizes those stu-
dents who, in the opinion of the faculty, have met the Standards of Professional Conduct as well as the following Academic Standards of the School of Dentistry: Magna Cum Laude, graduating in the top 5% of the class; Summa Cum Laude, graduating in the top 6-10%; Cum Laude, graduating in the top 11-20%. All graduates so recognized must attain at least a GPA of 3.75 or above. This will be noted on the graduate’s transcript and diploma.

National Board Exams

All students who are eligible, have passed the courses covering National Board areas, will be required to take Part I during the August break after the second year. The School of Dentistry will run a board review course for students during the summer term after the second year and prior to students taking the National Dental Board Examination (NBDE) Part I. NBDE exams are taken at Thompson Prometrics; students need to schedule exams early to assure a seat at the exam site.

Students who fail NBDE Part I will retake the exam by the beginning of the Spring Semester of the third year. Students who fail NBDE Part I for the second time will be suspended from clinic at the end of the Spring Semester to allow sufficient time for exam preparation. Students must take the exam the third time by August 1 of that year. Students who fail the NBDE I for the third time will be dismissed from the School of Dentistry. In the event of unusual circumstances, such as major illness, family problems, etc., students may submit a petition to the Academic Affairs Dean to modify the timing of the administration of the board exam. The decision of the Academic Affairs Dean shall be final.

Students will not be eligible to take National Board Dental Examination Part II until December of their fourth year. A mandatory Part II review program will be conducted for fourth year students prior to the NBDE II. Dental students will take the NBDE II between December 15 and January 10 in their fourth professional year. A student may petition for an alteration in the December date through the dental school Office of Academic Affairs. In no case may a student delay taking the examination beyond February 1 of the anticipated graduation year. Students who fail to take National Board examination in accord with the time lines established by the School of Dentistry will be placed on academic probation. Students who fail the NBDE II three times will be dismissed from the School of Dentistry.
Students who fail to take National Board Examinations in accord with the time lines established by the School of Dentistry will be placed on probation.

**Students will be required to pass NBDE I and II to graduate.**

**Advanced Program Students**

Academic standards for advanced education students will be established and monitored through the Advanced Education Committee.

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**STANDARDS OF PROFESSIONAL CONDUCT**

**Personal Hygiene & Dress**

Dental and dental hygiene students must achieve and consistently demonstrate acceptable levels of personal hygiene and dress.

**Professional Ethics**

Dental and dental hygiene students must achieve and consistently demonstrate concern for patients, peers, and others.

Dental and dental hygiene health care providers have an ethical duty to ensure:

1. That patients are treated according to their desires and must be included in treatment decisions.

2. Patient confidentiality in the entire range of the provider-patient relationship which includes dental records.

3. That no harm or potential harm is done to the patient either through intent, ignorance, lack of preparation for the patient encounter, lack of skill, personal impairment of any kind.

4. That no patient is “abandoned” which is defined as discontinuance of care without just cause and without giving the patient adequate notice and the opportunity to obtain the services of another provider.

5. That the patient’s welfare (i.e., the provision of competent and timely delivery of dental care within the bounds of clinical circumstances as presented by the patient such as needs, desires and values is paramount and takes precedence above all else. This also includes the obligation to:

   a) identify and report perioral signs of abuse and neglect and to consult with faculty to report suspected cases to proper authorities as required by law; and,
b) report instances of faulty treatment, whether intentional or not, to the appropriate faculty member.

6. That all people including patients, staff, faculty and all other individuals are treated fairly, respectfully and without prejudice.

7. All standards and requirements of patient care established by the School of Dentistry are followed.

**Academic Integrity**

Dental and dental hygiene students’ behavior must exemplify the highest moral and ethical standards as care providers and as students. The previous section detailed our standards related to patient care. The following represent conduct that is incompatible with the standards related to academic integrity; the School of Dentistry’s ethical standards are in the *Student Handbook on Academic and Other Policies*.

**Ethical Guidelines**

Any behavior that tends to gain an unfair advantage for any student in an academic matter. This includes, but is not necessarily limited to, the following guidelines:

- No student shall, during an examination, have, use, or solicit any unauthorized information or material (written or oral), copy from another student’s paper or discuss the examination with any other person.
- No student shall, during an examination, knowingly give any unauthorized aid to another student.
- No student shall acquire by any means knowledge of the contents of an examination yet to be given.
- No student shall fraudulently claim for credit any classroom, clinical, laboratory, or other procedure or assignment performed by an unauthorized person, including a fellow student.

**Reporting of Unethical Behavior**

Anyone who has reasonable cause to believe that a student has acted unethically is obligated to bring the matter to the attention of the Associate Dean for Student Programs or his/her designee who will follow the process identified in the Preliminary Procedures section of the UMKC School of Dentistry Honor Council Due Process Procedures for Violations of the Standards of Professional Conduct, to determine whether there has been a violation and whether charges should be brought.
In addition to the conduct detailed in the preceding sections, a
dental or dental hygiene student is subject to the University of
Missouri Student Conduct Code, as administered by the Office
of the Vice Chancellor for Student Affairs, except for provisions
dealing with academic dishonesty, Section 200.010 B.1.
Amended Bd. Min. 3-20-81; Bd. Min. 8-3-90, Bd. Min. 5-19-94; Bd. Min. 5-24-01. Conduct for which the students are sanc-
tioned fall into the following categories:

A. Forgery, alteration, or misuse of University documents,
records or identification, or knowingly furnishing false
information to the University.

B. Obstruction or disruption of teaching, research, adminis-
tration, conduct proceedings, or other University activi-
ties, including its public service functions on or off cam-
pus.

C. Physical abuse or other conduct which threatens or endan-
gers the health or safety of any person.

D. Attempted or actual theft of, damage to, or possession
without permission of property of the University or of a
member of the University community or of a campus vis-
itor.

E. Unauthorized possession, duplication or use of keys to
any University facilities or unauthorized entry to or use
of University facilities.

F. Violation of University policies, rules or regulations or of
campus regulations including, but not limited to, those
governing residence in University-provided housing, or
the use of University facilities, or the time, place and
manner of public expression.

G. Manufacture, use, possession, sale or distribution of alco-
holic beverages or any controlled substance without prop-
er prescription or required license or as expressly permit-
ted by law or University regulations, including operating
a vehicle on University property, or on streets or road-
ways adjacent to and abutting a campus, under the influ-
ence of alcohol or a controlled substance as prohibited by
law of the state of Missouri.

H. Disruptive or disorderly conduct or lewd, indecent, or
obscene conduct or expression.

I. Failure to comply with directions of University officials
acting in the performance of their duties.

J. The illegal or unauthorized possession or use of firearms,
explosives, other weapons, or hazardous chemicals.
K. Misuse in accordance with University policy of computing resources, including but not limited to:
1. Actual or attempted theft or other abuse.
2. Unauthorized entry into a file to use, read, or change the contents, or for any other purpose.
4. Unauthorized use of another individual’s identification and password.
5. Use of computing facilities to interfere with the work of another student, faculty member, or University official.
6. Use of computing facilities to interfere with normal operation of the University computing system.
7. Knowingly causing a computer virus to become installed in a computer system or file.

Serious deficiencies in conduct as listed in the School of Dentistry Standards of Professional Conduct, or as outlined in Section 200.010, Standards of Conduct of the University of Missouri Collected Rules and Regulations, by a dental or dental hygiene student shall be reported to the Associate Dean for Student Programs or his/her representative, who will initiate the process as listed under “Preliminary Procedures.”

**MONITORING AND MANAGING STUDENT ACADEMIC PROGRESS**

**Introduction**
A faculty/student committee, the Academic Standards Committee, has been established to oversee the implementation of the school’s Academic Standards. This committee shall be responsible for encouraging and rewarding academic excellence and assuring that all students meet or exceed our academic standards.

**Committee Composition**
The Academic Standards Committee is appointed annually by the Faculty Council in consultation with the Associate Dean for Academic Affairs of the School of Dentistry. Membership of the committee consists of the Associate Dean for Clinical Programs, the faculty chair, one department chairman, one senior dental faculty member, one junior dental faculty member, one faculty member from the Division of Dental Hygiene, and the presidents of the second, third, and fourth year dental classes and the senior dental hygiene class.
The School’s Coordinator of Student Academic Support Services shall sit as a non-voting member of the Committee. A minimum of four voting faculty and two student members or their substitutes nominated by the absent members and approved by the Committee Chair shall constitute a quorum.

**Committee Functions**

Committee functions include:

- Reviewing the academic progress of all students.
- Devising and conducting activities to suitably publicize and reward outstanding academic achievement.
- Advising students who are making unsatisfactory progress through the curriculum.
- Approving modifications in the standard curriculum for currently enrolled students who are having difficulty completing the standard curriculum.
- Hearing requests for re-admission from students who have been dismissed for failure to meet the academic standards of the school.

**PROCEDURES**

**Review Summary Report**

At the beginning of each semester the committee chair will review a summary report of the academic progress of all students during the preceding semester. While the committee review will concentrate on the top and bottom students, it may identify other areas in its review that merit attention, i.e. students who have made major changes in class rank, either upward or downward, but are still within the general range of acceptable achievement.

**Promote & Reward Excellence**

The committee shall be responsible for promoting and rewarding academic excellence through whatever procedures it develops. This may take the form of letters of congratulation, posting an honor roll, publishing an academic honors newsletter, conducting an academic awards reception or banquet, or any other mechanism the committee deems appropriate.

**Probation**

Students who attain less than a 2.5 grade point average for any semester will be placed on academic probation by the Associate Dean for Academic Affairs. Students on probation must confer with the chairperson or designate of the Academic Standards Committee. Students who have failed or earned a No Credit in one or more courses for the semester must review their status with the Chairperson of the Academic Standards Committee. Final decisions in all matters concerning the enforcement of the
Academic Standards of the School of Dentistry will be made by the Dean.

Counseling & Referral

The Academic Standards Committee Chairperson will meet with each of these students and provide counseling and referral to appropriate agencies or individuals for additional help. The Chairperson will report such action(s) to the committee and either the chairperson or the committee may request that a student meet with the committee. The committee shall also arrange for whatever diagnostic tests it feels may be necessary to further consider the case at this time. The committee may also appoint an advisor for students in academic difficulty.

Pre-Clinic Coursework

Students are not eligible to enter the clinic as first-term, third-year students until they have satisfactorily completed all preclinical courses. Courses not completed by the end of the second year will need to be completed by the end of the summer of the third year. Any student failing to complete the work by the end of the summer term must meet with the Academic Standards Committee before proceeding with the fall semester.

Curriculum Modification

Students requesting a modification of the standard curriculum shall present a request to the Academic Standards Committee through the Associate Dean for Academic Affairs. Such a request may result from academic, medical, interpersonal, financial or other reasons. The committee may alter the typical sequence of courses but may not waive any courses. Such alterations will typically result in the lengthening of the student’s academic program.

Petition for Readmission

Students who have been dismissed from the School of Dentistry for failure to meet the school’s Academic Standards may petition the Academic Standards Committee for re-admittance. Such petitions must be submitted in writing to the Associate Dean for Academic Affairs by the end of the first day of the succeeding academic term. The Academic Standards Committee shall hear re-admittance appeals as quickly as possible and in no case shall delay its decision beyond the end of the second week of the academic term. Students who petition for re-admittance must appear in person before the committee to support their petition. Failure to do so will result in automatic denial of the petition. An altered curriculum will be developed to meet the educational needs of students who are re-admitted. This will be developed by the Academic Affairs Dean in consultation with appropriate faculty. It may include repeating courses which have been previously taken and passed.
Other faculty members and students who are knowledgeable about a case under consideration may be asked to attend and participate in the discussion of that case but may not vote.

Final decisions in all matters concerning the enforcement of the Academic Standards of the School of Dentistry will be made by the Dean.

The Academic Standards Committee may devise whatever additional rules it deems necessary to carry out these procedures. Such rules must be consistent with the guidelines established in this document.

**DEGREE REQUIREMENTS**

**D.D.S. DEGREE**

1. Satisfactory completion of the program, including meeting the program’s competencies.
2. A cumulative grade point average of 2.5 or higher for the student’s period as a dental student.
3. A passing grade on all sections of Part I and Part II of the National Boards.
4. Demonstrate an ability to meet the standards of professional conduct.

**B.S.D.H. DEGREE**

1. Satisfactory completion of the program, including meeting the program’s competencies.
2. A cumulative grade point average of 2.5 or higher in the dental hygiene program.
3. Demonstrate an ability to meet the standards of professional conduct.
# Clinical Grade Breakdown

## Third Year

<table>
<thead>
<tr>
<th>Season</th>
<th>Course</th>
<th>Hours</th>
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<tbody>
<tr>
<td><strong>Summer</strong></td>
<td>Introduction to Comprehensive Patient Care</td>
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<td><strong>Total Hours</strong></td>
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<td><strong>Fall</strong></td>
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<td></td>
<td>Professional Development I</td>
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<td><strong>Total Hours</strong></td>
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<td><strong>Spring</strong></td>
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<td></td>
<td>Professional Development II</td>
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<td></td>
<td>Periodontics Clinical</td>
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<td></td>
<td>Operative Dentistry Clinical II</td>
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<tr>
<td></td>
<td>Removable Prosthodontics Clinical II</td>
<td>1.0</td>
</tr>
<tr>
<td></td>
<td>Pediatric Dentistry Clinical II</td>
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</tr>
<tr>
<td></td>
<td>Oral Diagnosis Clinical II</td>
<td>1.0</td>
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<tr>
<td></td>
<td>Oral Surgery Clinical</td>
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<tr>
<td></td>
<td>Oral Radiology Clinical</td>
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<td><strong>Total Hours</strong></td>
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## Fourth Year

<table>
<thead>
<tr>
<th>Season</th>
<th>Course</th>
<th>Hours</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Summer</strong></td>
<td>Comprehensive Patient Care III</td>
<td>8.0</td>
</tr>
<tr>
<td></td>
<td>Professional Development III</td>
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<tr>
<td></td>
<td><strong>Total Hours</strong></td>
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</tr>
<tr>
<td><strong>Fall</strong></td>
<td>Comprehensive Patient Care IV</td>
<td>5.0</td>
</tr>
<tr>
<td></td>
<td>Professional Development IV</td>
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<tr>
<td></td>
<td>Oral Diagnosis Clinical IV</td>
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<tr>
<td></td>
<td>Clinical Treatment Planning</td>
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<tr>
<td></td>
<td>Fixed Prosthodontics Clinical</td>
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<tr>
<td></td>
<td>Operative Dentistry Clinical IV</td>
<td>1.0</td>
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<tr>
<td></td>
<td>Pediatric Dentistry Clinical I</td>
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<td></td>
<td><strong>Total Hours</strong></td>
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<td><strong>Spring</strong></td>
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<td></td>
<td>Professional Development V</td>
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<td></td>
<td>Pediatric Dentistry Clinical IV</td>
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<td></td>
<td>Periodontics Clinical IV</td>
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<td></td>
<td>Endodontics Clinical</td>
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<td></td>
<td>Orthodontics Clinical I</td>
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<tr>
<td></td>
<td><strong>Total Hours</strong></td>
<td><strong>16.0</strong></td>
</tr>
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</table>
**CLINICAL EVALUATION SYSTEM**

**Department Requirements**

There are two major areas of requirements for graduation:

Department requirements as outlined by individual department handouts.

**Grading System**

The grading system used by the departments is as follows:

- **Grade “A”** — Given when the level of student performance is, by the given criteria, **superior**.
- **Grade “B”** — Given when the level of student performance meets the high level of performance **expected** of UMKC students.
- **Grade “C”** — Student performance was at an **acceptable** level.
- **Grade “D”** — Student performance is **below** what is expected.
- **Grade “F”** — Student performance is **not acceptable**.
- **Grade “I”** — Students who receive an “I” will need to complete established requirements by the end of the following semester and will receive a maximum grade of “C”. If these guidelines are not met by that time, a grade of “F” will result which will be changed to a “D” when the requirements are satisfied.

**CR** — Credit only: Student performance meets criteria to successfully pass the course.

**NC** — No Credit: Student performance does not meet the minimal criteria to successfully pass the course.

**Team Evaluation Systems**

Three parallel and complimentary evaluation systems function in the clinic.

**System I: Daily Procedures on Patients**

There are limited numbers of essential patient experiences required. The primary requirements revolve around time units and attendance. Day-to-day procedures on patients will be credited only when acceptably completed and student participation was adequate. An objective evaluation will be performed on each patient treatment without assigning a grade. An evaluation of credit or no credit will be rendered by faculty.
System II: Department Technical and Didactic Evaluation

At the end of the third year and at the end of the Fall Semester of the fourth year, the clinical departments will issue grades. These grades will be based on a series of objective examinations and basic skill tests or competency evaluations. These tests may be widely varied in nature and may include oral examinations, manikin examinations, case-based analysis, didactic courses, written examinations, etc.

System III: Team Student Progress Evaluation

Team Student Progress Evaluation. Each semester of the third and fourth years, students will receive a Comprehensive Patient Care grade and a Professional Development grade administered by the team faculty as a group. These grades will be based on the time unit progress of each student, patient status report scores, technical skill development and overall professional development of the student. (Criteria follow.) Each student’s faculty advisor and/or Team Coordinator will have heavy input into these grades.

COMPREHENSIVE PATIENT CARE EVALUATION

Introduction

Your Comprehensive Patient Care grade will be determined by 25% quantity and 75% quality criteria.

Quantity Criteria

1. Your progress in accumulating time units (A minimum of 950 needed by graduation)
2. Each semester (not cumulative) individuals in the top 20% in time unit numbers will receive the quantity grade of “A.”
3. Anyone who does less than or equal to one-half the class semester time unit average will receive the quantity grade of “F” which will not be altered by the quality grade.
4. The grades of “B”, “C” and “D” will be based on a statistical analysis of individual vs. class performance.

Quality Criteria

Diagnosis/judgment, technical skills and clinical/patient management — to be determined by periodic evaluations by the faculty. See Competency Evaluation Form (pages 2.18–19). Each faculty member who by way of observation and/or who works with a student will make comments about the student’s progress. See Evaluation Form on computer. At the end of the semester, with the aid of the comments that have been kept in regard to each student’s clinical progress, a semester grade in Comprehensive Patient Care will be given. Also included in this quality grade will be your performance in regard to Patient
Status Report, clinical attendance, attendance at team meetings, rotation assignment attendance and participation, and Coordinator of Patient Services reports. Students in full compliance and seeing 80% of their patients on a timely basis per semester average will receive 20 time units per semester.

Any student who earns an assessment of “not acceptable” in the above-mentioned quality criteria by team faculty and/or Team Coordinator will receive a quality grade of “F”. This quality grade will not be altered by the quantity portion of the Comprehensive Patient Care grade.

**Grade Assignment**

<table>
<thead>
<tr>
<th>Grade Range</th>
<th>Letter Grade</th>
<th>Points</th>
</tr>
</thead>
<tbody>
<tr>
<td>3.5 - 4.0</td>
<td>A</td>
<td>4</td>
</tr>
<tr>
<td>3.0 - 3.4</td>
<td>B</td>
<td>3</td>
</tr>
<tr>
<td>2.0 - 2.9</td>
<td>C</td>
<td>2</td>
</tr>
<tr>
<td>1.0 - 1.9</td>
<td>D</td>
<td>1</td>
</tr>
</tbody>
</table>

F = "not acceptable" performance in either the quantity or quality grade.

**PROFESSIONAL CONDUCT AND DEVELOPMENT EVALUATION**

Also see: “Standards of Professional Conduct,” Sec.2.4, of the Clinic Orientation Manual and the “Standards of Conduct” of the University of Missouri Collected Rules and Regulations, Sec 6.01.

**Preamble**

The American Dental Association states in its booklet of *Principles of Ethics and Code of Professional Conduct*:

“The American Dental Association calls upon dentists to follow high ethical standards which have the benefit of the patient as their primary goal. Recognition of this goal, and of the education and training of a dentist, has resulted in society affording to the profession the privilege and obligation of self-government.

The association believes that dentists should possess not only knowledge, skill and technical competence but also those traits of character that foster adherence to ethical principles. Qualities of compassion, kindness, integrity, fairness and charity complement the ethical practice of dentistry and help to define the true professional.”

**Requirements**

In order to graduate, a student must be evaluated as competent in the practice of ethical clinical dentistry. As part of the characteristics of professionalism, the following categories describing expected student behavior will be evaluated and may not necessarily be totally inclusive:
1. **Patient Management**
   Respects patients’ individuality and dignity, whenever indicated places the patient’s interests first, is careful of comments made concerning the confidentiality of his/her patients, is organized and orderly, makes good use of clinic time in patient care, exhibits good record management, and accepts the responsibility for the patient’s welfare.

2. **Infection Control Compliance/Spot Check**
   In order to receive your Professional Development grade, you must be in 100% compliance with the Infection Control policies of the School of Dentistry. Team faculty will conduct Infection Control spot checks. See form on next page.

3. **Faculty/Student Relationship**
   Accepts constructive criticism without becoming defensive and/or argumentative. Cooperates in helping to promote the efficient and harmonious operation of the clinical team.

4. **Communication Skills**
   Courteous, encourages and listens to feedback from patients, colleagues and faculty, formulates ideas clearly and in terms that others can understand, and builds good rapport and instills confidence with patients.

5. **Self-Development**
   Actively participates in learning discussions with faculty and colleagues, shows interest in progressing in the knowledge of dentistry.
**INFECTION CONTROL SPOT CHECK**

Cubicle # _________     Team # _________

Date _____________     Faculty______________

1. **Personal Protective Equipment**
   a. Is task-appropriate personal protective equipment (PPE) worn by both *operator* and *assistant* when exposure to blood and body fluids is expected?

2. **Sharps**
   a. Are disposable syringes and needles, scalped blades, and other sharp items placed in appropriate puncture-resistant containers?
   b. When needles must be recapped, are needle recapping devices or the one-handed scoop technique used?

3. **Face and eye protection**
   a. Is eye protection with solid side shields or a face shield worn to protect mucous membranes of the eyes, nose and mouth by *operator, assistant* and *patient*?
   b. Are masks changed between patients?
   c. Are masks changed during patient treatment if they become wet?

4. **Gloves**
   a. Are medical gloves worn when contact with body fluids is expected?
   b. Is a new pair of medical gloves worn for each patient?
   c. Are gloves placed in red biohazard bags prior to leaving cubicle?

5. **Instrument Cleaning**
   a. Are dental instruments and devices cleaned of all visible blood and other contamination before they are sterilized or disinfected?
   b. Are puncture/chemical-resistant utility gloves worn when handling contaminated instruments and performing instrument cleaning and decontamination procedures?

7. **Clean Up**
   a. Are surface barriers used to protect clinical contact surfaces from contamination?
   b. Are surface barriers changed between patients?
   c. For clinical contact surfaces that are not visibly contaminated with blood, are surfaces cleaned and then disinfected using EPA-registered hospital disinfectant with (a) HIV and HBV kill (at minimum) and/or (b) tuberculocidal activity?
   d. Is appropriate PPE in place when cleaning and disinfecting environmental surfaces?
      - Puncture-resistant utility gloves
      - Blue gown
      - Face protection (protective eyewear/face shield with a mask)
   e. Are walls, shelves, carts and other areas cleaned when they are visibly dusty or soiled?

8. **Biohazard**
   a. Are leak-proof, color-coded/biohazard-labeled containers (for example, biohazard bags) used to contain non-sharp regulated medical waste?
   b. Are sharp items (needles, scalpel blades, orthodontic bands, broken metal instruments, burs) placed in a puncture-resistant, leak-proof, color-coded/biohazard-labeled sharps container?
Evaluation
UMKC/SOD faculty will evaluate the characteristics of professional development on a daily basis. A student’s evaluation will be based on daily assessments and at least one formal semester “mentoring session” evaluation. Feedback will be given to the student on a daily and semester basis.

Evaluation Tool
*Daily Assessment Form and Team Evaluation Form:* pages 2.18–19. Each semester, starting with Fall Semester of the third year you will receive a grade in the area of Professional Development based on the above criteria. The grade will be credit/no credit.

Remediation
Students who are evaluated as deficient in ethical conduct will undergo remediation in the form of formal meetings with faculty/administration, didactic assignments and/or clinical assignments in appropriate areas. Serious deficiencies shall be reported to the Student Honor Council. The Student Honor Council shall hear the case and report its recommendation to the Dean. The Dean will decide final action.
### Class of 2013

#### Academic Standards

**Sec. 2.18**

**Clinic Orientation Manual (Revised 5/11)**

<table>
<thead>
<tr>
<th>Category</th>
<th>Progressing Satisfactorily</th>
<th>Improvement Needed</th>
<th>Progressing Satisfactorily</th>
<th>Category</th>
</tr>
</thead>
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<td>1. Diagnosis and Judgment</td>
<td><strong>1.</strong> Diagnosis and Judgment</td>
<td><strong>1.</strong> Diagnosis and Judgment</td>
<td><strong>1.</strong> Diagnosis and Judgment</td>
<td><strong>1.</strong> Diagnosis and Judgment</td>
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<tr>
<td>2. Technical Skill</td>
<td><strong>2.</strong> Preclinical Skills</td>
<td><strong>2.</strong> Preclinical Skills</td>
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<td>3. Patient Management</td>
<td><strong>3.</strong> Preclinical Skills</td>
<td><strong>3.</strong> Preclinical Skills</td>
<td><strong>3.</strong> Preclinical Skills</td>
<td><strong>3.</strong> Preclinical Skills</td>
</tr>
</tbody>
</table>

#### 1. Diagnosis and Judgment

- **Improving Knowledge:**
  - 6. More information is needed.
  - 5. Lack of comprehensive charting.
  - 4. Significant findings are noted.
  - 3. No errors or omissions, and no significant findings.
  - 2. Error in diagnosis.

- **Improving Knowledge:**
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- **Improving Knowledge:**
  - 6. More information is needed.
  - 5. Lack of comprehensive charting.
  - 4. Significant findings are noted.
  - 3. No errors or omissions, and no significant findings.
  - 2. Error in diagnosis.

- **Improving Knowledge:**
  - 6. More information is needed.
  - 5. Lack of comprehensive charting.
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  - 6. More information is needed.
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- **Improving Knowledge:**
  - 6. More information is needed.
  - 5. Lack of comprehensive charting.
  - 4. Significant findings are noted.
  - 3. No errors or omissions, and no significant findings.
  - 2. Error in diagnosis.
**COMPETENCY EVALUATION PROCESS**

**Definition**
See: *Competency* under Purpose and Philosophy of Comprehensive Care Program- Predoctoral Clinics (See the Introduction Section of the *Clinic Orientation Manual*.)

**Requirement**
In order to graduate, a student must be evaluated as competent in the following categories:
1. Diagnosis and judgment
2. Technical skill in each clinical discipline
3. Patient management

**Daily Performance Assessment (Evaluation)**
A performance assessment evaluation is recorded by procedure on the computer. Faculty and/or students can use this information as formative. The daily assessment data helps in formulating the faculty’s semester evaluations.

**Team Evaluation Form**

<table>
<thead>
<tr>
<th>1. Diagnosis and Judgment</th>
</tr>
</thead>
<tbody>
<tr>
<td>– Considers health history in treatment</td>
</tr>
<tr>
<td>– Appropriate and accurate data collection and diagnosis</td>
</tr>
<tr>
<td>– Considers all dental conditions in treatment</td>
</tr>
<tr>
<td>– Works within limits of knowledge and skill; obtains the proper consultations/referrals</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>2. Technical Skill</th>
</tr>
</thead>
<tbody>
<tr>
<td>– Applies appropriate biomedical &amp; behavioral theory and concepts</td>
</tr>
<tr>
<td>– Adapts procedures based on patient’s needs</td>
</tr>
<tr>
<td>– Works within limits of skill</td>
</tr>
<tr>
<td>– Works independently as appropriate — not overly dependent on faculty</td>
</tr>
<tr>
<td>– All patients are treated comprehensively with their needs paramount</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>3. Patient/Practice Management</th>
</tr>
</thead>
<tbody>
<tr>
<td>– Prepared, organized, efficient in procedures; proper record management</td>
</tr>
<tr>
<td>– Proper infection control</td>
</tr>
<tr>
<td>– Exhibits professional manner, good rapport, builds patient confidence, communicates effectively</td>
</tr>
<tr>
<td>– Respects patient’s rights to self-determination, informed consent, and confidentiality</td>
</tr>
<tr>
<td>– Faculty, staff &amp; patients are treated respectfully &amp; without prejudice</td>
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</table>

<table>
<thead>
<tr>
<th>4. Critical Thinking/Self-Assessment</th>
</tr>
</thead>
<tbody>
<tr>
<td>– Applies critical thinking &amp; problem-solving skills to provide evidence-based patient-centered care</td>
</tr>
<tr>
<td>– Demonstrates ability to self-assess and evaluate outcomes of care</td>
</tr>
</tbody>
</table>
Semester Evaluation

Team faculty will complete an evaluation form by semester on each team student. A student's evaluation will be based on the average of scores of the students' team faculty members. The student's team faculty mentor/Advisor will meet with the student after the team faculty's evaluations have been tabulated and summarized by the student's mentor/Advisor. Issues from the evaluation form — mentor summary will be discussed with the student. The student must obtain an evaluation of either "Progressing satisfactorily" or "Competent at this level" to be considered a student in good standing. If a student is evaluated as either "Improvement needed" or "Significant deficiencies (unsatisfactory)," the student must receive remedial help. A FINAL evaluation of "COMPETENT AT THIS LEVEL" in each category, must be obtained before the student can graduate.
**TIME UNIT MINIMUM FOR GRADUATION**

**Requirement**
950 time units are required to be considered for graduation.

**Definition**
One time unit approximates one-half day of clinical activity. Time units for each dental procedure are assigned by the departments. Assignment or outside rotation time units are calculated per one (1) T.U.=one-half (1/2) day of assignment.

**Externships**
Externships are defined as:
Formal educational experiences sponsored by institutions or agencies that are not affiliated with UMKC SOD. A maximum of 60 time units may be acquired through participation in externships, voluntary outreach programs, student teaching, dental assisting, language translation, etc.

Students in good standing may request approval to participate in an externship and this must be approved by the Associate Dean for Clinical Programs and Associate Dean for Academic Affairs.

**Externship Application**
Students may make application for participation in externships such as Oral Surgery, COSTEP, etc. Application for externships should be made through the Office of Clinical Programs. Length of externships will be determined on an individual basis.

**Preceptorships**
Preceptorships in private practices with WOC Faculty will NOT be eligible for time units. Student clinical involvement at private practices will be a separate agreement between the student and private dentist.

**Timeliness**
The overarching philosophy of the dental program is competency-based teaching and evaluation. Competence develops over time, and the time unit requirement helps to assure students have sufficient clinical experiences to develop as practitioners. Students are expected to complete all rotations, successfully pass all competencies, complete all courses, achieve a certain number of time units and be deemed competent by the faculty. The expectation is that the majority of students will complete the clinical phase of the curriculum in two years. Some students will need additional time to develop competence. On the recommendation of the team faculty, coordinator and clinical dean, time units **accomplished three years prior**, may be removed from the student’s clinical record, requiring the student to obtain additional time units to qualify for graduation with a DDS degree.
TIME UNITS BY DEPARTMENT

Introduction

Following are the time units assigned to various clinical procedures. These are tied to the CMS file and will be generated automatically. For graduation 950 time units are needed. Automatic Assignment Credits are based on the actual number of half days you are assigned.

Time Unit Deductions

Clinic Administration and Team Coordinators reserve the right to assess negative time units for violation of clinical policies.

<table>
<thead>
<tr>
<th>Procedure</th>
<th>CDT#</th>
<th>UNITS</th>
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<tr>
<td>Caries Susceptibility Results</td>
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<tr>
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<tr>
<td>Diagnosis (Initial)</td>
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<tr>
<td>Diagnosis (Transfer/No Charge)</td>
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<tr>
<td>Re-eval-limited Problem Focus</td>
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<tr>
<td>Diagnosis (Perio Exam W Maint)</td>
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<td>Tobacco Program Initial Visit</td>
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<td>Intra Oral Photography</td>
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<tr>
<td>Knee/Lap Examination</td>
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ENDODONTICS

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<td>Caries Exc., O &amp; R</td>
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<td>Pulp Cap - Direct</td>
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<tr>
<td>Pulp Cap - Indirect</td>
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<td>Pulpotomy</td>
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Pulp Extirpation (Debridement) ........................... D3240 1.00
Pulpal Therapy - Primary Post ............................. D3240 1.00
Endo - Anterior ........................................ D3310 2.50
Endo-Anterior (Pain Chair) ............................... D3310 2.50
Endo - Bicuspid(Two Canal) ................................ D3320 3.00
Endo - Bicuspid(one Canal) ................................ D3320 2.50
Endo-Bicus 1 Canal (Pain Chair) .......................... D3320 2.50
Endo - 2 Canals (Molar) ................................. D3330 3.50
Endo - 3 Canals Maxillary ................................ D3330 4.00
Endo - 4 Canals Maxillary ................................ D3330 4.50
Endo-3 Canals Mandibular ................................ D3330 4.00
Endo-4 Canals Mandibular ................................ D3330 4.50
Internal Root Repair ........................................ D3333 0.10
Retreat Endo Anterior ....................................... D3346 4.00
Retreat Endo Bicuspid ...................................... D3347 4.50
Retreat Endo - 2 Canals(Molar) ......................... D3348 5.00
Retreat Endo - Max 3 Canals ............................. D3348 5.50
Retreat Endo - Max 4 Canals ............................. D3348 6.00
Retreat Endo-Mand 3 Canals ............................. D3348 5.50
Retreat Endo-Mand 4 Canals ............................. D3348 6.00
Apexification .................................................. D3351 2.50
Apicoectomy (Anterior) .................................... D3410 2.20
Apicoectomy (Bicuspid) .................................... D3421 2.20
Apicoectomy (Molar) ....................................... D3425 2.20
Apicoectomy (Molar Add. Root) ......................... D3426 2.20
Retrofill ....................................................... D3430 0.30
Intentional Reimplantation ................................ D3470 1.50
Endo Recall .................................................. D3999 1.00
Bleaching/internal Per Tooth ............................. D9974 2.00

**FIXED PROSTHODONTICS**

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<td>All Ceramic Crown ................................... D2740 4.00</td>
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<tr>
<td>PFM Crown .............................................. D2750 4.00</td>
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<tr>
<td>Crown-3/4 Cast Hi Noble Metal .................... D2780 4.00</td>
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<td>Crown-Full Cast Hi Noble Metal .................... D2790 4.00</td>
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<td>Provisional Crown, &gt;6 Months ...................... D2799 1.00</td>
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<td>Recement Crown ......................................... D2920 0.50</td>
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<tr>
<td>Core Buildup (Amalgam)/Pin(s) ..................... D2950 1.00</td>
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<tr>
<td>Core Buildup(Composite)/Pin(s) ..................... D2950 1.00</td>
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<tr>
<td>Cast Post/Core For Crown ........................... D2952 2.00</td>
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<tr>
<td>Parapost-Prefab Post/Core .......................... D2954 1.00</td>
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<tr>
<td>Temp Crown - Fractured Tooth ...................... D2970 0.10</td>
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<tr>
<td>Repair Of Veneers Or Facings ....................... D2980 0.50</td>
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<td>Stent For Implant Position ......................... D5899 1.00</td>
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<td>Prefabricated Abutement Implan .................... D6056 3.00</td>
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<td>Abutement Supp Porcelain Crown .................... D6058 4.00</td>
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<tr>
<td>Abute Supported PFM Crown—imp .................... D6061 4.00</td>
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## Fixed Prosthodontics Continued

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<th>Procedure</th>
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<td>Implant Supported Porc Crown</td>
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<td>Implant Supported PFM Crown</td>
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<td>Abute Support Retain PFM FPD.</td>
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<td>Abute Sup Ret High Noble-impla.</td>
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<td>Implant Maintenance Procedure</td>
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<td>Unspecified Implant Procedure</td>
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<td>Pontic-Cast Hi Noble Metal</td>
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<tr>
<td>3/4 Gold Abutment</td>
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<tr>
<td>Gold Abutment</td>
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<td>Stress Breaker</td>
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<td>Cast Splint Bar</td>
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<tr>
<td>Occlusal Adjustment Complete</td>
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## Operative

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<td>Overhang Removal</td>
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<td>Pit And Fissure Sealant</td>
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<tr>
<td>1 Surface Amalgam Adult.</td>
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<tr>
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<tr>
<td>2 Surface Amalgam (Pedo)</td>
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<tr>
<td>3 Surface Amalgam (Adult).</td>
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<td>3 Surface Amalgam (Pedo).</td>
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<td>4+ Surface Amalgam (Adult)</td>
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<td>Anterior 2 Surface Composite</td>
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<tr>
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<td>Alveoplasty Without Extraction</td>
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### ORAL SURGERY CONTINUED

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### ORTHODONTICS

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OVERVIEW

Introduction

Pertinent information is posted on the Clinic Announcement Board located outside Radiology on the first floor. Students, staff and faculty must continuously review any new posted information.

School Hours

The clinic will be open from 9:00 a.m. to 4:30 p.m. Lunch is from 12:00 p.m. to 1:00 p.m. Patients should be dismissed by 11:45 p.m. and by 4:15 p.m., allowing time for the students to clean cubicles and secure instruments. Afternoon appointments should start at 1:00 p.m.

Mandatory Attendance

No unexcused absences will be allowed. All absences must be approved by the Team Coordinator and the Associate Dean for Clinical Programs. If you are not treating your own patient, you must be available for the treatment of Emergency Clinic patients.

Emergency Clinic takes precedence over all other activities including laboratory work or library.

Excused Absences

Forms are available in the office of the Associate Dean for Clinical Programs.

Absence Because of Illness

If a student is absent it is the student’s responsibility to cancel his/her patients’ appointments and to notify the appropriate Team Clerk and/or the office of the Associate Dean for Clinical Programs, extension 2137.

Unexcused Absences

Unexcused absences are to be reported to the office of the Associate Dean for Clinical Programs. Unexcused absences will be assessed negative time units at a rate of minus one (1) per half day. Further disciplinary action may be taken by the Associate Dean for Clinical Programs, based on the nature of the reason for absenteeism.

Rotations—Attendance

There are a varied number of rotations to which students are assigned to give them an opportunity to gain additional experience in various clinical areas.

Each rotation has developed specific criteria which must be met. Attendance at rotations is mandatory. A student who misses ANY rotation or part thereof without a prior approved
absence will be required to make-up the rotational assignment PLUS an additional assignment from the Director of the Rotation or his/her designee and/or the Associate Dean for Clinical Programs.

If the student does not schedule the make-up within one week of the missed rotation date, **disciplinary action may be taken by the Associate Dean for Clinical Programs up to and including denied access to the Clinical Management System (CMS).** Access to the CMS will only be reinstated after the make-up time has been accomplished by the student. The student will be on disciplinary probation for the remainder of the semester. **Further clinical violations will be forwarded to the Honor Council.**

All students, staff, and faculty who are involved in the provision of patient care must be continuously certified in basic life support (BLS). This certification must be at the Health Care Provider Level. Training for this certification is regularly offered at the School of Dentistry as a part of the curriculum. If you are currently certified, you must provide written evidence of this to the Office of the Associate Dean for Clinical Programs (ext. 2136) during your orientation program.

You will then be notified as your certification is about to expire for attendance at a renewal course. Failure to maintain current certification will result in suspension from clinic.
RULES AND REGULATIONS

STUDENT DRESS CODE

Introduction

The goal of the dress code is to provide guidelines for students so that they can maintain a professional appearance, increase the confidence of patients in the care they will receive, and improve infection control. Faculty are responsible for enforcement of these guidelines. Please be aware that specific PERSONAL PROTECTIVE EQUIPMENT AND INFECTION CONTROL GUIDELINES SUPERSEDE DRESS CODE GUIDELINES UNDER CERTAIN SITUATIONS. Please consult the PPE section of the handbook on Academic and Other Student Policies and the Infection Control Section of the Clinic Manual for specific information.

When participating in lectures, preclinical or production laboratory, and clinic, students must comply with the following guidelines concerning dress and personal appearance:

1. CLINICAL AND LABORATORY DRESS MUST CONFORM TO APPLICABLE SAFETY AND INFECTION CONTROL REGULATIONS. See the Clinic Manual for guidelines regarding appropriate Personal Protective Equipment (PPE).

Clinic PPE must be worn in patient care clinics. It is not to be worn in other areas of the building (elevators, stairs, lobby, restrooms, etc.) and must not be worn in the laboratory. Clothing worn in the building must be clean and neat.

2. Solid-colored surgical “scrubs” may be worn, top and bottom. The color must match. Scrubs must be clean and unwrinkled. No denim scrubs will be permitted. An appropriate color tee shirt may be worn under the scrub top. Scrubs cannot be substituted for approved PPE.

3. In lieu of scrubs (as defined above), “business casual” clothing or better may be worn. “Business casual” includes trousers/slacks for men and women, or for women the option of wearing skirts or dresses. “Polo-style” knit shirts or dressier wear are acceptable for tops. All clothing must be professional in appearance and materials. Jeans, tights, bare midriffs, and shorts are not acceptable. Tee-shirt (worn alone as a top) or tank tops are not acceptable. All clothing must be clean and unwrinkled.
4. Clean socks or hose and shoes are required. Shoes must be professional in appearance. Athletic-style footwear may be worn with scrubs. Sandals and other open-toed footwear are not acceptable.

5. Personal hygiene, including body and clothing, should always be above reproach.

6. Hair, beards, and mustaches must be clean and neat. Hair should be secured in such a way that it will be out of the operating field.

7. No visible or oral piercings may be worn.

8. Moderation should be used in regard to make-up. Length of nails should not interfere with instrumentation.

9. Chewing gum is not permitted in patient care areas.

10. Except for recognized religious purposes, head covering is unacceptable.

In clinic and production lab, students not wearing appropriate attire will not be allowed to participate in clinic or lab activities, and may have negative time units assessed against them. Repeat offenders may be suspended from the clinic and/or brought before the Honor Council.

In lectures and preclinical laboratories, students not wearing appropriate attire will be reminded of the proper dress. Repeat offenders may be brought before the Honor Council.

Approved January 29, 2003

**ADDITIONAL RULES AND REGULATIONS**

**No Food or Drink in the Clinic Area**

This is to prevent attracting insects with the resultant increase in health hazards. There must be no food or drink in the teaching laboratories or classrooms except in those designated as auxiliary lunch rooms and only then during lunch periods. Everyone should clean his or her own lunch or snack debris by depositing it in the waste receptacles. We should all exercise care in carrying food and drink through the halls.

**Dental Chair & Cart**

Place the dental chair in full upright and fully raised position, turn off master switch, place light back against wall, place operator’s stool back neatly in cubicle at the end of the day and return your mobile cart to its proper place. The cart should be placed on the sink side of the cubicle.

**Contacting Patients**

Try to contact the patient by phone either at work or home during clinic hours. If there is no response, document date and time
of the call in the patient’s treatment and progress notes and in the student Administrative Notes.

If you are unable to reach the patient after three phone calls, obtain a postcard from the Team Clerk and write to the patient. You should ask the patient to contact you before a specific date if treatment is desired. The date the postcard is sent and the date the patient is to contact the student should be documented in the patient record.

If you receive no response from the patient by the specified date, you should inactivate the patient’s record.

**Keeping Appointments**

Keep your appointments with patients. Expect them to do the same. Inactivate the records on patients who are uncooperative or waste your clinic time.

**Review Records**

Review the patient’s record and procedures to be done prior to the patient’s visit. Visualize the procedures from beginning to end before starting the treatment. **Review the medical histories on all patients.**

**Planning**

Plan your patient load according to your available time. Haste creates more problems than it solves. Schedule your appointments according to your most efficient level. As your skill develops, work toward scheduling at least two patients per clinic period or half day.

**“Sign In” Required**

NEVER TREAT A PATIENT BEFORE YOU ARE “SIGNED IN” BY A FACULTY MEMBER.

After you have seated the patient, record the treatment planned for that appointment and have a faculty member sign you in. The authentication is your legal license to deliver patient care.

**“Sign Out” Authentication Required**

The patient must not be dismissed until the record is authenticated by a faculty member. Faculty will make sure students have made proper entries in the treatment notes before authentication. Information should include type and amount of anesthetic used including vasoconstrictors, bases and/or liners used and brand of restorative material, information relating to patient relations and reactions and any other pertinent treatment information for the patient. (See each department’s guidelines in Section 4 for details). Follow CMS schema for each procedure.
**Entry Requirements**

Make accurate and complete entries in the progress and treatment notes when broken and/or late appointments occur. Also record telephone or mail contacts. Opinions should not be included, only facts.

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**Tissue Removal**

All tissue removed from the mouth must be documented in the record and subjected to gross and/or microscopic examination as needed.

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**Patient Record**

All patient records must be handled in accordance with the Health Insurance Portability and Accountability Act (HIPAA). Paper copies of patient’s records should NOT be kept outside of officially designated areas (clinic administrative offices, etc.). Guidelines for the release of information from the patient’s record may be obtained from the Dental Records Supervisor.

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**Continuous Treatment**

Give patients continuous treatment, i.e., at least once every two weeks or record the reason for not seeing them in the treatment and progress notes.

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**Provide Assistance**

Students should seek every opportunity to assist when not actively treating a patient. This is an excellent way to learn and exchange ideas.

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**X-rays & Study Casts**

X-rays must be on the view box or digital image in electronic record and study casts in the cubicle while treating the patient.

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**Rubber Dam: Requirement**

You must use the rubber dam for all operative and endodontic procedures. Faculty must approve any exception to this rule on an individual basis.

---

**Rubber Dam: Procedure**

When treatment rendered to a patient involves placement or removal of a loose casting, band, or restoration (inlay, onlay, crown, bridge, temporary crown, temporary bridge, orthodontic bands, etc.), you must adhere to one of the following procedures:

1. A rubber dam must be in place until the loose object is removed from the mouth or cemented in place.

2. If you are unable to use the rubber dam, the patient should be positioned in an upright posture with the upper body at a 60 to 90 degree angle to the floor and a gauze 2 x 2 placed in the throat area until the loose object is removed from the mouth or cemented.

---

**Warning!**

Violations of the above procedure may result in patients aspirating, swallowing and losing objects. Avoid this problem!
PATIENT ASSIGNMENT

Automatic Patient Assignment
Patients for third-year students are assigned automatically.

Request “Drop”
Students who do not need more patients may request to be dropped from the assignment list. If patients are needed later, students may request to be reinstated. These requests are made on the same form mentioned above. See Patient Request, Assign/Drop Form, page 3.10.

Replacements
Replacements: If a patient must be inactivated due to no shows, referral due to difficulty of treatment, etc., you may request a replacement. Pediatric Dentistry patient assignments must be handled through the pediatric clerk.

PATIENT SELECTION

“Ideal Patients”
Acceptance of patients for the dental school clinic takes place during screening, where faculty match student requests or needs with patient availability. Since the oral exam in this area is a very brief one, you may find different needs than were originally listed. Every attempt is made to select patients that will be “ideal” dental school patients.

Building a “Family”
Patients are given an orientation of clinic policies and procedures. However, you will discover that building a family of dependable patients is one of the biggest challenges in your clinical education.

GUIDELINES FOR PATIENT STATUS

Patients are assigned a status in CMS based on their appointment/treatment history. It is important the patient status is correct as it is used in student evaluation and appointing patients.

Active
Patients currently undergoing active dental treatment and being seen regularly.

Temporarily Inactive:
Patients who, for situational reasons, temporarily discontinue dental treatment. Valid reasons include: extended vacation, illness, family issues, financial concerns. Patients may remain on
inactive status for up to 6 months after which they will be inactivated.

**Inactive**

Patients no longer undergoing active dental treatment. Reasons to inactivate include: deceased, non-acceptance of treatment plan, unable to reach by phone/postcard, seeking care elsewhere, moved out of area, transferred to AEGD/Faculty Practice, sent to collections, financially unable to continue treatment, 3 or more missed appointments and/or late cancellations (less than 24 hours notice) within the past 6 months.

Patients on inactive status may be readmitted to the program within 2 years after inactivation after a review of the record by the Patient Care Coordinator in consultation with the Team/Dental Hygiene Coordinator, Program Director/Department Chair and other people as appropriate. If it has been more than 2 years since inactivation, the patient must be rescreened in addition to having the record reviewed.

**Recall**

Patients completed active treatment, put on periodic recall.

**Chart Lock**

Patients not to be seen at the School for any treatment, including emergency.

The Director of Patient Relations or Associate Dean for Clinical Programs must approve a Chart Lock.

Patients seen only for emergency treatment and not assigned to a student for comprehensive care will be assigned to “emergency only.”

The Program Director, Department Chair, and the Practice/Team/Dental Hygiene Coordinators are primarily responsible for inactivation of patients. The Director of Patient Relations, Associate Dean for Clinical Programs and the Director of Quality Assurance can also approve patient inactivations. The reason must be documented and justified by information in the patient record.

**RADIOLOGY PROCEDURE** (see Radiology)

**Radiographs**

Necessary radiographs that have been ordered by the screening faculty will be taken at the screening visit. Some limited appointments are available for patients screened by the student. These appointments are made at the X-ray department window.
QA Requirements

The Quality Assurance program requires a complete record of every radiograph, including singles, that a patient has experienced during his or her treatment at the Dental School.

Radiograph Requests

Therefore, if a radiograph is requested from the clinical area, it must be documented and ordered by a dental faculty member. Students who have completed their first dental or dental hygiene rotation in radiology and who need periapical or bitewing radiographs for emergency, endodontics or recall, please request films per CMS. Retakes of these films will be provided by radiology along with any needed technical assistance.

Students who have not completed an orientation or rotation in dental radiology will not be taking radiographs. All films must be ordered through CMS, including retakes.

Radiology will provide full survey packets, retake films and panoramic films, but only with a CMS request.
COMPREHENSIVE PATIENT REQUEST ASSIGN/DROP FORM

Dental Student Name: ____________________________ Desired Primary Discipline: ____________________________

Dental Student Number: __________________________

Date: _______________________________________

Team: 1 2 3 (Circle Team)

THIRD YEAR: (Circle Assign or Drop)

Assign      Drop

FOURTH YEAR: (Circle Assign)

Assign

NUMBER OF REQUESTED PATIENTS: (Circle number of patients you request)

1  2  3  4  5

Mentor's or Coordinator's Signature: ____________________________
### Patient Screening

**UMKC School of Dentistry**

<table>
<thead>
<tr>
<th>Message Center General Screening 88844</th>
<th>Message Center Edentulous Screening 88877</th>
<th>Student Initiated, Emergency Chair, and Screening Scheduling Bank Screening 88877</th>
<th>Patient has time and finances for comprehensive care.</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>1.</strong> Patient calls message center for screening appointment.</td>
<td><strong>1.</strong> Edentulous patient who requests complete dentures calls for screening appointment.</td>
<td><strong>1.</strong> Student makes appointment with potential patient in scheduler.</td>
<td><strong>2.</strong> Patient reports to the front desk on day of appointment so that record may be designated as &quot;Open Access&quot;. Do not sign-in record.</td>
</tr>
<tr>
<td><strong>2.</strong> Screening is performed by Team Faculty.</td>
<td><strong>2.</strong> Student is randomly given name of edentulous patient for screening.</td>
<td><strong>2.</strong> Patient reports to the front desk on day of appointment so that record may be designated as &quot;Open Access&quot;.</td>
<td><strong>3.</strong> Patient reports to the front desk on day of appointment so that record may be designated as &quot;Open Access&quot;.</td>
</tr>
<tr>
<td><strong>3.</strong> Faculty explains S.O.D. policies and determines if patient has time and finances for comprehensive care.</td>
<td><strong>3.</strong> Student makes appointment in scheduler.</td>
<td><strong>3.</strong> When patient is brought in to the teams for screening, the record is not to be signed-in but is to be treated as general screening process.</td>
<td><strong>4.</strong> When patient is brought in to the teams for screening, the record is not to be signed-in but is to be treated as general screening process.</td>
</tr>
<tr>
<td><strong>4.</strong> Patient reports to front desk on day of appointment so that record may be designated as &quot;Open Access&quot;. Do not sign-in record.</td>
<td><strong>4.</strong> Radiographs are reviewed by Dental Faculty.</td>
<td><strong>4.</strong> Student and faculty explains S.O.D. policies and determines if patient has time and finances for comprehensive care.</td>
<td><strong>5.</strong> Radiographs are reviewed by dental, dental hygiene, and dental hygiene student; dental faculty completes examination.</td>
</tr>
<tr>
<td><strong>5.</strong> When patient is brought in to the teams for screening, the record is not to be signed-in but is to be treated as general screening process.</td>
<td><strong>5.</strong> Radiographs are reviewed by dental, dental hygiene, and dental hygiene student; dental faculty completes examination.</td>
<td><strong>5.</strong> Patient informed of emergency treatment needs beyond dental hygiene.</td>
<td><strong>6.</strong> Patient needs further treatment and faculty makes referral recommendation.</td>
</tr>
<tr>
<td><strong>6.</strong> Student and faculty explains S.O.D. policies and determines if patient has time and finances for comprehensive care.</td>
<td><strong>6.</strong> Dental faculty orders radiographs if patient is likely to be accepted for treatment.</td>
<td><strong>6.</strong> The accepted patient is then assigned to student (with student number in the demographics tab change assigned doctor) and the record is then activated.</td>
<td><strong>7.</strong> CMS makes appropriate assignment.</td>
</tr>
<tr>
<td><strong>7.</strong> Following intraoral inspection:</td>
<td><strong>7.</strong> Following intraoral inspection:</td>
<td><strong>7.</strong> Following intraoral inspection:</td>
<td><strong>7.</strong> Following this process, the record may be signed-in for future diagnostic and treatment procedures.</td>
</tr>
<tr>
<td>A. If patient meets criteria #3 above and is a potential patient, faculty make screening notes. The patient is potentially accepted for treatment and orders for radiographs are made along with radiographs added to the treatment plan. Radiographs are taken.*</td>
<td>A. If patient meets criteria #6 above and is a potential patient, faculty make screening notes. The patient is potentially accepted for treatment and orders for radiographs are made along with radiographs added to the treatment plan. Radiographs are scheduled.*</td>
<td>A. If patient meets criteria #4 above and is a potential patient, faculty make screening notes. The patient is potentially accepted for treatment and orders for radiographs are made along with radiographs added to the treatment plan. Radiographs are scheduled.*</td>
<td><strong>8.</strong> Following this process, the record may be signed-in for future diagnostic and treatment procedures.</td>
</tr>
<tr>
<td>B. If patient does not meet criteria for acceptance as a patient, the patient is categorized as Not Accepted in the screening notes and is referred to private practice or outside clinic. Radiographs are not ordered.</td>
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<td><strong>9.</strong> Following this process, the record may be signed-in for future diagnostic and treatment procedures.</td>
</tr>
<tr>
<td><strong>8.</strong> The accepted patient is then assigned to student (with student number in the demographics tab change assigned doctor) and the record is then activated.</td>
<td><strong>8.</strong> The accepted patient is then assigned to student (with student number in the demographics tab change assigned doctor) and the record is then activated.</td>
<td><strong>8.</strong> Following this process, the record may be signed-in for future diagnostic and treatment procedures.</td>
<td><strong>10.</strong> Pam Parmalee will then assign patients directly with appropriate student, banks and/or other clinic area.</td>
</tr>
<tr>
<td><strong>9.</strong> Following this process, the record may be signed-in for future diagnostic and treatment procedures.</td>
<td><strong>9.</strong> Following this process, the record may be signed-in for future diagnostic and treatment procedures.</td>
<td><strong>9.</strong> Following this process, the record may be signed-in for future diagnostic and treatment procedures.</td>
<td><strong>11.</strong> Following this process, the record may be signed-in for future diagnostic and treatment procedures.</td>
</tr>
</tbody>
</table>

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*If patient brings radiographs that are diagnostic and timely (in this case, orders for digital radiographs will not be made), they are to be taken to the radiology window with the screening sheet and will be utilized for screening review. Following scanning into CMS, these original radiographs will be mailed back to the patient.*
Primary Treatment Categories:
(One Treatment Discipline Selected)

- Crown and Bridge — Implants
- Crown and Bridge — Multiple Units
- Crown and Bridge — Single Unit(s)
- Endodontics — Anterior
- Endodontics — Posterior
- Full Denture
- Full Denture — Edentulous
- Full Denture — Immediate
- Full Denture — Immediate/Edentulous
- Limited — Bleaching
- Limited — Dental Hygiene
- Limited — Veneers
- Operative
- Partial Dentures
- Periodontics — Advanced
- Periodontics — Simple

Referred To:
(One Category Selected)

- 2nd Year Dental Student
- 3rd Year Dental Student
- 4th Year Dental Student
- AEGD
- Dental Student
- Emergency
- Graduate Periodontics
- Not Accepted
- Screening
- Special Patient Care

Note: The majority of patients assigned for treatment are from the General Clinic Screening Protocol.

Patient Assignment Resident Programs:

Grad. Periodontics: 1. Patients referred to graduate periodontics from outside dentist:
   A. Upon conclusion of treatment in graduate periodontics, the patient is to be referred back
to the outside dentist from whom the patient was referred.
   B. If the patient does not wish to have treatment from the outside dentist and chooses to
have comprehensive care at the University of Missouri-Kansas City School of Dentistry,
the patient must be screened as all new prospective patients.

2. Patients of record from graduate periodontics (who were referred from within our
clinic) and graduate periodontics maintenance clinic patients:
   A. Graduate periodontics faculty will confirm that the patient can be treated in the predoctoral
clinic. If the patient can be assigned to the predoctoral clinic, then the resident will
discuss case with team coordinators and the coordinators will assign the patient to a stu-
dent on a timely basis.
   B. Comprehensive care patients assigned to predoctoral students may have their periodon-
tal treatment referred to graduate periodontics on a prescription basis as long as a com-
plete treatment plan has been developed.
   C. If the graduate periodontics faculty should determine that the patient should be trans-
ferred to AEGD, the patient will be referred to AEGD and Dr. Thurmond will review
case prior to acceptance in AEGD.
   D. If case is deemed to complicated, patient should be referred outside our clinic

AEGD
   1. Patients from general clinic screening are placed in an AEGD screening bank. They will be
scheduled within one month for screening in that clinic.
   2. Patients may be directly assigned to a resident from general clinic screening if resident
requests that specific patient.

Special Patient Care: 1. Patients are scheduled in SPC for complete exam from general screening.
OVERVIEW OF COMPREHENSIVE PATIENT CARE
University of Missouri–Kansas City School of Dentistry

A. General overview about comprehensive patient care:

Over 30,000 individual patients are treated each year with approximately 100,000 appointments made in the general clinic. Student dentists work under the faculty supervision of general dentists and specialists to provide comprehensive patient-centered care.

1. Length of appointments

Most appointments begin at 9:00 A.M. or 1:00 P.M. (8:00 A.M. and Noon during the summer semester) and last most of the morning or afternoon.

2. Patient assignment

If you are interested in becoming a potential patient with us, you will be randomly assigned to a dental student. Your student doctor will schedule your first appointment.

3. Radiology appointments

Faculty will order necessary radiographs which will be taken (or scheduled to be taken) following the screening appointment. The fee for radiographs is $53.00.

4. Comprehensive treatment plan following assignment to student

The fee for initial diagnosis is $36.00. Following examination and radiology assessment, you will be presented a comprehensive treatment plan which faculty has reviewed, and an estimate of the time for completion of treatment and fees will be provided. If you agree with the plan, treatment will begin following your acceptance.

5. Referral or transfer to other treatment areas

You may be referred or transferred to a more advanced student, resident, other clinic area, or outside of the School of Dentistry to best meet your treatment needs.

B. Clinic policies:

1. Clinic fees

Our predoctoral clinic fees average one-third to one-half the cost of private practice care. The School of Dentistry accepts cash, check, VISA, MasterCard, and Discover cards. We will work with you with your insurance company to ensure that you will receive the maximum allowable benefit. However, you must pay the School of Dentistry the full fee for your treatment. The insurance company will reimburse you what the insurer will cover. If you have Missouri Medicaid, show your card to patient accounts to see if you will have any coverage. If your treatment plan is over $500.00, patient accounts can run a credit check (fee is $10.00) to see if you meet requirements for a payment plan. If you do not have funds for treatment with us, we can provide referrals to other clinics which may be able to assist you.
2. Meeting scheduled appointments

If you must cancel appointments, please give 24-hour notice. If you fail to keep your appointment two times or are repeatedly late, your dental treatment as well as the educational program for our students will be compromised. Your dental care with us will be ended.

3. Baby sitting

We cannot provide a baby sitting service while you obtain treatment.

4. Who can sign treatment plans

You must be at least 18 years of age to approve your treatment plan. Those who are under that age and are not emancipated or have some disability in which you cannot sign informed consent, must have a parent or legal guardian (with power of attorney in our records) sign any informed consent. Minors less than 16 years of age must have parent or guardian sign any informed consent and be present during treatment. Minors 16-17 years of age must have parent or legal guardian sign informed consent but will not need to be present during treatment.

5. Length of travel for treatment/taking time off work

If you live several miles from our clinic or would need to take time out from work, it would be best to receive care closer to your home.

6. Parking

We recommend that you arrive thirty minutes early in order to obtain parking. We are aware of the difficulty of having adequate parking spaces.

7. Denying dental treatment

We reserve the right to refuse dental treatment to any and all patients for inappropriate activity.

<table>
<thead>
<tr>
<th>Signature</th>
<th>Date</th>
</tr>
</thead>
<tbody>
<tr>
<td>Yes, I am interested in becoming a comprehensive care dental patient and understand the above policies.</td>
<td></td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Signature</th>
<th>Date</th>
</tr>
</thead>
<tbody>
<tr>
<td>No, I am not interested in becoming a patient.</td>
<td></td>
</tr>
</tbody>
</table>
**RE-EXAMINATION**

**Introduction**

All patients must be re-examined every six months unless clinical dental faculty direct otherwise.

**Recall Patient**

1. Click on Examination tab of electronic record.
2. Follow appropriate schema for recall exam or annual exam.
3. Dental faculty will be responsible for determining if radiographs are needed.
4. Students should perform an oral examination and record defective restorations, caries and periodontal charting.
5. For dental hygiene students and dental students assigned to the Preventive Clinic, the dental faculty member must review and sign the diagnosis, the occlusal analysis, the restorative and periodontal charting, sign the complete diagnosis and do one of the following:
   a. If the preventive dentistry procedure completes the total patient care, a faculty member must indicate in the treatment and progress notes that the patient should be placed on recall with the date of the future recall appointment.
   b. If the patient is unassigned and requires further dental treatment, the dental faculty member must indicate in the treatment and progress notes that a diagnosis and treatment prescription will be completed at a subsequent appointment. The dental faculty member must also note, for assignment purposes, what type of dental treatment is required (i.e., operative, periodontics, etc.) and to which dental class the patient may be assigned.
   c. If the patient is assigned and requires further dental treatment, the dental faculty member must indicate in the treatment and progress notes what type of dental treatment should be completed. The assigned student will be notified by the patient assignment area and must check the restorative and periodontal charting, update the treatment prescription and have the patient sign. This may be done at a subsequent appointment.

**Patients Under Active Care**

All patients must be re-examined every six months unless clinical dental faculty direct otherwise. Maintenance examination and treatment may be performed more frequently per individual needs of the patient.
Referrals
Referrals from predoctoral areas to graduate areas should work as nearly as possible like private practice situations. The patient should remain assigned to the predoctoral student and the diagnosis and treatment program should be accomplished by the predoctoral student and faculty.

Transfers
If the total treatment is too difficult for the predoctoral student, the patient should be referred to an outside private practice, the Faculty Practice Clinic or the AEGD Program. Transfers between predoctoral and graduate areas must be approved by the Team Coordinator or Director of Quality Assurance or Associate Dean for Clinical Programs.

Inactivations
Patients should be inactivated when two broken or canceled appointments occur on short notice and without a legitimate excuse or when two no-show appointments occur. The broken appointments or cancellations should be noted in the treatment notes and signed by a faculty member. To inactivate a patient, write the reason for the inactivation in the electronic record.

Reactivations
Diagnosis policy for patients who return to the SOD for treatment and their record is on inactive status:

If there is sufficient data on record, charge the periodic examination fee plus any necessary radiographs. If upon faculty review and it is for the benefit of the patient, a new initial diagnosis should be charged with FMS or other radiographs necessary for complete examination.
TREATING MINORS

Parent(s)/Legal Guardians  A parent’s or legal guardian’s signature is required in order to treat any patient under the age of 18 unless emancipated (i.e., married or self-supporting).

It is HIGHLY RECOMMENDED that minor patients being seen at UMKC School of Dentistry be accompanied by at least one of their biological parents or legal guardians at all times.

In the event that neither one of the parents and/or legal guardians are able to accompany the minor patient, the following procedures and policies will be enforced.

If the parent/legal guardian accompanies the patient on their first visit to the UMKC SOD and are unable to accompany them to their subsequent visits, parent/guardian must fill out a LETTER OF AUTHORIZATION form (see below). The accompanying adult whose name appears on the form should then give this form to the student doctor in charge.

This form will be scanned into the patient’s CMS chart for future reference.

If another adult brings the child to a subsequent visit, the parent needs to fill out another LETTER OF AUTHORIZATION form with the accompanying adult’s name on the form.

In addition, a notarized form is recommended but not required.

If the parent/legal guardian is unable to accompany the patient on their first visit, parent/legal guardian must fill out the LETTER OF AUTHORIZATION form below. The accompanying adult whose name appears on the form should then give this form to the student doctor in charge. A NOTARIZED FORM IS REQUIRED in this situation.

This form will be scanned into the patient’s CMS chart for future reference.

Pediatric Dentistry

ALL new patients MUST be accompanied by a parent/legal guardian on their initial visit to the Pediatric Dentistry Department.

It is highly recommended that parent/legal guardian accompany their child to ALL their appointments.

If parent/legal guardian is unable to come to subsequent visits, a Letter of Authorization Form MUST be filled out and signed by parent/legal guardian and brought in by the accompanying adult before treatment can be rendered to the patient. This doc-
Document can only be used by the accompanying adult specified. If the minor returns with another adult, another Letter of Authorization must be provided by the parent/legal guardian.

Examples of Accompanying Adults (but not limited to):
- Stepparents
- Grandparents
- Aunts/Uncles
- Adult Siblings (18 years or older)
- Friends/Neighbors
- Adult Babysitters

For EMERGENCY PATIENTS ONLY: If parent/legal guardian is unable to accompany the patient and accompanying adult is WITHOUT a Letter of Authorization, student doctor will be allowed to contact patient’s parent/legal guardian to obtain emergency treatment consent by phone. Once verbal consent is obtained, emergency treatment can be performed and verbal consent documented on the patient’s chart. This consent will only be accepted for the day of emergency treatment.
LETTER OF AUTHORIZATION

I, ______________________________, parent/legal guardian of __________________________

Print Name

__________________________________________ do hereby CONSENT and ALLOW

Child(ren) under 18 years of age

__________________________________________, of legal age, to accompany my child(ren) to

Accompanying Adult

his/her/their dental appointment, and to give dental care authorizations and to make den-
tal care decisions for my child(ren) on my behalf.

Name of Parent/Legal Guardian (print): _______________________________________

Signature of Parent/Legal Guardian: _______________________________________

Date: ___________________________________________________________________

Date Notarized: ___________________

Notarized by: _____________________
EMERGENCY CLINIC

Introduction

One of the most exciting and rewarding experiences in dentistry is alleviating a patient’s pain. It is also an aspect of your future practice that will make your practice grow, encourage referrals and make a loyal patient following.

Students will be assigned to the Emergency Clinic for each day or half day. The assignments will be made through the Office of Clinical Programs.

Competency and Requirements

A student will be judged competent in emergency dental treatment when he/she completes Emergency Clinic rotations in the third and fourth years and successfully completes the Emergency Clinic Competency Evaluation (see Competency Form).

Procedures

Students will arrive at the assigned times with all equipment necessary to do the diagnosis and treatment of all emergency patients. While assigned to Emergency Clinic the students are expected to be present in the clinic area unless reassigned by emergency clinic faculty. The diagnosis and treatment recommendation will be under the supervision of the Emergency Clinic faculty. Extractions will be done in the Oral Surgery Department; all other treatments will be accomplished in the Emergency Clinic.

General Information

Patients are accepted in Emergency Clinic from 8:15–9:30 a.m. and 12:30–2:00 p.m. This means you need to be set up and ready to work at 9:00 a.m. and again at 1:00 p.m. Even though the patients are only accepted until 9:30 a.m. and 2:00 p.m., we continue treatment until the patient’s problem is relieved. Treatment may run until the end of the morning or afternoon session. Summer sessions will be scheduled earlier than the normal times. Students may be required to manage multiple patients during one session.

Before proceeding to Oral Surgery, inform the emergency clerk of your destination, get signed out by faculty and have the patient pay for the procedure. Oral Surgery accepts patients from 9:00–10:30 a.m. and 1:00–3:00 p.m. Prior to referring a patient to Oral Surgery, an appropriate S.O.A.P. format note should be completed and medical history recorded. Orders for extraction should identify the tooth by name rather than number.
Emergency Fee

The fee for an emergency visit (D0140) is listed in the fee manual. This includes:

- Examination: intra-oral x-rays (PA’s and BW’s as needed to diagnose specific concern), and diagnosis.
- Patients who are presently assigned to students and are under active treatment should be seen by their respective student or by another student in the team. If, in the judgement of faculty member, the emergency is the result of a failure attributable to our responsibility, a fee waiver may be authorized.

Emergency Fee Exceptions

The emergency fee is universally applicable with the following exceptions:

- Patients who had a prosthetic appliance (fixed or removable) inserted within the last six months.
- Patients who are presently assigned to students and are under active treatment and cannot be seen by their respective student or a team student.

Emergency Care Procedures

If a patient presents to the Emergency Clinic with several areas of pain, discuss with your faculty a reasonable plan to help alleviate the multiple areas of pain. Generally, we will need to focus on one area at a time.

If a tooth can be saved endodontically, and restoratively, but the patient decides to have the tooth extracted, he/she must sign the release form in the CMS record.

If the tooth is non-restorable, document why the tooth is non-restorable in the progress and treatment notes under the “A” (assessment) portion of your S.O.A.P. note.

Since treatment results cannot be guaranteed, it is imperative that the Endodontic Informed Consent Care be signed in the CMS record by the patient and an instructor prior to beginning any endodontic treatment.

If the patient requests to be screened, take him/her to the front desk to set up a screening appointment. Screenings will not be done on the date of emergency treatment.

Patients under the age of 18 and are unemancipated must have a guardian present to provide information for the health history and consent for treatment. If a minor patient is alone, discuss with faculty how to proceed.
After-Hours Emergency Calls for Patients of Record

Please be informed and inform your patients of the following after-hours emergency procedure for patients of record:

A. Provide your patients with a method to contact you after hours. Ask them to call you first if any problems arise.

B. If you cannot solve the problem, have the patient call 235-2011 to contact the after-hours emergency dentist (faculty member on call).

Medical Attention

If the emergency requires immediate medical attention, direct the patient to the nearest hospital.

Make Report

Report the incident to the Office of the Associate Dean for Clinical Programs the next clinical day. Appropriate reports and record data entries must be completed (see risk management).

Note

All students must provide their home telephone number to the Office of Student Programs for emergency purposes. Telephone numbers will remain confidential and are not for publication.

S.O.A.P. Notes Procedures

The recording of data in the progress and treatment notes is done with the standard S.O.A.P. note. This refers to S-subjective, O-objective, A-assessment, P-plan. The assessment is the diagnosis of the tooth or area involved. The plan includes the proposed treatment and possible treatment alternatives, as well as documentation of the procedure.

The subjective data that the patient provides includes: type of pain, onset of pain, duration of pain, stimuli or actions that cause or relieve the pain and the area of involvement.

The objective data includes information about the health history, noting any problems or changes with the health history. It also includes results of the visual exam, radiographs and the restorability of the tooth.

The assessment is the diagnosis of the tooth or area involved.

The plan includes the proposed treatment and possible treatment alternatives, as well as documentation of the procedure.

Review CMS for signing of patient informed consent, sign-in, selection of treatment. Following treatment schema in treatment notes, sign out. Prescriptions are provided as per schema.
S.O.A.P. Notes Example

A sample of the use of S.O.A.P. notes on an Emergency Clinic visit:

S: Complaint of pain in maxillary right that has kept the patient awake all night. Pain is throbbing and the area is swollen. ASA does not stop pain. Cold makes it feel better and hot makes it feel worse. Has had slight pain when eating for the past 2–3 weeks.

O: Reviewed medical history — no changes. No changes in physical exam. Blood pressure 138/84, pulse 69, temperature 98.6F. (If this is the first visit, you can make a note to see History and Physical.) #3 gross caries. Tender to percussion — EPT #2 (30) #3 (80) #4 (25). No periodontal pockets. Take bitewing and periapical radiographs. Bitewing and visual exam reveal that the tooth is restorable. Periapical radiograph reveals that there is a periapical radiolucency tooth #3.

A: Necrotic pulp with periapical pathoses or pathology.

P: Endodontic treatment (continue your write-up describing the treatment you have provided for the patient including type and amount of anesthetic used, placement of rubber dam, number of canals instrumented and trial lengths, type of medicament used, paper points used, temporary material used and, if occlusion was checked, any prescriptions, explanations of treatment, home care instructions, patient comments and plans for follow-up treatment.

Recording Test Results

There are several tests that can be used to assess a patient who comes in for treatment in the Emergency Clinic. These tests are tools to help the dentist gather information and make the correct diagnosis. One of the most important ways to gather information is to ask the patient questions and listen to symptoms that they are describing to you. It may not be necessary to perform all of the tests that we have available, depending on the symptoms with which the patient presents.

Walk-In Emergency Protocol

Emergency services are available on a first-come, first-serve basis with priority given to patients of record during certain time periods. Treatment is limited to alleviating the patients’ immediate and most pressing problem, one tooth only. For follow-up care for people who are not patients of record, the patient is directed to seek care outside the UMKC clinic; patients of record will receive care at their next scheduled visit.
Any patient seeking emergency care must pay the emergency fee before being seen. The emergency fee includes up to 2 periapical/bitewing radiographs and an emergency examination. The patient is responsible for any additional charges that may include but are not limited to extraction, root canal treatment, panoramic radiograph, and temporary restoration.

Patients who are unable to pay the emergency fee may elect to complete a payment contract, agreeing to pay the fee and any additional charges within 30 days. If a patient does not pay his/her outstanding balance and wants additional emergency care, the patient must pay the outstanding balance and the current emergency fee before receiving care; the patient may not sign another payment contract.

Students providing the emergency care are expected to add the treatment in the patients’ record and to escort patients to the cashier to pay.

Exceptions to the above will be at the discretion of the emergency clinic director, based on the nature of the patient emergency.
**EMERGENCY CLINIC COMPETENCY EVALUATION**

Date __________________________

Student ___________________________ Student # ___________________________

Patient ___________________________ Patient Chart # ___________________________

*Competency examination to be done on a random new patient selected by the Emergency Clinic faculty. Preferably performed in the first semester of the senior year. A score of Unsatisfactory in ANY category will necessitate remediation and retesting of the competency examination until successful. 100% satisfactory rating (on a single examination) is needed to show competency in emergency dental care.

<table>
<thead>
<tr>
<th>Evaluations</th>
<th>Satisfactory</th>
<th>Unsatisfactory</th>
</tr>
</thead>
<tbody>
<tr>
<td>1. Health History</td>
<td></td>
<td></td>
</tr>
<tr>
<td>2. Chief Complaint</td>
<td></td>
<td></td>
</tr>
<tr>
<td>3. Objective examination</td>
<td></td>
<td></td>
</tr>
<tr>
<td>(vital signs, oral condition,</td>
<td></td>
<td></td>
</tr>
<tr>
<td>clinical findings, relative</td>
<td></td>
<td></td>
</tr>
<tr>
<td>diagnostic tests etc.)</td>
<td></td>
<td></td>
</tr>
<tr>
<td>4. Assessment (Diagnosis)</td>
<td></td>
<td></td>
</tr>
<tr>
<td>5. Plan (Recommended Tx.)</td>
<td></td>
<td></td>
</tr>
<tr>
<td>6. Appropriate Treatment</td>
<td></td>
<td></td>
</tr>
<tr>
<td>(performed and/or referred, if</td>
<td></td>
<td></td>
</tr>
<tr>
<td>applicable)</td>
<td></td>
<td></td>
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<tr>
<td>7. Patient Management</td>
<td></td>
<td></td>
</tr>
<tr>
<td>(communication, recognizes fearful</td>
<td></td>
<td></td>
</tr>
<tr>
<td>patients and responds appropriately etc.)</td>
<td></td>
<td></td>
</tr>
<tr>
<td>8. Infection Control</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Pertinent Comments

________________________________________________________________________

________________________________________________________________________

________________________________________________________________________

________________________________________________________________________

________________________________________________________________________

Faculty ___________________________ Competent: yes ____ no ____

Student ___________________________
ROTTATIONS

Overview
Clinical Outreach Rotations for the UMKC School of Dentistry include:

- Kansas City Regional Center For Developmentally Disabled
- Robert Wood Johnson (see Dental Public Health section)
- Rural Outreach (see Dental Public Health section)

KANSAS CITY REGIONAL CENTER FOR DEVELOPMENTAL DISABILITIES

Location
821 East Admiral Blvd.
Located on the N.E. corner of 8th and Charlotte. Go north on Holmes to 8th Street and turn right, go one block.
Phone: 889–3555

Director
Dr. Tom Vopat

Assistant
Addie Manlove

Clinic Hours
Report before 9:00 a.m.
Clinic hours are from 9:00 a.m. to 4:30 p.m.

Overview
The Kansas City Regional Center Dental Clinic provides dental care for mentally and physically handicapped children and adults.

Purpose
Dental and Dental Hygiene students will be exposed to the special considerations involved in the treatment of these patients. This will be accomplished by observation, demonstrations, and actual treatment of handicapped patients. Students will demonstrate competency in assessment of patients with special needs. See form on next page.

Equipment
It is not necessary to bring any equipment.
COMPETENCY ASSESSMENT FOR TREATING PATIENTS WITH SPECIAL NEEDS

NAME: ___________________________________ DATE: _________________________

FACULTY: __________________________________________

Place a checkmark (✓) in the appropriate box for each criterion under "CA" for clinically acceptable performance or under "U" for unacceptable performance.

<table>
<thead>
<tr>
<th>CRITERIA</th>
<th>CA</th>
<th>U</th>
</tr>
</thead>
<tbody>
<tr>
<td>1. Can assist with transferring a patient from a wheelchair to a dental chair.</td>
<td></td>
<td></td>
</tr>
<tr>
<td>2. Knowledgeable of proper patient positioning and stabilization for patients with physical and cognitive limitations.</td>
<td></td>
<td></td>
</tr>
<tr>
<td>3. Able to recommend alterations in oral homecare for patients with physical and cognitive disabilities.</td>
<td></td>
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<tr>
<td>4. Capable of assessing patients with physical or cognitive developmental disabilities.</td>
<td></td>
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</tr>
<tr>
<td>5. Understands when to refer patients with physical or cognitive developmental disabilities to a specialist.</td>
<td></td>
<td></td>
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<tr>
<td>6. Recognizes the need to make adjustments to routine dental care for patients with medical complications.</td>
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<td></td>
</tr>
<tr>
<td>7. Accurately evaluates their performance after completion of procedure.</td>
<td></td>
<td></td>
</tr>
<tr>
<td>8. Maintains proper infection control throughout procedure.</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

*Student must complete all items to a clinically acceptable level.*

Comments:
**TRUMAN MEDICAL CENTER LAKEWOOD**

**O.R. ROTATION** (VOLUNTARY) (SEE MAP ON NEXT PAGE)

**Goal**

Give students direct experience of operating room procedures including preparation, medical examination treatment and post-operative care for patients receiving general anesthesia.

**Rotation**

Volunteer students who have received permission from their Team Coordinator to participate in this rotation will attend an all-day session at Truman Lakewood. Students are to arrive at the Truman Lakewood dental clinic at 8:00 A.M. wearing surgical scrubs. Dr. Dane or Dr. Vopat will be the attending dentist. Students will acquire experience in writing preop and postop orders plus progress notes. A variety of dental procedures will be performed, including radiographs, restorative, periodontics and oral surgery. Each student should expect to participate in the delivery of dental care.
Driving directions to 7900 Lees Summit Rd, Kansas City, MO 64139
20.6 mi – about 28 mins

1. Head east on E 25th St toward Holmes St 322 ft
2. Turn left at Holmes St 1.1 mi
3. Slight right at E 14th St 433 ft
4. Take the ramp onto I-70 E/US-40 E Continue to follow I-70 E 12.7 mi
5. Take exit 15A to merge onto I-470 S/MO-291 S toward Lee's Summit 4.2 mi
6. Take exit 12 for Woods Chapel Rd 0.3 mi
7. Turn right at NE Woods Chapel Rd 1.0 mi
8. Continue on NE Gregory Blvd 1.0 mi
9. Turn left at Lees Summit Rd Destination will be on the left 0.3 mi

7900 Lees Summit Rd
Kansas City, MO 64139
RECORD SYSTEM

Electronic Records
Predoctoral dental, dental hygiene, and emergency care patient records and radiographs are maintained in the electronic record. Received consult letters are scanned and placed in the electronic record. Paper records of active patients will be copied into the electronic record.

Copy of Records
All requests for copies of patient records or patient records/radiographs must be referred to the User Support Analyst, Room 1104, where the release of information forms will be signed and appropriate action taken. See form at the end of this section. The same procedure applies to Radiology when only radiographs are requested. Request for radiographs are managed in Radiolgy.

RECALL SYSTEM

Introduction
Comprehensive-care patients are placed on a recall program with the frequency of recall based upon their specific needs to maintain optimal oral health. Dental students are responsible for seeing their own recall patients or having them referred to the dental hygiene clinic. Patients placed in the dental hygiene recall bank are scheduled by the Patient Services Recall Appointment Coordinator to be seen by a dental hygiene student.

Referal of Dental Hygiene Recall Patients Who Have Further Treatment Needs
Dental faculty will review diagnosis of recall patients referred to dental hygiene. If there are further treatment needs beyond dental hygiene, the patient will be referred to the Patient Services Recall Appointment Coordinator for appropriate assignment for further treatment. Referral needs are documented in the Administrative Notes Section of the electronic record.

Dental Student Responsibility
Third- and fourth-year dental students are responsible for seeing their own recall patients (or refer as noted in introduction above). Students will be monitored to ascertain that recall patients are being seen on a timely basis.
Patient Monitoring

Clinical faculty and students need to monitor the periodontal health of all patients under treatment and see that recall/maintenance procedures are performed as needed. Patients who demonstrate a decline in oral health will need to be referred to other clinic areas such as graduate periodontics for more extensive treatment.

**COMPLETE DENTURE RECALL SCHEMA**

1. Once a month the Team Clerks will receive recall letters for denture patients.
2. Team Clerks will check on the computer to determine if the record is in the locked file. If so, that name and letter will be given to Pam Haney.
3. Team Clerks will look up the denture recall patient on CMS to determine if the student who completed the dentures is currently a student. If so, his/her name and phone number are written on the letter so the patient can make an appointment with his/her dental student.
4. If the dental student who completed the dentures has graduated, the Team Clerk will write his/her own name and the team phone number so the patient can call to make an appointment.
5. Each Team Clerk will be responsible for mailing his/her own letters and making appointments.
6. Letters are mailed to complete denture recall patients per team. If the patient is interested, he/she will call the respective Team Clerk and make an appointment within the team for examination. The current fee is $14.00.
7. If further treatment is necessary, it will be delivered within each respective team.
**DISPENSARY**

**GENERAL GUIDELINES**

**Check Out**
Please PRINT CLEARLY on the check-out cards at the counter.

**Infection Control**
DO NOT WEAR GLOVES TO THE DISPENSARY. Plastic wrap is available throughout the clinic for utilizing barrier techniques.

**Loss & Damage**
If equipment malfunctions or if a part is missing or found broken, please return the item and notify the clerks immediately. It is important to report damage resulting from normal wear, as well as discovered loss, because students will be charged for items lost or damaged by improper handling.

**Returns**
Return items promptly after use. Clean and disinfect each item/equipment carefully before returning. All mobile equipment (N₂O Tanks, compound heaters, etc.) checked out in the morning are to be returned by noon. If checked out in the afternoon, return by 4:30. After 24 hours, items not returned become overdue. Students are not to check out additional items until overdue items are returned.

**Supplies for Instruction**
Materials and equipment for patient treatment procedures are distributed from the Dispensary. Materials for laboratory instruction are dispensed by instructors during laboratory session.
## Dispensary Faculty Thumbprint Items

<table>
<thead>
<tr>
<th>Quantity</th>
<th>Item</th>
<th>Quantity</th>
<th>Item</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Acorn Burnisher</td>
<td></td>
<td>GT Hand Files</td>
</tr>
<tr>
<td></td>
<td>Acetaminophen</td>
<td></td>
<td>Geriostore</td>
</tr>
<tr>
<td></td>
<td>Air Abrasion Tips</td>
<td></td>
<td>Ibuprofen</td>
</tr>
<tr>
<td></td>
<td>Anesthetic 2% 1:50</td>
<td></td>
<td>Ligajet Syringe &amp; Needles</td>
</tr>
<tr>
<td></td>
<td>Anterior Quadrant Tray</td>
<td></td>
<td>Nitrous Oxide Units</td>
</tr>
<tr>
<td></td>
<td>Apex Locator/Root ZX</td>
<td></td>
<td>Opalescence</td>
</tr>
<tr>
<td></td>
<td>Arestin</td>
<td></td>
<td>Opalescence Refill Kit</td>
</tr>
<tr>
<td></td>
<td>Articaine Anesthetic</td>
<td></td>
<td>Opalescence Starter Kit</td>
</tr>
<tr>
<td></td>
<td>Aspirin</td>
<td></td>
<td>Posterior Quadrant Tray</td>
</tr>
<tr>
<td></td>
<td>Automatic Amalgam Condenser</td>
<td></td>
<td>Proctor &amp; Gamble White Strips</td>
</tr>
<tr>
<td></td>
<td>Broaches</td>
<td></td>
<td>Rubber Dam Kit</td>
</tr>
<tr>
<td></td>
<td>Calamus</td>
<td></td>
<td>System B</td>
</tr>
<tr>
<td></td>
<td>Crown Puller</td>
<td></td>
<td>Tooth Whitening Block Out Material</td>
</tr>
<tr>
<td></td>
<td>CVW Wiland Carver</td>
<td></td>
<td>Tooth Whitening Tray Material</td>
</tr>
<tr>
<td></td>
<td>Disposable Tray</td>
<td></td>
<td>V-Lock Kit</td>
</tr>
<tr>
<td></td>
<td>GPX Gutta Percha Remover</td>
<td></td>
<td>X-Tips</td>
</tr>
</tbody>
</table>
GUIDELINES FOR THE USE OF NITROUS OXIDE SEDATION IN THE OUTPATIENT CLINIC

CHECK-OUT

Reservation
Please sign up in reservation book.

Approval Required
Approval for use of the nitrous oxide equipment must be obtained through the thumb print of an authorized instructor. This instructor will be responsible for monitoring the student.

Computer
The student will come to the Dispensary and check out the equipment on the computer; this will include the appropriate size nasal mask and hose.

Pressure Check
Prior to taking the machine, the volume (pounds per square inch) of both O₂ and N₂O will be determined. The cylinder will be replaced by the student:
- If the O₂ is below 1000 psi.
- If the N₂O pressure is below 700 psi.

Transport
The cylinders should be turned off during transport of the machine through the clinic.

Check Function
Check all components to assure proper function.
- Flow of gases
- O₂ Flush valve

Flow Rate
Set flow of O₂ at six liters, place mask and adjust flow to patient’s breathing pattern.

Administration
Administer N₂O — initially at 25–30 percent. Increase every two minutes in five percent increments until desired level of sedation is attained. *A student will not exceed 50% N₂O without approval and direct supervision from an instructor. A higher percentage generally indicates improper use of the equipment.

Attending Patient
The patient will not be left alone in the cubicle while under the influence of N₂O sedation.

Oxygen
When procedure is concluded, the patient will breathe 100 percent O₂ for five minutes.
Charting
Flow rate and percent administered will be recorded in the patient’s chart.

CHECK-IN (Nitrous Equipment)

Step 1
Clean and disinfect equipment. Place mask and hose in appropriate sterilization bags.

Step 2
Turn off O₂ + N₂O cylinders and drain pressure from the system.

Step 3
Return unit, hose and mask to the dispensary.

Step 4
If pressures are below the guidelines in pressure check (previous page), the cylinder(s) will be replaced by the student.

Competency in Nitrous Oxide Sedation
See Section 4, Oral and Maxillofacial Surgery.

DENTAL AUXILIARY UTILIZATION

ASSIGNMENTS

Introduction and Purpose
The objective of the DAU Program is to teach the dental student how to effectively utilize a dental assistant.

Objectives and Evaluation
The DAU teacher-assistant will provide structured teaching and chairside assisting during the students’ clinical education. The student will be assessed on:

Criteria
• Receptiveness
• Functional Team Positioning
• Communication
• Delegation of Responsibilities
• Sterilization and Organization
• Time Management (Appointment Control)
• Instrument Transfer

Use of Evaluation
Evaluations are utilized in determining the student’s Clinical Management grade.
PAYMENT POLICIES

General Payment Policy

It is the general policy of the School of Dentistry not to grant deferred payments for professional dental treatment. This policy is based on the fact that the professional fee schedule of the School of Dentistry is considerably lower than that found in private dental practices.

Payment for bridges, crowns and partial removable prosthodontics must be made IN FULL in advance of any preparation of teeth. Payments for full dentures, implants and endodontic procedures must be made IN FULL BEFORE starting treatment. The fees for all other dental treatment will be collected during the clinic period in which treatment is performed. Any fee listed with a range, as “individual consideration,” or any fee not listed should be established in advance of treatment with the department chairperson.

DEFERRED PAYMENTS

Introduction

Deferred payments may be extended, subject to the approval of the Dental School Patient Accounts Office, under the below listed conditions:

Medicaid & Rehabilitation Patients

1. Clients of Medicaid and rehabilitation agencies will be extended deferred payments only after the School of Dentistry has received written authorization from the appropriate agency.

Orthodontic Patients

2. Patients of the Orthodontics Department may be extended deferred payments subject to the approval of the Dental School Patient Accounts Office.

Treatment Exceeding $500

3. Fees for treatment exceeding $500 may be considered for deferred payment. The deferred payment schedule will require a 20 percent down payment and a maximum of 10 months to pay the balance due. Deferred Payment Applications are initiated in the Patient Accounts Office and are subject to approval based on the patient’s credit history. There will be a $10 Credit Analysis Fee on each approved Deferred Treatment Contract.

Treatment Less Than $500

4. Approval of deferred payments for treatment plans under $500 will be considered only under circumstances of immediate emergency nature or under conditions where denial of credit would detract seriously from a student’s opportunity to

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Treatment Less Than $500

4. Approval of deferred payments for treatment plans under $500 will be considered only under circumstances of immediate emergency nature or under conditions where denial of credit would detract seriously from a student’s opportunity to
receive needed clinical experience or when it would deprive him of recognition of clinical achievement.

**Application**

Such applications for deferred payments will be considered only upon the recommendation of the student and one of the following:

1. Associate Dean for Clinical Programs;
2. Approval of the Patient Accounts Office manager.

**Form Required**

Such recommendations for deferred payment will be made on the forms provided for that purpose. Deferred payments for emergency treatment for the relief of pain or treatment of acute infection or injury may be made upon the recommendation of the faculty member responsible for the area of emergency treatment.

**Fee Policy Regarding Consultations**

**Referral Patients**

Patients seeking or referred for consultation in the area of a department chairperson’s expertise will be treated in the following manner:

**Process**

1. The patient will be referred directly to the appropriate Department Chairman.
2. It will be the Department Chairman’s individual prerogative to charge a consultation fee of $50.00. If the chairperson provides the consultation as a courtesy to the patient, a fee waiver must be executed.
3. In all instances, a patient record must be completed and computer number assigned. The consultation must be thoroughly documented in the patient record.
4. Customary fees must be charged if any treatment is rendered.

**Discount Policy**

**Introduction**

Discounts will be allowed only if an approved form for the discount has been obtained from Patient Accounts. Such forms will carry an expiration date and discounts for treatment after that date will require a new authorization form. Discounts apply only to the Predoctoral Dental and Dental Hygiene Clinic.

**Eligibility for Discount**

The discount is 50 percent (except for gold work, veneers and orthodontics as noted in the fee schedule). Discounts are available to the following patients:

1. Full-time academic and non-academic employees of the
University of Missouri, their spouses and dependent children under 21 years of age who previously received a 50% discount will continue to receive a discount. Retirees of the University of Missouri who previously received a 50% discount will continue to receive a discount. All other retirees do not qualify for a discount. Dental school employees receive a 50% discount on appropriate procedures.

2. Dental School student’s parents, spouses and dependent children under 21 years of age for treatment in the predoctoral clinic.

**Student Fees**

Undergraduate and graduate Dental School students and dental hygiene student clinic fees will be collected on the basis of the Special Fee Schedule devised for that purpose. This is only for treatment in the predoctoral clinic.

**Exceptions**

Exceptions to the discount policy will be made only with the approval of the Associate Dean for Clinical Programs.

**Fee Waiver Protocol**

A designated faculty member may reduce or waive a clinic fee at his/her discretion when treatment is provided as part of a research project, as a demonstration case for student teaching, or as an essential experience not otherwise available to the student/resident (Code 15 waivers). The designated faculty may also authorize fee reductions to the extent he/she considers professionally justified for replacement of a restoration or appliance (Code 13 waivers).

Designated faculty, who can approve a fee waiver up to and including $300, are the Department Chair or Program Director, and the Team Coordinator and Dental Hygiene Coordinator or his/her designee. Any waiver over $300 must be approved by the Director of Quality Assurance or the Associate Dean for Clinical Programs.

No verbal or written commitments about fee reductions can be made to patients before the fee waiver is approved by a designated faculty member for fee waivers up to and including $300 or the Director of Quality Assurance or the Associate Dean for Clinical Programs for fee waivers over $300.

It is the responsibility of the person making the request to inform the patient if a fee waiver request was not approved and why. For approved waivers, an administrative note must be
entered in the patient record indicating the type of waiver (13 or 15), reason for the discount and the amount.

The following guidelines should be used as an aid to consistency in determining fee waivers for fixed and removable prosthodontics.

Failure from*:

<table>
<thead>
<tr>
<th>Duration</th>
<th>Fee Waiver</th>
</tr>
</thead>
<tbody>
<tr>
<td>0-12 months</td>
<td>no fee</td>
</tr>
<tr>
<td>1-2 years</td>
<td>25% fee</td>
</tr>
<tr>
<td>2-3 years</td>
<td>50% fee</td>
</tr>
<tr>
<td>3-4 years</td>
<td>75% fee</td>
</tr>
<tr>
<td>More than 4 years</td>
<td>total fee</td>
</tr>
</tbody>
</table>

*These are guidelines only and do not impose total inflexibility of judgment.

*There will be no adjustment in fee if the failure is caused by misuse, mishandling or alteration of the prosthesis by the patient, or anyone outside the School of Dentistry.

---

**Clinic Insurance Policy**

**Standard Coverage**

1. Patients must provide Patient Accounts with their dental insurance information and sign a release of information prior to the School of Dentistry filing any claims.

2. We do not accept “Assignment of Benefits.” Therefore patients are expected to pay as services are rendered.

3. Patient Accounts will file the insurance claims daily as treatment is completed. Patients will be reimbursed by their individual insurance carrier.

**Missouri Medicaid**

All new patients with Missouri Medicaid cards should be referred to the Patient Accounts Office.

The student doctor must check the current eligibility of each Medicaid patient prior to treatment and get a contract from the Patient Accounts Office for each procedure performed.
TREATMENT THAT NEEDS PRIOR AUTHORIZATION FOR PAYMENT

Approval Required

The request forms on this treatment with the necessary documents are completed by Patient Accounts, approved and signed by an authorized faculty member, and submitted to Jefferson City for approval.

The approved forms are to be returned to the Patient Accounts Office, School of Dentistry. No treatment will be rendered on any service requiring prior approval until the School of Dentistry has in their possession said approval.

University of Missouri–Kansas City School of Dentistry

AUTHORIZATION FOR RELEASE OF HEALTH INFORMATION

1. I ________________________________ (individual's name) hereby authorize the use or disclosure of my health information as described in this authorization.

   The UMKC School of Dentistry is hereby authorized to provide the information to:

2. __________________________________________
   Name ________________________________________
   (Please print.)
   Address ______________________________________
   City __________________________________________
   State _________________________________________
   ZIP __________________________________________

   is hereby authorized to receive and use the information;

   Patient’s Name ________________________________ Date of Birth _________________

3. The information to be released herein as follows:

   __________________________________________________________________________

   __________________________________________________________________________

   __________________________________________________________________________

4. The purpose of this request is the following:

   __________________________________________________________________________

   __________________________________________________________________________

   __________________________________________________________________________

5. I understand that I have the right to revoke this authorization at any time by notifying UMKC School of Dentistry in writing directed to:

   Office of Clinical Programs, UMKC School of Dentistry, 650 E. 25th St., Kansas City, MO 64108.

   I understand that the revocation is only effective after it is received by The Curators of the University of Missouri. I understand that any use or disclosure of the information under this authorization made prior to the effective date of the revocation will not be affected by the revocation.

6. I understand that after this information is disclosed, state or federal law might not protect it and the recipient might re-disclose it.
7. The following is conditioned upon my providing this authorization:

______________________________________________________________________________________________

8. I understand that I am entitled to receive a copy of this authorization.

9. I understand that this authorization will expire: ________________________ (one year maximum)

10. I agree and understand that a photocopy or facsimile copy of this authorization will be as valid as the original.

Signature of Individual ______________________    _____________________________        ___________________

Name Date

Relationship to patient: Self ☐ Father ☐ Mother ☐ Guardian ☐ Other ☐

ALL QUESTIONS MUST BE COMPLETED BEFORE INFORMATION CAN BE SENT.
**TOBACCO FREE FOR LIFE:**

**TOBACCO CESSATION PROGRAM**

**Introduction**

It is well documented that tobacco use has a significant negative impact on the oral and dental tissues. It has been identified as a primary etiologic factor in the development of oral and pharyngeal squamous cell carcinoma, deters wound healing, and is a primary risk factor for periodontal disease and implant failure. Additionally, tobacco use contributes to poor oral hygiene and is a deterrent to optimum cosmetic results of restorative dentistry.

The Tobacco-Free for Life program is based on a program designed by the National Cancer Institute and is considered to be a “brief tobacco cessation intervention.” The program is designed to assist patients in the long process toward a permanent cessation of tobacco. The average one-year quit rate for this type of program ranges from 14–25%; it may also provide the support and encouragement a patient needs to even begin thinking about cessation.

**Time Units**

A total of three time units are available for assisting a patient interested in tobacco cessation. One time unit will be given for the “initial tobacco cessation visit”, and an additional time unit will be given for each of two “follow-up tobacco cessation visits.”

**Tobacco Use Assessment Form**

It is a requirement for all students to fill out a “Tobacco Use Assessment Form” (on the computer) on all new and all annual recall patients who use or previously used tobacco.

**Clinical Procedure for Patients Interested in Tobacco Cessation**

The “Tobacco Assessment” questions are incorporated in the Exam questions for both new and annual recall patients in the electronic record.

The “Tobacco Cessation Initial Visit” and the “Tobacco Cessation Follow-Up Visit” forms are in the Treatment Notes of the electronic record.

If a patient expresses an interest in the Tobacco Cessation Program during his or her exam, you will need to get the “Tobacco Cessation Packet” from your Team Clerk (or file in the dental hygiene clinic) and follow the directions on the packet.
When the patient arrives for an “Initial Visit” or “Follow-Up Visit,” you will:

- Get signed in by a faculty member
- Then go to the Action Menu on the Treatment Plan Tab, and
- Select Treatment Notes where you will find the appropriate schema.

The questions for each “Visit” will guide you through the Tobacco Cessation Program.

If you have any questions, please contact Kathy Dockter, RDH, MA, at extension 2160.
SECTION 4  DEPARTMENTAL GUIDELINES

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Please Note
Attendance and successful completion of assigned rotations is required by all departments.
SENIOR DEPARTMENTAL ADVANCED STUDIES PROGRAM

Objective
To allow clinical students who are progressing well to expand their knowledge and experience in a specific area of interest.

Eligibility
1. At time of application, the student must have completed 50% of the total graduation time units and all third-year basic skills examinations.
2. The student must meet any other department entry criteria.
3. Preference will be given to students who exhibit an overall grade point average of 3.2 or above.
4. Students will be limited to participation in only one department’s Advanced Studies Program.
5. Students must apply to the Team Coordinator, the appropriate department chair, and the Associate Dean for Clinical Programs, and be accepted by ALL three.
6. The student must be in good academic and disciplinary standing and maintain such standing.

Application Procedure
1. Applications may be obtained from the Office of the Associate Dean for Clinical Programs.
2. The student must have the approval of the Associate Dean for Clinical Programs certifying the student is in good academic and disciplinary standing.
3. The student must have the approval of the Team Coordinator certifying the student has exceeded the minimum general clinical requirements and completed all third-year basic skills.
4. Limited slots are available in each department. Final selection will be made by department chairs based upon the qualifications of the applicants.
5. Applications must be made by June 15th of the summer of the fourth year for Pediatric Dentistry, Restorative Dentistry and Periodontics. Endodontics and Oral and Maxillofacial Surgery deadlines are May 1st of the junior year. Students will be notified of acceptance no later than July 1st.

Activities
Specific activities within the Advanced Studies Program will be under the direction of the department chair and team faculty. Activities may include:
1. Clinical treatment of more complex cases in the department.
2. Reduction in the number of check points required on clinical cases to the minimum necessary for adequate supervision of highly skilled students.

3. Assisting with clinical instruction of third-year students.

4. Special readings and seminars in the discipline.

5. Participation in an ongoing research project.

6. Reviewing the literature on an assigned topic and presenting an oral or written integrative report on the findings.

7. Designing and completing a limited research project.

**NOTE**

All students in the program will be required to maintain their clinical skills in other areas, to treat all patients assigned to them and to complete minimum clinical requirements in all areas.

Continued participation in the program depends upon the student abiding by all the above criteria. Students who violate any of the criteria can be removed from the program by the department chair and/or the Associate Dean for Clinical Programs.

Notification of the student’s successful completion of the Advanced Studies Program must be sent to the Office of Student Programs by the appropriate department chair.
SENIOR DEPARTMENTAL ADVANCED STUDIES PROGRAM

Name __________________________________________________ Date _________________

Advanced Studies Department __________________________________________________

1. 50% of total graduation time units completed, all basic skills in department applied for completed and support of team faculty.
   
   Yes ☐  No ☐
   
   Approved ☐  Disapproved ☐
   
   Team Coordinator __________________________________ Date _________________

2. Meets department entry criteria.
   
   Yes ☐  No ☐
   
   Approved ☐  Disapproved ☐
   
   Honors Dept. Chair _______________________________ Date _______________

3. Overall GPA 3.2 or higher
   
   Yes ☐  No ☐
   
   Academic and disciplinary good standing
   
   Yes ☐  No ☐
   
   Approved ☐  Disapproved ☐
   
   Assoc. Dean Clinical Programs _______________________________ Date __________
Senior Departmental Advanced Studies Program
IN ENDODONTICS

1. Goals
   a. To enhance a student’s qualifications for graduate school
   b. To broaden a student’s endodontic experience in preparation for private practice
   c. To expose a student to the methodologies of literature review and research
   d. To provide a student experience in clinical teaching
   e. To provide a program tailored to the student’s interests and needs

2. Objectives
   a. To provide the student additional experience in the treatment of uncomplicated non-surgical endodontics cases
   b. To provide the student experience at both assisting, observing and/or performing surgical endodontic procedures at the discretion of the Graduate Program Director
   c. To provide the student with experience and guidance in the treatment of more difficult non-surgical endodontic cases
   d. To provide the student additional experience in the diagnosis and treatment of endodontic emergencies
   e. To provide the student access to alternative instruments and methods for root canal preparation and filling
   f. To guide the student in a literature review on a subject of his/her choosing, if desired
   g. To guide the student in the preparation of a protocol and the conduct of a limited research project, if desired
   h. To assist in the editing of a comprehensive literature review or research project for publication
   i. To facilitate access to all faculty of the department for impromptu tutorials, demonstrations and guidance
   j. To assist the student in the preparation of a table clinic, poster or lecture in an area of interest
   k. To provide the opportunity for clinical teaching

3. Coordination of the Program
   a. Dr. Charles Lee will act as coordinator and will closely monitor the activities and projects.
      Dr. Ron Riley will act as back-up coordinator during any absence of Dr. Lee.
   b. All candidates will attend a department meeting with the faculty to ascertain their individual goals, merits and feasibility of tailoring a program for them.
   c. Acceptance into the program will be given only with a majority vote of the department faculty.
   d. Specific objectives will be set for each participant and the number of clinic sessions per week projected for completion of departmental and individual goals will be determined.
   e. Each participant will report to Dr. Lee on each day he/she participates in the program to review activities for that day and for evaluation of progress.

4. Requirements for Certificate
   a. Proof of time spent gainfully, or at least time units accounting for 75% of the time available for program activities
b. Preparation of a literature review, protocol, research publication, poster or lecture, if that was one of the goals

c. An affirmative vote by a majority of the department faculty

Senior Departmental Advanced Studies Program
IN ORAL SURGERY

1. Eligibility — By the beginning of the semester in which the student wishes to enter the program, the student must:
   a. Have completed 50% of the total graduation time units.
   b. Preference will be given to students who have completed the clinical requirements in Oral Surgery.
   c. Preference will be given to students who have demonstrated an exceptional interest in Oral Surgery and who have volunteered to work in Oral Surgery.
   d. Preference will be given to students who are applying for an Oral Surgery residency.
   e. Preference will be given to students who exhibit an overall grade point average of 3.2 or above.

2. Activities — Activities with the Advanced Studies Program will be under the direction of the department chairman and the department faculty. Activities may include:
   a. Surgical Exodontia
   b. Surgical removal of impacted teeth
   c. Biopsy techniques
   d. Assisting with clinical placement of implants
   e. Assisting with clinical instruction of third year students
   f. Special readings and seminars in the discipline
   g. Continued participation in the program will depend upon satisfactory performance

Senior Departmental Advanced Studies Program
IN PEDIATRIC DENTISTRY

1. Objective — This program is designed to allow fourth year dental students an opportunity to expand their clinical experiences in Pediatric Dentistry.

2. Eligibility
   a. The student must have completed the majority of the departmental requirements by the time of application. Consequently the student must have 3.5 completed patients credited by departmental faculty and a minimum of 180 clinical points.
   b. The student must demonstrate an interest in treating children and a genuine desire to participate.
   c. The program will be limited to a maximum of 4 students per year.

3. Activities — Specific activities within the program will be under the direction of departmental faculty. Activities will be individualized according to the interest and demonstrated abilities of the applicant. These activities may include:
   a. Rotation to the graduate program with supervised patient care
b. Participation in off-site rotations such as outreach pediatric programs and childhood development programs

c. Participation in an ongoing clinical research project

d. Clinical treatment of more complex cases in the department

Program participants must complete all assigned activities to a satisfactory level in order to receive a certificate from the program.

**Senior Departmental Advanced Studies Program**

**IN PERIODONTICS**

**Criteria**

1. Students must have no grade lower than a B in Perio I and II, Perio III and Implant Dentistry.

2. Students must have completed their junior periodontic proficiencies, and have the class average or above of completed scaling and root planing quadrants.

**Senior Departmental Advanced Studies Program**

**IN RESTORATIVE DENTISTRY**

**Criteria**

1. A demonstrated definitive interest in one of the areas of Restorative Dentistry (Fixed Prosthodontics, Removable Prosthodontics or Operative Dentistry).

2. Demonstrated skill in one of the areas of Restorative Dentistry.
DIVISION OF DENTAL HYGIENE

Director

Kimberly S. Bray, B.S.D.H, M.S.

Programs

The University of Missouri-Kansas City Division of Dental Hygiene supports three programs:

1. Bachelor of Science in Dental Hygiene (Clinician Entry Level Program)
2. Bachelor of Science in Dental Hygiene (Degree Completion)
3. Master of Science in Dental Hygiene Education

Clinician Preparation Program

The clinician preparation program provides an opportunity for the student who has completed two academic years of liberal arts courses at an accredited community/junior college or university to matriculate into the entry-level clinical dental hygiene program.

Degree Completion Program

The degree completion program provides a licensed dental hygienist holding a certificate or associate degree an opportunity to earn a Bachelor of Science degree in dental hygiene with an emphasis in clinical and classroom education and administration.

Masters Program

The goals of the master’s program is to prepare dental hygiene educators, researchers and administrators at the graduate degree level.

Clinic Students

Clinician preparation students see patients in the clinic. Senior students treat patients on Tuesdays and Thursdays. Juniors begin treating patients in the Spring Semester on Wednesdays and Fridays.

The major responsibilities of the dental hygienist are preventive in nature. In preparation for dental hygiene practice, students receive extensive classroom and clinical course work in:

- patient education
- performing head and neck examinations/oral cancer screening
- assessment of periodontal and dental health
- exposing and processing radiographs
• scaling and root planing
• non-surgical periodontal therapy
• fluorides
• local anesthesia
• administering nitrous oxide
• finishing/polishing restorations
• overhang removal
• diet analysis and consultation
• impressions/study models
• use of air abrasives/ultrasonics
• pit and fissure sealants

Third- and fourth-year dental students may delegate agreed upon procedures to the dental hygiene students as collaborative care cases. Students in the Division of Dental Hygiene will interact with each of the other departments in their practice of comprehensive preventive care.
DENTAL PUBLIC HEALTH & BEHAVIORAL SCIENCE

Sub-Section Contents

Dental Public Health

Director Dr. Michael D. McCunniff
Coordinator Anna Aquino – Administrative Assistant
Faculty Advisors Dr. Becky Smith and Dr. Joe Parkinson

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Behavioral Science

Director Dr. Chris Rice

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Communication Skills Competency (4th Year) ............................. 26

THIRD-YEAR COMMUNITY AND PROFESSIONAL EDUCATION REQUIREMENTS (DENT 6504)

Competency

Students will be able to participate in improving the oral health of individuals, families and groups in the community through education.

Objectives

1. Develop and present an oral health program to a school-age (lay) audience.
2. Develop and present a short scientific presentation to a professional audience.
3. Critically appraise literature to provide accurate information in professional and lay communication.

Requirements

There are two (2) Phases of D6504 that must be completed during the third year. PHASE I includes completion of the School Lecture Program, Project S.P.I.T. PHASE II includes the completion and presentation of a Table Clinic for prejudging and again at the Alumni Meeting during the Midwest Dental Conference.
PHASE I

Project S.P.I.T.
(School Presentations & Instructional Training)

The School Lecture Program, referred to as Project S.P.I.T. (School Presentations and Instructional Training) is a requirement for your Preventive Dentistry/Dental Public Health course. You will be assigned to an area elementary school to present an intuitive and informative lecture on the importance of good oral hygiene. After which, you will complete a self-evaluation report to be turned in no later than TWO (2) SCHOOL DAYS FOLLOWING THE DATE OF YOUR LECTURE. The evaluations are to be handed in to Anna Aquino, Administrative Assistant, Room 396, extension 6744, and will complete your assignment requirements for Project S.P.I.T.

You will be assigned the school where you are to deliver your presentation during your designated orientation session (see “Small Group Orientation For Third-year Preventive Dentistry/Dental Public Health School Assignments” schedule for a list of dates/times and locations of orientation). Orientation sessions will be held one month PRIOR to the month in which you are assigned to speak. This is a MANDATORY meeting and you will receive credit toward your grade for attending.

Orientation packet will include the following:
1. The name and address of school to which you are assigned
2. The name of the school nurse or main contact person and their phone number(s) and/or email address
3. A list of teachers, grade levels and approximate number of children or developmentally disabled adults who are enrolled in each class
4. A copy of a request form for “Children’s Toothbrushes” to be turned in to the Dispensary, extension 4067, no later than TWO (2) weeks prior to the date of your presentation.

****WARNING****

The Dispensary is not responsible for filling orders given to them late. If you turn your order in late, you run the risk of not getting your order filled. If you do not take toothbrushes and paste to the school on the date of your presentation you will be required to make an extra trip out to deliver them.

5. A copy of “Patient Education Handbook and Guide to Materials” (from library) — all educational materials reserved from the library must be done at least one week in advance. Failure to do so will result in not having materials to sup-
port your presentation. Pre-planning and time management is a must.

6. Each group will have a student who will volunteer to be the group leader/contact person. The elementary school’s information for contacts and student enrollment will be posted on Blackboard. Teachers will be sent a survey link to rate the students’ presentations. A list of student responsibilities will also be available on Blackboard.

7. Copies of the “Self-Evaluation” form to be filled out by each student individually, for presentation given and turned in to Anna Aquino, Administrative Assistant, Room 396, extension 6744, no later than TWO (2) school days following the date of your lecture. There will be an automatic point deduction for all late evaluations.

SMALL GROUP ORIENTATION (BEGINNING IN SEPTEMBER 2011)

Watch your mailbox for mandatory notices or see Anna Aquino, Administrative Assistant, Room 396, extension 6744, for assignment month and orientation date.

A. Your Responsibilities

1. Contact the assigned school, acknowledge the assignment and make arrangements to accommodate both your team’s schedule and the school’s schedule.

2. Give your name, phone number, date, time and subject matter you will present to the teachers or school contact person.

3. Deliver a timely and age-appropriate oral health presentation to the school children you have been assigned to.

4. Ask for feedback from the school’s teachers. They will be sent a survey link to rate the students’ presentations.

5. Turn in your “Self-evaluation” form to Anna Aquino, Administrative Assistant, Room 396, extension 6744, no later than TWO (2) school days following the date of your lecture. (Note: A grace period of ten school days may be granted for situations of special circumstances, to be determined by Dr. Michael McCunniff.)

B. General Instructions

1. Check grade levels of assigned school and confirm number of children.

2. Select subject matter of lectures to be presented.

3. Review visual aids-posters-models or slide sets available in the library. For further information refer to PATIENT EDUCATION: HANDBOOK AND GUIDE TO
MATERIALS, in your information packet received during orientation.

4. Check with your assigned school for availability of projectors, screen overhead projectors or other multi-media equipment needed for presentation. If these items are not available at the school you are assigned to, you may reserve them in the SOD library. Do this WELL IN ADVANCE of the lecture date, as there is a limit to the number of projectors that can be used on any one day. DO NOT WAIT until the day of the lecture to make a selection for visual aids. Each student will be responsible for returning materials he/she has borrowed from the Library and reserved under his/her name.

5. Turn in a self-report (one per person) to Anna Aquino, Administrative Assistant, Room 396, extension 6744. The following points should be included:
   a. A summary of the aids used
   b. How your lecture was received
   c. How it could be changed for better reception
   d. Questions that the students asked, etc.

TO EMPHASIZE

The Self-Evaluation form(s) MUST BE turned in no later than TWO (2) school days following your presentation(s). An automatic reduction in points will result in the failure to adhere to all assigned dates. No one will be reminded or prompted of this rule. It will be YOUR complete and total responsibility to make sure all materials are turned in on time and to the proper person.

C. EVALUATION OF PROJECT S.P.I.T.
   (SCHOOL PRESENTATIONS & INSTRUCTIONAL TRAINING)

The evaluation of Project S.P.I.T. (School Presentations & Instructional Training) for everyone in the group will be as follows:

1. Orientation attendance .................. 0.5 Points

2. Turning in materials on time
   and to the proper person .................. 4.0 Points
   a. Request library materials in a timely fashion
   b. Request material from Dispensary in a timely fashion
   c. Presentation/distribute brushes and toothpaste
   d. Return self-evaluation within 48 hours

3. Classroom teacher evaluation ................ 0.5 Points
   Total Points Possible .... 5.0 Points
GROUP ORIENTATION  
PROJECT S.P.I.T.  
(SCHOOL PRESENTATIONS & INSTRUCTIONAL TRAINING)  
DENT 6504 — 2011–2012  
(SUBJECT TO CHANGE) 

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**PHASE II**  
**Table Clinics**

In addition to your school lectures, you are required to complete and present a Table Clinic for preliminary judging here at the School of Dentistry and final judging at the Midwest Dental Conference (dates to be announced).

This process will begin during your Bridge Course Orientation, include time spent in Grand Rounds I class and end in D6504 (Community and Professional Education).

**Definition of a Table Clinic**

A Table Clinic is an informal 5-7 minute table-top presentation using oral communication and visual media to inform, clarify, and/or review material on a specific topic. A Table Clinic may also be called a mini-refresher course or a presentation of useful and timely information in an original, interesting manner. This information may be a technique, theory, service, trend, or expanded opportunity in the practice of oral health care.
A. Course Requirements

1. You will choose a partner to research your topic and present with. Limit two (2) people per Table Clinic. Odd numbered classes may have one or more Table Clinics with only one (1) person presenting.

2. The title/topic of your Table Clinic must be submitted via EMAIL only to Dr. Becky Smith at smithbeck@umkc.edu on a date to be announced.

3. The Table Clinic must be a timely, clinically relevant/applicable topic.

4. Any Table Clinic given as a requirement will be eligible to compete for prizes. First prize is an opportunity to present your Table Clinic at the 2012 ADA meeting in San Francisco, CA.

5. The Table Clinic must be presented for mandatory pre-judging here at the dental school and mandatory final judging at the Midwest Dental Conference. Preliminary judging will occur in the weeks leading up to the conference. Opportunities to sign up for a pre-judging date will be announced.

******************Warning******************

Anyone who fails to participate in pre and/or final judging will receive an incomplete in the class (D6504) and will be required to repeat this portion in its entirety during their fourth year to the satisfaction of the program director. Team presenters are responsible for their individual and combined efforts and actions.

************************************************************************

ADA CATEGORIES

- Anesthesia/Sedation
- Basic Science
- Behavioral Science
- Computers
- Dental Materials
- Emergencies
- Endodontics
- Forensic Dentistry
- Gerontology
- Implantology
- Nutrition
- Occlusion
- Operative Dentistry
- Oral Diagnosis
- Oral Medicine
- Oral Pathology
- Oral Surgery
- Orthodontics
- Pain control
- Pediatric Dentistry
- Periodontics
- Pharmacology
- Practice Management
- Preventive Dentistry
- Prosthodontics – Fixed
- Prosthodontics – Removable
- Radiology
- Safety/Infection Control
- TMJ
- Cosmetic Surgery
- Ergonomics
- General Health
- Sports Dentistry
- Technology
- Other
6. This is a year-long process and your orientation begins during Bridge Course. Periodic orientations/classes or directive mass emails will be given throughout the rest of the year.

B. Evaluation of Table Clinics

The evaluation of the Table Clinics will be as follows:

1. Keeping required dates
   a. Partner and Title Deadline                  0.5 points
   b. Prejudging Date (sign up)                  0.5 points
   c. All BMC Poster Deadlines                  1.0 points

2. Presentation and content                         3.0 points
   a. Topic is timely
   b. Presentation is well-organized
   c. Scientific literature

Total Points Possible                                       5.0 points

SEE UMKC & ADA DENTSPLY STUDENT CLINICIAN PROGRAM RATING FORM
ON THE NEXT PAGE FOR TABLE CLINIC CRITERIA.

Course Grade

IS DETERMINED BY THE SUM OF THE POINTS
EARNED IN PHASE I (Project S.P.I.T.) AND PHASE II
(Table Clinics).

10 – 9    points = A
8.9 – 8.0 points = B
7.9 – 7.0 points = C
6.9 – 6.0 points = D
Less than 6.0 points = F

The grade for D6504 will be awarded upon completion of the spring semester of the third year and is a one-hour course.

Presentations without the required poster will be considered incomplete and must be repeated with a new topic and a one letter grade reduction in your fourth year.
## UMKC & ADA DENTSPLY
### STUDENT CLINICIAN PROGRAM RATING FORM

A Table Clinic is a demonstration, not an essay, lecture or exhibit. It must be shown completely in no more than five to seven minutes and must be repeated many times during the clinic period with opportunity for dialogue with attendees.

**Title**

**Clinician**

**Assistance**

- Student prepared all materials used in clinic
- % Assistance received from individual
- % Materials borrowed or purchased

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<td>2. Organization, logic, sequence</td>
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<td>3. Practical approach to practice</td>
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<td>4. Scientifically sound and supported</td>
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<td>5. Creative ability, new approach</td>
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**PRESENTATION**

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<td>3. Story told competently</td>
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<td>4. Scientifically sound and supported</td>
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<td>5. Oral presentation brief/lucid</td>
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<td>6. Presentation dignified/professional</td>
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<th><strong>TABLE DISPLAY</strong></th>
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<tr>
<td>1. Clinic is neat/attractive</td>
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<td>2. Visuals well arranged, readable</td>
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<td>3. Workmanship good</td>
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<td>4. Handout available (synopsis)</td>
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<td>5. Professional appearance</td>
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<td>6. Creative ability</td>
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**Total points this section**

Maximum number of points for this section = 45

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<tbody>
<tr>
<td>1. Objectives &amp; conclusions related</td>
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<tr>
<td>2. Thorough background knowledge</td>
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<td>3. Story told competently</td>
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<td>4. Scientifically sound and supported</td>
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<tr>
<td>5. Oral presentation brief/lucid</td>
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<tr>
<td>6. Presentation dignified/professional</td>
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**Total points this section**

Maximum number of points for this section = 36

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**Total points this section**

Maximum number of points for this section = 18

**Comments**

______________________________

Judge ___________________________  Total Points __________________

(Maximum 99 points)
COMMUNITY-BASED DENTAL EDUCATION SYLLABUS (CODE)
(D-6634/D-6635)

I. Basic Information

A. Course Number          D-6634/D-6635
B. Course Title                Community-Based Dental Education
ECR (Extramural Clinical Rotations)
C. Credit Hours               One Spring Semester/One Summer & One Fall Semester
D. Format                     Extramural Clinical Rotation (ECR)
E. Location                   Community Health Centers & Rural FQHC/Outreach sites
F. Time                       Spring Semester – Third year (D-6634)
                              Summer/Fall – Fourth year (D-6635)

Students who encounter difficulty in their courses because of the English proficiency of their instructor should speak directly to their instructors. If additional assistance is needed, they may contact the UMKC Help Line at 816-235-2222 for assistance.

G. Course Director          Dr. Michael McCunniff
H. Coordinator                Anna Aquino – Administrative Assistant
I. Outreach Faculty          Moncy Mathew, DDS
                              RWJ Site Directors
                              FQHC Site Directors
J. Office Number             396
K. Office Hours               By appointment when available
                              Contact Administrative Assistant, Anna Aquino, x6744 to schedule an appointment.
L. Telephone Number          816-235-2185
M. E-mail                     McCunniffM@umkc.edu

II. COURSE OVERVIEW

A. Course Description

The purpose of this course is to expose third- and fourth-year dental students to alternative methods of dental care delivery and to populations at high risk for dental disease. Specifically the course places third- and fourth-year students in an existing network of Community Health Centers and Rural Federally Qualified Health Centers where they deliver dental care while serving
B. Overall Goals & Purpose of the Course

Goal 1:
To educate dental students to be clinically competent in all aspects of general dentistry in a more timely and cost-efficient manner by allowing them to work in a setting that more closely simulates private practice while still providing supervision.

Goal 2:
To motivate future dentists to be actively involved in community projects by providing exposure to community-based practice.

Goal 3:
To educate dental students to develop practical practice management skills by providing realistic experiences in infection control, inventory management and financial control.

Goal 4:
To motivate future dentists to respond to community needs for improved access to affordable oral health care by aligning the CODE program with the Statewide Network for Community Oral Health Care.

Goal 5:
To educate dental students to recognize the available dental practice career opportunities in public service by working in a community health care facility and exposing students to a variety of career opportunities, both private and public.

C. UMKC School of Dentistry Competencies

1. Provide empathetic care for all patients including members of diverse and vulnerable populations.

2. Participate in improving the oral health of individuals, families and groups in a community through diagnosis, treatment and education.

III. Course Requirements and Evaluation Methods

A. RWJ and Rural Extramural Clinical Rotations: 3rd and 4th year

All students will be required to complete a minimum of 34 time units related to CODE activities outside of the School of Dentistry during their 3rd and 4th years. A maximum of two time units per day will be given for CODE activities as described in the Clinic Manual. All third- and fourth-year dental students will spend two academic weeks between January–November (full time/Monday–Thursday) in the RWJ Project Smiles Program.
and two consecutive academic weeks between June–November (full time/Monday–Friday first week; Monday–Thursday second week) for Rural Extramural Clinical rotations each year. Assignments will be done randomly. These rotations will be credited toward your total time unit requirements for graduation. Students will be required to evaluate site, faculty, and the experience after each rotation to obtain credit for the course. These evaluations will be anonymous.

**B. Grading Criteria**

Student performance will be evaluated during each CODE Extramural Clinical Rotation. Satisfactory completion will be based on evaluations from:

1. Clinical activities, attitude and initiative
2. Attendance
3. Program site directors’ evaluation of student performance related to goals of course and curricular competencies and objectives of each site. (Competency Evaluation Form)
4. Daily Performance Assessment
5. Completion of site and faculty evaluation

Final Credit (CR) grade will be given when all requirements with unexcused absence and satisfactory clinical review by supervising faculty are completed. No credit (NC) will be given for unsatisfactory performance evaluation for any of the criteria listed above.

**IV. COURSE POLICIES**

**A. Attendance/ Tardiness**

Attendance at each scheduled session is mandatory. There are NO student discretionary days. If a student is absent from any of the Outreach rotations for any reason, the time will be made up at the program site at the convenience of the program director during the time when the program is operational. Students may switch rotation weeks with classmates upon prior approval of the Outreach Director and Coordinator as schedules allow. Please note that supporting documentation may be required to facilitate a switch.

**B. Remediation Policy**

If a student fails to satisfactorily complete the rotations and the project, they will be required to work with the course director to meet curricular expectations.

**V. ADDITIONAL INFORMATION**

ECR Programs are administered by faculty members from the Department of Dental Public Health and on-site supervising den-
tist, who have Full or Adjunct Faculty appointments with UMKC School of Dentistry.

ECR programs are located at sites ranging from hospital based programs to special facilities for children and school facilities.

**Rotations for 2011-2012**

**Extramural Clinical Rotations (ECR)**

**Robert Wood Johnson (RWJ) Project Smiles**

**Overview**

Eight to ten dental students per week will be assigned to the Robert Wood Johnson (RWJ) Project Smiles Program for a one week (Monday–Thursday) rotation their third year and one week rotation their fourth year. Each student will have experiences rotating with faculty in the Community Health Centers in the Kansas City area to assist in providing dental care. The CHCs include: Swope Health Services; Seton Center; Cabot Westside Health Center; Kansas City Free Health Clinic; three Samuel U. Rodgers sites; Johnson County Health Partnerships; and SW Boulevard Family Health. Students will be assigned two per faculty. Site address and contact information are available on Blackboard.

The School of Dentistry is assisting the community health centers to expand their capacity to see underserved populations by providing additional practitioners. Students will work alongside faculty providing dental care to these patients. Faculty will provide instruction on the operation of multi-chair offices.

**Objectives**

Through participation in the RWJ Extramural Clinical Rotation the student will:

- Gain experience in treatment planning for patients with little or no financial means.
- Learn to utilize multi-chair dental operatories and prioritize treatment.
- Become aware of the operation of a Community Health Center so he/she will be familiar with their purpose in the community and the population they serve. Also, play a more active role in meeting the community’s indigent health care needs.
- Develop skills in management and communication with complex patients, their physicians, family members, their financially-responsible parties and CHC staff.
- Better understand the interdisciplinary nature of health care.
- Increase pediatric dentistry experiences. Estimated number of children who will be served when the program is fully operational is 7,500 children per year.

**Value of Program to Students**

The major value of the RWJ Extramural Clinical Rotation for students is the experience they gain in treating adults and children who have an accumulation of dental problems because of their inability to seek and receive regular dental care. They will also become accustomed to delivering dental care in a multi-chair clinic setting. Students will become familiar with Community Health Care facilities and their role and function in a community.

**RURAL COMMUNITY HEALTH CENTERS**

**Purpose**

The purpose of the Extramural Clinical Rotation is to provide dental care to Medicaid and Medicaid eligible children and adults at previously established Federally Qualified Community Health Centers (FQHC) throughout the states of Missouri and Kansas.

Many communities deal with lack of access to dental care for Medicaid children and adults. Many issues lead to this situation: lack of Medicaid providers; lack of any dental practitioners in a county; low income; and lack of transportation. In an attempt to address the access issues, the School of Dentistry has a modified outreach program that places dental students in Community Health Centers in Missouri and Kansas to help these communities with short-term as well as long-term solutions. The communities work closely with a health coordinator who will provide the organization and scheduling of patients for the clinic. Dental students provide comprehensive dental care and education for the patients.

Long-term solutions are developed with the community including the school district, local business partners, economic development department and local faith communities.

Mileage is reimbursed at the university rate: round trip between SOD and Rotation Site, one vehicle per scheduled site per week. Carpooling is suggested. Lodging is provided by Host Community with assistance from MAHEC and KAMU. Conflicts with
being assigned to a non-commutable rotation site may require documentation.

Objectives

Through participation in the Rural Extramural Clinical Rotation (ECR) the student will:

• Gain experience in treatment planning for patients with little or no financial means.
• Learn to utilize multi-chair dental operatories and prioritize treatment.
• Become aware of the operation of a Community Health Center so he/she will be familiar with their purpose in the community and the population they serve. Also, play a more active role in meeting the community’s indigent health care needs.
• Develop skills in management and communication with complex patients, their physicians, family members, their financially-responsible parties and FQHC staff.
• Better understand the interdisciplinary nature of health care.
**COMMUNICATION EVALUATION INSTRUCTIONS**

**Evaluation Criteria**

Individual instructors have the prerogative of using clinical judgment to alter examinations due to patient difficulty or other circumstances, but the basic criteria for examinations are as follows:

**Daily Procedures**

Daily evaluations for communication skills will be recorded in the “sign-out” procedure of the electronic chart for every patient encounter. As part of the Global Assessment Form, the student will receive a score of either “progressing satisfactorily”, “improvement needed”, or “not satisfactory” based on the instructor’s evaluation of the student’s progress at that stage of their education. A rating of “progressing satisfactorily” is awarded when the student exhibits a professional manner, establishes good rapport with the patient, strives to build patient confidence, communicates effectively with both the patient and faculty, respects the patient’s right to self-determination, provides all necessary information for the patient to make an informed consent, maintains patient confidentiality, and treats faculty, staff, and patients respectfully and without prejudice. “Improvement needed” is assigned when the student makes minor errors in the above areas; a rating of “not satisfactory” is assigned when the student makes a major errors or has a significant lapse in judgment. Students also receive a score of “credit”, “no credit” or “not completed” for the procedure. Generally, credit means that the student completed the procedure in a timely manner without undue instructor assistance/intervention, while “no credit” infers that the student did not meet these criteria. “Not completed” is assigned when the procedure must be terminated for any reason. The student’s assigned mentor will review these scores with the student during their mentoring session.

**Clinical Requirements**

(See Attachment #1: Communication Basic Skills Evaluation, Attachment #2: Communication Competency Examination)

Two graded clinical evaluations of communication skills will be done, one during the third year and one during the fourth. These should be performed during a treatment plan presentation to a current patient. Students may request a procedure to be their evaluation after adequate clinical experience and clearance by the team faculty. The supervising faculty will determine whether
the case is sufficiently difficult to qualify for this procedure. In certain cases, this determination cannot be done until after the procedure has been completed. Patients for the evaluation may not be a relative or dental student. Passing the third-year basic skills evaluation requires a rating of “unacceptable” in no more than one area, and must be completed by the beginning of finals week of the third year. Passing score on the fourth-year competency examination requires a rating of “competent” in every area, and must be completed by the end of the fall semester of the fourth year. If a student does not achieve a passing score, additional evaluations are taken until they achieve a passing score. All evaluations should be turned in to the team clerk for recording, passing or not.

Passing the third-year basic skills evaluation is one requirement for a grade of “Credit” being recorded at the end of the spring semester of the third year for the Behavioral Science I course (D6312). Passing the fourth-year competency clinical examination is one requirement for a grade of “Credit” being recorded at the end of the fall semester of the fourth year for the Behavioral Science II course (D6429). Failure to obtain a passing average score by the deadline in either case will result in a grade of Incomplete (“I”). Remediation will consist of the satisfactory completion of two clinical evaluations for each incomplete prior to graduation.
**Communication Basic Skills Assessment (3rd year)**

**STUDENT NAME:** __________________  **Patient Name:** ________________________

**Date:** __________________________  **Faculty signature:** _____________________

**Comments:** _____________________________________________________________

*Evaluation of treatment plan presentation to patient. Place a checkmark (✓) in the appropriate box for each criterion under "CA" for clinically acceptable performance or under "U" for unacceptable performance.*

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<thead>
<tr>
<th></th>
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<th>CA</th>
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<tbody>
<tr>
<td>1.</td>
<td>Greeting is friendly but professional</td>
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<td>2.</td>
<td>Introduces self</td>
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<td>3.</td>
<td>Uses patient’s last name (if adult patient)</td>
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<td>4.</td>
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<td>8.</td>
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<td>9.</td>
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<td>10.</td>
<td>Responds appropriately to emotional statements (empathy)</td>
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<td>13.</td>
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<td>14.</td>
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<tr>
<td>15.</td>
<td>Summarizes and reflects back patient’s statements</td>
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<td>16.</td>
<td>Explains what they are going to do before doing it</td>
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<td>17.</td>
<td>Explains treatment plan, alternatives and risks and benefits, and obtains informed consent</td>
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<td>18.</td>
<td>Asks if patient has any additional questions/concerns</td>
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<td>19.</td>
<td>Explains what will happen next appointment (if any)</td>
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<td>20.</td>
<td>Accurately evaluates their performance after completion</td>
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<tr>
<td>21.</td>
<td>Maintains proper infection control throughout procedure</td>
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**Passing score:** no more than 1 area marked “unacceptable”.

Please turn in all attempts to team clerk for recording (passing or not)
Communication Skills Competency (4th year)

STUDENT NAME: __________________ Patient Name: ________________________

Date: ___________________________ Faculty signature: _____________________

Comments: _____________________________________________________________

Evaluation of treatment plan presentation to patient. Place a checkmark ( √ ) in the appropriate box for each criterion under "CA" for clinically acceptable performance or under "U" for unacceptable performance.

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Passing score: no areas marked “unacceptable”.

Please turn in all attempts to team clerk for recording (passing or not)
**INTRODUCTION**

**Goals**

The goals for undergraduate clinical endodontic experience are:

1. To provide the graduating student with the knowledge and experience to **competently** diagnose and effectively treat emergencies arising from or involving the dental pulp and/or periapical tissues.

2. To develop the graduate’s clinical skills so that he or she may **competently** treat most uncomplicated cases requiring root canal therapy.

3. To instill a sense of prudence in endodontic treatment planning and case selection in the graduate and the means to recognize difficult cases that would better be referred to a specialist.

**Objectives**

The graduate should be prepared to:

1. Diagnose dentin hypersensitivity, and distinguish reversible pulpitis from irreversible pulpitis or pulp necrosis.

2. Describe the mechanism of and appropriately utilize and document clinical tests useful in confirming diagnosis.
3. Differentiate pulpal disease from periodontal or other diseases.
4. Differentiate pathologic lesions from normal or non-pathologic radiographic observations.
5. Recognize cases that are beyond his/her ability or beyond the clinic policy or facilities capabilities.
6. Prepare and fill root canals of “AVERAGE RISK (Category 1)” cases as defined by the American Association of Endodontists.
genic complications such as ledges, perforations, zips, overfills or separated instruments.

7. Effectively treat emergencies due to tooth trauma and other emergencies of pulpal origin without causing irreversible damage.

8. Plan and treat the total patient, taking systemic disease, oral health and individual subjective factors into consideration.

9. Legibly, clearly and concisely document the above on appropriate forms (paper or computer).

10. Use a variety of treatment modalities available to conserve pulp vitality where indicated.

11. Assess treatment prognosis and healing or non-healing following root canal therapy at appropriate intervals (ideally 6,12,24 mos. post-op.)


**Essential Pt. Experiences**

In order to gain the clinical experiences needed to develop the competency expected of a general dentist, the endodontic faculty have identified the minimal experiences students must have.

By mid-term of the second semester of the senior year, the student must complete:

1) at least **five emergency cases** involving endodontic diagnosis

2) a minimum of **ten completed canals**, which can be on anteriors, bicuspid, and molars, but one completed molar is essential

3) satisfactory case on the **Basic Endodontic Competency** exam.

4) a minimum **six month follow-up** will be required on at least two of the endodontic treatments.

**Assisting/Observing in Grad Endodontics Clinic**

Student doctors (SD) in the Class of 2012 and beyond will be **required to assist in the Postgraduate Endodontic Clinic** (PEC) for a total of two half days. The first half day period should be completed before a student appoints his/her first patient for endodontic treatment. The second half-period may be completed at any time during the 3rd and 4th years. Students in the Class of 2012 are strongly encouraged to avail themselves of this learning experience.
Scheduling

SD participation will be scheduled by Postgraduate Endodontic Clinic staff (Room 150, 1st Floor) in one of two ways: 1) SD may sign up in Postgraduate Endodontic Clinic for a secured, available, assisting spot or 2) SD may appear to Postgraduate Endodontic Clinic on a drop-in arrangement (following patient cancellation or during free time) and, if assisting slot is available, student will be allowed to assist and receive credit. It is the responsibility of the student to obtain the two half days of assisting credits required for graduation.

One time unit will be awarded for each half day of assisting in Postgraduate Endodontic Clinic. It is the responsibility of the SD to obtain signed documentation by your Resident. The SD must then deliver evidence of same to the Endodontic Office (231C – second floor) for recording in order to receive credit toward graduation.

Definitive Restoration Required Following RCT Completion

Evidence-based guidelines indicate that it is critical to restore completed RCT cases immediately to prevent fracture and leakage that could cause contamination and result in avoidable re-treatment or loss of the RCT tooth.

For these reasons and to save the patient and the student unnecessary delays and additional treatment, the following policy has been adopted in cooperation with the endodontic and restorative departments, effective July 1, 2009.

When successful RCT is obturated and temporized and radiographs are obtained without the rubber dam clamp in place, the RCT may be graded by the endodontic faculty with whom you worked. The graded paperwork will then be delivered to the endodontic office (231C). However, the case and grade will NOT be recorded (i.e. you will NOT receive credit) until at least an amalgam or composite build-up or other completed definitive restoration (e.g. crown) are accomplished and associated radiographs are present in the records. At this point, the grade will be recorded and credit then given for the RCT.

The student has 3 weeks following obturation to accomplish the above.

Hint: When RCT is successfully obturated, place Vitrebond® (resin modified glass ionomer) over the gutta percha to provide a seal and to prevent leakage which would require retreatment. Following this, if possible, proceed to at least provisional restoration or build-up using amalgam or composite and then take final films with rubber dam removed.
In most years, students struggle to obtain RCT patients to meet the 10 canal requirement. Additionally, RCT patients who are appointed fail their appointments at a significant rate. This results in a waste of student’s time as well as the usage of the scheduled cubicle. The student, of course, receives no credit and no time units due to the failed appointment. The set-up and tear-down on equipment and supplies creates extra work for the student and staff without any useful result.

To respond to the above problem in the anticipation of greater numbers of students, we will allow the substitution of two sterilized (according to UMKC-SOD extracted tooth sterilization protocol) extracted teeth, one anterior and one posterior (to essentially repeat a WREBs type Endo exam) to stand in lieu of a single RCT on a live patient. The highest grade a student can make on such substitution is a “B.” This substitution may occur at any time during the clinical experience and may only be substituted twice to result in a total of two canals credit from this substitution. In some cases, significant time may pass between preclinical endodontics laboratory and the first RCT on a patient so that this exercise may be substituted as a review or preparation for the first patient case or simply to provide extra practice for WREBs exam, or in the case of a failed RCT appointment. We encourage students to obtain and pre-mount the aforementioned sterilized extracted teeth on a MOD-U-Pro sextant for instant availability following failed RCT appointment. A limited number of Mod-U-Pro manikins are available from the dispensary on a daily basis for this purpose.

*It is NOT acceptable to substitute extracted teeth for the Clinical Endodontic Competency Exam. All students must perform the Clinical Competency Examination on a patient tooth.*
UMKC Protocol for Handling of Extracted Teeth

All extracted teeth stored or used in any clinical or pre-clinical capacity at UMKC-SOD will be sterilized and handled according to the following protocol.

Endo Sterilization Process

Check-in of Student Teeth

1. Students must wear mask, gloves, throw away PPE’s, safety glasses (provided for student wear).
2. Students must strain all liquid from unsterilized teeth.
3. Teeth are examined for any signs of amalgam. Any teeth with amalgam are rejected and returned to the student to dispose of with the dentist from whom received.
4. Containers are provided and labeled with bio hazard stickers.
5. Students are required to put name and bench #’s on containers.
6. Solution of 1:10 bleach and water is provided for storage and transport of teeth awaiting sterilization in Oral Surgery department.
7. Solution is poured to cover the teeth in containers and lids are affixed.
8. Staff transports teeth in containers to Oral Surgery Department for sterilization in the autoclave for a 40 minute cycle at a temperature of 249 degrees Fahrenheit and 15 lbs psi.
9. Students are notified when to pick up sterilized teeth (24-hour turnaround).

Only Monday, Tuesday and Friday are pick-up and drop off days.

Endo Sterilization Pick-Up of Students Teeth

1. Students must wear mask, gloves, throw away PPE’s, safety glasses (provided for student wear).
2. Student must strain all liquid from sterilized teeth.
3. Student must bring in a clean container labeled autoclaved teeth.
4. Staff signs and dates the pick-up of autoclaved teeth.
5. Autoclaved teeth are stored until use in labeled container as above with teeth covered with a solution made up of 1/3 each water, bleach, and glycerin (available in dispensary).
Endo Sterilization of Teeth Collected from OS Dept.
1. Extracted teeth are stored in a labeled container for teaching in a solution of 1/3 bleach/water/glycerin.
2. Students must strain all liquid from sterilized teeth if needed for class.
3. Sterilized teeth are taken, processed in, properly labeled, autoclaved and stored in water, bleach, glycerin until used.

Handling of Waste: Extracted Teeth
1. Teeth containing any signs of amalgam are rejected and returned to student to give back to the supplying dentist for proper disposal or placed in a specially labeled red sharps container at UMKC-SOD.
2. This specially labeled red sharps container is to be given to HAZMAT personnel for proper periodic disposal.

Oral Surgery Sterilization Processing of Student Teeth
1. Teeth are checked into OS from Endo Department.
2. Student teeth are strained of bleach solution using universal precautions.
3. Teeth are examined for any signs of amalgam. They are rejected and disposed of per protocol.
4. Sterile water is poured into teeth containers, covering teeth.
5. The teeth are then sterilized in the autoclave’s liquid cycle. The cycle has 40 minutes @ temp of 249 degrees Fahrenheit and 15 lbs psi. Process takes 70 minutes.
6. The teeth are lightly covered to cool. When cooled, the lids are placed on containers.
7. The teeth are then checked back into the Endo Department.

Oral Surgery Sterilization of Teeth Collected in the Dept.
1. Extracted teeth are stored in a labeled container for teaching teeth in a solution of 1:10 bleach/water.
2. At least once per week the teeth are drained out of the solution to prepare for sterilization. Repeat steps 3-6 from above.
3. Sterilized teeth are taken to Endo Department to be processed in and properly labeled.
Grading Parameters

The student receives a clinical endodontic grade only in the spring semester of the fourth year. For other semesters in the third and fourth years, student’s performance in endodontic care will be incorporated into the composite clinical grade in Comprehensive Patient Care. The student’s preparedness, scheduling, patient rapport, maintenance of asepsis and local analgesia and overall competency in the daily performance of endodontic treatment will be considered. Refer to Clinical Protocol later in this section.

The clinical endodontic grade (D6601C Clinical Endodontics) is given in the spring semester at mid-March of the fourth year (the Friday preceding Spring Break).

The single clinical endodontics grade is based on completing the minimum patient experiences, performance in basic competency exams, quality of root canal cases completed, and range of experience and effectiveness in diagnosing and treating endodontic emergencies plus passing Endodontic Manikin and Trial Boards.

Adherence to clinic guidelines, diversity of experience, record keeping, as well as general efficiency and knowledge shown during treatment, will also be evaluated.

If requirements are not met at this time, a grade of incomplete will result. When requirements are completed to the satisfaction of the endodontic department following this incomplete, the course grade will diminish by one letter grade if the work is completed after mid-March but before date of scheduled graduation. If the work is completed after date of scheduled graduation, the course grade will diminish by two letter grades.

Green grading packets are used for regular endodontic treatment. Pink grading packets are used for endodontic competency. Yellow grading sheets are used for emergency diagnosis and treatment in e-chair only.

The yellow emergency sheet is to be submitted to your Team Clerk to be filed in your team’s active file. If only diagnosis is completed and the patient chooses not to initiate emergency endodontic treatment, a notation should be made at the bottom of the sheet as to the disposition — “to oral surgery for TE #______ or patient declined treatment at this time.”

To receive a grade of “A”, the student must complete all required RCT by mid-March of the 4th year with average score at
90% or better with no more than one incident as well as all essential experiences completed.

To earn a grade of “B”, the student must complete all required RCT by mid-March of the 4th year with average score at 80% to 89.99% with no more than one incident as well as all essential experiences completed.

To earn a grade of “C”, the student must complete all required RCT by mid-March of the 4th year with average score at 75% to 79.99% with no more than one incident as well as all essential experiences completed.

A grade of “F” will result if all required canals are not completed or if average score is less than 75% or if all essential experiences are not completed.

Additionally Basic Endodontic Competency exam, Manikin Board and Trial Board Competency Exams must be passed as well as all other requirements listed in Essential Patient Experiences above.

**GUIDELINES FOR GRADING CLINICAL CASES**

**Quantitative**

1. Minimum of 10 successfully treated canals, at least 3 of which should be from molars.
2. Minimum of five diagnostic cases related to endodontics on the emergency chair.
3. Satisfactory case on the Basic Endodontic Competency exam.
4. A minimum six-month follow-up will be required on at least two of the endodontic treatments.

**Qualitative**

1. Obturation should be dense, high quality with a minimum of voids in a properly shaped canal. Ideally, the obturation should be within ½ to 1 mm. of the apical foramen. A small amount of sealer beyond the apex is acceptable but large amounts of sealer or an extrusion of gutta percha 1/2 mm. or more beyond the apex or 1 and 1/2 mm. or more short of the apex will result in a severe reduction of the grade or failure of the case.

Any case in which a canal has been missed will result in a grade reduction of one grade i.e. A to B, B to C, etc. If a student has completed the above numbers, but has two deficient obturations, a grade of B will be received. If a student has completed the above numbers, but has three deficient
obturations, a grade of C will be received. Four or more deficient obturations will result in a grade of D.

2. Although we stress prevention and extreme care when dealing with actual patient cases, we realize that an “incident” (e.g. instrument separation, perforation, NaOCl accident, etc.) may occur with any student who is learning and this will result in the necessity of reporting the incident to the instructor immediately who will complete an incident report as described below. This is a remediation event but no final course grade reduction will result from a single incident. However, should the student be involved in a second incident, a reduction of one letter grade in the final course grade will result. A third incident will result in a reduction of two letter grades in the final course grade. Perforations, NaOCl accidents or separated instruments will result in an automatic incident report and remedial opportunities as determined by the endodontic department. Discovery of any attempt to conceal a procedural incident or failure to report any such incident will result in an automatic review of clinical privileges. See Clinic Orientation Manual, Introduction Section, page “vi” under “Due Process Regarding Clinical Privileges.”

Competency

As part of the D6601C Endodontics clinical grade, students will also be required to satisfactorily complete the Basic Skills Sets I and II as well as the Basic Endodontic Competency Exam, Manikin and Trial Board Competency Exams to meet the school’s endodontic competency standards. The competency exams will be evaluated by the endodontic clinical faculty according to the departmental guidelines and regional examinations standards.

Basic Skills Sets

There are two Basic Skills Sets which help prepare the student for the three Competency Examinations:

Basic Skills Set I: Performed in D6442 Lab. Consists of a proper set-up and familiarity with instruments and materials used in endodontic procedures as well as an understanding of sterile versus clean areas. A passing grade follows successful identification of instruments and material during interview with a table instructor.

Basic Skills Set II: Performed in April/May at the end of the 2nd year pre-clinical experience. Consists of identification of proper diagnosis and treatment planning following viewing of radiographs, history and clinical examination results. A passing
grade is 75% correct identification of the diagnoses and treatment planning opportunities.

**Basic Endodontic Competency Exam**: Successful completion of an uncomplicated single canal tooth of an AAE category 1 RCT on a patient. May be done anytime in the student’s 3rd or 4th year after successful completion of at least two cases.

**Manikin Board Competency Exam**

Given in October of student’s fourth year. Consists of performing access, cleaning and shaping and obturation of a plastic maxillary central incisor and one root of a plastic maxillary molar. Competency is achieved by a grade of 75% or higher in all categories according to WREBs Endodontic Score Sheet.

**Trial Board Competency Exam**

Given in February of student’s fourth year. Consists of performing access, cleaning and shaping and obturation of a sterile extracted maxillary central incisor and one root of a sterile extracted maxillary molar mounted in articulator. Competency is achieved by a grade of 75% or higher in all categories according to WREBs Endodontic Score Sheet.

**Clinical Competency Exam**

This is performed on a patient in the Clinic at any time during the student’s 3rd or 4th years following successful completion of two uncomplicated RCT cases. Outcome is Pass or Fail. May be repeated.

*On the following page is the Clinical Endodontic Grade Form used for evaluation and grading of all regular Clinical Endodontic cases.*
### Clinical Endodontic Grade Sheet

<table>
<thead>
<tr>
<th>Student Name:</th>
<th>Team #</th>
<th>Tooth #:</th>
<th>(canals__)</th>
<th>Date:</th>
</tr>
</thead>
<tbody>
<tr>
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<table>
<thead>
<tr>
<th>Initials Required:</th>
<th>DX &amp; Sign-in:</th>
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<tbody>
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<tr>
<th>Access:</th>
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<th>Working L.</th>
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<th>Master Cone</th>
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<table>
<thead>
<tr>
<th>Obturation</th>
</tr>
</thead>
<tbody>
<tr>
<td>Notes:</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Definitive Restoration</th>
</tr>
</thead>
</table>

<table>
<thead>
<tr>
<th>Shaping and Obturation</th>
</tr>
</thead>
<tbody>
<tr>
<td>0.5-1</td>
</tr>
<tr>
<td>1.0-1.5</td>
</tr>
<tr>
<td>1.5-2.0</td>
</tr>
<tr>
<td>&gt;2.0</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>mm from the apex (short)</th>
<th>Length of fill (short)</th>
<th>mm from the apex (long)</th>
<th>Length of fill (long)</th>
</tr>
</thead>
<tbody>
<tr>
<td>0.5-1</td>
<td>-10p</td>
<td>0.5</td>
<td>-10p</td>
</tr>
<tr>
<td>1.0-1.5</td>
<td>-10p</td>
<td>&gt;0.5</td>
<td>0.5</td>
</tr>
<tr>
<td>1.5-2.0</td>
<td>-10p</td>
<td>&gt;0.5</td>
<td>&gt;0.5</td>
</tr>
<tr>
<td>&gt;2.0</td>
<td>-10p</td>
<td>&gt;0.5</td>
<td>&gt;0.5</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Forms &amp; X-rays (case not graded until completed)</th>
</tr>
</thead>
<tbody>
<tr>
<td>1) X-Rays Diagnostic, No cone cuts</td>
</tr>
<tr>
<td>2) Two final films w/o clamp (1 angled)</td>
</tr>
<tr>
<td>3) Tooth temporized properly</td>
</tr>
<tr>
<td>4) Endo DX &amp; Assessment forms completed</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Automatic Reduction: Incident Report</th>
</tr>
</thead>
<tbody>
<tr>
<td>Perforation (Strip-perf. or Zip)</td>
</tr>
<tr>
<td>Instrument separation</td>
</tr>
<tr>
<td>Non-diagnostic x-rays: entire tooth, including 1-2mm beyond apex, not present on all x-rays (no final XR w/o RD Clamp)</td>
</tr>
<tr>
<td>NaOCl accident or Unacceptable Treatment of Patient</td>
</tr>
</tbody>
</table>

(100 points possible) Total Score

Note: It is the responsibility of faculty signing in student to check for the necessary requirements to initial DX. Faculty checking access shall grade access. Faculty grading obturation must complete OK forms & films, grade obturation & assign final score and sign. Student is responsible for getting grade on Grade Sheet by Faculty worked with. Student is responsible for bringing completed graded sheet to Endo. Office to have grade recorded in Endo Computer. Grading begins with the full 100 points. Each item above is evaluated and points are subtracted from 100 for the final percentage score. Green Form is Regular RCT, Pink Form is Competency. Yellow form is for DX only or Extirpation only as on e-chair. Working past Clinic Hours is automatic -10 points.

<table>
<thead>
<tr>
<th>Root</th>
<th>Canal</th>
<th>Reference</th>
<th>Landmark</th>
<th>Trial</th>
<th>Length (TL)</th>
<th>Working Length (WL)</th>
<th>Apical Gauge Initial/Final</th>
<th>MAF</th>
<th>Final Canal Taper (mm)</th>
<th>Grades: 90-100 = A</th>
<th>89-89 = B</th>
<th>88-79 = C</th>
<th>&lt;78 = D</th>
</tr>
</thead>
</table>

Class of 2013
Clinic Orientation Manual
DEPARTMENTAL GUIDELINES
Endodontics
(Revised 5/11)
DEPARTMENT OF ENDODONTICS

CLINICAL ENDODONTIC COMPETENCY

Student __________________________________________                     Date ________________
Faculty __________________________________________                     Score ________________

Place a checkmark ( √ ) in the appropriate box.

<table>
<thead>
<tr>
<th>Criteria for Assessment</th>
<th>PASS</th>
<th>FAIL</th>
</tr>
</thead>
<tbody>
<tr>
<td>1 Professional conduct</td>
<td></td>
<td></td>
</tr>
<tr>
<td>2 Medical History</td>
<td></td>
<td></td>
</tr>
<tr>
<td>3 Adequate forms, diagnosis and radiographic images</td>
<td></td>
<td></td>
</tr>
<tr>
<td>4 Adequate anesthesia</td>
<td></td>
<td></td>
</tr>
<tr>
<td>5 Effective isolation</td>
<td></td>
<td></td>
</tr>
<tr>
<td>6 Caries completely removed</td>
<td></td>
<td></td>
</tr>
<tr>
<td>7 Adequate access</td>
<td></td>
<td></td>
</tr>
<tr>
<td>8 Adequate cleaning and shaping</td>
<td></td>
<td></td>
</tr>
<tr>
<td>9 Adequate compaction</td>
<td></td>
<td></td>
</tr>
<tr>
<td>10 Patient management</td>
<td></td>
<td></td>
</tr>
<tr>
<td>11 Universal precautions/infection control</td>
<td></td>
<td></td>
</tr>
<tr>
<td>12 Procedural incidents</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

FAILURE IN ANY CATEGORY RESULTS IN FAILURE OF THE CASE.
Criteria for competency and critical deficiencies explained below.

Critical Deficiencies Defined

Professional conduct: Student fails to demonstrate professional appearance, demeanor or conduct.

Medical History: is not reviewed with faculty

Adequate forms and radiographic images: Student fails to deliver proper diagnosis; justified and documented in SOAP format on DX Form; AAE Case Assessment Form completed. Radiographic images diagnostic in quality including 1-2 mm beyond apex (at least 2 angulations).

Adequate anesthesia: Patient is experiencing discomfort during procedure and student continues treatment without addressing the anesthesia deficiency.

Effective isolation: Rubber dam is leaking allowing salivary contamination of working field.
Caries completely removed: Student failed to remove all caries and defective restorations from tooth under treatment.

Adequate access: Student fails to accomplish adequate results in the following criteria:

Outline form: Grossly inadequate size, shape or location (hampers access to canals) or too large (excessive or inappropriate removal of tooth structure). Excessive encroachment on incisal edge (not necessary for apical instrumentation).

Access: Excessive removal or gouging of tooth structure. External crown shape altered.

Pulp horns: Not fully exposed and removed, gross ledges

Inadequate cleaning and shaping: Creation of gross ledging, blockage, loss of apical resistance form, transportation, apical strip perforation.

Adequate compaction: Student fails to accomplish the following criteria:

Fill: Gutta percha greater than 1.5mm short of radiographic apex or greater than 0.5 mm long

Density: Slight to moderate voids in apical 1/3 or significant voids throughout fill. Gutta percha coronal to CEJ.

Shape: Over or under instrumentation; ledges or blockages that compromise or prevent proper compaction; destruction of apical constriction or zipping or transporting the apex more than 1.0mm.

Patient management: Student fails to show appropriate concern, respect and objectivity concerning patient’s health and welfare.

Universal precautions/infection control: Failure to maintain universal precautions and infection control.

Procedural incidents: Any of the following require submission of an “Incident Form” and immediate failure.

Perforation, separated instrument, NaOCl accident, accessing wrong tooth.
Clinical Protocol

Introduction

This section outlines procedures, rules and guidelines to be followed when treating endodontic cases in the clinic. Thorough familiarization with this section is necessary to avoid mishaps and to spend your treatment time as efficiently as possible.

Treatment Planning and Case Selection

Any case in which endodontic treatment is anticipated requires: (1) review of patient medical history with an endodontic faculty; (2) completion of all NECESSARY ENDODONTIC TESTING PROCEDURES; (3) Evidence that the tooth has been treatment planned in the Team; (4) Two high quality diagnostic P/A radiographs (straight on and angle) and a B/W radiograph; (5) Endodontic Case Difficulty Assessment Form must be accomplished by the student and initialied by an instructor prior to the initiation of treatment. Only Average Risk (AAE Category 1) cases will be treated in the pre-doctoral clinic. Any exceptions must have documentation in the patient’s progress notes and be signed by an endodontic faculty member. For your first cases it is necessary to treat uncomplicated single-rooted teeth to familiarize yourself with procedures before advancing to more difficult teeth. Therefore, until a minimum of two single-rooted teeth have been successfully completed, more difficult treatments such as molars should be referred to students who have met the above requirements or to the Senior Advanced Studies endodontic students or to the Graduate Endodontics Department.

Absolutely no case will receive root canal treatment in the clinic unless a well-fitting rubber dam can be applied without leakage. Products such as “Oraseal” caulk are available at the Dispensary for help in preventing leakage of the rubber dam. This requirement does not preclude making access to the pulp chamber without rubber dam isolation in those cases where proper access would be jeopardized without the visibility provided by the non-isolated tooth. As soon as the pulp chamber access is obtained, the rubber dam will be placed. At no time will any endodontic instruments other than the endodontic explorer be taken to the mouth without rubber dam isolation. If indicated, the tooth must be reinforced or interim measures taken to protect the tooth from fracture and the root canal system from recontamination with saliva prior to initiation of access into the pulp chamber. This will require removal of all caries, defective restorations and un-
supported tooth structure and may necessitate the placement of bands, crown forms and other treatment restorations as well as surgical periodontal procedures to isolate the tooth. If these measures are not possible or not agreeable to the patient, treatment is not to be undertaken in the predoctoral clinic.

Since treatment results cannot be guaranteed, it is imperative that the patient first understand and then sign the Endodontic Informed Consent Tab found in the computer before treatment commences.

**Treatment Scheduling**

In routine endodontic cases, it is appropriate and most convenient for the patient to schedule treatment with one-week intervals. It is best to keep the appointment times consistent so that you may work with the same instructor throughout the treatment of a case. Your ability to motivate your patient to keep appointments and complete treatment within a reasonable time period will be a component of your final grade. Routine endodontic treatment will be performed in the designated endodontic areas by reserving the space on the endodontic sign-up sheet in the endodontic office provided all criteria have been met. Incision-drainage (if required) will be accomplished in the oral surgery department. Should an unplanned need for endodontic services arise in the Team, necessary emergency endodontic procedures will be done in the Team and then completion of the case should be done in designated endodontic areas as described above including sign up in the endodontic office.

**Procedures in the Clinic**

Plan ahead! Review all contemplated procedures and this Clinic Orientation Manual the night before the appointment. Work with your endodontic faculty to establish a realistic goal that you will try to reach by the end of the appointment, such as completed shaping and cleaning, obturation, etc.

- **Payment** — Complete payment or payment arrangements acceptable to Patient Accounts must be accomplished before initiating endodontic treatment.
- **Getting Started** — Obtain all necessary equipment and supplies from CSR and Dispensary and have all instruments and supplies opened and prepared for use at the beginning of the Clinic session. X-ray images should be on screen and proper documentation must be available prior to seating your patient and requesting an instructor sign-in. Discuss the proposed treatment and agree upon session objectives with the instructor. The instructor should sign the student in on the computer to provide the legal permission for you to
initiate treatment. **Initiating treatment without an instructor’s signature is prohibited and will result in an incident report being filed.**

- Your patient must be dismissed with written post-op instructions and student’s contact numbers and an instructor’s sign-out obtained **prior** to the end of the clinic session. Working past normal clinic hours is discouraged and may result in a grade reduction. Be prepared to discuss all proposed treatment with an instructor.

- Materials — Endodontic kits and equipment are available for checkout from the Dispensary and CSR. Endodontic kits are available with three lengths of instruments: 21, 25 and 31 mm. The 25 mm kit may be used in most cases. The short 21 mm kit may be more convenient for use in posterior teeth. Use the 31 mm kit only for teeth longer than 25 mm.

There are six requirements that must be met in order to begin any RCT in the Clinic:

1. Review of medical history with the endodontic faculty
2. Completion of all necessary endodontic testing
3. Evidence that the tooth has been treatment planned in your Team
4. Two diagnostic quality radiographs (straight-on and angled) plus bite/wing X-ray to determine restorability
5. AAE Case Difficulty Assessment Form completed
6. Informed consent properly done and form signed

**Instrument Preparation**

Endo ice, electric pulp testers and apex finders may be obtained at the Dispensary. Transilluminating lights may be obtained with the assistance of endodontic faculty or should be purchased for personal use at Cabela’s for a nominal sum as “bore light.”

Long shank (surgical length) burs will be issued by the Dispensary only with an instructor’s signature and their use is to be confined to an instructor. Only the Schilder Heat Carriers 0 and 00, and Glick #1 may be heated to remove gutta percha.

**No other instruments in the endodontic kit are to be heated.** Heating destroys the temper and renders the instrument useless and will result in the student being charged for the destroyed instrument.
Sterilization and Disinfection Routines

Sterilization and disinfection of endodontic instruments and supplies will be accomplished as follows:

- Metal boxes containing endodontic instruments are wrapped and sterilized in the autoclave.
- Used endodontic hand files (between sizes #8-15) are to be considered disposable. If deformation is noted during a procedure, they should be immediately placed in the paper cup provided and not reused. All files that have been used during the procedure should be placed in the paper cup until the end of the procedure at which time all used sharps will be placed in the red sharps containers provided. Those instruments that have not been used may be placed back in the metal box for sterilization.
- Pre-packaged, disposable sterile paper points, irrigation syringes, aspirator tips, etc. are used in the Clinic.
- Gutta percha cones (both master cones and accessory cones) will be dispensed by the Dispensary and should be disinfected before use by the student by immersing in 6.00% sodium hypochlorite for one minute and then allowed to air dry on a sterile glass mixing slab. The inverted and filled plastic lid of the hypochlorite bottle provides a useful reservoir for the disinfection process. Single files that become inadvertently contaminated should be replaced by new sterilized files.

It is necessary to obtain the two final XRs of a completed RCT (with the exception of teeth #6–#11 which usually require only a single film) without the rubber dam in place in order to have a RCT case graded. Do NOT take off the rubber dam without temporization or restoration of the teeth as the tooth and RCT would be contaminated. The student will not receive endodontic credit for the completed RCT until a definitive restoration is placed.

Preparation and Maintenance of Asepsis

The following are general rules to be followed when preparing for root canal procedures:

- All instruments and supplies necessary for treatment should be prepared for use prior to requesting sign-in by instructor (appropriate files in file holder and irrigation syringe loaded). Make these preparations before seating your patient so that you take advantage of all available clinic time. Your patients and instructors will appreciate that you have been considerate of their time.
- Personal protective equipment will be used for all procedures in the manner prescribed for the predoctoral clinic and...
consistent with bloodborn pathogen guidelines and accepted infection control principles.

- Glass mixing slabs and cement spatulas used for mixing endodontic sealer are to be autoclaved prior to use and are to be in place on the sterile field prior to treatment if obturation is expected.

- Endodontic equipment such as endodontic handpieces, gutta percha guns, electronic apex finders, electric heat carriers, electric pulp vitality scanners, etc. are to be maintained and disinfected/sterilized according to manufacturer’s instructions.

- The wrapping paper containing sterile gauze and cotton pellets provides the sterile field for treatment instruments. The paper should be opened and placed as your sterile field on the tray.

  Do not place non-sterilized instruments or materials on this sterile field.

- Check to see that instruments are in good condition when they are issued to you.

**Essential Considerations**

In general, keep in mind that during root canal treatment, your instruments and materials have direct access to unprotected periapical connective tissues. Debris and microorganisms forced into that area would cause inflammation and possibly post-operative pain, or worse, a systemic infection. Only a sterile #10 file should be taken slightly beyond the apical constriction to obtain and maintain patency.

**Treatment Procedures**

1. Be sure that you have obtained an instructor’s electronic signature to start and are confident in how to proceed. If in doubt, consult with the instructor.

2. The health and comfort of the patient is paramount in endodontic treatment. Unless medical conditions indicate otherwise, pain control measures should be employed on all patients who do not specifically request the non-use of local anesthetic. Profound dental anesthesia should be employed at EVERY appointment, regardless of pulp status, that will involve manipulation of instruments in the root canal system toward the goal of all treatment being performed in a painless manner.

  This means using palatal injections for maxillary teeth, buccal and lingual infiltrations in addition to appropriate blocks as examples. Supplementary injections such as intra-
ligamentary and intra-pulpal may be required for patient comfort.

3. Prior to accessing the pulp chamber and initiating root canal therapy, all caries, unsupported enamel, dentin and all leaking restorations are to be removed. Subsequently, the tooth should be provisionally restored to provide isolation and appropriate resistance to fracture.

4. Isolation of the tooth or teeth with a well-fitting rubber dam and rubber dam caulk such as “Calasept” (available at the Dispensary) is mandatory.

5. Disinfections of the operating field and rubber dam are accomplished with a cotton swab dampened with sodium hypochlorite solution. The tooth, rubber dam clamp and rubber dam should be swabbed.

6. Winged rubber dam clamps should be used for endodontic rubber dam isolation. They should be securely ligated with a length of floss that will reach the patient’s shoulder when doubled.

7. Where occlusal reduction is deemed necessary it should be completed prior to the working length film. Generally speaking occlusal reduction should be done on most posterior endodontic cases.

8. Keep accurate entries of the canal length and sizes in the computer/endodontic treatment card.

9. Keep the working field clean and organized. Promptly dispose of used wrappers, soiled 2 x 2’s, paper points and other debris.

10. Calcium hydroxide paste is the inter-appointment canal dressing of choice. It is available as “Calasept” from the Dispensary.

11. A sterile cotton pellet over the calcium hydroxide dressing with a layer of cavit, sealed with a bonded composite or IRM, is the preferred inter-appointment closure for endodontic access preparations.

12. Patients are to be given thorough post-operative instructions, including anticipated symptoms, instructions for any pain medications and who to contact in the event of unexpected pain, swelling or fever. The student’s contact numbers should be written on the Post-op form (supplied as the back page of each endo grade packet). It is mandatory that the student reviews these post-op instructions with the patient and that the patient leaves the appointment with these written post-op instructions. All adult patients should be in-
structed to take 600 milligrams of Ibuprofen four times per day for three days following endodontic treatment. If the patient is unable to take Ibuprofen, extra-strength Tylenol should be substituted. In addition, a prescription for a narcotic may be prescribed at the discretion of the instructor.

13. Schedule the next appointment before the patient departs, and obtain an instructor’s permission for patient dismissal.


15. When a case is finished, have your case graded on the appropriate grade form at chair side by the attending instructor.

This documentation for your efforts must be signed by the Instructor at completion of the RCT.

16. Return the completed grade form to the endodontic office (231) for official recording in the endodontic computer. When the case is completed and a definitive restoration is documented, your graded case will be recorded for credit. The form will then be returned to your Team Clerk to be filed in your permanent records.

**Clean-Up Procedures**

1. Throw away used paper cones, cotton pellets, gauze, irrigating syringe and other debris from the pack.
2. Place all files, burs and finger spreaders that were used in the red sharps container provided.
3. Dispose of remaining irrigation solution in the sink.
4. Return pack, rubber dam clamp, pulp tester or other equipment checked out from the Dispensary.
5. Throw away aspirator tip, replace the headrest cover and pick up any litter on the chair or floor of the operatory.
6. Disinfect unit according to General Procedures.
7. Raise the chair to an upright position, place the light against the headrest, and shut off the power to the unit.

**Record Keeping**

For endodontic treatment, comprehensive concise records must be kept using various formats: the progress-treatment information in the patient’s file located in the computer, appropriate endodontic treatment sheet and radiographic digital images in the computer. Endodontic treatment forms are available in the Teams.

1. A green endo sheet is necessary for all routine endodontic cases. The signed and graded green sheet should be
brought to the endodontic office to record the grade. The sheets will be returned and kept in the Team Clerk’s active files.

2. A pink endo sheet indicates a Basic Endodontic Competency Examination and will be maintained in the same manner as a green sheet.

3. A yellow endo sheet indicates an Emergency Endodontic Procedure (either diagnosis and/or extirpation and should record disposition of treatment). It is to be signed in e-chair and maintained by the Team Clerk.

4. Two final radiographic images (with the exception of teeth #6-#11 which require only a single film), straight-on and angled, taken with definitive restoration of at least amalgam or composite with the rubber dam removed, will be necessary to receive credit.

5. The completed AAE Case Difficulty Form must precede all RCT cases in order to start or be graded.

**The Patient’s Record**

All procedures and materials used during each appointment should be recorded. Exact amounts of local anesthetic used (mg.), amounts of vasoconstrictor, and drugs prescribed should be entered. Results of any diagnostic tests completed during the appointment should be recorded on both the endo grade sheet and in the patient’s record.

Notes of patient comfort, symptoms and course of healing since last appointment should be entered. Also, any difficulties encountered during the appointment should be recorded. File sizes and canal lengths prepared after each appointment should be recorded in the patient file and on the endodontic sheet.

**Endodontic Treatment**

Endodontic treatment should never be undertaken based upon singular observations.

**Diagnosis Form**

The ENDODODONTIC DIAGNOSIS FORM is designed to help the student efficiently and reliably gather and document the diagnostic interview, clinical examination and testing. Use as many confirmatory tests and diagnostic procedures as are relevant. This means, **at a minimum, that the patient’s symptoms should be duplicated in diagnostic testing.**

Thermal testing with ice is mandatory on any tooth considered for endodontic treatment. Electric vitality testing is used as a confirmatory test if thermal testing does not give clear indications but is unreliable as a singular test modality. A **minimum of**
four teeth should be tested in each diagnostic test for comparison.

**Endodontic Treatment**

Note that grades will not be recorded on treatment forms except for the appropriate grade sheets for all cases. It is your responsibility to be certain that the yellow, green and pink forms are signed and executed at the time of obturation/completion.

**Radiographs**

Digital radiography will be used in almost all instances. The identifying chart numbers and student name should appear on the endo form for grading. Also you will need to record the number of canals the tooth demonstrates on the grade sheet. This is your record which is required for your clinic grade. The rubber dam frame should be left in place at all times even when in the actual process of exposing the film if possible to reduce risk of contamination of the working field with saliva. If removed for the radiograph, the rubber dam frame should be replaced immediately after exposure. Lead aprons with thyroid shields must be used to protect patients during X-ray exposure. Seek assistance if repeat radiographs must be made. The number of exposures should be kept to the minimum necessary for good treatment. If additional films are necessary to provide significant information they should be saved and properly labeled.

**Recall of Endodontic Patients**

Recall of endodontically treated patients is an essential part of endodontic therapy to determine if healing has occurred. This should be done for all cases, initially at six-month intervals after treatment is completed. If healing is not complete radiographically after 12 months, additional recalls should be scheduled at one-year intervals until there is evidence of complete healing.

An instructor must be summoned for consultation in all endodontic recalls, with signature after the proper entry in the patient’s file. The student has responsibility to ensure that timely recalls are made for his/her endodontic patients. It is imperative that the student make every effort to recall endodontic patients for a minimum of six months. At least two recalls are required for graduation. Failure to do so will result in reduction of final clinical endodontic grade and/or failure to graduate. After students’ graduation, patients will be notified for recalls by the Centralized System.

**Treatment of Endodontic Emergencies**

You may be assigned to treat endodontic emergency cases at regular intervals or when your patient fails an appointment.

Your performance will be evaluated by an instructor when serving in this capacity.
• A yellow emergency treatment sheet should be completed, documenting the diagnostic procedures and treatment given. The yellow sheet will be signed by the instructor for evaluation of your performance and subsequent filing under your name in the Team’s active files.

• Preliminary radiographs must be made for all cases (two views: straight-on and “shift-shot” plus bite/wing X-ray (except for #6-#11 which generally require only a single P/A film)

• Note all treatment and medications in the patient’s record.

• If the patient refuses endodontic treatment and prefers extraction, a special notation must be placed in the record stating that the patient fully understands the consequences of his/her choice.

• The goal of emergency treatment is to provide the most expeditious treatment of severe pain or swelling or to stabilize traumatic injuries. In most cases, emergency endodontic treatment should be directed at removing whatever irritant is causing the emergency symptoms, be that microbiological or swelling (infected tissue and/or immune response).

• Examples of true emergencies include:
  - Problems that disturb sleeping, eating, working or other vital activities
  - Problems that have come on suddenly take precedence over all other activities and are not simply a means to “gain access into the system”
  - Problems that have not responded to medications

• It is extremely important that emergency patients be given all information necessary to make a proper decision regarding alternatives of emergency treatments. With endodontic emergencies there are basically three courses of action that may be taken:
  - Endodontic emergency treatment (pulpal extirpation) with the understanding that complete endodontic treatment and other procedures to return the tooth to health and function will be necessary at a later date and at additional cost,
  - Removal of the tooth (extraction) with the possible need for additional procedures to bring the area back to health and function or,
  - To seek advice and treatment in another facility or office.

• Examples of expeditious treatment of endodontic emergencies include:
- Pulpotomy and temporary closure for recent traumatic injuries exposing the pulp
- Reimplantation and splinting of luxated or avulsed teeth
- Pulpotomy or pulpectomy for irreversible pulpitis
- Pulp canal debridement for pulp necrosis

- Incision and drainage for swelling (done in oral surgery).
- Any instrumentation of the root canal system beyond cervical pulpotomy should result in endodontic shaping and cleaning through all steps on the Emergency Treatment Sheet, working length determination and shaping and cleaning to working lengths. An exception to this rule would be on emergency chair, should it be considered unwise for a student to perform a complete extirpation at that time on a difficult VITAL only case, a deep pulpotomy (16mm) may be alternately provided as an emergency service, assuming that no periapical infection is present.

- Calcium hydroxide paste is the intra-appointment dressing of choice (available as “Calasept” at the Dispensary).
- Closure may be made with temporary filling materials such as Cavit and/or IRM or composite over sterile cotton pellet. Whenever feasible, root canal spaces should be sealed rather than left open for drainage.
- Give complete written post-operative instructions to the patient and inform him/her that additional emergency treatment is available if the symptoms are not alleviated.
- If you choose to provide future treatment for the patient following emergency treatment, schedule a screening and diagnosis appointment. After pain and swelling are alleviated, endodontic treatment will not be completed until full treatment planning has been carried out. Alternatively, assist the staff in assigning the patient to a student on the list of those needing endodontic patients.
- When the RCT is completed, it is preferable to place a thin (1–2 mm) layer of Vitrabond® over the gutta percha to effect a seal should the temporary filling become dislodged. This would prevent contamination of the RCT so that retreatment should not be necessary. Follow Vitrabond with temporization or definitive restoration as necessary.

NOTE: It is possible to complete RCT on an e-chair treatment if the following criteria are met:
1. Patient must be willing to have the treatment completed and be willing to pay the RCT fee at that time.
2. Must be a single canal tooth
3. Student must have faculty from his/her team verify that the tooth is restorable, will not require crown lengthening, is functional, NOT involved periodontally and may be incorporated into the treatment plan.
4. Tooth must be restored with at least amalgam or composite.
5. Entire procedure must be completed in a single e-chair visit.
INTRODUCTION

Chairman

Dr. J. Craig Whitt

Goals

This department is a union of three disciplines: Oral Pathology, Oral Radiology and Oral Medicine. Each has unique goals although there is some overlap among them. We work together to provide the graduating dental student with the didactic and clinical skills to safely and effectively manage the needs of their patients in these three areas.
The didactic portion is to be integrated with the clinical program so that upon graduation the student should be able to meet the following UMKC School of Dentistry competencies (revised 10/29/01):

Competency #5  Perform a complete dental examination to arrive at a diagnosis of the patient’s oral condition. This includes:

a. Assess patient goals, values, and concerns to establish rapport and guide patient care.
b. Identify the patient’s chief complaint.
c. Obtain and assess the significance of medical, dental, psychosocial, and behavioral histories.
d. Perform head and neck and intraoral examinations.
e. Select, obtain, and interpret clinical, radiographic, and other diagnostic information and procedures.
f. Obtain medical and dental consultations when appropriate.
g. Develop and maintain accurate and complete patient records.
h. Recognize signs of abuse or neglect and report and refer as necessary.
i. Recognize predisposing and etiologic factors that require intervention to prevent disease.

j. Use clinical and epidemiological data to diagnose and establish a prognosis for dental abnormalities and pathology.
k. Recognize the normal range of clinical findings and significant deviations that require monitoring, treatment or management.
l. Implement and monitor infection control and environmental safety programs according to current standards.

Competency #16  Treat patients with soft tissue lesions and oral manifestations of systemic diseases.

a. Recognition and referral of patients with advanced oral manifestations of systemic diseases or advanced or sinister intraoral soft tissue lesions.

**ORAL DIAGNOSIS — PROCEDURES**

**Patient Assignments and Screening**  Patients are generally assigned based on your requests to the patient management system and are already screened. Students wishing to screen patients on their own rather than through the patient management system will need to make their own ap-
pointments for this screening. Students who are screening their own patients will have the patient fill out a Patient Registration Form at the front (reception) desk, and School of Dentistry personnel will enter the information into the clinic database. An electronic chart is then started for the patient and they are escorted to your assigned cubicle. The student will then open the patient’s electronic chart and find an available faculty member to perform the student screening. The faculty member will ask the screening questions which are found under the “Notes” tab, order any necessary radiographs, and either assign the patient to the appropriate area of the School of Dentistry for treatment or inform them that their dental needs are best met outside the School of Dentistry.

**Patient Records**

UMKC School of Dentistry migrated to an electronic record and digital radiographs in the Fall of 2001. Patient charts from before that time have been digitized and can sometimes be found under the "Attachments" section of a patient's chart. Electronic records on former or current patients at the School of Dentistry are accessible through the clinic computers.

**Patient Interview**

An initial interview will be conducted with each patient. It will include establishing the patient’s chief complaint, history of the chief complaint, medical history, current and past medications, dental history, social history, and ordering any necessary medical consultations.

*(See Attachment 1: Step-by-Step Outline of an Oral Diagnosis.)*

**Dental Consultations**

At the time of diagnosis, the student and the instructor will determine which types of dental consultations will be necessary to establish a treatment plan. Generally these will occur after the diagnosis has been completed, ordered in the electronic chart and performed prior to treatment planning.

**Medical Consultations**

*(See Attachment 2: “Indications for Physician Consult Letters”; Attachment 3: “Step-by-Step Medical Consultations”; and Attachment 4: Medical Alert.)*

Patients who are not sure of their medical history or have an extensive medical history may require consultation with the patient’s physician prior to treatment planning. The student and supervising faculty will select the appropriate medical consultation letter from those available in the electronic record, fill in the necessary information, and print from the Team’s printer. The
supervising faculty member will review and sign the letter. At the end of the letter will be a Release of Medical Information form. This should be signed by the patient and witnessed by two S.O.D. parties. The faculty will enclose both forms in a School of Dentistry envelope along with a self-addressed folded School of Dentistry envelope for the physician’s written reply. Upon reply from the physician’s office, the faculty shall enter the results of the consultation into the patient’s electronic record. Important information to record include the date of the reply, name of the person who responded, and a summary of the recommendations (if any). Written responses should be then taken to Bob Nichols (x2116) in Room 1104 where they will be scanned into the electronic record. The student will then activate the “Medical Alert” choice under the Action Tab as appropriate (this will turn the “Health History” tab red) if it has not already been activated. An email should be sent to the assigned student instructing them to check the patient's chart for the physician's reply. Personal information should not be sent via email.

**Oral Diagnosis — Evaluations**

**Evaluation Criteria**

Individual instructors have the prerogative of using clinical judgment to alter examinations due to patient difficulty or other circumstances, but the basic criteria for examinations are as follows:

**Daily Diagnosis Procedures**

Daily evaluations for diagnosis procedures will be recorded in the “sign-out” procedure of the electronic chart. The student will receive a score of either “progressing satisfactorily”, “improvement needed”, or “not satisfactory” based on the instructor’s evaluation of the student’s progress at that stage of their education. A rating of “progressing satisfactorily” is awarded when the student collects all appropriate data, knows which consultations are necessary (if any), is able to compare past patient data with current findings, and recognizes the need for appropriate interventions. “Improvement needed” is assigned when the student makes minor errors in data collection, consultations, comparison, and interventions; a rating of “not satisfactory” is assigned when the student makes a major error, numerous minor errors, or has a significant lapse in clinical judgment that may directly affect dental treatment or have the potential to harm the patient. Students also receive a score of “credit”, “no credit” or “not completed” for the procedure. Generally, credit means that the student completed the procedure in a timely manner without
undue instructor assistance/intervention, while “no credit” infers that the student did not meet these criteria. “Not completed” is assigned when the procedure must be terminated for any reason. The student’s assigned mentor will review these scores with the student during their mentoring session.

Clinical Requirements

(See Attachment #5: Oral Diagnosis Basic Skills Assessment and Attachment #6: Oral Diagnosis Competency Examination)

Two graded clinical competency examinations will be done, one during the third year and one during the fourth. Students may request an initial diagnosis procedure to be their graded examination after adequate diagnosis experience and clearance by the team faculty. The supervising faculty will determine whether the case is sufficiently difficult to qualify for this procedure. In certain cases, this determination cannot be done until after the procedure has been completed. Patients for the graded examinations may not be a relative or dental student, and must have an adequate amount of restorations and pathology to chart. All graded examinations must be a complete initial examination. The third-year competency requires no more than one area marked “unacceptable” to pass, and must be completed by the end of the third year. The fourth-year competency requires no areas marked “unacceptable” to pass, and must be completed by the end of the Fall Semester of fourth year. If a student does not pass on their first attempt, additional graded examinations are taken until they pass.

A passing score on the third-year competency clinical examination(s) will result in a grade of “Credit” being recorded for the Clinical Oral Diagnosis II course (D6532C). A passing score on the fourth-year competency clinical examination(s) will result in a grade of “Credit” being recorded for the Clinical Oral Diagnosis IV course (D6632C). Failure to obtain a passing score by the deadline in either case will result in a grade of Incomplete (“I”). Remediation will consist of the satisfactory completion of two clinical competency exams for each incomplete prior to graduation.
ATTACHMENT 1: **STEP-BY-STEP OUTLINE OF A COMPLETE DIAGNOSIS.**

1. Make appointment with the patient
2. Organize materials and instruments, i.e.
   a. All surfaces disinfected
   b. Red hazardous waste bag for infectious waste materials
   c. All sensitive areas wrapped with plastic wrap
   d. All trash removed from area
   e. Clean mirror and sharp explorer(s)
   f. Air-water syringe tip installed
   g. Most recent X-rays (if any) on viewbox or computer
      monitor
3. Confirm biographical data (already entered from Registration
   Form)
4. Get patient from waiting room, observe for physical problems
5. Explain procedure to patient
6. Determine reason(s) for visit
7. Determine history of reason(s) for visit
8. Obtain vital signs
9. Get signed in by faculty member
   a. Add new chart
   b. Add new examination (generally “Initial Examination with
      Teeth”)
10. Take medical history, current medications, social history,
    and dental history
11. Summarize medical findings into systems review
12. Do head and neck and oral soft tissue examination
13. Collect and assess periodontal data
14. Collect and assess dental data
15. Perform a routine occlusal analysis
16. Order and evaluate radiographs based on clinical charting
17. Perform additional diagnostic tests as needed (i.e. pulp test-
    ing)
18. Have instructor evaluate all above data and complete the ex-
    amination, medication list, and patient chart.
19. Take impressions for diagnostic casts (if necessary)
20. Make next appointment with patient
21. Get signed out by instructor
22. Dismiss patient
23. Discuss procedure with instructor
ATTACHMENT 2: INDICATIONS FOR PHYSICIAN CONSULTATION LETTERS

Consultation Conditions

The following is a listing of conditions found during medical histories in which a consultation with the physician will generally be indicated. This is not a total list of conditions needing consultation, nor will patients with these conditions always require a consultation letter. The supervising faculty member will determine the appropriate timing for a medical consultation.

1. Myocardial infarcts that have occurred within the last six months or patients who have had multiple myocardial infarcts. Information needed from the physician should include evaluation of the cardiovascular condition and any restrictions to routine dental treatment. Generally, no elective treatment should be performed until a reply is received.

2. A history of hypertension that is severe or uncontrolled. A single blood pressure reading above 180/110 or consistent readings above 140/90 should result in a consultation with the patient’s physician. A special medical consult letter is available to alert the physician to this finding. Requirements and restrictions to treatment are listed below (adapted 2002 with permission of ADA Publishing from Muzyka BC, Glick M, “The Hypertensive Dental Patient”, JADA, 128, August 1997, p.1110.

3. Patients receiving anticoagulant treatment, or a history of bleeding or clotting abnormalities. Information needed from the physician should include the current INR. Limita-
tions to treatment with increased INRs are listed in Section 6.

4. Any patient who has had open-heart surgery or prosthetic valve placement. It is important to ascertain from the physician the exact nature of the surgery and the current status of the patient. Note: prosthetic valve placement requires antibiotic prophylaxis prior to invasive dental procedures. See Table 3: “Cardiac Conditions Associated with the Highest Risk of Adverse Outcome from Endocarditis for Which Prophylaxis with Dental Procedures Is Recommended” (p. 4.69).

5. A recent history of tuberculosis or a history of tuberculosis in which there is a question as to the effectiveness of the treatment.

6. Any malignant disease currently under treatment. Information to be requested from the physician should include the type, treatment rendered or planned, and the prognosis.

7. Congenital heart defects. Physicians should be asked what type of defect is present. Note: certain congenital heart defects require antibiotic prophylaxis before invasive dental procedures. See Table 3 on page 4.69.

8. Uncontrolled diabetes mellitus or a patient who is suspected of having diabetes mellitus and is not being treated for it. Patients receiving daily insulin need a consultation prior to surgery (oral or periodontal) to determine whether to adjust the amount of their daily insulin dosage to compensate for any decreased food intake. The physician’s opinion on the control of the diabetes in the patient should be sought.

9. Jaundice of unknown origin. Physicians need to be asked the cause of the jaundice.

10. Multiple medications, especially if they involve corticosteroids, psychotropics, anticoagulants or sedatives, or if the patient is unsure of dosages. The physician needs to verify which medications and dosages are prescribed, and why each is given.

11. AIDS, HIV: Determine the stage of the patient’s disease, any opportunistic infections the patient has, the CD4 (T4-helper) cell count and viral load. Absolute Neutrophil Count (ANC) <500 requires antibiotic prophylaxis. As a general rule, a patient with a total white blood count of 1,000 or less should have antibiotic prophylaxis.

12. Cardiac transplantation if patient is unaware whether they have developed cardiac valvulopathy or not.
ATTACHMENT 3: **Step-by-Step Medical Consultation Utilizing the UMKC Electronic Chart**

1. Establish patient's physician
   a. Demographics > Action > “Add Patient Contact”
      i. On the top line, type in “PHYS”
      1. There should be at least one “EMERG” contact
      ii. Answer all available information about the physician
          1. Look up address and phone in business section of the White Pages
          2. Call Office if necessary to establish zip code
             a. This also establishes the phone number to be correct

2. Write Medical Consult Letter
   a. *Click on either the first or last name of the physician. This selects that Doctor*
   b. Demographics > Action > “Order Medical Consult”
      i. A note will pop up asking “Print Medical Consult?”
         1. Reply “Yes” (even though you need to write it first)
      ii. Then a rough draft of the letter will appear.
         1. The medications section will automatically be filled out
         2. Fill in the following sections that are blank:
            a. “Problems found”
               i. Patient is unsure of cardiac status, patient reports she
                  had a stent placed but unsure what type it was, etc.
            b. “Dental Treatment Anticipated”
               i. Routine dental treatment, extractions and periodontal
                  surgery, etc.
            c. “Information Requested”
               i. Does the patient have a history of congenital heart dis-
                  ease that requires premedication? What are patient’s
                  current medications? etc.
            d. Your name (you will see “?” where this usually goes)

3. HINT: Try and shorten the letter to one page

4. Action > Print
   a. “Print Medical Consultation to Dr. XYZ?”
      i. “Yes”
      ii. Letter will print out on team printer
   b. “Letter Printed”

3. Address and mail letter
   a. Get letter from printer, and also get Consent to Release Medical Information form
      (this will print out following your letter), and two UMKC letterhead regular white
      #10 envelopes
b. Fill out Consent to Release Medical Information Form
   i. Fill in patient’s name
   ii. Have them sign
      1. Space for 2 witnesses to patient’s signature (generally the student is one witness)
      2. Fold into thirds
   c. Faculty signs Medical Consult Letter
      i. Fold into thirds
   d. Address one white envelope to physician
   e. Address other white envelope to faculty member
      i. Fold into thirds
   f. Put Medical Consult Letter, release of information form, and self-addressed envelope into envelope addressed to physician
   g. Seal
   h. Put into any dental school mailbox
      i. No stamp is required

4. When reply is received (sometimes as long as a month), faculty will interpret results and make proper entry into patient’s chart
   a. Pull up chart on clinic computer
   b. Notes > Action > Reset > Medical Consult > Continue (this will pull up all Medical Consults)
   c. Action > Reply to Medical Consult > Yes
   d. Type out short summary
   e. Action > “Post med consult?”
   f. “Yes”
   g. Original (hard copy) taken to record room for scanning into the Attachments section
   h. Faculty should email student that he/she has received the reply, and the results can be found in the patient’s chart
ATTACHMENT 4: MEDICAL ALERT ("HEALTH HISTORY" TAB IN RED)

Purpose

The medical alert system is used to alert the student and faculty to a patient’s medical condition that will probably require an alteration to the dental management of that patient. It is not intended to replace the responsibility of both students and faculty to be aware of each patient’s current medical status. It is necessary for all faculty to review the patient’s medical history when they “sign in” a patient.

Procedure

The medical condition that requires an alteration to routine dental management should be capitalized in the Health History summary. The medical alert should be initiated as soon as there is adequate information to make an informed assessment (generally during screening). This depends on the condition and the amount and reliability of medical history available. A medical consult will be required in some cases to further clarify the patient’s status (see Medical Consult section). At the discretion of the faculty member, the medical alert may be withheld until this consultation is received. In a few cases, the need for a medical alert will be eliminated by a change in the patient’s status. In these cases, the alert may be removed on the appropriate menu, thus changing the Medical Alert tab back to black.

Indications

The following is a list of conditions that may require a medical alert at UMKC School of Dentistry. It is not intended to be inclusive, and evaluation by the involved faculty is necessary. There is no substitute for a thorough medical history and physician’s consultation. The list of conditions that require the medical alert warning include all conditions that will probably affect dental treatment of the patient, such as:

1. Any condition requiring antibiotic prophylaxis prior to routine dental treatment (congenital heart disease, prosthetic cardiac valve, total joint replacement, etc.) Absolute Neutrophic Count (ANC), <500 requires antibiotic prophylaxis. As a general rule, a patient with a total white blood count of 1,000 or less should have antibiotic prophylaxis (see attachment #3).
2. Severe cardiovascular conditions, i.e.
   a. Uncontrolled hypertension
   b. Unstable angina
   c. Recent myocardial infarction (within six months)
   d. Recent coronary artery bypass surgery (within six months)
   e. Refractory arrhythmias
f. Untreated or uncontrolled congestive heart failure

3. Endocrine conditions, i.e.
   a. Poorly controlled hyperthyroidism
   b. Poorly controlled diabetes

4. Conditions which may require emergency treatment, i.e.
   a. Moderate to severe asthma
   b. Epilepsy

5. Drug histories, i.e.
   a. Sulfite-sensitivity
   b. Tricyclic antidepressant use
   c. Nonselective beta-blocker use
   d. Drug abuse
   e. Moderate to heavy aspirin use

6. Conditions that create immunosuppression, i.e.
   a. Chronic steroid usage
   b. Chemotherapy for cancer
   c. HIV+
   d. Diabetes

7. Bleeding disorders, such as:
   a. Anticoagulant usage (i.e. warfarin)
   b. Hemophilia
   c. Platelet dysfunction
   d. Cirrhosis

8. Infectious diseases that may alter the treatment regimen, including:
   a. Hepatitis (except Type A)
   b. Tuberculosis
   c. HIV+

9. Allergy or sensitivity to commonly prescribed drugs in routine dental practice, such as:
   a. Antibiotics:
      (1) Penicillins
      (2) Clindamycin
      (3) Cephalasporins
   b. Local anesthetics
   c. Analgesics:
      (1) Aspirin
      (2) Non-steroidal anti-inflammatory agents, i.e.
         (a) Ibuprofen (i.e., Advil, Motrin)
         (b) Naproxen (i.e., Naprosyn)
         (c) Feldene
      (3) Acetaminophen
      (4) Opiods
   d. Latex

10. Psychiatric: severe emotional instability
**ATTACHMENT 5**  
**ORAL DIAGNOSIS BASIC SKILLS ASSESSMENT (3rd YEAR)**

<table>
<thead>
<tr>
<th>STUDENT NAME: ___________________</th>
<th>DATE: ___________________________</th>
</tr>
</thead>
<tbody>
<tr>
<td>Patient Name: ___________________</td>
<td>Faculty signature: ______________</td>
</tr>
<tr>
<td>Comments: _______________________</td>
<td></td>
</tr>
</tbody>
</table>

**Clinically Acceptable** | **Unacceptable**

| A. Sign-In                      |                          |
| (preparation, vital signs, introduction, etc.) |                          |
| B. Demographics Tab            |                          |
| (emergency and physician contacts, etc.) |                          |
| C. Medical Exam Tab            |                          |
| (complete charting, modifications to treatment, etc.) |                          |
| D. Oral Exam Tab               |                          |
| (extra- & intraoral exams, dental history, etc.) |                          |
| E. Medication Tab              |                          |
| (dosage, indication, oral & systemic side effects, etc.) |                          |
| F. Chart Tab                   |                          |
| (missing teeth, roots, pontics, dentures, etc.) |                          |
| G. Periodontal Tab             |                          |
| (pocket depths, recession, furcations, etc.) |                          |
| H. Graph Tab (Dental Charting) |                          |
| (missing teeth, restorations, caries, abrasion, etc.) |                          |
| I. Radiographic Ordering & Interpretation |                          |
| (appropriate images, interprox caries, overhangs, etc.) |                          |
| J. Infection Control/Risk Management |                          |
| (cubicle prep, contaminated waste bag, etc.) |                          |
| K. Sign out                    |                          |
| (documentation complete, time management, etc.) |                          |
| L. Patient selection           |                          |
| (restorations, caries, and/or significant med hx) |                          |
| M. Self-assessment             |                          |

**Passing score:** no more than 1 area marked “unacceptable.”

Please turn in all attempts to team clerk for recording (passing or not).
ATTACHMENT 6

ORAL DIAGNOSIS COMPETENCY EXAMINATION (4TH YEAR)

<table>
<thead>
<tr>
<th>STUDENT NAME: _____________________</th>
<th>DATE: ______________________________</th>
</tr>
</thead>
<tbody>
<tr>
<td>Patient Name: _____________________</td>
<td>Faculty signature: __________________</td>
</tr>
<tr>
<td>Comments: _________________________</td>
<td></td>
</tr>
</tbody>
</table>

Place a checkmark (√) in the appropriate box for each criterion under "CA" for clinically acceptable performance or under "U" for unacceptable performance.

<table>
<thead>
<tr>
<th></th>
<th>Competent</th>
<th>Needs Improvement</th>
</tr>
</thead>
<tbody>
<tr>
<td>A. Sign-In</td>
<td></td>
<td></td>
</tr>
<tr>
<td>(preparation, vital signs, introduction, etc.)</td>
<td></td>
<td></td>
</tr>
<tr>
<td>B. Demographics Tab</td>
<td></td>
<td></td>
</tr>
<tr>
<td>(emergency and physician contacts, etc.)</td>
<td></td>
<td></td>
</tr>
<tr>
<td>C. Medical Exam Tab</td>
<td></td>
<td></td>
</tr>
<tr>
<td>(complete charting, modifications to treatment, etc.)</td>
<td></td>
<td></td>
</tr>
<tr>
<td>D. Oral Exam Tab</td>
<td></td>
<td></td>
</tr>
<tr>
<td>(extra- &amp; intraoral exams, dental history, etc.)</td>
<td></td>
<td></td>
</tr>
<tr>
<td>E. Medication Tab</td>
<td></td>
<td></td>
</tr>
<tr>
<td>(dosage, indication, oral &amp; systemic side effects, etc.)</td>
<td></td>
<td></td>
</tr>
<tr>
<td>F. Chart Tab</td>
<td></td>
<td></td>
</tr>
<tr>
<td>(missing teeth, roots, pontics, dentures, etc.)</td>
<td></td>
<td></td>
</tr>
<tr>
<td>G. Periodontal Tab</td>
<td></td>
<td></td>
</tr>
<tr>
<td>(pocket depths, recession, furcations, etc.)</td>
<td></td>
<td></td>
</tr>
<tr>
<td>H. Graph Tab (Dental Charting)</td>
<td></td>
<td></td>
</tr>
<tr>
<td>(missing teeth, restorations, caries, abrasion, etc.)</td>
<td></td>
<td></td>
</tr>
<tr>
<td>I. Radiographic Ordering &amp; Interpretation</td>
<td></td>
<td></td>
</tr>
<tr>
<td>(appropriate images, interprox caries, overhangs, etc.)</td>
<td></td>
<td></td>
</tr>
<tr>
<td>J. Infection Control/Risk Management</td>
<td></td>
<td></td>
</tr>
<tr>
<td>(cubicle prep, contaminated waste bag, etc.)</td>
<td></td>
<td></td>
</tr>
<tr>
<td>K. Sign out</td>
<td></td>
<td></td>
</tr>
<tr>
<td>(documentation complete, time management, etc.)</td>
<td></td>
<td></td>
</tr>
<tr>
<td>L. Patient selection</td>
<td></td>
<td></td>
</tr>
<tr>
<td>(restorations, caries, and / or significant med hx)</td>
<td></td>
<td></td>
</tr>
<tr>
<td>M. Self assessment</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Competency: all areas are marked “competent.”

Please turn in all attempts to team clerk for recording (passing or not).
ATTACHMENT 7

DEPARTMENT OF ORAL PATHOLOGY, RADIOLOGY, AND MEDICINE

ORAL DIAGNOSIS COMPETENCY EXAMINATION GRADING CRITERIA

Instructions: This form contains detailed contents for each section of the Oral Diagnosis Basic Skills Assessment and Competency Examination. These require a clinical appraisal of not only whether the student completed all the appropriate tasks involved in a complete diagnosis, but also whether the student understood the reasoning behind their actions. When a deficiency is found, the clinical faculty member must determine whether the student was competent in that area and score them accordingly. Faculty should directly monitor student progress as time allows, ask the student to self-assess their performance, and review their findings with the student in a timely fashion.

A. Sign-In
   a. Faculty notification of any unusual circumstances
      1. Brief history of pertinent patient history
      2. Anything the patient said which is unusual
      3. Time limitations the patient is under
   b. Patient informed of today’s procedure
   c. Procedure already added to treatment plan
   d. Proper patient introduction
   e. Vital signs recorded appropriately
      1. Blood pressure
      2. Pulse
      3. Respirations
   f. Medical history reviewed with patient
   g. Premedication given/not given (if appropriate) (exam failure)
   h. Instruments/cubicle ready
      1. Cubicle neat and orderly
      2. Air-water syringe out
      3. Sharp explorers out (both #17 and #23)
      4. Clean mirror
      5. Appropriate areas wrapped with plastic wrap
      6. Glove bag out
      7. Most recent X-rays on computer screen

B. Demographics
   a. emergency contact(s)
   b. physician contact(s)

C. Medical Exam (n = 36 questions on CMS chart)
   a. Heart Problems (attack, murmur, rheumatic fever, etc.)
   b. Blood Pressure
   c. Stroke
   d. Bleeding/Blood problems
   e. Lung problems (asthma, emphysema, tuberculosis, etc.)
   f. Diabetes/Endocrine problems
   g. Digestive tract problems
   h. Liver Disease/Hepatitis
   i. Kidney/Bladder problems
   j. Muscle/Bone problems
   k. Eye/Ears/Nose/Throat problems
   l. Artificial Joints
   m. Nervous system (epilepsy, psychological problems, etc.)
   n. Skin disease/Lupus
   o. HIV+/AIDS
   p. Cancer
   q. Radiation/Chemotherapy
   r. Any allergies
   s. Currently/ previously used tobacco any form
   t. Taken diet drugs Phen-Fen or Redux
   u. Physical disability
   v. OB-Gyn problems (pregnancy, birth control)
   w. Have you ever been hospitalized? (list reason & date)
   x. Other medical/health conditions
   y. Items to have chairside prior to treatment

CONTINUED
D. Oral Exam (n = 30 questions on CMS chart)
   a. Pt’s reason for seeking care (chief complaint)
   b. Abnormalities in head/neck/face
   c. TMJ/TMD problems
   d. Abnormalities in Neck/Lymph Nodes
   e. Abnormalities in Lips
   f. Abnormalities in Tongue
   g. Abnormalities in Labial/Buccal Mucosa
   h. Abnormalities in Palate (Hard & Soft)
   i. Abnormalities in Oropharynx
   j. Abnormalities on the Floor of the Mouth
   k. Abnormalities in Salivary Glands/Flow
   l. Abnormalities in the Attached Gingiva
   m. Are you performing a complete gingival/periodontal exam?
   n. Personal habits affecting dental outcomes (diet, hygiene, etc.)?
      1. Dietary habits affecting oral health
      2. Alcohol use
      3. Recreational drug use
      4. Type of toothbrush
      5. Type of toothpaste
      6. Type of mouthrinse
      7. Dental floss use
      8. Other interproximal cleaners
      9. Use of oral irrigation
     10. Fluoride history
     11. Other personal habits affecting dental outcomes
   o. Are you performing a complete edentulous exam?
   p. Are you performing a complete orthodontic exam?
   q. Other dental findings
   r. Willing to participate in future research project?

E. Medication History
   a. Name of medication
   b. Dosage (strength, number of times taken daily, prn, etc.)
   c. Indication (reason that the patient thinks they are taking it)
   d. Side effects (most common and most serious listed first)
   e. Drug interactions/precautions (HOW this medication affects dental tx)

F. Chart Tab
   a. missing teeth
   b. roots
   c. pontics
   d. dentures

G. Periodontal Tab
   a. Pocket depths
   b. Bleeding
   c. Plaque
   d. Gingival recession (Graph=only shows up with cursor over the tooth)
   e. Furcation involvement (Graph=only shows up with cursor over the tooth)
   f. Mucogingival problems (Graph=only shows up with cursor over the tooth)
   g. Other conditions (Graph=only shows up with cursor over the tooth)

H. Graph Tab (Dental Charting)
   a. Missing teeth
   b. Amalgam restorations
   c. Composite restorations
   d. Full crowns (gold, PFM, non-precious, stainless steel, etc.)
   e. Pontics (gold, PFM, non-precious, etc.)
   f. Temporary restorations
   g. Pit and Fissure Sealants
   h. Veneers
   i. Caries (new, recurrent)
   j. Tipped
   k. Rotated
   l. Fractured
   m. Open contacts
   n. Fluorosis
   o. Attrition
   p. Abrasion
   q. Erosion
   r. Other
   s. Impacted teeth
   t. Retained roots
   u. Implants


v. Overhangs/underhangs  
w. Endodontic treatment (apicoectomy, etc.)  
x. Periapical pathology  
y. Radiolucencies/radiopacities  

I. Radiographic Ordering & Interpretation  
a. Orders appropriate images  
b. Correctly identifies pathologies (interproximal caries, overhangs, etc.)  

J. Infection Control/Risk Management  
a. Cubicle properly prepared (disinfected, plastic wrap, contaminated waste bag, etc.)  
b. Appropriate eyewear (side shields, patient eyewear)  
c. Removes gloves when leaving the cubicle  
d. Washes hands before putting on gloves  

e. Doesn’t touch wrapped surfaces with ungloved hands  
f. Replaces wrapping which falls off critical areas  

K. Sign out  
a. Documentation complete  
b. Time management  
c. Study models taken (if necessary)  
d. Next appointment set  
e. Treatment notes completed/full documentation  

L. Patient selection (too easy/too hard)  
M. Self-assessment  

---

**Table 3**

**Cardiac Conditions Associated with the Highest Risk of Adverse Outcome from Endocarditis for which Prophylaxis with Dental Procedures Is recommended**

- Prosthetic cardiac valve  
- Previous infective endocarditis  
- Congenital heart disease (CHD)*  
  - Unrepaired cyanotic CHD, including palliative shunts and conduits  
  - Completely repaired congenital heart defect with prosthetic material or device, whether placed by surgery or by catheter intervention during the first six months after the procedure**  
  - Repaired CHD with residual defects at the site or adjacent to the site of a prosthetic patch or prosthetic device (which inhibit endothelialization)  
- Cardiac transplantation recipients who develop cardiac valvulopathy

* Except for the conditions listed above, antibiotic prophylaxis is no longer recommended for any other form of CHD  
** Prophylaxis is recommended because endothelialization of prosthetic material occurs within six months after the procedure
Table 4: Dental Procedures for Which Endocarditis Prophylaxis Is Recommended for Patients in Table 3

All dental procedures that involve manipulation of gingival tissue or the periapical region of teeth or perforation of the oral mucosa*

* The following procedures and events do not need prophylaxis: routine anesthetic injections through noninfected tissue, taking dental radiographs, placement of removable prosthodontic or orthodontic appliances, adjustment of orthodontic appliances, placement of orthodontic brackets, shedding of deciduous teeth and bleeding from trauma to the lips or oral mucosa.

Table 5: Regimens for a Dental Procedure

<table>
<thead>
<tr>
<th>Situation</th>
<th>Agent</th>
<th>Regimen — Single dose 30–60 minutes before procedure</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Adults</td>
<td>Children</td>
</tr>
<tr>
<td>Oral</td>
<td>Amoxicillin</td>
<td>2 gm</td>
</tr>
<tr>
<td>Unable to take oral medication</td>
<td>Ampicillin Cefazolin OR Ceftriaxone</td>
<td>2 g IM or IV*</td>
</tr>
<tr>
<td></td>
<td></td>
<td>1 g IM or IV</td>
</tr>
<tr>
<td>Allergic to penicillins or ampicillin oral</td>
<td>Cephalexin**† OR Clindamycin OR Azithromycin OR Clarithromycin</td>
<td>2 g</td>
</tr>
<tr>
<td></td>
<td></td>
<td>600 mg</td>
</tr>
<tr>
<td></td>
<td></td>
<td>500 mg</td>
</tr>
<tr>
<td>Allergic to penicillin or ampicillin oral unable to take oral medication</td>
<td>Cefazolin OR Ceftriaxone† OR Clindamycin</td>
<td>1 g IM or IV</td>
</tr>
<tr>
<td></td>
<td></td>
<td>600 mg IM or IV</td>
</tr>
</tbody>
</table>

* IM — intramuscular; IV — intravenous.
** or other first or second generation oral cephalosporin in equivalent adult or pediatric dosage.
† Cephalosporins should not be used in an individual with a history of anaphylaxis, angioedema, or urticaria with penicillins or ampicillin.

A Legal Perspective on Antibiotic Prophylaxis

ADA Division of Legal Affairs

Editor’s note: The following statement from the ADA’s Division of Legal Affairs is intended as a companion to the 2007 Prevention of Infective Endocarditis — Recommendations by the American Heart Association published in the June issue of JADA by the American Heart Association. When referring to the 2007 recommendations, readers also should consult this legal statement.

The 2007 AHA Recommendations is a departure from past AHA recommendations. The AHA states that the 2007 Recommenda-
tions were developed through an evidence-based approach, and were written in an attempt to reduce ambiguities about who might be eligible for antibiotic prophylaxis and under what conditions, and what antibiotics to use.

The ADA always recommends that a dentist exercise his or her independent professional judgment in applying any guideline, as necessary in any clinical situation. Nevertheless, dentists should certainly be aware that, while the precise standard of care may vary from state to state, these guidelines will likely be cited in any malpractice litigation as some evidence of the standard of care.

But what should the dentist do if the patient brings to the appointment a recommendation for premedication from his or her physician with which the dentist disagrees? The courts recognize that each independent professional is ultimately responsible for his or her own treatment decisions. Nevertheless, the goal should be consensus among the professionals involved. To reach consensus, communication is needed. For example, the physician's recommendation may be based on facts about the patient's medical condition that are not known to the dentist. On the other hand, the physician may not be familiar with this advisory statement or that premedication may be indicated in some situations but not in others. The careful dentist will attempt to ascertain the basis for the physician's recommendations and to acquaint the physician with the reasons why the dentist disagrees.

If consensus cannot be reached, the answer may lie in the concept of informed consent, which acknowledges the patient's right to autonomous decision making. Informed consent usually can be relied on to protect from legal liability the practitioner who respects the patient's wishes, as long as the practitioner is acting within the standard of care. However, for informed consent to be legally binding, it is incumbent on the practitioner to inform the patient of all reasonable treatment options and the risks and benefits of each. In the situation in question, the dentist would be prudent to inform the patient when the dentist's treatment recommendations differ from those of the patient's physician, and even encourage the patient to discuss the treatment options with his or her physician before making a decision. All discussions with the patient and the patient's physician should be well-documented in the patient's record. Oral communications should be noted and electronic communications printed out for the record. Of course, allowing the patient to choose assumes that both the dentist's and the physician's treatment recommendations are acceptable.
Dentists are not obligated to render treatment that they deem not to be in the patient's best interest, simply because the patient requests it. In such circumstances, referral to another practitioner may be the only solution.

The above information should not be construed as legal advice or a standard of care. A dentist should always consult his or her own attorney for answers to the dentist's specific legal questions.

GUIDELINES AND POLICIES REGARDING THE USE OF IONIZING RADIATION

Endorsements

The policy of the University of Missouri-Kansas City School of Dentistry regarding the use of ionizing radiation will be that which is endorsed by the American Dental Association, American Dental Education Association, American Academy of Oral & Maxillofacial Radiology, and the National Center for Devices and Radiological Health (NCDRH). The School of Dentistry will adopt and disseminate any policy changes these organizations may initiate in the future.

Introduction

Radiographic examination(s) must be ordered only after a complete review of the medical, oral and dental histories and following a thorough clinical examination. Diagnostic radiographic examinations provide essential information for diagnosis, treatment and the prevention of oral and dental diseases. Diagnostic radiographs are thus an indispensable and integral component of dental practice authorized at the discretion of the dentist to benefit the patient based on specific selection criteria.

SELECTION CRITERIA

Films & Frequency

The following selection criteria will be utilized by UMKC School of Dentistry to determine the specific films to be taken on patients and their frequency.

Examination Required

All patients will be clinically examined and their medical and dental histories obtained prior to diagnostic radiation exposure. A faculty member or licensed dentist will review recommendations by dental students or dental hygiene students and determine which and how many films are to be ordered and exposed.
New Patients

New patients to the School of Dentistry will be asked if recent radiographs are available during their screening visit. If recent films or duplicates are not available, then an appropriate X-ray examination will be ordered and completed.

Patient Need

The needs of the patient for diagnosis will determine the frequency of X-ray examinations and not the period of time elapsed since the last examination.

Faculty Approval

Digital plates will not be dispensed to students unless ordered by faculty of the School of Dentistry. Containers of digital plates will not be available for student use for retakes but will be dispensed after the radiograph(s) has (have) been reviewed by faculty.

Retakes

Undiagnostic radiographs should be retaken by faculty or trained staff unless it is their opinion that the student can successfully retake the film.

Administrative Radiographs

Prohibition and Definition

Administrative radiographs will not be taken on any patient. Administrative radiographs include films required by a third party for reasons other than diagnosis, treatment planning, or preventive services. Administrative radiographs are usually requested for nonprofessional reasons to verify treatment or a diagnosis. They usually result in unnecessary exposure to ionizing radiation and do not contribute to the health care benefit of the patient. The following are situations where purely administrative films may be requested.

Insurers

As a requirement of third-party insurance carriers to monitor or verify reimbursement claims for treatment.

Training Purposes

As a part of clinical experiences or training in dentistry — radiographs should not be taken to ensure competence of students without regard to the valid diagnostic needs of the individual patient.

Academic Purposes

For academic reasons — radiographs should not be repeatedly taken to obtain radiographs that are perfect if other radiographs contain similar diagnostic information. Routine examinations will not be used on new patients to determine their acceptability as patients for students. Radiographic examinations must not be used routinely for checking progress of treatment. Radiographic
examinations must not be used routinely for the purpose of checking adequacy of restorations, extractions, or orthodontic procedures when clinical observations alone will suffice. However, post-treatment radiographs are a necessary part of endodontic therapy.

<table>
<thead>
<tr>
<th>Record Maintenance and Research</th>
</tr>
</thead>
<tbody>
<tr>
<td>Maintenance of departmental records and case studies — exposure to ionizing radiation must not be used solely to develop or maintain departmental case records, to serve as a means for developing visual aids for teaching purposes or to conduct case studies. If patients are to be exposed to ionizing radiation for research purposes, or for clinical studies, written informed consent must be obtained from the patient. Such consent must be secured after the approval of the University’s Institutional Review Board.</td>
</tr>
</tbody>
</table>

**RADIATION PROTECTION**

<table>
<thead>
<tr>
<th>Record Keeping</th>
</tr>
</thead>
<tbody>
<tr>
<td>All patient exposures will be ordered through the appropriate part of the digital record. The date, type and number of radiographs will be included.</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Procedures</th>
</tr>
</thead>
<tbody>
<tr>
<td>All exposures of patients will be performed using leaded aprons and leaded cervical thyroid shields. All exposures will be performed using the posted appropriate kVp, mA and time settings. Users of X-ray generating equipment will follow good radiation hygiene practices. During exposures X-ray personnel will stand behind shielded walls or doors, will not hold films for patients, and will observe patients through the leaded glass shields so that no unnecessary retakes occur as the result of tube, film or patient movement.</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Film Badges</th>
</tr>
</thead>
<tbody>
<tr>
<td>All radiology faculty members, X-ray technicians and other departments’ faculty and staff who routinely use ionizing radiation will wear film badges. These badges are provided by the University Radiation Safety Office. This office maintains personnel records of exposure and sends a yearly report to each person being monitored. If the badge indicates that excessive radiation has been received, this office counsels the individual to improve radiation hygiene procedures.</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Equipment Inspection</th>
</tr>
</thead>
<tbody>
<tr>
<td>Annually, all UMKC School of Dentistry X-ray generators will be reviewed and tested by the Radiation Safety Office. The generator evaluations will include beam quality, geometry, exposure times and tube output. Copies of these tests will be maintained</td>
</tr>
</tbody>
</table>
by the head of the Section of Radiology. Any changes in location or machine settings will be coordinated by the head of the Section of Radiology. Rectangular long tube collimation and film holders will be encouraged.

**Apron and Shield Inspection**

Annually, all lead aprons and cervical shields will be visually inspected for cracks and defects and replaced if necessary. Aprons and shields will not be folded but hung when not in use.

**Radiology Clinic Appearance**

**Responsibilities**

Cleanliness is very important in all aspects of dentistry, and radiology is not an exception. Radiologic cubicles, reception areas and processing areas are viewed by students, visitors and patients. These areas will be cleaned by the assigned students who use them throughout the day.

**Cubicles**

- Floors should be kept free of all debris.
- Lead aprons should be hung on their hangers.
- Plastic headrest covers should be changed between patients.
- X-ray units should be placed against the wall when not in use.
- Used plastic wrap and other disposable items should be removed from the cubicle area after radiographs have been completed and the patient dismissed.

**Panoramic Rooms**

- Floors should be kept free of all debris.
- Lead aprons should be hung on their hangers.
- Bite guides should be cleaned and sterilized between uses.
- Counter tops should be dry and orderly.

**Infection Control Guidelines in Dental Radiology**

**Preparation**

All nondisposable film holding devices (Rinn XCP, Snap-A-Ray) should be autoclaved prior to use. Rinn XCP set and Snap-A-Ray instruments may be signed out from the radiology department for student use.

Hands should be washed with an appropriate disinfectant hand-wash (4 percent chlorhexidine gluconate) before and after glove use. Gloves should be worn at all times when making and processing intraoral radiographs.
Materials and Supplies

Prior to making radiographs, secure the desired number of digital plates at the front desk. Proceed with payment for radiographs and review of medical history.

Secure as many bite-wing tabs and STABE holders as needed from containers in each cubicle. Place these on the counter in the X-ray room, which should be covered with plastic wrap. Once the operator begins making radiographs, do not reach into these containers to secure additional supplies. If additional supplies are needed, the operator should remove gloves, rewash hands and put on new gloves before reaching into the container.

Preparing Surfaces

Surfaces that will be touched by the operator during treatment, including tubehead, cone, control panel, exposure button, chair armrests and the counter outside the cubicle, should be covered with plastic wrap prior to seating the patient.

An alternative to draping all surfaces with plastic wrap is to utilize two operators. One will place digital plate/sensor in the patient’s mouth, while the other positions the cone and makes the exposure. If this procedure is followed, strict attention must be exercised not to contact surfaces with contaminated, gloved hands.

Preparing Instruments

Film-holding devices (Rinn XCP) should be removed from the autoclave bag with gloved hands and placed on the covered countertop. These instruments should go from this counter to the patient’s mouth and back to the same counter.

Do not place used instruments on uncovered countertops or other areas in or out of the cubicle. When work is completed, remove cotton rolls from XCP instruments and wash, rinse and dry instruments. Place instruments in a new autoclave bag for sterilization, or place them in plastic bag until they can be transferred to an autoclave bag.

Digital Plates/Sensors

After the operator has secured digital plates from the front desk, digital plates should be arranged on the shelf outside the cubicle as they appear on the film mount. This shelf should be protected with plastic wrap.

Following each exposure, the digital plate should be removed from the protective barrier and deposited in the black box without contaminating the digital plate. When using direct digital sensors, the sensor should be placed in a protective barrier prior to use, and removed from the protective barrier after use without contaminating the sensor. When treatment is completed, gloves
should be removed and hands should be washed to avoid contaminating the lead apron and thyroid collar as they are removed from the patient.

**After Treatment**

Exposed digital plates deposited in the black box should be delivered to the scanning room in the radiology clinic along with a completed patient identification sheet.

Following scanning of digital plates, students should proceed to the viewing room in the radiology clinic to place the images in the electronic record and review the images with radiology faculty. Images made with direct digital sensors will be reviewed with radiology faculty in the radiology cubicles.

Following treatment, all disposable items contaminated with blood or other potentially infectious materials, including saliva, should be disposed of in regulated waste containers.

All uncovered (contaminated) surfaces must be disinfected with appropriate disinfectant spray. Spray bottles are available in cubicles in the clinic area. The uncovered surfaces should be sprayed, wiped with a paper towel, sprayed again and left to dry for approximately 10 minutes. Do not wipe the sprayed surfaces the second time.

At the end of the day, all surfaces touched during patient treatment, including those surfaces covered routinely with plastic wrap, should be disinfected as outlined above.

To disinfect the tubehead, cone, control panel and exposure button, dampen a gauze pad with the appropriate disinfectant, and clean and disinfect these surfaces. **DO NOT SPRAY THESE SURFACES DIRECTLY.**

**Panoramic Radiographs**

All of the above-mentioned procedures should be followed when making panoramic radiographs. Plastic wrap should be used to cover surfaces that will become contaminated during treatment. All uncovered surfaces that may have been contaminated should be disinfected with the appropriate surface disinfectant.

The exposed panoramic digital plate should be left in the closed cassette, which should be delivered to the scanning room in the radiology clinic along with a completed patient identification sheet.

**Additional Precautions**

All charts, books and other material not essential in the delivery of treatment should be kept away from the treatment area to avoid unnecessary contamination.
If there are any questions concerning these infection control guidelines for the radiology clinic, the operator should consult the radiology faculty member assigned to the clinic. Infection control is a critical part of dental practice. Students will be evaluated on their ability to adhere to these guidelines.

**Criteria for Radiographs**

**Standards**

The standards set by the American Dental Association, American Academy of Oral and Maxillofacial Radiology and American Dental Education Association and U.S. Department of Health and Human Services state that a complete history and examination are to be done prior to the ordering of dental radiographs. Only radiographs necessary to complete the diagnosis should be ordered. The professional discretion of the dentist must be used to determine which films are needed based on the conditions found during the clinical examination.

**Selection Criteria**

The publication, the *Selection of Patients for Dental Radiographic Examinations*, contains the selection criteria to be followed for ordering radiographs at the School of Dentistry. See chart on pages 4.80 and 4.81.

These selection criteria have been endorsed by the American Dental Association. Frequency of radiographs are based on patient history and clinical findings. Guidelines suggest that patients with evidence of generalized dental disease may need a full-mouth series of radiographs, while those with no clinical disease may only require bitewings.

At recall appointments, the need for additional radiographs should be determined for each individual patient, and not taken on a routine basis, e.g., every six months, on all patients.

**References**


COMPETENCY IN RADIOLOGY

Demonstrating Competency

Each student must be able to recognize the need for safely making and properly interpreting radiographic images for the provision of oral health care for persons of all ages and stages of life. To meet this curricular competency, the following must be met:

1. Satisfactory completion of 12 full-mouth intraoral surveys (216 intraoral radiographs)
2. Satisfactory completion of 8 panoramic surveys
3. Satisfactory completion of all assigned radiology rotations

In addition, each student will be expected to complete competency exams for panoramic and full-mouth surveys prepared by the Radiology Section Faculty.

Students will need to complete these requirements by the end of the spring semester of the third year to receive a final grade in the course, Clinical Oral Radiology (D6636). If these requirements have not been completed by that time, students will receive an incomplete grade in the course. If necessary, these requirements can be completed during the fourth year.
MANIKIN COMPETENCY EXAM — FULL-MOUTH SURVEY

Date___________       Pass/Fail       
Student Name____________________       Faculty Name_________________
# of retakes __________       # of retakes successfully completed __________

Place a checkmark in the appropriate box for each criterion under “CA” for clinically acceptable performance or under “U” for unacceptable performance.

<table>
<thead>
<tr>
<th>Criteria</th>
<th>Film Area</th>
<th>Evaluation</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
<td>Student</td>
</tr>
<tr>
<td></td>
<td></td>
<td>CA</td>
</tr>
<tr>
<td>1) Periapical areas surrounded by at least 3 mm of bone beyond the apex.</td>
<td></td>
<td></td>
</tr>
<tr>
<td>2) Contacts open in at least one view.</td>
<td></td>
<td></td>
</tr>
<tr>
<td>3) Show all 3rd molar areas.*</td>
<td></td>
<td></td>
</tr>
<tr>
<td>4) No more than 4 retakes.</td>
<td></td>
<td></td>
</tr>
<tr>
<td>5) Show all pathology in detail with normal border on additional films as necessary.</td>
<td></td>
<td></td>
</tr>
<tr>
<td>6) Minimal cone cuts; if present should not interfere with interpretative film quality.</td>
<td></td>
<td></td>
</tr>
<tr>
<td>7) No excessive elongation or foreshortening.</td>
<td></td>
<td></td>
</tr>
<tr>
<td>8) Films should be mounted correctly.</td>
<td></td>
<td></td>
</tr>
<tr>
<td>9) Exposure should be appropriate for area.</td>
<td></td>
<td></td>
</tr>
<tr>
<td>10) Apron and thyroid collar placed.</td>
<td></td>
<td></td>
</tr>
<tr>
<td>11) Infection control maintained.</td>
<td></td>
<td></td>
</tr>
<tr>
<td>12) Student interpretation of their technique.</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

* Third molar retake can be a panoramic radiograph, if indicated. Student should make this determination, with faculty approval.

**Student must complete all items to a clinically acceptable level.**

Comments:
PATIENT COMPETENCY EXAM — FULL-MOUTH SURVEY

Date____________ Pass/Fail
Patient Name ________________________ Patient Number ___________________
Student Name ________________________ Faculty Name ___________________
# of retakes __________
# of retakes successfully completed __________

Place a checkmark in the appropriate box for each criterion under “CA” for clinically acceptable performance or under “U” for unacceptable performance.

<table>
<thead>
<tr>
<th>Criteria</th>
<th>Film Area</th>
<th>Evaluation</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
<td>Student</td>
</tr>
<tr>
<td></td>
<td></td>
<td>CA  U</td>
</tr>
<tr>
<td>1) Periapical areas surrounded by at least 3 mm of bone beyond the apex.</td>
<td></td>
<td></td>
</tr>
<tr>
<td>2) Contacts open in at least one view.</td>
<td></td>
<td></td>
</tr>
<tr>
<td>3) Show all 3rd molar areas.*</td>
<td></td>
<td></td>
</tr>
<tr>
<td>4) No more than 4 retakes.</td>
<td></td>
<td></td>
</tr>
<tr>
<td>5) Show all pathology in detail with normal border on additional films as necessary.</td>
<td></td>
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<tr>
<td>6) Minimal cone cuts; if present should not interfere with interpretative film quality.</td>
<td></td>
<td></td>
</tr>
<tr>
<td>7) No excessive elongation or foreshortening.</td>
<td></td>
<td></td>
</tr>
<tr>
<td>8) Films should be mounted correctly.</td>
<td></td>
<td></td>
</tr>
<tr>
<td>9) Exposure should be appropriate for area.</td>
<td></td>
<td></td>
</tr>
<tr>
<td>10) Apron and thyroid collar placed</td>
<td></td>
<td></td>
</tr>
<tr>
<td>11) Infection control maintained</td>
<td></td>
<td></td>
</tr>
<tr>
<td>12) Student interpretation of their technique.</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

* Third molar retake can be a panoramic radiograph, if indicated. Student should make this determination, with faculty approval.

Student must complete all items to a clinically acceptable level.

Comments:
# PATIENT COMPETENCY EXAM – PANORAMIC SURVEY

Place a checkmark in the appropriate box for each criterion under “CA” for clinically acceptable performance or under “U” for unacceptable performance.

<table>
<thead>
<tr>
<th>Criteria</th>
<th>Evaluation</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Student</td>
</tr>
<tr>
<td></td>
<td>CA</td>
</tr>
<tr>
<td>1) No patient positioning errors:</td>
<td></td>
</tr>
<tr>
<td>• Too far forward/backward</td>
<td></td>
</tr>
<tr>
<td>• Chin tipped up/down</td>
<td></td>
</tr>
<tr>
<td>- Head turned to side</td>
<td></td>
</tr>
<tr>
<td>- Patient slumped</td>
<td></td>
</tr>
<tr>
<td>• Tongue not contacting palate</td>
<td></td>
</tr>
<tr>
<td>2) No artifacts (hairpins, earrings, lead apron, glasses, dentures)</td>
<td></td>
</tr>
<tr>
<td>3) Film density should be correct.</td>
<td></td>
</tr>
<tr>
<td>4) Apron placed</td>
<td></td>
</tr>
<tr>
<td>4) Infection control</td>
<td></td>
</tr>
<tr>
<td>5) Student interpretation of technique</td>
<td></td>
</tr>
</tbody>
</table>

*Student must complete all items to a clinically acceptable level.*

Comments:
*Clinical situations for which radiographs may be indicated include but are not limited to:

A. Positive Historical Findings
   1. Previous periodontal or endodontic treatment
   2. History of pain or trauma
   3. Familial history of dental anomalies
   4. Postoperative evaluation of healing
   5. Remineralization monitoring
   6. Presence of implants or evaluation for implant placement

B. Positive Clinical Signs/Symptoms
   1. Clinical evidence of periodontal disease
   2. Large or deep restorations
   3. Deep carious lesion
   4. Malposed or clinically impacted teeth
   5. Swelling
   6. Evidence of dental/facial trauma
   7. Mobility of teeth
   8. Sinus tract ("fistula")
   9. Clinically suspected sinus pathology
   10. Growth abnormalities
   11. Oral involvement in known or suspected systemic disease
   12. Positive neurologic findings in the head and neck
   13. Evidence of foreign objects
   14. Pain and/or dysfunction of the temporomandibular joint
   15. Facial asymmetry
   16. Abutment teeth for fixed or removable partial prosthesis
   17. Unexplained bleeding
   18. Unusual eruption, spacing or migration of teeth
   19. Unusual tooth morphology, calcification or color
   20. Unexplained absence of teeth.
   21. Clinical erosion
Factors increasing risk for caries may include but are not limited to:

1. High level of caries experience or demineralization
2. History of recurrent caries
3. High titers of cariogenic bacteria
4. Existing restoration(s) of poor quality
5. Poor oral hygiene
6. Inadequate fluoride exposure
7. Prolonged nursing (bottle or breast)
8. Frequent high sucrose content in diet
9. Poor family dental health
10. Development or acquired disability
11. Developmental or acquired enamel defects
12. Xerostomia
13. Genetic abnormality of teeth
14. Many multisurface restorations
15. Chemoradiation therapy
16. Drug/alcohol abuse
17. Poor dental care
18. Irregular dental care

GUIDELINES FOR PRESCRIBING DENTAL RADIOGRAPHS

The recommendations in this chart are subject to clinical judgment and may not apply to every patient. They are to be used by dentists only after reviewing the patient’s health history and completing a clinical examination. Because every precaution should be taken to minimize radiation exposure, protective thyroid collars and aprons should be used where possible. This practice is strongly recommended for children, women of childbearing age, and pregnant women. The operator should review and complete a medical examination, because any precaution should be taken to minimize radiation exposure. Protective thyroid collars and aprons should be used where possible.

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## Guidelines for Prescribing Dental Radiographs, Continued

<table>
<thead>
<tr>
<th>Type of Encounter</th>
<th>Patient Age and Dental Developmental Stage</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Recall patient</strong> with periodontal disease</td>
<td></td>
</tr>
<tr>
<td>Clinical judgment as to the need for and type of radiographic images for the evaluation of periodontal disease. Imaging may consist of, but is not limited to, selected bitewing and/or periapical images of areas where periodontal disease (other than nonspecific gingivitis) can be identified clinically.</td>
<td>Not applicable.</td>
</tr>
<tr>
<td><strong>Patient</strong> for monitoring of growth and development</td>
<td></td>
</tr>
<tr>
<td>Clinical judgment as to need for and type of radiographic images for evaluation and/or monitoring of dentofacial growth and development.</td>
<td>Clinical judgment as to need for and type of radiographic images for evaluation and/or monitoring of dentofacial growth and development. Panoramic or periapical exam to assess developing third molars.</td>
</tr>
<tr>
<td><strong>Patient</strong> with other circumstances including, but not limited to, proposed or existing implants, pathology, restorative/endodontic needs, treated periodontal disease and caries remineralization</td>
<td></td>
</tr>
<tr>
<td>Clinical judgment as to need for and type of radiographic images for evaluation and/or monitoring in these circumstances.</td>
<td></td>
</tr>
</tbody>
</table>
INTRODUCTION

Chairman

Dr. Brett L. Ferguson

Goals

To provide the graduating dental student with the necessary didactic and clinical skills to properly evaluate patients and provide oral surgery care in a safe, effective and caring manner.

Clinical experience in the Predoctoral Oral Surgery Outpatient Clinic is an essential part of the educational program for third- and fourth-year dental students. Clinical experiences are designed to be progressive in nature, with close integration and correlation of the biomedical sciences.

The didactic portion of the oral surgery program is integrated with the clinical phase so that at the terminal point of the pre-doctoral program, a graduate will be competent to meet the following objectives:

Objectives

1. Complete a comprehensive work-up of a surgery patient.
2. Make a proper diagnosis.
3. Adequately perform indicated dentoalveolar surgery.
4. Utilize proper technique in the extraction of teeth.
5. Adequately perform post-extraction alveoplasty.
7. Management of uncomplicated infections and assessment or referral of severe infections.
9. Understand when a referral is indicated.
THIRD-YEAR STUDENT ORAL SURGERY ROTATION

Summer, Fall or Spring of 2011-2012 School Year

1. Report to the Oral Surgery Clinic on the third floor at 9:00 a.m. for morning rotation and at 1:00 p.m. for afternoon rotation. Students are required to be present all day on the first day of rotation.

2. Rotation is from 9:00 a.m.–12:00 p.m. and from 1:00 p.m. –4:30 p.m.

3. Students must bring safety glasses and PPE’s.

4. In case of illness, please call Dr. Ferguson or Dr. Bellome at 235-2026.

5. Students will receive complete orientation about the Oral Surgery Rotation (evaluation, grades, etc.) on the first day of your rotation with Dr. Ferguson.

6. Students will be expected to present a topic, picked by the Oral Surgery faculty, to the students on their oral surgery rotation. These topics will be presented at the morning seminar from 9:00–9:30 a.m. The topics will cover clinical decision making for the medically compromised patient and current treatment paradigms for the oral surgery patient. Examples include: Insulin-dependent diabetic patient and need for glucose control in the preoperative period, treatment concerns for the hepatitis patient, etc. The format should be a Power Point presentation with handouts for the other student rotators and faculty. This presentation is mandated to complete this third-year rotation.

Competency and Requirements

You will be judged competent in the Department of Oral and Maxillofacial Surgery when the following are completed:

<table>
<thead>
<tr>
<th>Procedures</th>
<th>Quantity</th>
</tr>
</thead>
<tbody>
<tr>
<td>A. 1. Tooth Removal</td>
<td>50</td>
</tr>
<tr>
<td>2. Post-Operative Treatments</td>
<td>15</td>
</tr>
<tr>
<td>3. Nitrous-Oxide Sedation</td>
<td>3</td>
</tr>
</tbody>
</table>

B. Successful completion of a Clinical Performance and Competency Evaluation in Oral Surgery and Nitrous Oxide Sedation.
CRITERIA FOR EVALUATION OF CLINICAL PERFORMANCE AND COMPETENCY EVALUATION EXAMINATION

1. Preparation for Appointments

1. Presents to clinic on time with chart, indicated radiographs and other diagnostic material as indicated, e.g., study models.
3. Offers reasonable treatment options.
4. Knows and is able to describe anatomic landmarks and neuroanatomy involved in local anesthesia and obtains satisfactory surgical anesthesia.
5. Knows and is able to describe anatomy involved in surgical procedure.
6. Understands the patient’s medical risk level through physical evaluation and medical history and how they relate to the proposed surgical procedure.
7. Knows and understands the significance of patient’s present and past medications.
8. Knows patient’s history of allergies to drugs.
9. Obtains pre-operative vital signs (BP, P, R, T) as well as post-operative vital signs.

2. Patient Management

1. Explains the procedure and possible complications to the patient in layman terms (pre-operatively). Informed Consent sheet signed.
2. Demonstrates consideration for the patient during the procedure; establishes good rapport with patient.
3. Explains postoperative care and instructions.
4. Writes prescriptions when indicated, selecting appropriate medications.
5. Describes management of possible medical emergencies.

3. Patient Record

1. Accurate and legible record is made of Oral Surgery appointment.
2. Description of surgical procedures is thorough and complete enough to allow another clinician to understand what has taken place.
3. Description is made of any surgical or medical complications.
4. Pre-operative and postoperative medications are listed.

4. Technical Skills

1. Obtains surgical instrument tray and completes tray set-up, maintaining sterile technique.
2. Performs proper scrub, gloving and draping procedure.
3. Maintains sterile technique throughout the procedure.
4. Demonstrates proper chair positioning.
5. Maintains sterility during injections.
6. Performs proper injection technique.
7. Uses surgical instruments properly and in correct sequence.
8. Demonstrates knowledge and understanding of surgical procedure.
9. Properly assesses the factors relating to the degree of difficulty involved with specific procedures and technique adjustments necessary to overcome them.
10. Demonstrates atraumatic handling of tissue.
11. Demonstrates proper suture technique.
12. Relates to staff and assistants in professional manner.
13. Properly disposes of used instruments and non-sharp disposables and promptly returns tray to window.

5. Evaluation

Students must be able to demonstrate competency. This has been established as at least a 75% score on the overall competency examination. Students who do not pass will be remediated and retested by departmental faculty. Student remediation will entail student self-study and/or further clinical practice with retakes until the candidate is successful.

6. Competency and Grading

The successful completion of this examination exhibits competency in oral and maxillofacial surgery, evaluation of medical management of the dental patient, and local anesthesia. The Department Chairman will be responsible for collecting examination data.

The Oral Surgery Rotation is graded on a credit/no credit basis. Credit will be given at the end of the third year providing the student has completed his competency examination.
### ORAL AND MAXILLOFACIAL SURGERY COMPETENCY EXAMINATION

<table>
<thead>
<tr>
<th>CRITERIA</th>
<th>CA</th>
<th>U</th>
</tr>
</thead>
<tbody>
<tr>
<td>1. Assesses medical history and relation to procedure</td>
<td></td>
<td></td>
</tr>
<tr>
<td>2. Proper patient management and rapport</td>
<td></td>
<td></td>
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<tr>
<td>3. Review of medications with faculty</td>
<td></td>
<td></td>
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<tr>
<td>4. Vital signs taken and recorded</td>
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<tr>
<td>5. Informed consent signed and tooth marked with dye</td>
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<td></td>
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<tr>
<td>6. Appropriate radiographs available and properly interpreted</td>
<td></td>
<td></td>
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<tr>
<td>7. Appropriate presentation of case to faculty</td>
<td></td>
<td></td>
</tr>
<tr>
<td>8. Proper selection of instruments and forceps</td>
<td></td>
<td></td>
</tr>
<tr>
<td>9. Drapes and protective eyewear for patient</td>
<td></td>
<td></td>
</tr>
<tr>
<td>10. PPE, mask, protective eyewear for student</td>
<td></td>
<td></td>
</tr>
<tr>
<td>11. Proper use of sterile gloves</td>
<td></td>
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<tr>
<td>12. Knowledge of maximum recommended dose levels of local anesthetics</td>
<td></td>
<td></td>
</tr>
<tr>
<td>13. Knowledge of anatomy associated with local anesthesia</td>
<td></td>
<td></td>
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<tr>
<td>14. Proper use and understanding of nitrous oxide if utilized</td>
<td></td>
<td></td>
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<tr>
<td>15. Good technique used for anesthetic administration</td>
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<tr>
<td>16. Successful anesthesia achieved initially or a faculty-determined &quot;reasonable&quot; number of augmentation injections</td>
<td></td>
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<tr>
<td>17. Proper selection of dental elevators</td>
<td></td>
<td></td>
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<tr>
<td>18. Proper use of dental elevators</td>
<td></td>
<td></td>
</tr>
<tr>
<td>19. Proper soft tissue management</td>
<td></td>
<td></td>
</tr>
<tr>
<td>20. Proper chair position and light position</td>
<td></td>
<td></td>
</tr>
<tr>
<td>21. Oral pharyngeal gauze partition placed</td>
<td></td>
<td></td>
</tr>
<tr>
<td>22. Proper placement of forceps</td>
<td></td>
<td></td>
</tr>
<tr>
<td>23. Proper technique with forceps</td>
<td></td>
<td></td>
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<tr>
<td>24. Successful removal of tooth without unreasonable complications</td>
<td></td>
<td></td>
</tr>
<tr>
<td>25. Determination of need to perform alveoplasty</td>
<td></td>
<td></td>
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<tr>
<td>26. Manual compression of bony alveolar plates</td>
<td></td>
<td></td>
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<tr>
<td>27. Placement of Figure-8 suture</td>
<td></td>
<td></td>
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<tr>
<td>28. Proper suture tying technique</td>
<td></td>
<td></td>
</tr>
<tr>
<td>29. Proper postsurgical irrigation</td>
<td></td>
<td></td>
</tr>
<tr>
<td>30. Proper postoperative instructions given</td>
<td></td>
<td></td>
</tr>
<tr>
<td>31. Proper documentation in patient's record</td>
<td></td>
<td></td>
</tr>
<tr>
<td>32. Selection of appropriate analgesics and antibiotics</td>
<td></td>
<td></td>
</tr>
<tr>
<td>33. Arrangements for follow-up visit if indicated</td>
<td></td>
<td></td>
</tr>
<tr>
<td>34. Successful completion of oral examination which includes a discussion of any or all of the following: Management of medical emergencies, management of the medically compromised oral surgery patient, general surgical and medical questions, and self-assessment evaluation</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Student must complete all of the items to a clinically competent level to pass the examination.
# Nitrous Oxide Sedation Competency Examination

(Student MUST have a minimum of two Nitrous Oxide clinical experiences prior to taking this examination.)

<table>
<thead>
<tr>
<th>Patient _______________________________</th>
<th>Chart # ____________________________</th>
</tr>
</thead>
<tbody>
<tr>
<td>Student ______________________________</td>
<td>Date _______________________________</td>
</tr>
<tr>
<td>N2O experiences prior to exam ____________</td>
<td>Date______________________________</td>
</tr>
<tr>
<td>Faculty _______________________________</td>
<td>Pass/Fail __________________________</td>
</tr>
</tbody>
</table>

Place a checkmark (✓) in the appropriate box for each criterion under "CA" for clinically acceptable performance or under "U" for unacceptable performance.

<table>
<thead>
<tr>
<th>CRITERIA</th>
<th>CA</th>
<th>U</th>
</tr>
</thead>
<tbody>
<tr>
<td>1. Assesses medical history and relation to procedure and makes appropriate modifications, if needed.</td>
<td></td>
<td></td>
</tr>
<tr>
<td>2. Correctly assembles armamentarium (Scavenger unit is appropriately utilized).</td>
<td></td>
<td></td>
</tr>
<tr>
<td>3. Explains the rationale, risks and benefits of this procedure to the patient and obtains written consent.</td>
<td></td>
<td></td>
</tr>
<tr>
<td>4. Collects presedation vitals.</td>
<td></td>
<td></td>
</tr>
<tr>
<td>5. Begins 100% O2 flow at appropriate flow rate (O2 flow is begun before mask is placed over patient's nose).</td>
<td></td>
<td></td>
</tr>
<tr>
<td>6. Begins titration of N2O by administering 25% N2O.</td>
<td></td>
<td></td>
</tr>
<tr>
<td>7. Increases percentage of N2O in 5% increments every 2 minutes until ideal level of sedation is achieved.</td>
<td></td>
<td></td>
</tr>
<tr>
<td>8. Monitors level of O2 and N2O throughout the procedure.</td>
<td></td>
<td></td>
</tr>
<tr>
<td>9. Completes the planned procedure.</td>
<td></td>
<td></td>
</tr>
<tr>
<td>10. Simultaneously terminates N2O flow and re-established 100% O2 flow at the rate determined at the beginning of the procedure.</td>
<td></td>
<td></td>
</tr>
<tr>
<td>11. Maintains 100% O2 flow for a minimum of 5 minutes or longer if signs of clinical sedation persist.</td>
<td></td>
<td></td>
</tr>
<tr>
<td>12. Documents the procedure including flow rate, percentage N2O administered, discharge vital signs and patient's condition upon dismissal from the office.</td>
<td></td>
<td></td>
</tr>
<tr>
<td>13. Appropriately disassembles and returns equipment.</td>
<td></td>
<td></td>
</tr>
<tr>
<td>14. Uses appropriate infection control techniques.</td>
<td></td>
<td></td>
</tr>
<tr>
<td>15. Evaluates the effectiveness of this procedure.</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Student must complete ALL items to a clinically acceptable level to pass the examination.

Return completed examination to the Oral Surgery Office Coordinator.
MEDICAL EMERGENCIES CRITERIA FOR COMPETENCY

Students will be judged competent in the management of Medical Emergencies when they have successfully completed the following:

1. 16 Hour Class — Medical Emergencies in the Dental Office, D6439, second year class.
2. Oral and Maxillofacial Surgery Competency Exam.
3. Health Care Provider Basic Life Support with AED (automatic external defibrillator) certification, BLS-10 course.

ORAL SURGERY PROGRESS AND TREATMENT NOTES

Example — Paper Record  
(Age)-year-old (race) (sex) presents for extraction of teeth #18 and 19.
Diagnosis: Non-restorable caries
Medical History: Non-contributory
Medications: None
Allergies: None known
Blood dyscrasias: None
Vital Signs: Height, weight, blood pressure, pulse, respirations
Procedure: Extraction of teeth #18 and #19 without complications.
Anesthesia: Mandibular block using 72 mg of Lidocaine with Epinephrine 1:100,000 .036 m
Rx: Tylenol #3 tabs X 16
NRTC or POT date

— Electronic Record  
According to schema for each individual procedure.
A. Competency Evaluation: Objective Structured Clinical Exam (OSCE) in Orthodontics

Contents of Examination
Case-based examination: Case material will be radiographs, photographs and/or other records. Questions will test the candidate’s knowledge of various aspects of orthodontic care, including but not limited to diagnostic evaluation, treatment planning, biomechanics and appropriate treatment for the specific malocclusion displayed.

The OSCE will be given in the fall semester of the senior year by orthodontic faculty.

Evaluation
Students are to demonstrate competency. This has been established as a 70% score on the OSCE. Students who do not pass will be remediated and retested by departmental faculty. Student remediation will be focused student self-study with retake of the examination until all candidates are successful.

Competency
Irrespective of the letter grade achieved to fulfill the course requirements in the Department of Orthodontics and Dentofacial Orthopedics, all students must successfully complete the competency exam to be deemed competent in Orthodontics. The successful completion of this examination is one evaluation that exhibits competency in Orthodontics.
B. Grading Criteria

Course D6656C

Class of 2013

Each predoctoral student in the Class of 2013 will be required to complete a combination of assignments and activities. Attendance and participation in these assignments will be in accordance with the School of Dentistry’s established policies.

The following is an outline of the various letter grade requirements. It will be the responsibility of each student to begin/complete each assignment/activity by the date given for each. The letter grade for the course is an assessment of those works completed within the time frames allowed for each assignment/activity. Following are the letter grades assigned and a listing of the required assignments/activities:

Requirements for letter grade "A"

• One-week rotation in the Postgraduate Orthodontic Clinic
• Successful completion of the OSCE
• Scientific review paper
  • The topic should be approved and the paper must be submitted for evaluation by the last working day of July of the senior year to get credit for the paper.
• Limited tooth movement case
  • The case must be approved and started by August of the senior year to receive an “A.”
  • Starting a limited orthodontic case alone will not suffice to get an "A" grade. If the case is not completed in time due to "improper patient management," there will be a reduction of one letter grade.

Requirements for letter grade "B"

• One-week rotation in the Postgraduate Orthodontic Clinic
• Successful completion of the OSCE
• Scientific review paper
  • The topic should be approved and the paper must be submitted for evaluation by the last working day of July of the senior year.
  
OR

• Limited tooth movement case
  • The case must be approved and started by August of the senior year to receive a “B.”
  • Starting a limited orthodontic case alone will not suffice to get a “B” grade. If the case is not completed in time due to “improper patient management,” there will be a reduction of one letter grade.
Requirements for letter grade "C"

- One-week rotation in the Postgraduate Orthodontic Clinic
- Successful completion of the OSCE

Letter grade "F"

- Failure to complete the Postgraduate Orthodontic Clinic Rotation
- Failure to successfully complete the OSCE

C. DESCRIPTION OF GRADUATION REQUIREMENTS

1. Rotation in Postgraduate Orthodontic Clinic

Each predoctoral student in the Class of 2013 will be required to complete an assigned three half-day rotation in the postgraduate Orthodontic Clinic during the third year. One half day of the rotation will involve Orthodontic Screening Clinic supervised by orthodontic faculty, where predoctoral students will gain experience doing clinical examinations, identifying and describing malocclusions and craniofacial features, and consulting on orthodontic treatment needs. During the two other half days, each undergraduate will be assigned to a postgraduate orthodontic resident and assist in recording, diagnosing and treating the resident’s cases. The requirements for completion of this rotation are as follows:

- Timely attendance at each clinic session
- Active and appropriate participation in patient records, diagnosis and treatment
- Participation in any assigned clinical seminar or activity

Attendance will be taken at each assigned clinic or clinical seminar. Failure to attend each clinic or failure to complete the time requirements of each clinic or clinical seminar will result in failure of the course. Failure or refusal to participate as directed by the resident and/or the attending faculty member will also result in failure of the course. Failure to actively participate in any assigned clinical seminar during the rotation will also result in failure of the course.

If a student misses a half day of rotation due to unavoidable circumstances (health, weather, etc.), he/she is expected to make up the missed activity: screening or postgraduate clinic on another half day per the approval of the screening clinic faculty or chief resident, as appropriate, and the schedule of the postgraduate orthodontic clinic. Please note that scheduling patients or seeing your patients on an emergency basis during rotations will not be considered unavoidable circumstances.
2. Scientific Review Paper

The paper will be a scientific review of an appropriate topic relating to the field of Orthodontics and Dentofacial Orthopedics. Papers will be assigned as Pass/Fail with no option to rewrite the paper. The required criteria to earn a grade of Pass on the paper are as follows:

- Paper must be scientific in nature and on an appropriate, pre-approved topic
- Topic is the student’s choice but must be approved by Dr. Iwasaki
  - To initiate approval send by email to Dr. Iwasaki: topic, name, class
- Body of text:
  - At least five full pages in length, not including cover page and references
  - Double-spaced, 12-point font with a maximum of 1-inch margins
- Cover page with title, date and name
- Minimum of five references where:
  - Websites are not included in this count
  - At least one reference was published in the last two years
- Complete paper submitted:
  - By the end of the last working day of July of the senior year
  - To Dr. Iwasaki by email as a document or .pdf file

3. Limited Tooth Movement

Starting a limited orthodontic case alone will not suffice to get an "A" grade. The case must be treated with “proper patient management. To receive credit for the case, it must be approved and started by August of the senior year. Following is an outline of this activity:

A) Clinical Requirements and Documentation

1. Approval of case
   a. Criteria for care
   b. Method of approval
2. Clinical Records
   a. Clinical examination
   b. Intra and extra oral photographs
   c. Cephalometric analysis
   d. Study model analysis
   e. Space analysis
   f. Pano/full mouth radiographic study
   g. Problem list
B) Treatment

1. Treatment planning
2. Clinical treatment
   a. Routine preparation
   b. Appliance criteria
   c. Patient management
3. Post-treatment records and case presentation

The clinic will provide additional information to help you through the procedures in a step-wise fashion.

D. Evaluation

1. Overall Evaluation

There is one predoctoral orthodontic clinic course (D6656C). Students will have an incomplete for this course until they have successfully completed the requirements outlined in the course description and grading criteria. When these goals have been completed, the incomplete grade will be changed to an appropriate letter grade (A - F).

In order to get a letter grade "A", the student must complete an assigned three half-day rotation in the postgraduate orthodontic clinic during his/her third year, successfully complete the OSCE, submit and receive a passing grade for a scientific review paper, start and successfully treat a limited orthodontic tooth movement case. Since most limited tooth movement cases require a minimum of 9–12 months to complete, the case must be approved and started by August of the senior year. Please note that starting a limited orthodontic case alone will not suffice to get an "A" grade. If the case is not completed in time due to "improper patient management", the student will not receive credit for the case.

In order to get a letter grade "B", the student must complete an assigned three half-day rotation in the postgraduate orthodontic clinic during his/her third year, successfully complete the OSCE and either submit and receive a passing grade for a scientific review paper or start and successfully treat a limited orthodontic tooth movement case. Since most limited tooth movement cases require a minimum of 9–12 months to complete, the case must be approved and started by August of the senior year. Please note that starting a limited orthodontic case alone will not suffice to get a “B” grade. If the case is not completed in time due to “improper patient management,” the student will not receive credit for the case.

In order to get a letter grade "C", the student must complete an assigned three half-day rotation in the postgraduate orthodont-
tic clinic during his/her third year and successfully complete the OSCE. Failure to meet these requirements will result in a failing grade.

2. Clinical Requirements and Documentation

A. Approval of Case

1. Criteria for case
   The selection of a patient will be based on these criteria. The patient must be periodontally healthy and have all restorative care completed. This must be documented by consults if the patient’s primary dentist is not from UMKC or by the CMS record if the patient’s primary care is at UMKC. The patient has an area that needs limited tooth movement and there is sufficient space for this desired tooth movement. The tooth movement will require no more than 9 to 12 months. The patient must be available to come in every 2 to 6 weeks on the scheduled days the clinic is open.

2. Method of approval
   Your patient must be approved by one of the orthodontic faculty assigned to the predoctoral clinic. You must schedule your patient for an appointment when the predoctoral orthodontic clinic is open. The patient needs a current full mouth survey or a panoramic radiograph with bitewings for this consultation. Approval must be noted in the patient record.

B. Clinical Records — After the case is approved, the student must complete these records prior to the start of clinical treatment: a clinical exam recorded in CMS, a cephalometric X-ray with tracing, intra and extra oral photographs and digital orthodontic study models. If a complete full-mouth survey has not been taken within the last 12 months, then a new survey may need to be taken. All of the diagnosis from these records will be recorded on the predoctoral orthodontic diagnosis form in CMS.

1. Clinical Examination
   All hard and soft tissues need to be examined clinically and radiographically. All disease processes need to be resolved prior to placing the orthodontic appliance. No patient will be started with untreated areas of dental decay and/or periodontal disease. Poor oral hygiene can also be a factor in delaying the start of active treatment if improvement cannot be demonstrated by the patient. It is also critical to note missing and extra teeth. Any teeth showing
abnormally short roots are to be noted before treatment has begun.

2. Cephalometric Analysis
   The student will trace the appropriate anatomic and cephalometric landmarks on the cephalometric X-ray. You will record your results on your predoctoral orthodontic diagnosis form and complete the cephalometric analysis part of the CMS record. You should be able to describe the following to your patient and your instructor and discuss how they impact the patient's occlusion and profile.
   a. The dental classification
   b. The skeletal classification
   c. The soft tissue profile classification

3. Study Model Analysis — Two sets of impressions will be taken:
   a. Alginate impressions and wax bite. Poured up in white stone and trimmed for orthodontic standards.
   b. The student will take impressions and a wax bite to be digitized and displayed in Ortho-Cad software according to the standards set by the American Board of Orthodontics. These images and casts will enable you to identify the appropriate Angle Classification and how closely your patient's occlusion follows Andrews 6 Keys of an ideal occlusion. You should be able to assess:
      a. Archform shape and symmetry
      b. Rotations of teeth
      c. Space between teeth
      d. Missing and extra teeth
      e. Abnormal muscular influences on teeth
      f. Midline problems
      g. Dental and skeletal crossbites
      h. Overjet and overbite
      i. Tongue thrust and other habits that affect the position of teeth

4. Space Analysis
   All patients will have an archlength analysis performed on the mandibular and maxillary arch to evaluate the degree of tooth size — arch size discrepancy. If the patient is in the mixed dentition, you must predict the space needed through one of the available analyses.
5. Panoramic/Full Mouth Survey Radiographic Interpretation
   The student will examine the radiograph films to rule out skeletal, dental and soft tissue disease and abnormalities. It is extremely important to examine the unerupted teeth to evaluate their timely eruption in patients in the late primary and mixed dentitions.

6. Problem List
   The student will fully identify the dental, skeletal and soft tissue problems with the help of the orthodontic faculty.

C. Treatment

1. Treatment Planning
   Problems will be identified as to their severity. The student will establish the sequence of treatment needed to solve all the patient's problems comprehensively. The problems to be corrected with limited orthodontic treatment will then be identified and diagnosed. The orthodontic instructor will design the appliance needed for the limited tooth movement of the patient. The sequence for placing the appliance and for tooth movement will be written in the patient's chart. An appointment must be scheduled during the undergraduate instructor's office hours to determine the treatment plan. The treatment plan must be approved in the computer by the instructor before patient treatment can begin. All clinical forms must be completed prior to treatment plan appointment.

2. Clinical Treatment
   a. Routine Preparation
      The student must make appointments through the computer scheduling system in the clinic. The computer will only allow you to sign up for the undergraduate orthodontic clinic when it is open and when chairs are available. You must sign up no later than noon the day before the clinic is open. Emergency needs for all predoctoral orthodontic patients will be taken care of the same day in the student's cubicle or the predoctoral orthodontic clinic area if it is open. Students bringing in an unscheduled patient for a normal treatment visit will be asked to dismiss their unscheduled patient and reschedule properly on a future date on the computer. You should have already reviewed the procedure that you will be doing that day in the clinic. After the patient is seated, have your instructor sign in on CMS. After the patient's appliance is completely placed, your first procedure to perform
at each visit is to check for loose bands, broken bonds or any other damage to the appliance and assess the oral hygiene. If there are any broken brackets or loose bands, you must remove the archwires and replace/re-cement the appliance. Once the appliance is in place, check for any movement since the last visit. Your instructor will help you with the appropriate mechanics needed to continue the desired tooth movement and space closure. At the end of each patient's visit, make sure that the patient's appliances are NOT bothering him/her. Make sure that he/she has plenty of room for short-term relief from poking wires. The student should appoint their patients on a routine basis every 2–6 weeks until treatment is complete.

b. Appliance Criteria

1. Bands must be closely adapted and seated, space free of gingival or occlusal interference. Cement lines should not be excessive. Bracket positions should not induce unwanted tooth movement.
2. Attachments and wires must be smoothly formed, hygienic and must not impinge on soft tissue.
3. Acrylic must be smooth and polished, have adequate extension but not interfere with function nor impinge on soft tissues.
4. Appliance must be comfortable and function properly.

c. Patient Management

1. Restorative, endodontic and periodontal treatment must be completed first and successfully resolved in all areas requiring orthodontic therapy. However, crowns and final laminates should not be placed until after orthodontic treatment. Rarely will the comprehensive treatment plan indicate a deviation from this routine.
2. Scrupulous oral hygiene and oral hygiene instruction must be maintained and reinforced to patients under orthodontic care by the student.

d. Retention

Retention must be designed to prevent relapse. Impressions will be taken before the fixed appliances are removed.

The student is obligated to continue treating the patient while the patient is wearing retainers.
3. Post Treatment Records and Case Presentation
The student will take post-treatment impressions and a wax bite to complete their digital study casts. Periapical X-rays and/or panoramic radiograph will also be taken for the arch on which orthodontic treatment was completed to reassess hard and soft tissue health. Post-treatment intra and extra oral photographs will be taken. These records will be displayed along with the patient's initial records at the end of the senior year for your classmates and faculty to examine your case results.

**CLINICAL REQUIREMENT FOR GRADUATION**

**Recommended Time Frame for Limited Tooth Movement Cases in Predoctoral Clinic**

| A. Tooth Tipping, Space Closure and/or consolidation (Removable) | 6 - 9 months |
| B. Single arch-anterior realignment (Fixed) | 9-12 months |
| C. Molar Uprighting (Fixed Appliance) | 9-12 months |
| D. Dental Crossbite Appliance (Removable) | 6-9 months |
| (Fixed) | 3-4 months |

**Table 1**
**ORTHOdontic Sample Entry**

**Progress and Treatment Notes**

<table>
<thead>
<tr>
<th>Date</th>
<th>Prob. #</th>
<th>Area</th>
<th>Procedure - (SOAP)</th>
<th>Student</th>
<th>Faculty</th>
</tr>
</thead>
<tbody>
<tr>
<td>5/6/08</td>
<td></td>
<td>Orthodontics</td>
<td>records upper-lower impressions, alginate with wax bite in centric, patient scheduled with radiology for their cephalometric film.</td>
<td></td>
<td></td>
</tr>
<tr>
<td>6/10/08</td>
<td></td>
<td>Orthodontics</td>
<td>fixed appliance separators placed for banding the next appointment. Counseled patient on oral hygiene and eating habits with this appliance.</td>
<td></td>
<td></td>
</tr>
<tr>
<td>6/20/08</td>
<td></td>
<td>Orthodontics</td>
<td>fixed placed bands on these teeth 6 21 12 6, bands were fit, crimped and cemented (zn phosphate) an .016 archwire (stainless steel) was placed in the maxillae, each tooth was ligated with .010 ligature wire.</td>
<td></td>
<td></td>
</tr>
<tr>
<td>6/30/08</td>
<td></td>
<td>Orthodontics</td>
<td>removable retainer adjusted to tighten labial bow to bring upper left central into alignment. Counseled patient on care of the appliance out of the mouth.</td>
<td></td>
<td></td>
</tr>
<tr>
<td>7/1/08</td>
<td></td>
<td>Patient failed</td>
<td>— will be contacted to make up visit no later than 1–2 weeks.</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>
**PROTOCOL FOR ORTHODONTIC CONSULTS**

Re: Orthodontic consultations for patients seen by pre-doctoral (dental) students
  - e.g. new patients receiving comprehensive care work-ups, pediatric patients and interdisciplinary cases

Clinical orthodontic faculty may be asked to provide a consultation, as able, on Thursdays and Fridays (morning and afternoon clinic periods) plus Tuesday afternoons instead of Dr. I. Reed. This will only be a visual screening to see if the patient would benefit from orthodontic follow-up. There will be no charge for this type of consult and no paper forms to complete.

**PROTOCOL**

If an orthodontic consultation is indicated, the dental student will:
  - Temporarily leave the patient in his/her chair
  - Go to the Graduate Orthodontic (Grad Ortho) Clinic to check with front desk on the availability of a faculty to do a consultation

<table>
<thead>
<tr>
<th>If an orthodontic faculty can perform the consultation</th>
<th>If NO orthodontic faculty is available</th>
</tr>
</thead>
<tbody>
<tr>
<td>The dental student will:</td>
<td>(Grad Ortho patients and clinical activities will be their first priority)</td>
</tr>
<tr>
<td>- Bring the patient to the Grad Ortho Clinic</td>
<td>The dental student will:</td>
</tr>
<tr>
<td>- Introduce the patient</td>
<td>- Re-schedule the patient for a mutually convenient time when Dr. I. Reed is available on</td>
</tr>
<tr>
<td>- Be present during the consultation</td>
<td>- Mondays (a.m. or p.m.)</td>
</tr>
<tr>
<td>- Set-up a computer so the “Consult Performed” note can be entered</td>
<td>- Tuesday mornings</td>
</tr>
<tr>
<td>The main objective will be to provide a response to the “Consult Ordered” by the dental student in the CMS system.</td>
<td></td>
</tr>
<tr>
<td>This will involve typing a short note (“Consult Performed”) that indicates:</td>
<td>- Wednesdays (a.m. or p.m.)</td>
</tr>
<tr>
<td>- Patient seen by</td>
<td></td>
</tr>
<tr>
<td>- Very brief description of the malocclusion</td>
<td></td>
</tr>
<tr>
<td>- Treatment potentially needed</td>
<td></td>
</tr>
<tr>
<td>- Suggested clinic:</td>
<td></td>
</tr>
<tr>
<td>- Grad Ortho Clinic</td>
<td></td>
</tr>
<tr>
<td>- Undergrad Ortho Clinic</td>
<td></td>
</tr>
<tr>
<td>- Private practice</td>
<td></td>
</tr>
</tbody>
</table>

If the patient is referred to the Grad Ortho Clinic, the patient can be scheduled for a formal orthodontic screening appointment with regular screening fees associated.
OVERVIEW

Goals

The clinical evaluation philosophies of the Pediatric Dentistry Department are founded on the concept of “TOTAL PATIENT CARE.” During sessions in the Pediatric Dentistry clinic, each student is to demonstrate his/her ability to complete the total patient care with a clear understanding of the special needs of the child patient.

By fulfilling the clinical requirements, the student will become confident of his/her ability to treat children and will have the satisfaction of delivering total oral health for children. In addition, graduates will be competent in general dental care for the child dental patient.

Behavioral Objectives

The dental evaluation of each child patient shall include:

1. Thorough medical history.
2. Examination of hard and soft tissues of the mouth.
3. Diagnosis of the existing dentition and soft tissues.
4. Appropriate diagnostic radiographs as prescribed by the AAPD.
5. Study models when indicated.
6. Treatment plan including dental restorations, space management, and appropriate referrals, when indicated.
7. Complete progress notes including behavior management, plaque index, occlusal classification, operative experiences, medications and prognosis.
8. Caries control procedures.
9. Appropriate post-operative radiographs, when indicated.
10. Routine periodic recall based on individual patient needs.
Essential Patient Experiences

To assist students in development of competence, the faculty require that each student provide comprehensive care to a minimum of four patients. It is suggested that students begin pediatric dental care early in their clinical experiences. The grading system for clinical pediatric dentistry has been set up to encourage this approach.

Evaluation

To be effectively evaluated for graduation, cases will be evaluated as to completeness and conciseness of the examination, diagnosis, treatment plan, accuracy of records, patient management and post-operative radiographs.

All operative, restorative and therapeutic procedures will be evaluated by a member of the Pediatric Dentistry faculty as to the student’s knowledge, understanding and degree of effectiveness in achieving such procedures.

Each student is urged to carry as many active patients as his/her individual schedule permits and to see them on a regular basis. When treatment for a patient has been completed, a new patient is to be requested. Patients with less than four (4) operative procedures may be considered a half-completed patient towards the minimum graduation requirement.

Evaluation of clinical skills will be based on a point system (a copy of which is provided).

Third Year

A letter grade will be given for Cl. Pediatric Dentistry II (6507C) based on the following:

<table>
<thead>
<tr>
<th>Minimum</th>
<th>Grade</th>
</tr>
</thead>
<tbody>
<tr>
<td>0 – 59 points</td>
<td>Incomplete</td>
</tr>
<tr>
<td>60 points</td>
<td>C</td>
</tr>
<tr>
<td>70 points</td>
<td>B</td>
</tr>
<tr>
<td>80 points</td>
<td>A</td>
</tr>
</tbody>
</table>

If the required number of points have not been acquired by the end of the spring semester, a grade of “incomplete” will be given and the student will have until the end of the following summer semester to complete the third-year requirements and will receive a grade one letter lower than if the requirements were met on time. Extenuating circumstances, if documented in writing, will be taken into consideration when making the decision.

Fourth Year

Evaluations of fourth-year students will be given for the fall semester and again during the spring semester. Before the end of the fall semester of the fourth year (Cl. Pediatric Dentistry I 6606C), the student should have completed a minimum of:
Three completed patients and

<table>
<thead>
<tr>
<th>Points</th>
<th>Grade</th>
</tr>
</thead>
<tbody>
<tr>
<td>0 – 79</td>
<td>F</td>
</tr>
<tr>
<td>80 – 119</td>
<td>D</td>
</tr>
<tr>
<td>120 – 139</td>
<td>C</td>
</tr>
<tr>
<td>140 – 159</td>
<td>B</td>
</tr>
<tr>
<td>160+</td>
<td>A</td>
</tr>
</tbody>
</table>

Less than three completed patients, regardless of number of points acquired, student will receive a grade of “F”.

Before the end of the spring semester of the fourth year (Cl. Pediatric Dentistry IV 6607C), the student should have completed a minimum of:

Four completed patients and

<table>
<thead>
<tr>
<th>Points</th>
<th>Grade</th>
</tr>
</thead>
<tbody>
<tr>
<td>0-119</td>
<td>F</td>
</tr>
<tr>
<td>120–149</td>
<td>D</td>
</tr>
<tr>
<td>150–169</td>
<td>C</td>
</tr>
<tr>
<td>170–199</td>
<td>B</td>
</tr>
<tr>
<td>200+</td>
<td>A</td>
</tr>
</tbody>
</table>

**Student Responsibilities**

It must be emphasized that the availability of suitable patients for treatment is a shared responsibility between the student and department. While the Pediatric Dentistry department will screen and assist the student in this regard, this should never be construed to mean that the responsibility for patient availability resides **solely** with the department. When you are assigned a patient from the department, you will receive a notice in your team mail box AND via email. Please contact your patient(s) within seven days of being assigned. Failure to do so may result in the patient being reassigned to another student.

Consequently, the lack of available patients will NOT be accepted as an excuse for inadequate clinical experience. The student must work with the department in every attempt to secure patients. It may be necessary to encourage your adult patients and friends to bring their children to the clinic for dental treatment.

It is imperative that appointments be scheduled in the department using the Computer Management System.

The effectiveness of these objectives and their attainment is in direct relationship to, and is contingent upon, the desire of the student to actively seek as much experience as possible in the Department of Pediatric Dentistry.
Scheduling Patients

**CLINIC HOURS**

<table>
<thead>
<tr>
<th>Day</th>
<th>Time</th>
</tr>
</thead>
<tbody>
<tr>
<td>Monday</td>
<td>9 a.m.–12 p.m. only</td>
</tr>
<tr>
<td>Tuesday</td>
<td>9 a.m.–12 p.m. and 1–4 p.m.</td>
</tr>
<tr>
<td>Wednesday</td>
<td>9 a.m.–12 p.m. only</td>
</tr>
<tr>
<td>Thursday</td>
<td>9 a.m.–12 p.m. and 1–4 p.m.</td>
</tr>
<tr>
<td>Friday</td>
<td>9 a.m.–12 p.m. only</td>
</tr>
</tbody>
</table>

If you schedule your patient in your schedule in the CMS, make sure you also schedule your patient in the Pedo schedule. If your patient cancels or reschedules an appt., make sure you cancel your appt. in the Pedo schedule as well.

When a patient cancels, it is your responsibility to notify the department (1) in person, (2) by phone, or (3) by email. Your name should be crossed off the posted schedule or deleted in the pedo schedule in the CMS before clinic session starts. Failure to do so will result in five (5) points being deducted from your current total for each occurrence.

Note: **ALWAYS** schedule your patients for the entire session (e.g. 9:00–12:00 or 1:00–4:00). If you schedule a patient from 1:00–2:30, you need to know that someone will sign up for 2:30–4:00 and you will need to leave at 2:30 even if you are not done with your patient.

Your cooperation with this matter will be greatly appreciated. If you have any questions, please contact any of the Pediatric Dentistry faculty.

Transferring Patients and Inactivation Procedures

Once assigned, the patient’s oral health becomes the responsibility of the student. This responsibility remains until the patient is transferred in the spring semester of the senior year or until the patient is inactivated.

In the event of reluctance on the part of the parent to maintain regular appointments, persistence in cancellations, or failed appointments, notations are to be made in the progress notes and called to the attention of a member of the Pediatric Dentistry department faculty who will take appropriate action to continue or discontinue treatment.

A student needing to inactivate or transfer a patient must request permission from a Pediatric Dentistry faculty member.

Graduating senior students may transfer their patients to incoming third or fourth year students after April 15th.
Competency Objectives

The student will be required to complete the following competency examinations which will be held the first week of Lowry Clinic rotation. They will be performed on a manikin. When completed, the procedures will be evaluated by Pediatric Dentistry faculty according to department guidelines.

1. Preparation of a primary molar for restoration with a stainless steel crown.
2. Class II cavity preparation on a primary molar.
3. Soldered unilateral or bilateral space maintainer.
4. Access preparation for a pulpotomy on a primary molar.
5. Knee to knee lap examination of an infant or toddler.

The student will be considered competent when didactic courses have been successfully completed, satisfactory patient care has been provided to four pediatric dental patients, and the competency exams listed above have been successfully completed.
Department of Pediatric Dentistry
Competency Examination

Student Name & #: __________________________ Date: ________________

Faculty Signature: ________________________  PASS / FAIL (circle one)

Place a checkmark (✓) in the appropriate box for each criterion under “CA” for clinically acceptable performance or under “U” for unacceptable.

Criterion for Assessment for Knee to Knee Lap Examination

<table>
<thead>
<tr>
<th></th>
<th>CA</th>
<th>U</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>Appropriate conditions cited for using a knee to knee lap examination as the examination method of choice</td>
<td></td>
</tr>
<tr>
<td>2</td>
<td>Informed consent obtained from parents and proper instructions given regarding positioning and parental role</td>
<td></td>
</tr>
<tr>
<td>3</td>
<td>Adhered to all standard precautions appropriate for this procedure</td>
<td></td>
</tr>
<tr>
<td>4</td>
<td>Infant/toddler positioned properly for examination. Mirror examination performed properly</td>
<td></td>
</tr>
<tr>
<td>5</td>
<td>Findings of examination discussed with parent and proper recommendations made for follow-up care</td>
<td></td>
</tr>
<tr>
<td>6</td>
<td>Student is able to accurately self-assess their ability to satisfactorily complete this procedure</td>
<td></td>
</tr>
</tbody>
</table>

Student must complete ALL of the above items to a clinically acceptable level in order to pass this examination.

Items may be simulated with a manikin doll, using the faculty evaluator to represent the role of the parent.
Department of Pediatric Dentistry
Competency Examination

Student Name & #: ___________________________ Date: ________________

Faculty Signature: ___________________________ PASS / FAIL (circle one)

Place a checkmark (✓) in the appropriate box for each criterion under “CA” for clinically acceptable performance or under “U” for unacceptable.

Criterion for Assessment for Pulpotomy on a Primary Molar

<table>
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<tr>
<th></th>
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<th>CA</th>
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</thead>
<tbody>
<tr>
<td>1</td>
<td>Appropriate conditions cited for pulpotomy selected as the treatment of choice</td>
<td></td>
<td></td>
</tr>
<tr>
<td>2</td>
<td>Adhered to all standard precautions appropriate for this procedure</td>
<td></td>
<td></td>
</tr>
<tr>
<td>3</td>
<td>Tooth isolated properly/anesthesia adequate</td>
<td></td>
<td></td>
</tr>
<tr>
<td>4</td>
<td>Occlusal access is adequate and properly outlined</td>
<td></td>
<td></td>
</tr>
<tr>
<td>5</td>
<td>Proper cavity depth achieved and/or discussed if manikin used</td>
<td></td>
<td></td>
</tr>
<tr>
<td>6</td>
<td>All coronal pulp removed and/or discussed if manikin used</td>
<td></td>
<td></td>
</tr>
<tr>
<td>7</td>
<td>Proper medicament placed and/or discussed if manikin used</td>
<td></td>
<td></td>
</tr>
<tr>
<td>8</td>
<td>Pulpotomy paste mixed and condensed properly</td>
<td></td>
<td></td>
</tr>
<tr>
<td>9</td>
<td>Final restoration discussed and treatment planned properly</td>
<td></td>
<td></td>
</tr>
<tr>
<td>10</td>
<td>Post operative instructions given regarding anesthesia recovery and follow-up care of treated tooth</td>
<td></td>
<td></td>
</tr>
<tr>
<td>11</td>
<td>Student is able to accurately self-assess their ability to satisfactorily complete this procedure</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Student must complete ALL of the above items to a clinically acceptable level in order to pass this examination.
### Clinic Orientation Manual

**Pediatric Dentistry**

**DEPARTMENTAL GUIDELINES**

**Sec. 4.114**

**Clinic of 2013**

<table>
<thead>
<tr>
<th>12</th>
<th>11</th>
<th>10</th>
<th>9</th>
<th>8</th>
<th>7</th>
<th>6</th>
<th>5</th>
<th>4</th>
<th>3</th>
<th>2</th>
<th>1</th>
</tr>
</thead>
<tbody>
<tr>
<td>1. Student must complete ALL of the above items to a clinically acceptable level in order to pass this examination.</td>
<td>2. Student is able to accurately self-assess their ability to satisfactorily complete this procedure.</td>
<td>3. Post operative instructions given regarding diet restrictions and care of appliance.</td>
<td>4. Appliance is properly cleaned or describe if procedure is done with a manikin.</td>
<td>5. Appliance is finished and polished properly.</td>
<td>6. Soldered portion cleaned and flux applied properly.</td>
<td>7. Soldered joint is smooth and surrounds the entire wire.</td>
<td>8. Loop secured on the model or spot-welded properly.</td>
<td>9. Bilateral or unilateral loop band and fitted properly.</td>
<td>10. Alginite impression completed if two appointment procedure is chosen.</td>
<td>11. Adhered to all standard precautions appropriate for this procedure.</td>
<td>12. Appropriate conditions cited for type of space maintainer selected.</td>
</tr>
</tbody>
</table>

** Criterion for Assessment for Soldered Space Maintainer**

**Faculty Name & #:**

**Date:**

**PASS / FAIL (circle one)**

**Place a checkmark (✓) in the appropriate box for each criterion under "CA" for clinically acceptable performance or under "U" for unacceptable.**
Department of Pediatric Dentistry
Competency Examination

Student Name & #: __________________________ Date: __________________________

Faculty Signature: __________________________ PASS / FAIL (circle one)

Place a checkmark (✓) in the appropriate box for each criterion under “CA” for clinically acceptable performance or under “U” for unacceptable.

Criterion for Assessment for Chrome Steel Crown Restoration

<table>
<thead>
<tr>
<th></th>
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<th>CA</th>
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<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>Appropriate conditions cited for chrome steel crown restoration selected as the treatment of choice</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>2</td>
<td>Adhered to all standard precautions appropriate for this procedure</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>3</td>
<td>Tooth isolated properly/anesthesia adequate</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>4</td>
<td>Proper interproximal reduction/contacts broken with preparation</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>5</td>
<td>Proper occlusal reduction achieved with preparation</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>6</td>
<td>Appropriate crown size selected</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>7</td>
<td>Crown properly fitted, trimmed, crimped, and polished</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>8</td>
<td>Cementation procedures completed and occlusion checked or described if procedure is done with a manikin</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>9</td>
<td>Occlusion checked or describe if procedure is done with a manikin</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>10</td>
<td>Post operative instructions given regarding diet restrictions and care of restoration</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>11</td>
<td>Student is able to accurately self-assess their ability to satisfactorily complete this procedure</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Student must complete ALL of the above items to a clinically acceptable level in order to pass this examination.
Department of Pediatric Dentistry
Competency Examination

Student Name & #: ___________________________ Date: ___________

Faculty Signature: ___________________________ PASS / FAIL (circle one)

Place a checkmark (✓) in the appropriate box for each criterion under “CA” for clinically acceptable performance or under “U” for unacceptable.

Criterion for Assessment for Class II restoration on a primary molar

<table>
<thead>
<tr>
<th></th>
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</thead>
<tbody>
<tr>
<td>1</td>
<td>Appropriate conditions cited for the type of restoration selected</td>
<td></td>
<td></td>
</tr>
<tr>
<td>2</td>
<td>Adhered to all standard precautions appropriate for this procedure</td>
<td></td>
<td></td>
</tr>
<tr>
<td>3</td>
<td>Tooth isolated properly/anesthesia adequate</td>
<td></td>
<td></td>
</tr>
<tr>
<td>4</td>
<td>Preparation has an appropriate outline form</td>
<td></td>
<td></td>
</tr>
<tr>
<td>5</td>
<td>Preparation of the interproximal box is appropriate</td>
<td></td>
<td></td>
</tr>
<tr>
<td>6</td>
<td>All decay removed</td>
<td></td>
<td></td>
</tr>
<tr>
<td>7</td>
<td>Wedge and matrix band placed appropriately</td>
<td></td>
<td></td>
</tr>
<tr>
<td>8</td>
<td>Restoration condensed appropriately and light cured adequately if resin restoration is placed</td>
<td></td>
<td></td>
</tr>
<tr>
<td>9</td>
<td>Margins finished appropriately and occlusion checked</td>
<td></td>
<td></td>
</tr>
<tr>
<td>10</td>
<td>Post operative instructions given regarding anesthesia recovery and care of restoration</td>
<td></td>
<td></td>
</tr>
<tr>
<td>11</td>
<td>Student is able to accurately self-assess their ability to satisfactorily complete this procedure</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Student must complete ALL of the above items to a clinically acceptable level in order to pass this examination.
**Initial Patient Visit**

Clinical data phase:

A. Have record signed in by an instructor.

B. Review medical and family history with parent — obtain consultation from physician if indicated.

C. Thorough prophylaxis (to facilitate clinical examination).

D. Clinical examination and X-ray evaluation:
   1. soft tissue-mucosa, muscle attachments, etc.
   2. anomalies, hard and soft tissue
   3. caries detection
   4. occlusal evaluation
   5. ectopic eruptions, periapical radiolucencies, congenital omissions, supernumeraries, etc.
   6. obtain study models (if needed)
   7. fluoride application
   8. have record signed out

E. Obtain appropriate and diagnostic x-rays (student should be able to recognize a diagnostic X-ray).

After all pertinent information has been obtained, a comprehensive diagnosis and treatment plan can be developed. It is important for the student to not only recognize conditions requiring treatment but to also recognize conditions requiring consultation or referral.

The student must form his own treatment plan and the reasons thereof. Faculty will then re-examine the patient and approve or disapprove (with reasons) the treatment plan. A final treatment plan is then approved by both faculty and parent/guardian on the first visit.

**Second Visit**

Begin operative phase. Student will provide all necessary supplies, pliers and equipment required to be on hand at each appointment in the Pediatric Dentistry clinic.

Operative setups should be clean and neat with appropriate instruments and equipment, showing some organization of thought.

X-rays should be reviewed at each appointment prior to beginning the restorative procedure. Study models, when indicated, should be available.
Completed Patients Exit Examination and Post-Op Case Presentation

At the last patient visit after completion of the proposed treatment plan and the restorations are polished, the patient is checked by a clinical instructor for completion. The following items are noted:

- No untreated lesions or other problems noted.
- The treatment plan is completed in a timely manner.
- Progress notes are concise and accurate.
- The medically compromised patient is cared for properly.
- No soft tissue inflammation.
- Home care technique is evaluated.
- Occlusion is within acceptable limits.
- All margins on restorations are smooth.
- Patient/parent satisfaction is assured.
- Patient/parent understands HCI received.

After patient dismissal, the post-op case presentation is presented to and evaluated by a member of the Pediatric Dentistry faculty, and the student is credited with the appropriate number of points for the patient’s treatment.

Recall Program

All completed patients must be seen every three to six months for recall as long as they are active patients. If any new lesions are detected on recall, a new treatment plan may be presented. Once a new treatment is approved by an instructor and parent, proceed with the necessary restorations. The patient will then be placed on another recall. The point system also applies to recall patients.

Remediation

In the event that a student receives a grade of "F" during their fourth year fall and spring semester, it is necessary for the student (1) to pass all competency examinations, and (2) to continue to provide care in the predoctoral clinic until he/she attains the minimum four (4) completed patients required for graduation. The student will then receive a final grade of "D" and receive the department’s recommendation for graduation.
Pediatric Dentistry Point System

Points Awarded | Category
---|---
10 | DIAGNOSIS
   | Treatment plan
   | Basic disease control
   | Diagnostic cast
   | Patient education and motivation
   | Self-care instructions in tooth brushing
   | Prophylaxis and fluoride treatment, oral hygiene instructions,
     | pedo occlusion exam
   | Complete progress notes
   | Behavior management
   | Appropriate diagnostic radiographs
10 | KNEE LAP EXAM
5 | PROMPT PERIODIC RECALLS
1 | DIET ANALYSIS AND COUNSELING
5 (maximum) | FISSURE SEALANTS
   | AMALGAMS
| a. one surface
| b. two surfaces
| c. three surfaces
| COMPOSITES
| a. Cl. I, III, V
| b. Cl. II, IV
3 | CHROME STEEL CROWN
3 | PULPOTOMY
3 | SEDATIVE FILLINGS and/or INDIRECT PULP CAP
   | (Permanent Teeth Only)
2 | SUCCESSFUL NITROUS OXIDE SEDATION
2 | EXTRACTION – primary tooth
5 | APPLIANCES
   | Unilateral space maintainers - fixed
   | Bilateral space maintainers - fixed
10 | INTERCEPTIVE ORTHODONTICS
   | Hawley retainers
   | Tongue thrust retainers
   | Space regainer
   | Acrylic bite plane
   | Single tooth posterior cross-bite appliance
   | Ectopic molars with de-impactor or ligature wire
   | Quadhelix or jackscrew appliance
5 | TREATMENT OF TRAUMATIC INJURIES TO ANTERIOR TEETH (emergency treatment and intermediate restoration)
10 | INTERIM PROSTHETIC (REMOVAL) APPLIANCE
20 (maximum) | EXTRAMURAL ROTATIONS
1 | CHAIRSIDE ASSISTING IN THE PEDIATRIC CLINIC
   | (20 pts maximum)

**Lowry Clinic Rotation**

1. points will be awarded for each completed procedure
2. 1.0 completed patient
PERIODONTICS

Sub-Section Contents

• Predoctoral Periodontics. . . . . . . . . . . . . . . . . . . . . . 121
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  - Third-Year Competencies/Skills Assessments . 122
  - Fourth-Year Competencies/Skills Assessments 125
• Periodontics Department Remediation Policy . . . . 143
• Periodontics Objectives . . . . . . . . . . . . . . . . . . . . . . 143
• Patient Records . . . . . . . . . . . . . . . . . . . . . . . . . . . . . 147
• Predoctoral Periodontics Guidelines. . . . . . . . . . . . . . 149

Chairman
Dr. John W. Rapley — Director, Predoctoral Periodontics

PREDOCTORAL PERIODONTICS

GOALS

The graduating dental students will be provided the necessary didactic and clinical skills to safely and effectively manage the periodontal needs of their patients.

The didactic portion of the Periodontics program is to be integrated with the clinical program, and the acquisition of clinical skills so that at the terminal point of the predoctoral program a graduate should be competent to meet the following objectives:

OBJECTIVES

1. Conduct a comprehensive examination of a patient.
2. Determine etiology, diagnosis, prognosis, and establish a treatment plan.
3. Treat gingivitis, beginning periodontitis, and uncomplicated moderate periodontitis with complete understanding of the rationale, implications, and contraindications of therapy to obtain the desired therapeutic results.
4. Recognize when patient referral is indicated.
5. Manage the periodontal maintenance needs of patients.
COMPETENCY REQUIREMENTS,
CLASS OF 2013

Third Year
As third-year dental students, you are required to complete the following evaluations as part of Periodontics Clinic II D6522C (one hour “letter grade” is given upon the completion of the spring semester of the third year):

1. Periodontal diagnosis and treatment plan competency
2. Patient education and treatment plan presentation competency
3. One half day of assisting in Graduate Periodontics during fall and spring semesters (one half day assist each semester)
4. Sharpening skills assessment
5. A 1/2 hour oral examination skills assessment

Fourth Year
For the spring semester (Periodontics Clinic IV D6622C) one hour “letter grade” is earned upon the completion of the following evaluations:

1. A 1/2 hour oral examination skills assessment
2. Scaling/root planing competency
3. Re-evaluation competency
4. One half day of assisting in Graduate Periodontics during fall or spring semester
5. Appropriate number of scaling/root planing patient experiences

For the spring semester:
1. Pass the periodontal portion of the trial boards in the spring semester with a graded periodontal scaling and root planing patient. (Requirement for the D6600 Board Review Course given during the spring semester.)

THIRD-YEAR COMPETENCIES

Requirements
Third-year periodontal requirements consist of the following:

1. Periodontal diagnosis and treatment plan competency
2. Patient education and treatment plan presentation competency
3. One half day of assisting in Graduate Periodontics during fall and spring semesters (one half day assist each semester)
4. Sharpening skills assessment
5. A 1/2 hour oral examination skills assessment

**Competency 1**

Diagnosis and Treatment Plan

1. Patient selection criteria (new patient to School of Dentistry)
   - **Required:** Early to moderate periodontitis in two (2) or more complete quadrants (case type II, III, IV, V).
   - **Required:** Periodontal faculty examination and approval; two (2) previous perio diagnosis patient experiences.

2. Obtain data collection form from Team Clerk.

3. Complete your diagnosis in the electronic record and complete the data collection form, including a detailed treatment plan. Provide dates, treatment to be performed, estimated length of appointment and oral hygiene presented at each appointment.

4. Schedule the competency when a periodontal faculty can evaluate the patient IN THE CLINIC. After the faculty evaluates the patient, you may continue with patient care.

5. Your diagnosis and case work-up will be graded according to the evaluation criteria.

6. This competency should be completed in the summer or fall semester of your third year.

**Competency 2**

Patient Education and Treatment Plan Presentation Competency

The purpose of this competency is to observe and evaluate your performance in educating a patient regarding their periodontal disease (etiology, disease process and diagnosis, bone loss, etc.), presenting the patient with their periodontal treatment plan, and introducing plaque control (plaque formation, disease process) and plaque removal.

1. At chairside, you will be observed explaining your patient’s periodontal status. Please use any aids you feel will be beneficial: radiographs and charting, patient education flip charts, etc.

2. Present your patient’s periodontal treatment plan and have the patient approve the treatment in the electronic record.

3. After explaining the patient’s periodontal status and treatment plan, you should explain plaque and plaque control, and introduce appropriate plaque control aid(s).

4. This skills assessment is limited to 20 minutes.

5. Evaluation criteria is on skills assessment form.

6. This competency should be completed during the summer or fall semester.
7. Faculty can assign a patient for this procedure if student does not complete this skills assessment by mid-fall semester.

**Assisting Requirement**

Assisting in Graduate Periodontics during each of the fall and spring semesters

Be sure to complete green card and have it signed by supervising faculty, resident or administrative assistant.

**Sharpening Skills Assessment**

Each third year dental student must meet with a designated periodontal faculty member to demonstrate his/her proficiency with (periodontal) instrument sharpening. Student should be able to demonstrate how to sharpen all instruments in the periodontal kit: scalers, universal and gracey curets.

**Oral Examination Skill Assessment**

A 15-minute oral examination will be given by two periodontal faculty members. The oral examination will be scheduled during the spring semester. The student is responsible for all didactic and clinical course content up to the time of the examination. Questions may include (but are not limited to) the following topics: etiology/microbiology, preventive dentistry, pathogenesis, diagnosis/classification, treatment planning, initial prep, non-surgical periodontics, instrumentation, maintenance, anatomy, surgery and post-op, re-evaluation, miscellaneous.

**DUE DATE FOR THIRD-YEAR COMPETENCY/SKILLS ASSESSMENTS IS THE FRIDAY BEFORE 2012 SPRING BREAK.**

*YOU MAY NOT TAKE FOURTH-YEAR COMPETENCIES/SKILLS ASSESSMENTS UNTIL THIRD-YEAR COMPETENCY AND GRADUATE PERIO ASSISTING ARE SATISFACTORILY COMPLETED.*

*Any fourth year periodontal competencies/skills assessment that are completed prior to completion of third-year competency/skills assessments are void.

**Grading and Remediation**

**Grading of Third-Year Periodontal Competency:**

Please see each individual competency/skill assessment form for details on grading criteria. A student’s course grade will reflect the culmination of the competency and skills assessments.

**Remediation of Third-Year Periodontal Competency and Skills Assessments:**

When a student fails a third-year periodontal competency or skills assessment, remediation is required. The highest possible grade will be a “B” upon successful completion of remediation.
FOURTH-YEAR COMPETENCIES

Grades

The Periodontics Clinic IV D6622C grade will be determined by averaging the grades received in the following:
1. A 1/2 hour oral examination skills assessment
2. Scaling/root planing competency
3. Re-evaluation competency
4. One half day of assisting in Graduate Periodontics during fall or spring semester
5. Appropriate number of scaling/root planing patient experiences
6. Completion of appropriate trial board patient

Oral Examination Skills Assessments

A 30-minute oral examination will be given by two periodontal faculty members. The oral examination will be scheduled for each student during the fall semester of the fourth year. You will be responsible for all didactic and clinical course content up to the time of your oral examination. Questions can include any of the following topics:

- Etiology/Microbiology
- Pathogenesis
- Diagnosis/Classification
- Prognosis
- Treatment Planning
- Initial Prep/Infection Control
- Disease Prevention
- Surgery and Post-Op
- Non-surgical Periodontics
- Re-evaluation
- Maintenance
- Anatomy
- Miscellaneous
- Instrumentation

Your Oral Examination grade will be determined by averaging the grades of the two periodontics faculty who conduct your oral examination.

Scaling/Root Planing Competency

(To be completed by January 18, 2013.) You will be evaluated on the treatment of one quadrant (6-8 teeth) that requires scaling and root planing. Eight quadrants of scaling and root planing must also have previously been successfully completed on other patients. If necessary, this competency may be completed in two appointments.

Criteria for Selecting and Evaluating Treatment Area
1. Identify a quadrant (6-8 teeth) which requires scaling and root planing. This quadrant must have at least 10 sites of explorer-detectable subgingival calculus, with only four of those sites present on lower incisors (if using a lower quadrant).
2. Complete a “Periodontal Treatment Selection Worksheet” available in your team area. This form requires you to record probing depths, recession, keratinized gingiva and sites of subgingival calculus. (This form is similar to the one you will use for your Periodontic board examination.)

3. Have a periodontal faculty evaluate the completed form.

4. Scale and root plane the designated teeth.

5. Have the periodontal faculty evaluate the treatment area after you have completed scaling and root planing the entire area.

The Scaling and Root Planing Competency must be completed by January 18, 2013. Scaling and Root Planing Competencies completed after this date will be graded one letter grade lower than the earned letter grade for this competency.

Re-Evaluation Competency
(Completed by April 12, 2013.)

This competency should be scheduled approximately 4–6 weeks after completing scaling and root planing. A “Re-evaluation Competency” form must be completed in addition to a new chart in the patient’s electronic record. (Consult the evaluation criteria attached to the Re-evaluation Competency form to guide you as you complete the data collection form.) All forms are available in your team area.

One periodontal faculty must evaluate the patient IN THE CLINIC at the time of the Re-Evaluation Competency. For this competency, the following should be completed and available:

1. Full-mouth radiographs
2. Original diagnosis and charting
3. Re-evaluation Competency form
4. A Post-treatment new chart (in electronic record)

When summarizing the outcome of disease control, list specific areas of concern such as: necessary consults, recommended or anticipated treatments, additional therapy, alterations in plaque control, recommended recall interval, etc. You must provide rationale for these decisions.

The Re-evaluation Competency Examination must be completed by April 12, 2013. Re-evaluations completed after this date will be graded one letter grade lower than the earned grade for this competency.
Hygiene Collaborative Care

1. This collaboration is for you to develop the skills, knowledge and experience in working with dental hygiene students while a predoctoral student of dentistry. You will be assigned patients from screening during your third and fourth years.

2. This collaboration will consist of your interaction with second-year dental hygiene students. As you are assigned patients during your third-year predoctoral dental education, they will automatically be jointly assigned to a second-year dental hygiene student and documented by CMS for those dental hygiene students to complete disease control component of your patient’s treatment. The disease control component will not be initiated until after a complete diagnosis and treatment plan are satisfactorily entered into the patient’s CMS record.

3. You minimally will have four hygiene collaborative contacts in your third year. Additional patients may continue to be assigned to the second-year dental hygiene throughout your third year.

4. A hygiene collaborative contact will occur when you, as the third-year dental student, initiate and support the disease control component of patient care that is provided by the second-year dental hygiene student. The hygiene collaborative contact can be documented by either a dental hygiene faculty member or dental faculty member as a procedure code in CMS. You will be awarded one time unit for this procedure code.

5. You may also work in collaboration with patients not designated as collaborative care patients..

Grading and Remediation

Remediation (Patient Treatment)
When a student fails any fourth-year Periodontal Competency or Skills Assessment, the student will be required to remediate. The highest grade possible upon successful completion of remediation is a "B."

Transfer of Recall Patient
The fourth-year student will be responsible for seeing and treating their periodontal maintenance patients and those other patients requiring periodic recall. It is acceptable for the fourth-year student, in good standing, to have the maintenance treatment procedures performed by dental hygiene.
### 3rd Year Dental Student Competency:
**Periodontal Diagnosis & Treatment Plan**

**Perio faculty signature**

<table>
<thead>
<tr>
<th>Name</th>
<th>#</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
</tr>
</tbody>
</table>

**Patient selection**

**REQUIRED**

1. Early to moderate periodontitis in 2 or more full quadrants, with active disease and patient in need of disease control therapy (SRP).
2. Student selects patient; patient selection is part of the competency
3. You must complete all aspects of diagnosis (medical exam, dental exam, meds, perio charting).

*Perio charting alone is not acceptable.*

**Procedure**

1. Complete diagnosis in electronic record*
2. Complete Case Documentation Form (pg 2 and 3 of this handout)*
   *these MUST BE COMPLETED prior to faculty evaluation.
3. Have perio faculty member evaluate patient, data collection and paperwork
4. You will be expected to answer questions regarding your patient, their diagnosis and treatment plan
5. Continue with your appointment

**What you need to have completed and available**

1. Study models
2. Full-mouth series
3. Completed diagnosis in electronic record
4. Case Documentation Form (page 2 and 3 of this handout)

**Late competencies will result in course grade being lowered one letter grade for each semester the competency is not completed.**

2. If competency is not completed satisfactorily on first attempt, the highest grade on retake will be “B.”
3. This competency must be completed prior to any SRP or competency will be void.

---

You may not take senior competencies and/or skills assessments until junior competencies and skills assessments are completed.

Rev. 6/10
### 3RD YEAR DENTAL STUDENT COMPETENCY:
#### CASE DOCUMENTATION FORM

<table>
<thead>
<tr>
<th>I. Patient evaluation</th>
<th>II. Data Collection</th>
</tr>
</thead>
<tbody>
<tr>
<td>(note factors influencing treatment)</td>
<td>1. Gingival description:</td>
</tr>
<tr>
<td></td>
<td>2. Bleeding (describe):</td>
</tr>
<tr>
<td></td>
<td>3. Recession:</td>
</tr>
<tr>
<td></td>
<td>4. Mobility:</td>
</tr>
<tr>
<td></td>
<td>5. Furcation involvement:</td>
</tr>
<tr>
<td></td>
<td>6. Mucogingival defects:</td>
</tr>
<tr>
<td></td>
<td>7. Plaque (describe):</td>
</tr>
<tr>
<td></td>
<td>8. Calculus: supra: ___________ sub: ___________</td>
</tr>
<tr>
<td></td>
<td>9. Bleeding index: initial ___%</td>
</tr>
<tr>
<td></td>
<td>10. Plaque index: initial ___%</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>III. Radiographic Interpretation</th>
<th>IV. Periodontal Diagnosis</th>
</tr>
</thead>
<tbody>
<tr>
<td>1. No bone loss</td>
<td>1. Gingivitis</td>
</tr>
<tr>
<td>2. Vertical bone loss: UR UL LR LL</td>
<td>2. Periodontitis</td>
</tr>
<tr>
<td>3. Horizontal bone loss: UR UL LR LL</td>
<td>2a. classification:</td>
</tr>
<tr>
<td></td>
<td>1. chronic (adult)</td>
</tr>
<tr>
<td></td>
<td>1a. extent: localized</td>
</tr>
<tr>
<td></td>
<td>1b. severity: early</td>
</tr>
<tr>
<td></td>
<td>2. aggressive (LJP, GJP, RPP)</td>
</tr>
<tr>
<td></td>
<td>2a. extent: localized</td>
</tr>
<tr>
<td></td>
<td>3. other:</td>
</tr>
<tr>
<td>Rationale for diagnosis:</td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>V. Etiology</th>
<th>VI. Prognosis</th>
</tr>
</thead>
<tbody>
<tr>
<td>Primary:</td>
<td>Hopeless</td>
</tr>
<tr>
<td>Secondary:</td>
<td>Questionable</td>
</tr>
<tr>
<td></td>
<td>Poor</td>
</tr>
<tr>
<td></td>
<td>Fair</td>
</tr>
<tr>
<td></td>
<td>Good</td>
</tr>
<tr>
<td>Rationale:</td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
</tr>
</tbody>
</table>
### 3rd Year Dental Student Competency: Case Documentation Form

#### VII. Periodontal Treatment Plan
(include specific disease control, OHI, tx of furcations, recession, if applicable. Estimate dates and length of time of each appt.)

1. Consults required? No ___ Yes ___ Type(s): ______________________

2. Rationale for perio treatment plan: __________________________________________

   __________________________________________

**Disease control treatment plan:**

<table>
<thead>
<tr>
<th>Appt #1 (Date:______)</th>
<th>Estimated length of appt: ____________</th>
</tr>
</thead>
<tbody>
<tr>
<td>Pt. Ed. &amp; OHI:</td>
<td>_____________________________________</td>
</tr>
<tr>
<td>Treatment:</td>
<td>_____________________________________</td>
</tr>
</tbody>
</table>

****

<table>
<thead>
<tr>
<th>Appt #2 (Date:______)</th>
<th>Estimated length of appt: ____________</th>
</tr>
</thead>
<tbody>
<tr>
<td>Pt. Ed. &amp; OHI:</td>
<td>_____________________________________</td>
</tr>
<tr>
<td>Treatment:</td>
<td>_____________________________________</td>
</tr>
</tbody>
</table>

****

<table>
<thead>
<tr>
<th>Appt #3 (Date:______)</th>
<th>Estimated length of appt: ____________</th>
</tr>
</thead>
<tbody>
<tr>
<td>Pt. Ed. &amp; OHI:</td>
<td>_____________________________________</td>
</tr>
<tr>
<td>Treatment:</td>
<td>_____________________________________</td>
</tr>
</tbody>
</table>

****

<table>
<thead>
<tr>
<th>Appt #4 (Date:______)</th>
<th>Estimated length of appt: ____________</th>
</tr>
</thead>
<tbody>
<tr>
<td>Pt. Ed. &amp; OHI:</td>
<td>_____________________________________</td>
</tr>
<tr>
<td>Treatment:</td>
<td>_____________________________________</td>
</tr>
</tbody>
</table>

*use back of sheet for additional appointments*

#### VIIa. Re-eval

1. Date of re-eval (anticipated): ________________

2. Personalized perio therapy (anticipated): ________________
### 3RD YEAR DENTAL STUDENT COMPETENCY:
PERIODONTAL DIAGNOSIS AND TREATMENT PLAN

CA* = Clinically Acceptable     U = Unsatisfactory  
*All items must be CA in order to receive credit.

<table>
<thead>
<tr>
<th>Section</th>
<th>CA</th>
<th>U</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Patient Selection</strong></td>
<td>CA</td>
<td>U</td>
</tr>
<tr>
<td><strong>Data Collection</strong></td>
<td>CA</td>
<td>U</td>
</tr>
<tr>
<td>(+ -) gingival description</td>
<td></td>
<td></td>
</tr>
<tr>
<td>(+ -) recession, mobility, furcations and mucogingival defects</td>
<td></td>
<td></td>
</tr>
<tr>
<td>(+ -) probing depth and bleeding points</td>
<td></td>
<td></td>
</tr>
<tr>
<td>(+ -) plaque index using disclosing solution</td>
<td></td>
<td></td>
</tr>
<tr>
<td>(+ -) supra and sub-gingival calculus deposit assessment</td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>Patient Evaluation</strong></td>
<td>CA</td>
<td>U</td>
</tr>
<tr>
<td>(+ -) medical history</td>
<td></td>
<td></td>
</tr>
<tr>
<td>(+ -) lists medications that can influence disease/treatment</td>
<td></td>
<td></td>
</tr>
<tr>
<td>(+ -) conditions which may influence treatment</td>
<td></td>
<td></td>
</tr>
<tr>
<td>(+ -) summarizes significant factors from dental history</td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>Imaging</strong></td>
<td>CA</td>
<td>U</td>
</tr>
<tr>
<td>(+ -) accurately identifies areas of vertical and horizontal bone loss</td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>Periodontal Diagnosis</strong></td>
<td>CA</td>
<td>U</td>
</tr>
<tr>
<td>(+ -) states accurate periodontal diagnosis</td>
<td></td>
<td></td>
</tr>
<tr>
<td>(+ -) provides sound rationale for making diagnosis</td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>Etiology</strong></td>
<td>CA</td>
<td>U</td>
</tr>
<tr>
<td>(+ -) accurately states primary etiologies</td>
<td></td>
<td></td>
</tr>
<tr>
<td>(+ -) accurately states secondary etiologies</td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>Prognosis</strong></td>
<td>CA</td>
<td>U</td>
</tr>
<tr>
<td>(+ -) provides accurate prognosis</td>
<td></td>
<td></td>
</tr>
<tr>
<td>(+ -) provides sound rationale for prognosis</td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>Treatment Plan &amp; Re-eval.</strong></td>
<td>CA</td>
<td>U</td>
</tr>
<tr>
<td>(+ -) identifies need for consults</td>
<td></td>
<td></td>
</tr>
<tr>
<td>(+ -) all necessary disease control needs are addressed</td>
<td></td>
<td></td>
</tr>
<tr>
<td>(+ -) treatment plan includes re-eval appointment and anticipated surgeries</td>
<td></td>
<td></td>
</tr>
<tr>
<td>(+ -) addresses all clinical findings within treatment plan (ie. mobility, furcations, overhangs, mucogingival defects)</td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>Infection Control</strong></td>
<td>CA</td>
<td>U</td>
</tr>
</tbody>
</table>

**Student Self-Assessment**

---

**Grade:**

<table>
<thead>
<tr>
<th>Grade</th>
<th>Points</th>
</tr>
</thead>
<tbody>
<tr>
<td>CA (A)</td>
<td>0-2 (-)</td>
</tr>
<tr>
<td>CA (B)</td>
<td>3-4 (-)</td>
</tr>
<tr>
<td>U (F)</td>
<td>&gt;5 (-)</td>
</tr>
<tr>
<td>No Credit</td>
<td>U=No Credit</td>
</tr>
</tbody>
</table>

**Class of 2013**  
**DEPARTMENTAL GUIDELINES**  
**Periodontics**  
(Revised 5/11)
PATIENT EDUCATION AND TREATMENT PLAN PRESENTATION

The purpose of this competency is to observe and evaluate you as you educate your patient regarding his/her periodontal disease, present his/her periodontal treatment plan, and introduce him/her to plaque control (plaque formation, disease process) and plaque removal.

1. **Required**
   a. Pt in need of SRP
   b. Explain patient’s disease (etiology, diagnosis, disease process, bone loss, etc.)
   c. Present periodontal treatment plan
   d. Explain plaque and need for plaque control (plaque formation, disease process)
   e. Introduce appropriate plaque control aid(s) (A toothbrush is also considered a plaque-control aid.)

2. Evaluation Criteria is attached.

3. This assessment is limited to 20 minutes.

4. Faculty may determine patient if student does not complete this skill assessment by mid-fall semester.

DUE DATE: FRIDAY BEFORE SPRING BREAK

Late competencies and/or skills assessments will result in course grade being lowered one letter grade for each semester each evaluation is not completed. If assessment is not completed satisfactorily on first attempt, the highest grade on retake will be “B.”

YOU MAY NOT TAKE 4TH-YEAR COMPETENCIES OR SKILL ASSESSMENTS UNTIL ALL 3RD-YEAR COMPETENCIES AND SKILL ASSESSMENTS ARE COMPLETED.
### 3rd Year Dental Student Competency:
**Patient Education/Treatment Plan Presentation**

<table>
<thead>
<tr>
<th>Criteria</th>
<th>Comments</th>
<th>Student Self-Eval</th>
</tr>
</thead>
<tbody>
<tr>
<td>1. Identifies disease in patient’s mouth</td>
<td>S I U</td>
<td>S I U</td>
</tr>
<tr>
<td>2. Describes plaque and its relation to disease</td>
<td>S I U</td>
<td>S I U</td>
</tr>
<tr>
<td>3. Explains patient’s role in control of disease</td>
<td>S I U</td>
<td>S I U</td>
</tr>
<tr>
<td>4. Discusses radiographs with patient</td>
<td>S I U</td>
<td>S I U</td>
</tr>
<tr>
<td>5. Discusses progression of disease, bone loss</td>
<td>S I U</td>
<td>S I U</td>
</tr>
<tr>
<td>6. Discloses patient</td>
<td>S I U</td>
<td>S I U</td>
</tr>
<tr>
<td>7. Involves patient in discussion</td>
<td>S I U</td>
<td>S I U</td>
</tr>
<tr>
<td>8. Uses appropriate visual aids</td>
<td>S I U</td>
<td>S I U</td>
</tr>
<tr>
<td>9. Instructs at patient’s level/patient management</td>
<td>S I U</td>
<td>S I U</td>
</tr>
<tr>
<td>10. Instruction proceeds in logical, sequential manner</td>
<td>S I U</td>
<td>S I U</td>
</tr>
<tr>
<td>11. Treatment plan is clearly explained</td>
<td>S I U</td>
<td>S I U</td>
</tr>
<tr>
<td>12. Consent to treatment is signed by patient</td>
<td>S I U</td>
<td>S I U</td>
</tr>
<tr>
<td>13. Information is correct</td>
<td>S I U</td>
<td>S I U</td>
</tr>
<tr>
<td>14. Preparation and organization</td>
<td>S I U</td>
<td>S I U</td>
</tr>
<tr>
<td>15. Introduces appropriate plaque control aids (does not overload pt)</td>
<td>S I U</td>
<td>S I U</td>
</tr>
<tr>
<td>16. Demos plaque control aid in patient’s mouth</td>
<td>S I U</td>
<td>S I U</td>
</tr>
<tr>
<td>17. Professional appearance</td>
<td>S I U</td>
<td>S I U</td>
</tr>
<tr>
<td>18. Infection control</td>
<td>S I U</td>
<td>S I U</td>
</tr>
</tbody>
</table>

**S**=Satisfactory  **I**=Improvable  **U**=Unacceptable

**Criteria:**
- **A**: 0-2  **I**
- **B**: 3-4  **I**
- Clinically Unacceptable: ≥ 5 **I**; OR any **U**

**GRADE:**
- **A**
- **B**
  - Clinically Unacceptable (F)

**PASS/FAIL**

Faculty _________________________  Date ______________

---

**Class of 2013**  
**Clinic Orientation Manual**

**DEPARTMENTAL GUIDELINES**  
**Periodontics**

Sec. 4.133  
(Revised 5/11)
**3rd Year Dental Student Skills Assessment: Instrument Sharpening**

(Due Friday prior to Spring break, 3rd year.)

<table>
<thead>
<tr>
<th>General: (applicable to all instruments)</th>
<th>Comments</th>
</tr>
</thead>
<tbody>
<tr>
<td>1. Able to identify/distinguish the different groups of instruments</td>
<td>S I U</td>
</tr>
<tr>
<td>2. Instrument is held in non-dominant hand; hand is stable during sharpening</td>
<td>S I U</td>
</tr>
<tr>
<td>3. Instrument is stationary; stone is moved</td>
<td>S I U</td>
</tr>
<tr>
<td>4. Stone is kept in contact with instrument at all times</td>
<td>S I U</td>
</tr>
<tr>
<td>5. Uses appropriate pressure and stroke length</td>
<td>S I U</td>
</tr>
<tr>
<td>6. Entire cutting edge is covered from back to front; ends in downstroke</td>
<td>S I U</td>
</tr>
<tr>
<td>7. Appropriately tests for sharpness</td>
<td>S I U</td>
</tr>
</tbody>
</table>

**Universals**

<table>
<thead>
<tr>
<th></th>
<th>Comments</th>
</tr>
</thead>
<tbody>
<tr>
<td>8. Positions and maintains terminal shank at 12:00</td>
<td>S I U</td>
</tr>
<tr>
<td>9. Positions and maintains stone at approximately 11:00 &amp; 1:00</td>
<td>S I U</td>
</tr>
<tr>
<td>10. Toe is rounded</td>
<td>S I U</td>
</tr>
</tbody>
</table>

**Sickle Scalers**

<table>
<thead>
<tr>
<th></th>
<th>Comments</th>
</tr>
</thead>
<tbody>
<tr>
<td>11. Positions and maintains terminal shank at 12:00</td>
<td>S I U</td>
</tr>
<tr>
<td>12. Positions &amp; maintains stone at approximately 11:00 &amp; 1:00</td>
<td>S I U</td>
</tr>
</tbody>
</table>

**Gracey Curets**

<table>
<thead>
<tr>
<th></th>
<th>Comments</th>
</tr>
</thead>
<tbody>
<tr>
<td>13. Positions terminal shank at 12:00 and adjusts to 11:00/1:00</td>
<td>S I U</td>
</tr>
<tr>
<td>14. Positions stone appropriately at 11:00/1:00</td>
<td>S I U</td>
</tr>
</tbody>
</table>

Student self-assessment: S I U

Criteria:

- A: 0-2 I
- B: 3-4 I
- C: 5-6 I
- F: ≥ 7 or any U

**GRADE:** A  B  C  Unacceptable (F)

**PASS/FAIL**

Faculty: _______________ Date: _______________

Rev 6/10

Class of 2013
Clinic Orientation Manual

DEPARTMENTAL GUIDELINES
Periodontics

Sec. 4.134
(Revised 5/11)
## PERIODONTICS ORAL EXAM COMPETENCY

<table>
<thead>
<tr>
<th>Subject</th>
<th>Question</th>
<th>Response</th>
</tr>
</thead>
<tbody>
<tr>
<td>Etiology/Microbiology</td>
<td>Exceeds Expectations/ Superior Performance</td>
<td>Meets Expectations/ Good Performance</td>
</tr>
<tr>
<td>Pathogenesis</td>
<td>Information is accurate</td>
<td>Most information is accurate, but some answers were inaccurate.</td>
</tr>
<tr>
<td>Diagnosis/Classification</td>
<td>Answers are comprehensive and complete</td>
<td>Answers are comprehensive and complete for the most part, but some key points are not fully supported.</td>
</tr>
<tr>
<td>Prognosis</td>
<td>Answers demonstrate strong, fundamental understanding of periodontics.</td>
<td>Demonstrates a sound fundamental understanding of periodontics, with some weak areas along the way</td>
</tr>
<tr>
<td>Treatment Planning</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Initial Prep/Disease Control</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Surgery and Post-op</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Non-surgical Perio</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Re-evaluation</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Maintenance</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Anatomy</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Miscellaneous</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

### Accuracy
- Information is accurate (5)
- Most information is accurate, but some answers were inaccurate. (4)
- Much of the information is inaccurate. (3)

### Depth of knowledge
- Answers are comprehensive and complete (5)
- Answers are comprehensive and complete for the most part, but some key points are not fully supported. (4)
- Majority answers are weak and unsupported. (3)

### Understanding of concepts
- Answers demonstrate strong, fundamental understanding of periodontics. (5)
- Demonstrates a sound fundamental understanding of periodontics, with some weak areas along the way (4)
- Demonstrates a weak fundamental understanding of periodontics (3)

### Preparedness/organization
- Answers stated with confidence; does not require probing questions (5)
- Answers with minimal hesitation; few probing questions necessary (4)
- Required prompting with probing questions to solicit response (3)

---

**GRADE:**
- CA (A)
- CA (B)
- Redo (F)

**PASS/FAIL**
- Faculty _______________________  Date __________

---

Class of 2013
Clinic Orientation Manual

DEPARTMENTAL GUIDELINES

**Periodontics**

Sec. 4.135
(Revised 5/11)
4TH YEAR DENTAL STUDENT COMPETENCY: PERIODONTAL RE-EVALUATION (CLASS OF 2011 +)

Perio faculty signature

Date

List names and patient numbers of two periodontal re-evals you have performed (must meet same criteria as below)

_____________________________ # _______________________

Patient selection: REQUIRED

1. Pt must be a patient of student performing re-eval competency. (You may not use another student’s patient)
2. Periodontitis patient with bone loss in at least two full quadrants, who have undergone disease control therapy including SRP.
3. Student must re-evaluate entire dentition. (ie. One student may not re-eval ½ of the mouth and another student the other half)
4. Unacceptable patients: 1. gingivitis patients; 2. patients who have been re-evaluated by another student; 3. maintenance patients
5. Treatment area must be considered to have a level of difficulty that will allow you to adequately demonstrate your re-evaluation skills.

Procedure

1. Complete new chart and oral exam in electronic record.
2. Complete re-evaluation competency form (in this handout)
3. Schedule the Re-evaluation Competency when a periodontal faculty can evaluate the patient and data collection in the clinic. After the perio faculty evaluates the patient, you may continue with your appointment. At a later date (within 3 weeks*) you will meet with the perio faculty for an oral exam. The oral exam will take approximately 20-30 minutes and covers all aspects of patient evaluation (relative to your patient or in general).

(*Competencies where oral exams are not completed within three weeks from the clinical evaluation will be lowered one letter grade.)

What you need completed and available:

1. Full mouth radiographs/images
2. Original diagnosis and charting
3. Re-eval competency form
4. Re-eval charting

1. Late competencies will result in course grade being lowered one letter grade for each semester the competency is not completed.
2. If competency is not completed satisfactorily on the first attempt, the highest grade on retake will be “B”.

You may not take 4th-year competencies until 3rd-year competencies are completed. Any 4th-year competency completed prior to 3rd-year competencies being completed will be void.
<table>
<thead>
<tr>
<th>Patient evaluation</th>
<th>Completion date of disease control therapy:</th>
</tr>
</thead>
<tbody>
<tr>
<td>Factors influencing treatment:</td>
<td></td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Data Collection</th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>1. gingival description:</td>
<td></td>
</tr>
<tr>
<td>2. bleeding:</td>
<td></td>
</tr>
<tr>
<td>3. recession:</td>
<td></td>
</tr>
<tr>
<td>4. mobility:</td>
<td></td>
</tr>
<tr>
<td>5. furcation involvement:</td>
<td></td>
</tr>
<tr>
<td>6. mucogingival defects:</td>
<td></td>
</tr>
<tr>
<td>7. plaque:</td>
<td></td>
</tr>
<tr>
<td>8. calculus: supra: sub:</td>
<td></td>
</tr>
<tr>
<td>9. bleeding index: initial: re-eval:</td>
<td></td>
</tr>
<tr>
<td>10. plaque index: initial: re-eval:</td>
<td></td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Summarize outcome of disease control (Identify areas of concern and explain why they are a concern.)</th>
<th></th>
</tr>
</thead>
</table>

<table>
<thead>
<tr>
<th>Is consult necessary? (Give rationale why or why not.)</th>
<th>No___ Yes____ Type of consult(s)________________________</th>
</tr>
</thead>
<tbody>
<tr>
<td>Rationale:</td>
<td></td>
</tr>
<tr>
<td>If consult completed, summarize results:</td>
<td></td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Recommended/anticipated tx (Outline additional periodontal therapy. Be specific. If none is indicated, state so.)</th>
<th></th>
</tr>
</thead>
</table>

<table>
<thead>
<tr>
<th>Pt.ed/OHI (Summarize habits and outline recommended changes. Be specific.)</th>
<th></th>
</tr>
</thead>
</table>

<table>
<thead>
<tr>
<th>Maintenance interval (Outline rationale why or why not.)</th>
<th>Is patient ready for maintenance? Yes___ No____</th>
</tr>
</thead>
<tbody>
<tr>
<td>Rationale:</td>
<td></td>
</tr>
</tbody>
</table>
**EVALUATION CRITERIA: RE-EVALUATION**

<table>
<thead>
<tr>
<th>*Patient Selection</th>
<th>CA</th>
<th>U</th>
</tr>
</thead>
<tbody>
<tr>
<td>*Data collection</td>
<td>(+ -) gingival description</td>
<td>CA</td>
</tr>
<tr>
<td>(+ -) records recession, mobility, furcations and mucogingival defects</td>
<td>CA</td>
<td>U</td>
</tr>
<tr>
<td>(+ -) records probing depths</td>
<td>CA</td>
<td>U</td>
</tr>
<tr>
<td>(+ -) records plaque score and compares to initial plaque score</td>
<td>CA</td>
<td>U</td>
</tr>
<tr>
<td>(+ -) records bleeding index and compares to initial bleeding score</td>
<td>CA</td>
<td>U</td>
</tr>
</tbody>
</table>

**Perio fac. Sig.**

**Date**

| *Patient evaluation | (+ -) re-evaluation is scheduled within 4-6 wks following disease control | CA | U |
| (+ -) summarizes medical history and medications | CA | U |
| (+ -) identifies conditions which may influence treatment | CA | U |

| *Summary of disease control therapy | (+ -) provides comprehensive summary of disease control | CA | U |
| (+ -) identifies and gives rationale for areas of concern | CA | U |

| *Consults | (+ -) identifies the need for periodontal consult and gives sound rationale | CA | U |

| *Treatment needed | (+ -) outlines additional periodontal therapy needed to control disease | CA | U |
| (+ -) outlines surgeries necessary to correct defects (bony or soft tissue) (if indicated) | CA | U |

| *Oral hygiene instruction | (+ -) provides summary of patient’s current oral hygiene practices | CA | U |
| (+ -) outlines aids, products or technique changes to improve | CA | U |

| *Maintenance Interval | (+ -) correctly determines whether or not patient should be placed on maintenance | CA | U |
| (+ -) places patient on appropriate maintenance interval (if indicated) and provides sound rationale why or why not | CA | U |

| *Infection Control | CA | U |

| *Oral Exam | (+ -) Accuracy of responses | CA | U |
| (+ -) Depth of knowledge | CA | U |
| (+ -) Understanding of concepts | CA | U |
| (+ -) Preparation/organization | CA | U |

| *Student Self-Reflection | Comments: | CA | U |

---

**0–1 (-) = A**

**3–4 (-) = B**

**>5 (-) = Unacceptable (F)**

**U = No Credit**

---

*All items must receive CA in order to receive Credit*

---

All * items must receive CA in order to receive Credit.

<table>
<thead>
<tr>
<th>Grade: A  B  Unacceptable (F)</th>
</tr>
</thead>
<tbody>
<tr>
<td>_____ completed prior to due date</td>
</tr>
<tr>
<td>_____ completed after due date</td>
</tr>
</tbody>
</table>

**Final Grade: A  B  Unacceptable (F)**

PASS/FAIL

---

**Faculty signature_________________________ Date _____________**
### 4th Year Competency: Periodontal Scaling and Root Planing

1. This competency will be void if completed prior to completion of 3rd-year Competencies/Skills Assessments.
2. Periodontal faculty must verify that you have completed a minimum of **8** full quadrants of SRP prior to this competency. (4 partial quads* = 1 full quad; *max of 8 partial quads may be used)

   ___ full and/or ___ partial quadrants of SRP completed as of _________ (date)

### Patient Criteria

1. 6-8 teeth. At least one molar must be in contact with adjacent tooth.
2. Periodontitis patient with at least 3 four millimeter pockets.
3. Minimum of 12 sites of subgingival, explorer-detectable calculus (only four sites may be on lower incisors). “Roughness” is not acceptable. Radiographic calculus is preferred.

### Part I: Data Collection

**Record PRE-OP**

1. On the grids below, record **pocket depths** on all of the assigned teeth. **ONLY RECORD ≥ 3mm depths**

<table>
<thead>
<tr>
<th>Pocket depths</th>
<th>#</th>
<th>#</th>
<th>#</th>
<th>#</th>
<th>#</th>
<th>#</th>
<th>#</th>
</tr>
</thead>
<tbody>
<tr>
<td>DF</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>F</td>
<td></td>
<td></td>
<td></td>
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<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>MF</td>
<td></td>
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<tr>
<td>DL</td>
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<tr>
<td>L</td>
<td></td>
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<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>ML</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

### # of Errors _____
## PART II: Calculus detection

**Record PRE-OP**

1. On the grids below, fill in the tooth numbers of the teeth designated for SRP. Place a check mark in the column marked student for any surface of examiner-detectable calculus.

2. Calculus on a line angle should be marked on the interproximal surface.

3. **Have perio faculty check your detection before you proceed with SRP.**

<table>
<thead>
<tr>
<th>#</th>
<th>Student</th>
<th>Faculty</th>
</tr>
</thead>
<tbody>
<tr>
<td>D</td>
<td>D</td>
<td></td>
</tr>
<tr>
<td>F</td>
<td>F</td>
<td></td>
</tr>
<tr>
<td>M</td>
<td>M</td>
<td></td>
</tr>
<tr>
<td>L</td>
<td>L</td>
<td></td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>#</th>
<th>Student</th>
<th>Faculty</th>
</tr>
</thead>
<tbody>
<tr>
<td>D</td>
<td>D</td>
<td></td>
</tr>
<tr>
<td>F</td>
<td>F</td>
<td></td>
</tr>
<tr>
<td>M</td>
<td>M</td>
<td></td>
</tr>
<tr>
<td>L</td>
<td>L</td>
<td></td>
</tr>
</tbody>
</table>

## PART III: Sealing and Root Planing

1. Scale and root plane designated teeth.

2. You should also remove all plaque and stain.

3. Upon completion, have perio faculty evaluate.

4. Note: This is not a time-limited competency. You may re-appoint the patient to check and re-scale as necessary, and be graded at the second appointment. However, this second appointment should be within two weeks of the initial SRP appointment.

<table>
<thead>
<tr>
<th>Sup</th>
<th>Sub</th>
<th>P/S</th>
<th>T</th>
</tr>
</thead>
<tbody>
<tr>
<td>D</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>F</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>M</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>L</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Sup</th>
<th>Sub</th>
<th>P/S</th>
<th>T</th>
</tr>
</thead>
<tbody>
<tr>
<td>D</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>F</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>M</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>L</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Sup=supragingival  
Sub=subgingival  
P/S=plaque/stain  
T=tissue
### Section C: Grading

<table>
<thead>
<tr>
<th>Evaluation of:</th>
<th>Errors:</th>
<th>Grade</th>
<th>Comments</th>
</tr>
</thead>
<tbody>
<tr>
<td>Patient Selection</td>
<td></td>
<td></td>
<td>CA</td>
</tr>
<tr>
<td>Calculus detection</td>
<td></td>
<td></td>
<td>U</td>
</tr>
<tr>
<td>(No more than 4 errors)</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Probing depths</td>
<td></td>
<td>U</td>
<td></td>
</tr>
<tr>
<td>(No discrepancies ≥ 2 mm)</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Supra-gingival calculus</td>
<td></td>
<td>U</td>
<td></td>
</tr>
<tr>
<td>(No more than 2 deposits)</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Sub-gingival calculus</td>
<td></td>
<td>U</td>
<td></td>
</tr>
<tr>
<td>(No more than 4 deposits)</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Plaque/Stain</td>
<td></td>
<td>U</td>
<td></td>
</tr>
<tr>
<td>(No more than 2 deposits)</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Tissue</td>
<td></td>
<td>U</td>
<td></td>
</tr>
<tr>
<td>(No more than 2 areas)</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Infection Control</td>
<td></td>
<td>U</td>
<td></td>
</tr>
<tr>
<td>Student Self-Assessment</td>
<td></td>
<td>U</td>
<td></td>
</tr>
<tr>
<td><strong>Total</strong></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

0–2 Errors = A  
3–5 Errors = B  
Greater than 5 errors = Redo = U

**Grade:**  
CA (A)  
CA (B)  
Unacceptable (F)

[ ] completed prior to due date  
[ ] completed after due date

**Final Grade:**  
A  B  C  Unacceptable (F)

PASS/FAIL

Perio faculty signature _______________________________   Date _______________

**NOTE:** HAVE TEAM CLERK MAKE A COPY OF THIS FORM FOR YOUR RECORDS PRIOR TO FILING.
# PERIODONTICS ORAL EXAM COMPETENCY

**Student _______________________**                        **Team: 1 2 3**                        **Year: 3rd 4th**

**Faculty ______________________________**   **Date ______________**

<table>
<thead>
<tr>
<th>Subject</th>
<th>Question</th>
<th>Response</th>
</tr>
</thead>
<tbody>
<tr>
<td>Etiology/Microbiology</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Pathogenesis</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Diagnosis/Classification</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Prognosis</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Treatment Planning</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Initial Prep/Disease</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Control</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Surgery and Post-op</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Non-Surgical Perio</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Re-Evaluation</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Maintenance</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Anatomy</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Miscellaneous</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Subject</th>
<th>Exceeds Expectations/ Superior Performance</th>
<th>Meets Expectations/ Good Performance</th>
<th>Does Not Meet Expectations/ Marginal to Poor Performance</th>
</tr>
</thead>
<tbody>
<tr>
<td>Accuracy</td>
<td>Information is accurate</td>
<td>Most information is accurate, but some answers were inaccurate</td>
<td>Much of the information is inaccurate</td>
</tr>
<tr>
<td></td>
<td>(5)</td>
<td>(4)</td>
<td>(3)</td>
</tr>
<tr>
<td>Depth of Knowledge</td>
<td>Answers are comprehensive and complete</td>
<td>Answers are comprehensive and complete for the most part, but some key points are not fully supported</td>
<td>Majority answers are weak and unsupported</td>
</tr>
<tr>
<td></td>
<td>(5)</td>
<td>(4)</td>
<td>(3)</td>
</tr>
<tr>
<td>Understanding of Concepts</td>
<td>Answers demonstrate strong, fundamental understanding of periodontics</td>
<td>Demonstrates a sound fundamental understanding of periodontics, with some weak areas along the way</td>
<td>Demonstrates a weak fundamental understanding of periodontics</td>
</tr>
<tr>
<td></td>
<td>(5)</td>
<td>(4)</td>
<td>(3)</td>
</tr>
<tr>
<td>Preparedness/ Organization</td>
<td>Answers stated with confidence; does not require probing questions</td>
<td>Answers with minimal hesitation; few probing questions necessary</td>
<td>Required prompting with probing questions to solicit response</td>
</tr>
<tr>
<td></td>
<td>(5)</td>
<td>(4)</td>
<td>(3)</td>
</tr>
</tbody>
</table>

CA = Clinically Acceptable

18–20 = A (CA)
16–17 = B (CA)
≤ 15 = Unacceptable (F)

**Faculty ___________________________**   **Date ______________**

**GRADE:**
- A (CA)
- B (CA)
- Redo (F)

**PASS/FAIL**
Technical Skills
If a student is found to be consistently deficient in periodontal technical skills, the student will be so advised and offered individual instruction to remediate the deficiency. If, after reasonable remediation, the deficiency cannot be corrected, the student will be reviewed for possible recommendation for dismissal.

Trial Boards
Students who fail the periodontal portion of the trial boards will be required to retake the examination. If the student fails the second attempt, he or she will be offered individual instruction to remediate their deficiency prior to retaking the examination.

PERIODONTICS OBJECTIVES

Achieving Goals
These goals will have been achieved when the following terminal OBJECTIVES are met:

1. The student will be able to describe and/or illustrate the following:
   a. The anatomy and physiology of the periodontium in health and disease and demonstrate knowledge of:
      1. The characteristics of periodontal health.
      2. The gross, histologic, and ultrastructural morphology, the biochemistry, and the physiology of the periodontium.
      3. The initiation, progression, and recurrence of periodontal disease.
      4. The various types of inflammatory periodontal disease, including acute and chronic lesions (classification).
      5. The radiographic and histopathologic features and their correlation with the clinical aspects.
      6. The pathogenesis of periodontal disease.
      7. The relationship between the periodontal disease and systemic factors.
      8. The formation, composition and pathogenic capability of plaque.
      9. The formation of calculus from plaque and the relationship of calculus to disease.
10. The influence of local factors such as inadequate restorations, food impaction, habits, occlusion, pulpal disease, and systemic factors upon periodontal health.

11. Occlusal trauma.
b. The primary prevention of gingivitis and periodontitis;
c. The examination of a patient with periodontal disease;
d. The formulation of a diagnosis and treatment plan for a patient with periodontal disease;
e. Initial periodontal therapy;
f. The following pocket elimination or reduction procedure:
   1. Therapeutic root planing
   2. Gingivectomy
   3. Periodontal flap procedures
   4. Minor osseous reshaping
g. Show an ability to control the development of dental plaque in your own mouth.

2. The student will be able to perform the following clinical procedures:
a. A periodontal examination which would include:
   1. Obtaining the chief complaint and assessing the medical and dental history.
   2. General physical appearance and attitude of the patient.
   3. Evaluation of the head and neck regions.
   4. Oral and pharyngeal soft tissue examination.
   5. Evaluation of the oral hygiene.
   6. Specific gingival evaluation and description.
   7. Description of pocket formation to include measurements and evaluation with a periodontal probe and cowhorn explorer:
      a. Recession and attachment loss
      b. Supra-bony defects
      c. Infra-bony defects
      d. Furcation involvements
      e. Mucogingival defects
   8. Recording areas with bleeding or suppuration.
   9. Recording the mobility of the teeth.
   10. Interpretation of the dental radiographic survey.
   11. A static and functional analysis of the occlusion.
b. Demonstrate an ability to recognize and treat periodontal disease throughout the implementation of the following procedures:

1. Initial preparation
   a. Removal of hopeless teeth
   b. Home care instruction
   c. Root planing/scaling/with polishing
   d. Urgent operative and endodontics
   e. Minor tooth movement
   f. Occlusal adjustment
   g. Revise treatment plan based on the findings at the initial preparation evaluation.

2. Re-evaluation/personalization (revise treatment plan on the findings of the re-evaluation)

3. Pocket elimination or reduction.
   a. Selected pocket elimination or reduction procedures as necessary
   b. Re-evaluation

4. Perform additional non-surgical antimicrobial therapy.
   a. Monitor disease activity
   b. Pocket irrigation
   c. Prescribe appropriate antibiotic drugs
   d. Administer local drug delivery vehicles

5. Finishing procedures
   a. Polishing
   b. Occlusal correction
   c. Fluoride
   d. Desensitization
   e. Re-evaluation for maintenance and/or recall

6. Maintenance and Recall

3. The development of a diagnosis, prognosis and treatment plan for patients. All treatment programs must be approved and follow the standard outline:
   a. Disease Control Therapy
      1. Pain control and address chief complaint
      2. Removal of hopeless teeth
      3. Home care instruction
      4. Scaling/Root planing
      5. Urgent operative and endodontics
6. Minor tooth movement
7. Occlusal adjustment
8. Re-evaluation

b. Personalized Periodontal Therapy
   1. Pocket elimination (surgery if needed)
   2. Additional non-surgical-antimicrobial therapy
   3. Periodontal Maintenance Program/Evaluation will be established upon completion of active periodontal treatment

c. Restorative Phase
   1. Operative
   2. Crown and Bridge
   3. Removable Prosthodontics

d. Exit examination and establish recall/maintenance
   1. Re-evaluation of results
   2. Final occlusal adjustment
   3. Polish all restorations

Clinic patients have the need and the right to receive comprehensive oral health care. In order to achieve this goal, the Periodontics Department faculty will stress periodontal therapy based upon on:

1. Etiology
2. Diagnosis
3. Prognosis
4. Treatment Planning
5. Infection Control
6. Re-evaluation
7. Additional Treatment as necessary
8. Maintenance
The patient's electronic dental record must be kept current and accurate at all times. Concise descriptions of findings and procedures performed must be entered. Standard terminology will be used. Only facts and judgements based on clinical and medical findings will be entered. All entries will be reviewed by an instructor. Entries include:

1. Pretreatment Notes
   Date
   Procedure intended to be performed
   Systemic considerations:
      a. Change in systemic state
      b. Prescribed premedication taken

   Current Oral Status
      a. Significant changes
      b. Plaque control

2. Treatment Notes
   a. Anesthetic given
   b. Treatment rendered - brief description
   c. Significant findings
   d. Tissue submitted for biopsy
   e. Complications
   f. Closure if indicated
   g. Hemorrhage control
   h. Post-operative medication(s) prescribed
   i. Post-operative instructions

3. Next appointment scheduled
   a. Time
   b. Intended treatment
   c. Operative instructions
   d. Pre-operative medication prescribed

4. Details of any telephone contact will also be made in progress and treatment notes of the patient’s record and reviewed by an instructor.

5. All patient appointment failures or cancellations will be made in the progress and treatment notes of the patient record and signed by an instructor.

6. Changes in the treatment plan will be recorded in the progress and treatment notes and the treatment prescription section of the record and reviewed by an instructor.
Required Record Entry For Initial Preparation Re-evaluation

Date  F.M. Initial preparation re-evaluation
1. State findings
2. State future periodontal treatment need
3. State patient informed of treatment options
4. State next appointment
5. Signed by student, signed by faculty member

Required Record Entry For Completion of Active Periodontal Treatment

Date Area(s)  Active periodontal treatment completed
1. Recall/maintenance (month and year)  
   (3 months is recommended)
2. Signed by student and faculty member

Required Record Entry For Recall/Maintenance

Either 1 or 2
1. Recall/Maintenance completed, all treatment completed.  
   • Place on recall/maintenance month and year  
   • Signed by student and faculty member
2. Recall/Maintenance completed, additional treatment needed.  
   • State type of treatment  
   • Place on 3-month maintenance  
   • N.A. (next appointment) for _____ treatment
I. Examination

A. Objectives — The student shall have:

1. Reviewed the past medical and dental history of the patient noting any data which have periodontal implications. This review should include:
   a. Reading the patient’s general health history form and questioning the patient on any positive answer on the form.
   b. Reviewing the patient’s “Reason for Visit” and “Past Dental History” and discussing this information with the patient.

2. Reviews a recent periapical radiographic survey (taken within the past 12 months) and noted on the electronic record a summary of:
   a. General alveolar bone level.
   b. General type of bone loss (horizontal or vertical).
   d. Overhanging restorations.
   e. Periapical pathology.
   f. Other contributing pathologic findings.

3. Examined the diagnostic casts and noted on the electronic record a one or two sentence summary of:
   a. Arch form and tooth alignment.
   b. Recession patterns of the gingiva.
   c. Wear patterns of the teeth.
   d. Open contacts, extrusions or rotations.

4. Tested each tooth for mobility and recorded mobile teeth on the electronic record. Mobility is determined by using the ends of two instruments and attempting to move the tooth in a buccolingual, mesiodistal, or occlusogingival direction.

5. Performed a deposits survey and pocket morphology determination using an EXD 11/12 Explorer and Periodontal Probe. The following items should be noted on the patient’s electronic record:
   a. Furcation involvement.
   b. Overhanging restorations.
   c. Missing teeth.
   d. Mucogingival defects.
   e. Areas of recession.
f. Areas of food impaction or poor contact.

6. Evaluated any prosthesis(es) the patient is wearing and noted on the electronic record a one or two sentence summary of:
   a. The type of prosthesis(es).
   b. The fit of the prosthesis(es).
   c. Structural integrity of the prosthesis(es).
   d. The functional adequacy of the prosthesis(es).

7. Observed the gingival tissues for form, color, consistency and texture, and recorded this information on the electronic record. This is performed prior to the use of plaque indicators.

8. Recorded all crevice depths and areas of recession on the electronic record. Depth error should be no more than one mm in any area.

9. Recorded bleeding score in electronic record. To record the bleeding score, the following procedures should be observed:
   a. Following periodontal probing on one segment, observe the gingival crevices of that segment for bleeding.
   b. Bleeding index will be automatically calculated.

10. Performed an occlusal analysis and noted on the electronic record a one or two sentence summary of the following if they are important to the case:
   a. Traumatic lesions.
   b. TMD pain, crepitus or movement limitations.
   c. Muscle of mastication: Tenderness to palpation, hypotonicity or spasm.
   d. C.R.-C.O. relationship: Area of premature contact and distance and direction from C.R. to C.O.
   e. Type of lateral guidance and the presence of eccentric damaging contacts.
   f. Overbite-overjet relationship.
   g. Bruxism or clenching: Wear facets, either broad or discrete. The student shall question the patient as to the patient’s awareness of these habits.
   h. Abnormal swallow and speech patterns.
   i. Occlusal appliances the patient may already be wearing.

11. Record the classification of periodontal disease the patient has and note the primary etiological factor (primary cause) and secondary (contributing) factors for this case.
12. Demonstrated in the patient’s own mouth at least one example of the disease process. This should be done before using any plaque indicators. This demonstration may be any or all of the following:
   a. Areas of redness or edema.
   b. Areas of bleeding.
   c. Areas of tooth mobility.
   d. Areas of recession or pathological tooth migration.
   e. Areas of deep pocketing.
   f. Mucogingival problems (inadequate zone of attached gingiva).

13. Record location of plaque in the record. State the patient’s present plaque control habits in the record. Plaque index will be automatically calculated.

II. Diagnosis and Treatment Planning

A. Objectives — The student shall have:
   1. Completed the examination.
   2. Recorded the diagnosis and etiology for the case.
   3. Marked the periodontal case type with an error of no more than one case type.
   4. Recorded the prognosis of:
      a. total mouth prognosis.
      b. individual teeth prognosis.
   5. Properly listed and sequenced the treatment plan.

III. Objectives of Disease Control (describe technique, frequency, and armamentarium)

A. Objectives — student shall have:
   1. Demonstrated to the patient the presence of bleeding points which indicate disease.
   2. Record the plaque score.
   3. Defined plaque problems for the patient.
   4. Demonstrated to the patient the location of plaque. The demonstration should include telling the patient:
      a. The disease potential of bacterial plaque.
      b. The reduction in bacterial plaque lowers the patient’s disease potential.
   5. Provided and/or recommended a soft nylon brush to the patient. The brush selection is at the discretion of the student.
   6. Recommend the use of other oral hygiene aids appropriate for the patient.
   7. Observed and modified the patient’s brushing technique in
each area of the patient’s mouth stressing a systematic order in each area. Praise the patient for correct response to instructions.

8. Upon completion of brushing, demonstrate the inadequacy of brushing in the removal of interproximal plaque. This demonstration is to include at least one observation by the patient of interproximal stain remaining in the patient’s own mouth after brushing.

9. Instructed and assisted the patient in flossing or other interproximal cleansing methods. This instruction by the student must have demonstrated the proper use of dental floss.

10. Emphasized the responsibility of the patient as being the prime therapist in plaque removal.


12. Questioned the patient to determine their understanding of plaque and its removal.

**IV. Initial Preparation**

A. Scaling and Polishing — The objective is to remove all stain and deposit from the crown and root surface and to polish the tooth surface to aid the patient on gaining control of the oral environment.

B. Root Planing

1. The objective is to remove diseased cementum from the root surfaces to make the root biologically acceptable to the periodontium.
   a. Local anesthetic should be administered. The procedure must be done thoroughly to be effective. Very few patients can tolerate the procedure without adequate anesthesia.
   b. All diseased root surfaces are to be meticulously smoothed to the depth of the gingival crevice with sharp curettes. The root surfaces must be checked for smoothness. This can be accomplished with an EXD 11/12 explorer in moderate pockets and a periodontal probe in deep pockets. (Note: Students should make certain that they can learn accurate detection skills as it is essential to successful periodontal treatment.)
   c. All scalers and curettes must be sharp.
   d. Remove all restoration overhangs using either slow or high speed cutting instruments, finishing strips, EVA system, or other devices. Those restorations which
have overhangs or defective margins that cannot be corrected must be treatment planned for replacement.

e. Irrigate the gingival crevice with 0.12% chlorhexidine.

C. Occlusal Adjustment, Limited

1. The objective of occlusal adjustment in initial preparation phase is to correct as much as possible primary occlusal trauma by correcting centric, balancing, and protrusive prematurities. Additional occlusal adjustment will probably be required as the case matures. The student shall:

a. Verbally state the clinical and radiographic evidences of trauma from occlusion.

b. Identify the terminal hinge position of his/her choice and mark the initial prematurity.

c. Eliminate the prematurity using accepted methods.

d. Alternately mark and reduce prematurities avoiding “centric holding cusps” until a bilateral distribution of loads has been achieved. The student will assume this to be accomplished when:

1. Proper vertical load distribution as represented by cusp tip fossa and cusp tip to marginal ridge contact is obtained.

2. Centric relation and centric occlusion are at the same vertical dimension with no more than 1.5 mm. anterior/posterior difference between the two positions.

3. Neuromuscular relaxation is obtained and verified by ease of jaw manipulation.

e. Identify those teeth which bear the functional loading in lateral excursive movements.

f. State which teeth are most capable of bearing the lateral load, and what type of lateral guidance is to be developed and why. (Group function, cuspid guidance, etc.)

g. Mark and reduce balancing and working side prematurities until the determined lateral guidance has been developed.

h. Within the confines of functional limitations, achieve anterior balance on at least two teeth during protrusive movement. Posterior tooth contacts in protrusive position shall be eliminated.

i. Evaluate and correct any remaining centric prematurities.
**Initial Preparation**

**Evaluation (Re-Evaluation)**

The objectives of the initial evaluation are to determine and record:

1. Pocket depths.
2. Bleeding on gentle probing.
3. Suppuration.
4. Subgingival deposits or roughness.
5. The patient’s plaque control.
6. The tissue response to the scaling and root planing.
7. Changes in mobility.

**Recall/Maintenance**

Timely recall/maintenance is essential to successful periodontal therapy. The most successfully treated case will fail if the recall schedule is not met. It is essential that the patient understand this prior to accepting a treatment plan. The recall examination will be evaluated by a Department of Periodontics faculty member.

Objectives — The student shall:

1. Complete maintenance form in electronic record. Only pathology and changes will be recorded.
2. Review the patient’s medical and dental history and record any changes and current medications.
3. Determine if the patient has a dental complaint.
4. Take the patient’s blood pressure.
5. Examine the tissue of the head and neck and the oral cavity.
6. Examine the gingival tissues for color, contour, and consistency.
7. Examine the existing teeth.
8. Evaluate the serviceability of existing appliances or prosthesis(es).
9. Periodontal probe all teeth by segments and record crevice depths are > 4 mm.
10. Observe the probed sites for bleeding and record any bleeding point.
11. Re-evaluate the amount of calculus deposits and state whether it is none, slight, moderate, or heavy.
12. Bleeding score will be calculated by computer.
13. Evaluate and record mobility patterns.
14. Following evaluation of the patient by a faculty member, stain the teeth and record the plaque score.
15. Determine what radiographs are required and have them ordered by the faculty member.
16. Determine the correct A.A.P. Case Type.
17. Determine the success of the recall/maintenance established for the individual patient.
18. Determine the appropriate diagnosis and treatment plan for the patient and have this confirmed by the faculty member.
19. Maintenance Treatment Procedures
   a. Routine Maintenance Therapy. The student shall:
      1. Review oral hygiene instruction.
      2. Polish all teeth.
      3. Scale all teeth to the depth of the crevices to remove all plaque and calculus. Hand instruments and/or sonic or ultrasonic instruments may be used.
   b. Personalized Maintenance Therapy. The student shall:
      1. Provide local root planing and irrigate areas with 0.12% chlorhexidine.
      2. Return to active periodontal therapy.
   c. Reappoint the patient for re-evaluation of therapy.
20. The student shall determine the future recall interval for the patient and be prepared to discuss this with the periodontal faculty. The following guidelines are provided to assist in this decision.
21. The student shall advise the patient of their current oral health status and current and future needs.
## PERSONALIZED MAINTENANCE THERAPY

<table>
<thead>
<tr>
<th>Millimeter of Probing Depth</th>
<th>Probing Depth Changes</th>
<th>Bleeding Status</th>
<th>Treatment</th>
<th>Adjust Recall Interval</th>
<th>Possible Recall Interval</th>
</tr>
</thead>
<tbody>
<tr>
<td>0-3</td>
<td>Constant</td>
<td>None</td>
<td>1. Routine light scaling, polishing</td>
<td>Same</td>
<td>3-6 mo.</td>
</tr>
<tr>
<td>0-3</td>
<td>Constant ±</td>
<td>Bleeds</td>
<td>1. Routine 2. Root plane 3. Review oral hygiene</td>
<td>Shorten if bleeding is repetitive in area</td>
<td>1-3 mo.</td>
</tr>
<tr>
<td>3-5</td>
<td>Constant</td>
<td>None</td>
<td>1. Routine</td>
<td>Same or lengthen</td>
<td>3-6 mo.</td>
</tr>
<tr>
<td>5+</td>
<td>Constant</td>
<td>None</td>
<td>1. Routine 2. CHX irrigation 3. Advise perio. faculty</td>
<td>Same</td>
<td>3-4 mo.</td>
</tr>
</tbody>
</table>
**PERIODONTAL CASE TYPES**

**Type I, Gingivitis**
Inflammation of the gingiva characterized clinically by changes in color, gingival form, position, surface appearance, and presence of bleeding and/or exudate.

**Type II, Early Periodontitis**
Progression of the gingival inflammation into deeper periodontal structures and alveolar bone crest, with slight bone loss. The usual periodontal probing is 3 or 4 mm., with slight loss of connective tissue attachment and slight loss of alveolar bone.

**Type III, Moderate Periodontitis**
A more advanced stage of Type II, with increased destruction of the periodontal structures with noticeable loss of bone support possibly accompanied by an increase in tooth mobility. There may be furcation involvement in multirotted teeth.

**Type IV, Advanced Periodontitis**
Further progression of periodontitis with major loss of alveolar bone support usually accompanied by increased tooth mobility. Furcation involvement in multirotted teeth is likely.

**Type V, Refractory Progressive Periodontitis**
Includes several unclassified types of periodontitis characterized by rapid bone and attachment loss or slow but continuous bone and attachment loss. There is resistance to normal therapy, and the condition is usually associated with gingival inflammation and continued pocket formation.

**TREATMENT CATEGORIES**

**Healthy Patient**
1. Slight supragingival calculus and/or stain.
2. No bleeding on gentle probing.
3. Gingival tissue free of clinical signs of inflammation.

**Treatment**
1. Patient education and instruction in home care methods.
2. Scaling.
3. Polishing.
4. Topical fluoride application.
5. Establish other treatment (restorative).
6. Establish appropriate recall intervals irrespective of other treatments required.
Case Type I (gingivitis) or Periodontal Maintenance Therapy

1. Slight supragingival and subgingival calculus and/or stain.
2. Early signs of gingival inflammation to include edema, marginal inflammation and slight bleeding on probing to such a degree that the verifying faculty member feels that tissue pathology can be resolved by removal of local factors in 2 or more visits and adequate home care. Periodontal maintenance therapy may only require one visit.

Treatment
1. Patient education, motivation and instruction in home care methods.
2. Scaling (possibly multiple visits).
3. Polishing.
4. Topical fluoride application.
5. Appoint for re-evaluation of periodontal tissues and personal oral hygiene.
6. Establish other treatments (in restorative).
7. Establish recall intervals irrespective of other treatment requirements.
8. If pathology persists on re-evaluation, schedule additional treatments under the supervision of the Department of Periodontics.

Case Type II (early periodontitis) or Periodontal Maintenance Therapy

1. Moderate supragingival and subgingival calculus.
2. Bleeding and/or suppuration on probing.
3. Pocket depths are such that verifying faculty member feels that all deposits cannot be removed in one visit by scaling and polishing and that local anesthesia may be required.
4. Early signs of radiographic bone loss.
5. Root planing may be required as a minimal treatment to resolve soft tissue pathology in some cases.
6. Pocket elimination surgery is not expected to be required.

Treatment
1. Patient education, motivation and instruction in home care methods.
2. Diet counseling and habit correction, if indicated.
3. Scale all teeth, root plane with local anesthesia all teeth and attachment loss multiple appointments likely.
4. Polishing all teeth.
5. Appoint the patient for re-evaluation.
   a. If pathology persists, schedule patient for additional
re-evaluation and treatment and consults with the periodontics faculty.
b. If on re-evaluation no tissue pathology is evident, establish a recall interval (not longer than 3 months) irrespective of other treatment requirements.

6. Arrange for other required treatment.

Case Type III
(moderate periodontitis)

1. Moderate to heavy calculus.
2. Periodontal pathology such that in the opinion of verifying faculty member, routine scaling, polishing, and root planing under local anesthesia are the minimum treatment procedures necessary to resolve the tissue pathology.

Treatment
1. Patient education, motivation and instruction in home care methods.
2. Diet counseling and habit correction if indicated.
3. Root planing with local anesthesia per quadrant.
4. Polishing all teeth.
5. Appoint patient for re-evaluation.
   a. If pathology persists, consult with periodontics faculty.
   b. If no tissue pathology is evident, establish a recall interval (not longer than 3 months) irrespective of other restoration requirements.
6. Arrange for other restorative treatments.

Case Type IV and V

1. Are usually referred to periodontal residents.
INTRODUCTION

Goals

To provide a clinical and didactic learning environment that assures our graduating dental students of competence in all phases of Operative Dentistry.

The clinical and didactic portions of the Operative Dentistry program are integrated to produce graduates competent to treat
patients, pass regional board examinations, and to integrate the principles of Biomaterials Science as they pertain to the art and science of Operative Dentistry.

**Objectives**

1. Provide operative dentistry treatment on adult patients in a competent manner using amalgam and direct composite restorations.
2. Successfully identify and remove dental caries.
3. Successfully complete the Trial Board and prepare students to pass the Regional Board examinations.
4. Achieve at least a 80% grade for each manikin basic skills requirement.
5. Achieve at least a 80% grade for each essential patient experience and each patient competency examination.
6. Pass all written/discrimination/oral examinations with a score of 70% or higher.

**Essential Patient Experiences**

To assist students in development of competence, the faculty require that each student provide evidence that they are capable of preparing and restoring direct restorations in patients.

**Competency and Requirements**

**Overview**

A number of required manikin basic skills and essential patient experiences are part of your instruction in the placement of direct restorations using amalgam and resin composite, which also include the removal of caries. You will be judged competent in the Operative Dentistry section of the Restorative Department when the following examinations and requirements are completed with a grade of 80% or better.

The manikin procedures must be accomplished on your manikin head mounted on a clinic chair in your team. Standard infection control guidelines and universal precautions must be followed.

When performed on a manikin, the examination may be done at times when you do not have a patient or when a patient has canceled an appointment. It is the student’s responsibility to schedule the examinations at the appropriate times. Grade sheets are available in each team.
**Third Year, Summer/Fall Semester**

**Typodont Requirements**
- One Class II Amalgam on typodont
- One Class II Composite on typodont
- One Class III Composite on typodont

**Essential Patient Experiences**
Two operative procedures performed on patients with the operative faculty from the Department of Restorative Dentistry. Students can do any operative procedures. Credit is only given if the procedure is passed.

**Third Year, Spring Semester**

**Typodont Requirements**
- One Class II Amalgam on typodont
- One Class II Composite on typodont
- One Class III Composite on typodont

**Operative Written Exam**
A written/discrimination/oral exam covering the basic principles of Operative Dentistry and Applied Dental Biomaterials is required to be passed with a score of 70% or better.

**Essential Patient Experiences**
Two operative procedures performed on patients with the operative faculty from the Department of Restorative Dentistry. Students can do any operative procedures except simple pit restorations and sealants. Credit is only given if the procedure is passed.

A one-hour Operative Dentistry grade of credit or no credit for Operative Clinic II (D6542C) is given at the end of the third year. If the procedures are not completed by the deadline dates listed in Table 1, then an incomplete will be given for the course. If an incomplete is not made up by the last Friday in July, then a “No Credit” will be given for the course.

**Fourth Year, Summer Semester**

**Essential Patient Experiences**
Two operative procedures performed on patients with the operative faculty from the Department of Restorative Dentistry. The operative procedures must be multi-surface or complex restorations with significant caries removal required. Credit is only given if the procedure is passed.
Fourth Year, Fall Semester

Typodont Requirements A Typodont Mock Board examination #1 will be given during an assigned one-day period. This mock board will consist of one Class II Amalgam, one Class III Composite and one Class II Composite.

Operative Written Exam A written/discrimination/oral exam covering the basic principles of Operative Dentistry and Applied Dental Biomaterials is required to be passed with a score of 70% or better.

A one-hour Operative Dentistry grade of credit or no credit for Operative Clinic IV (D6642C) is given at the end of the fall semester of the fourth year. If the procedures are not completed by the deadline dates listed in Table 2, then an incomplete will be given for the course. If an incomplete is not made up by the last Friday in February, then a “No Credit” will be given for the course.

Fourth Year, Spring Semester

Typodont Requirements During the spring semester of the fourth year, a Trial Board examination will either be given on a typodont or patients during an assigned two-day period. These procedures must be completed at a score of 80% in order to pass this exam.

The examination is modeled after the CRDTS or WREB Board Examinations. Operative procedures consisting of a Class II Amalgam and either a Class III or Class II Composite must be completed in order to graduate.

Fourth-Year, Fall and Spring Semesters Patient Competency Procedures Two of four operative patient competency procedures listed below performed on patients are required to be completed during the fall semester and the other two procedures performed on patients are required to be completed during the spring semester of the fourth year. They can be done in any order as long as two of them are completed per semester. These procedures must be performed with the Operative Faculty from the Department of Restorative Dentistry. Credit is only given if the procedure is passed. The four procedures to evaluate your operative competency education include:

1. A multisurface amalgam restoration that restores contact. The tooth restored must be in occlusion.
2. A multisurface anterior resin composite restoration that restores contact.
3. A multisurface posterior resin composite restoration that restores contact. The tooth restored must be in occlusion.

4. Moderate to gross caries removal. Caries removal necessitating an indirect and/or direct pulp capping procedure is acceptable. The tooth must require a multisurface restoration. The tooth does not have to be in occlusion and contact; if not present before the procedure, it does not have to be restored. (Example – lone standing tooth with no mesial or distal contact.) Credit is only given if the procedure is passed.

**REQUIREMENTS FOR PATIENT COMPETENCIES:** A rubber dam must be used. When demonstrating your competency, the procedure needs to be completed without faculty assistance.

**Evaluators:** One faculty member - an operative instructor from the Department of Restorative Dentistry or their designee must be the grader.

**Grades:** credit/no credit. In addition, quality and timeliness of completion of the competencies will be considered in determining your grade.
### TABLE 1 — D6542C

<table>
<thead>
<tr>
<th>Year and Semester</th>
<th>Essential Clinical Experiences on Patients</th>
<th>Typodont Requirements</th>
<th>Written Exams</th>
</tr>
</thead>
<tbody>
<tr>
<td>3rd Yr Summer-Fall</td>
<td>Any Operative Procedure due by the 1st Friday in November</td>
<td>Cl 2 Amalgam due by the 1st Friday in November</td>
<td>Operative Written Exam 70% pass required</td>
</tr>
<tr>
<td>3rd Year Spring</td>
<td>Any Operative procedure not sealants or pits due by the 2nd Friday in April</td>
<td>Cl 2 Amalgam due by Jan 31st</td>
<td>Cl 2 Composite due by Jan 31st</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>Cl 3 Composite due by Jan 31st</td>
</tr>
</tbody>
</table>

### TABLE 2 — D6642C

<table>
<thead>
<tr>
<th>Year and Semester</th>
<th>Essential Clinical Experiences on Patients</th>
<th>Typodont Requirements</th>
<th>Written Exams</th>
</tr>
</thead>
<tbody>
<tr>
<td>4th Yr Summer</td>
<td>Multi-surface caries removal due by the 3rd Friday in July</td>
<td>Multi-surface caries removal due by the 3rd Friday in July</td>
<td>Operative Written Exam 70% pass required</td>
</tr>
<tr>
<td>4th Year Fall</td>
<td></td>
<td>Mock Boards Typodont due by the First Friday in November</td>
<td>Cl 2 Composite due by the 1st Friday in November</td>
</tr>
<tr>
<td>4th Year Spring</td>
<td></td>
<td>Trial Boards patterned after the WREB or CRDTS Examination</td>
<td>Cl 3 Composite due by the 1st Friday in November</td>
</tr>
</tbody>
</table>

### PATIENT COMPETENCY PROCEDURES — LISTED IN TABLE BELOW

<table>
<thead>
<tr>
<th>Year and Semester</th>
<th>Essential Clinical Experiences on Patients</th>
<th>Typodont Requirements</th>
<th>Written Exams</th>
</tr>
</thead>
<tbody>
<tr>
<td>4th Year Fall</td>
<td>One of the four patient competencies due by the 3rd Friday in November</td>
<td>One of the four patient competencies due by the 3rd Friday in November</td>
<td>Cl 2 Composite due by the 1st Friday in November</td>
</tr>
<tr>
<td>4th Year Spring</td>
<td>One of the four patient competencies due by the 2nd Friday in April</td>
<td>One of the four patient competencies due by the 2nd Friday in April</td>
<td>Cl 3 Composite due by the 1st Friday in November</td>
</tr>
</tbody>
</table>

### PATIENT COMPETENCY PROCEDURES — 4TH YEAR FALL AND SPRING

1. A multisurface amalgam restoration.
2. A multisurface anterior resin composite restoration.
3. A multisurface posterior resin composite restoration.
4. Moderate to gross caries removal. Caries removal necessitating an indirect and/or direct pulp capping procedure is acceptable. The tooth must require a multisurface restoration.
Evaluation and Grading

Each clinical procedure is evaluated by an operative faculty member from the Department of Restorative Dentistry according to established criteria. This provides an assessment of experience, performance and competency for each student.

Daily clinical performance is evaluated by the Operative Faculty from the Department of Restorative Dentistry and is reflected in the Comprehensive Patient Care and Clinical Management grades.

Remediation Policy

A No Credit grade for the semester may be remediated, depending on the cause for the failure. The Department Chairman and Section Head will discuss the matter with the student and, when appropriate, outline a remediation program. The program may include additional supervised experience, assignments and additional examinations.

CRITERIA FOR EVALUATION OF CLINICAL PERFORMANCE AND COMPETENCY EVALUATION EXAMINATION

Preparation for Student Appointments

1. Presents to clinic with chart, current radiographs, study models if indicated, approved treatment plan.
2. Makes correct diagnosis for caries or other tooth disease.
3. Is able to offer reasonable treatment options.
4. Knows and understands the significance of patient’s current medical history, medications, and their effect on treatment.

Patient Management

1. Is able to give adequate anesthesia.
2. Performs procedure under adequate moisture control, which includes proper use of rubber dam.
3. Explains the procedure, possible implications and post-operative instructions to patient.
4. Writes prescriptions when indicated, selecting appropriate medications.
5. Gives patient home phone number for patient to contact if after-hours care is necessary.

3. Technical Skills

1. Is able to diagnose the difference between active caries, incipient caries, arrested caries and when and how to restore or treat each different kind.
2. Is set up properly with all the instruments needed to treat the lesion.
3. Demonstrates proper use of patient position and use of mirror.
4. Maintains sterile technique throughout procedure: wears gloves, glasses with side shields, and mask. Patient wears glasses at all times.
5. Selects appropriate liners, bases and restorative material.
6. Can dialogue using dental language with faculty and understands procedure and instructions.
7. Relates to staff and faculty in a professional manner.
8. Properly disposes of unclean scrap, sharps and disposables, and returns materials and equipment to dispensary.

4. Patient Record

1. Accurate and legible record, documenting all materials, procedures and medications used in the patient record.
2. Designation of procedure is thorough and complete enough to allow another doctor to understand what has taken place. Record is legally correct so the procedure is defensible by the record in a court of law.

5. Rubber Dam

It is the expectation of the Operative Faculty that all restorative procedures are to be completed with the rubber dam in place. If the decision is made, through discussion between the instructor and student doctor, not to use the rubber dam, alternative methods of isolation must be used effectively.

PROTOCOL FOR PATIENTS WITH A HIGH RISK FOR CARIES

A. Remove Decay

If possible, remove gross decay without anesthesia and place glass ionomer or IRM interim restorations in any teeth that are restorable.

1. If symptoms are of irreversible pulpitis then appropriate endodontic therapy should commence after determining restorability.
2. Any lesions that are very close to the pulp should be indirectly pulp capped with calcium hydroxide followed by an interim restoration. Avoid direct pulp exposures.

B. Home Care

Initiate at diagnosis appointment

1. Place patient on 0.12% Chlorhexidine rinse (CHX) prescription (e.g. Peridex). Rinse with 15 ml for 30 seconds after dinner for one week each month. Repeat for one week every month.
2. Place patient on 1.1% sodium fluoride toothpaste, (e.g. Prevident 5000+ dental cream prescription) before bedtime. Apply a pea size of cream to the brush and brush for 1-2 minutes and expectorate. Do not rinse.

3. Brush with regular toothpaste in the morning and floss at least once a day.

C. Education

Emphasize patient’s role in fighting this infection

1. Caused by bacteria

2. Aggravated by frequent between meal eating
   a. Perform a two-day diet analysis to include one weekend day

3. Aggravated by high sucrose diet
   a. Bacteria reproduce 20x greater in a high sucrose diet

4. Possible dry mouth causes (medications, treatments for diseases such as cancer)

5. Aggravated by appliances (partials, crowns, bridges)

6. Lack of patient decision to fight the disease

7. Recommend patient chew Xylitol chewing gum or a sugar-free gum after meals when they cannot brush in order to raise the salivary pH and clean their mouth of food.

D. Sealants

Pit and fissure sealants should be placed on unrestored occlusal surfaces with deep fissures regardless of patient’s age.

E. Fluoride Varnish

Apply to all accessible tooth surfaces. Repeat every six months, until caries risk assessment for the patient has changed to a low risk, as confirmed by no new lesions, or CRT test. Fluoride varnish may be applied every three months in severe cases.


8. Perform CRT test (e.g. Ivoclar) to see if caries control strategies are working.
   a. High risk: continue with appropriate strategies (CHX rinse, Rx toothpaste, F varnish) and consider additional strategies (xylitol gum, diet counseling).
   b. Low risk: May discontinue Rx toothpaste and CHX rinse as appropriate. Continue with Fluoride varnish, or APF or NaF professional as indicated.
DENTAL AMALGAM WASTE:
THE AMERICAN DENTAL ASSOCIATION’S BEST MANAGEMENT PRACTICES

Mercury

Concern about the effects of mercury in the environment has increased over the years. Mercury in the environment is bioaccumulative, which means that it can build up in fish and cause health problems in humans and other animals that eat fish. Many state health professionals recommend limiting fish consumption, especially for children and pregnant women.

Dental Amalgam

Dental amalgam waste can be recycled to help prevent the release of mercury in the environment. Following the simple suggestions outlined in this document will help protect the environment.

Amalgam Waste

The University of Missouri-Kansas City School of Dentistry will adhere to the American Dental Association’s Best Practices for the disposal of amalgam waste. The Pediatric Dentistry Clinic, Emergency Clinic, Special Patient Care Clinic, Oral Surgery Clinic, each clinical team, and other clinical areas as needed will have containers clearly marked AMALGAM SCRAP FOR RECYCLING for the disposal of amalgam waste. Amalgam scrap includes contact and non-contact amalgam waste.

Contact amalgam waste is amalgam that has been in contact with the patient. Examples are extracted teeth with amalgam restorations, carving scrap collected at chairside, and amalgam captured by chairside traps, filters or screens.

Non-contact waste (scrap) is excess mix leftover at the end of a dental restorative procedure that has not come in contact with the patient. Empty amalgam capsules are considered non-contact waste and should be placed in the recycling containers.

All personnel will be expected to place all contact and non-contact amalgam scrap in containers marked with AMALGAM SCRAP FOR RECYCLING. These containers will be placed throughout the clinic.

The Oral Surgery Clinic also will be equipped with a container for contact amalgam scrap. All personnel will be expected to place all extracted teeth that have amalgam restorations in the container marked AMALGAM SCRAP FOR RECYCLING.
PROTOCOL FOR THE USE OF LINERS, SEALERS AND BASES UNDER AMALGAM

Admixed Alloy

In our clinic we use an admixed alloy which has been shown to have less post op sensitivity than a spherical alloy. The admixed alloy we use is Dispersalloy. For all cavity preparations of normal depth with adequate retention, several in-vivo \(^1,2\) studies have shown after a period of from one to two weeks up to 3-5 years there was no difference in post operative sensitivity and secondary caries between amalgams treated with no liner or varnish compared to amalgams treated with an adhesive bonding agent sealer. Therefore in order to save the number of steps and the cost of an amalgam restoration we are recommending that;

1. For all ideal depth cavity preparations that use amalgam as the restorative material, no sealer or liner is necessary.
2. For preparations deeper than normal with at least 1.0 mm of dentin between the pulp and the restorative material, no sealer or liner is necessary.
3. For preparations deeper than normal with less than 1.0 mm of dentin between the pulp and the amalgam, a liner using a resin modified glass ionomer is recommended as a thermal insulator.
4. For preparations with less than 0.5 mm of dentin between the pulp and the amalgam, a thin calcium hydroxide liner is recommended followed by a thermal insulator of resin modified glass ionomer.
5. For preparations with a direct pulp exposure on a vital pulp, a calcium hydroxide liner \(~0.5\) mm in thickness is recommended followed by a thermal insulator of resin modified glass ionomer.

The rationale for not using an adhesive bonding agent sealer under amalgam is:

1. Bonding agents will pool in the corners of the prep.
2. An acid etch step is required which demineralizes the dentin and leaves exposed collagen. When the adhesive bonding agent is placed, it does not fully hybridize or encapsulate the collagen that has been exposed.
3. Extra steps, time and cost are taken that do not show any benefit compared with using no liner.\(^3,4\)
4. Much of the dentin is sealed with a smear layer.
5. Corrosion products of amalgam may be inhibited from being formed when a sealer is placed.


### Operative Dentistry – Typodont Requirements

<table>
<thead>
<tr>
<th>Student Name</th>
<th>Date</th>
<th>Team</th>
<th>Class</th>
<th>Procedure</th>
<th>Semester</th>
<th>Fall</th>
<th>Winter</th>
<th>Year</th>
<th>Year (Check)</th>
<th>If Redo (Check Here)</th>
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<table>
<thead>
<tr>
<th>Tooth #</th>
<th>Surface</th>
<th>Student Evaluation</th>
<th>First Faculty Evaluation</th>
<th>Second Faculty Evaluation</th>
<th>Comments</th>
</tr>
</thead>
</table>

- **Isolation/Moisture Control, Setup, and infection control**
  - Faculty signature
  - Preparation
    - 1. Outline Form - extension, dovetail, undermined enamel, width, height, access, contact
    - 2. Internal Form - pulpalexial depth, walls, angles, resistance, axpulpal line angle
    - 3. Retention - undercuts, grooves
    - 4. Finished Cavity margins - smooth, bevels, rough
    - 5. Clean/Dry Preparation
    - 6. Adjacent Proximal Surface, Soft Tissue Damage
    - 7. Caries Removal
    - 8. Correct Base Placement
  - Restoration
    - 1. Margins, flash
    - 2. Anatomy/Contour, Embrasure
    - 3. Contact
    - 4. Occlusion
    - 5. Surface Finish
    - 6. Esthetics, shade
  - Procedure
    - 1. Organization -asepsis, time management, records
    - 2. Procedural Knowledge - sequence, materials, instruments
    - 3. Professional conduct - attire, grooming, terminology, faculty interaction
  - Preparation
    - 100 80 60 0 100 80 60 0 100 80 60 0
  - Restoration
    - 100 80 60 0 100 80 60 0 100 80 60 0

<table>
<thead>
<tr>
<th>Faculty Name</th>
<th>Backup Operative Faculty</th>
<th>McMillen, Trotter, Skaggs, Smith</th>
<th>Generalist Faculty</th>
<th>Pass</th>
<th>Fail</th>
</tr>
</thead>
</table>

**OPERATIVE DENTISTRY --- Typodont Requirements**

Class of 2013
Clinic Orientation Manual

DEPARTMENTAL GUIDELINES
Restorative Dentistry

Sec. 4.173
(Revised 5/11)
Operative Dentistry — Typodont Requirements

1. The typodont exam can be performed on either a patient or a manikin.
2. The Operative Typodont must be intact with all of the teeth present in the maxillary and mandibular arches. Select the tooth. Fill out the grade sheet with your name, date, tooth number, and procedure. The procedure must be started within 30 minutes of the clinic session (with exceptions made for patient cancellations, e-chair and Lowry Clinic).
3. The Manikin is to remain on the chair throughout the exam.
4. Rubber dam will be used throughout the preparation and restoration portions of the exam. Remove the rubber dam prior to checking occlusion and the final evaluation of the restoration.
5. Proper clinical procedures must be used throughout the examination period (PPE, protective eye-wear, gloves and appropriate instrument set up).
6. Place a pin hole in the lingual surface of the tooth (typodont) after the preparation has been graded and a second pin hole with a bur on the facial surface after the restoration (typodont) has been graded.
7. Typodont requirements for the semester must be completed prior to attempting essential clinical experiences on patients.
8. Procedures will be graded at the same clinic session they were started.
9. All procedures must be “Self Evaluated” prior to faculty evaluation. After Self evaluation, have the procedure evaluated by two operative faculty members or one operative and one generalist faculty member.
10. When finished place the tooth (labeled with the student’s ID No.) in a coin envelope, attach it to the grade sheet and turn them into the faculty grader.
11. Automatic failures
   a. open margins or voids in restoration
   b. open contacts that should be closed, closed contacts that should be open (less than 0.5 mm) or contacts open by more than 1.0 mm (unless dictated by caries)
   c. hooks on proximal walls, no reverse “S” on the buccal wall if tooth is in contact
   d. failure to properly isolate the area
   e. marginal ridges less than 1.0 mm thick
12. (4th year only) When doing the two-day manikin mock boards prepare a tooth in advance and use that tooth to restore the day of the manikin mock board.
13. (4th year only) When doing the two-day manikin mock boards, hand in the graded prepared tooth in the coin envelope with your name and continue the restoration part of the exam using the tooth you prepped in advance.
14. The lowest score in each section is the total score for that section.

Amalgam
1. After carving, finish the surface with moist cotton.

Composite
1. Place the resin bonding agent. (It is not necessary to acid etch the typodont tooth.)
2. Place the composite. Contour, finish and polish.

October 1, 2010
### Operative Dentistry – Essential Clinical Experiences on Patients

<table>
<thead>
<tr>
<th>Procedure</th>
<th>Student Evaluation</th>
<th>Student Comments</th>
<th>Faculty Evaluation</th>
<th>Faculty Comments</th>
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<tr>
<td>Isolation/Moisture Control, Setup, Infection Control</td>
<td>100 80 60 0</td>
<td>100 80 60 0</td>
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<tr>
<td>Preparation</td>
<td>100 80 60 0</td>
<td>Student Comments</td>
<td>100 80 60 0</td>
<td>Faculty Comments</td>
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<tr>
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<td>2. Internal Form - pulpal/axial depth, walls, angles, smooth, resistance, ax/pulpal line angle</td>
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<tr>
<td>3. Retention - convergence, micro &amp; macro, bevels, grooves</td>
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<td>4. Finished Cavity margins - smooth, bevels, rough</td>
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<td>5. Clean/Dry Preparation</td>
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<td>6. Adjacent Proximal Surface, Soft Tissue Damage</td>
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<td>7. Caries Removal</td>
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<tr>
<td>8. Correct Base/Liner Placement</td>
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<tr>
<td>Restoration</td>
<td>100 80 60 0</td>
<td>Student Comments</td>
<td>100 80 60 0</td>
<td>Faculty Comments</td>
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<tr>
<td>1. Margins, flash</td>
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<td>2. Anatomy/Contour, Embrasure</td>
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<td>3. Contact</td>
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<td>6. Esthetics, shade</td>
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<td>Faculty Comments</td>
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<tr>
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<td>2. Procedural knowledge - sequence, materials, instruments</td>
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<tr>
<td>3. Professional conduct - attire, grooming, terminology, faculty interaction, post-operative instructions</td>
<td></td>
<td>80% or above is a passing score</td>
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<tr>
<td>Preparation</td>
<td>100 80 60 0</td>
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<tr>
<td>Restoration</td>
<td>100 80 60 0</td>
<td>100 80 60 0</td>
<td>80% or above is a passing score</td>
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</tbody>
</table>

**Faculty Name -**

Backup Operative Faculty - Pusk

Operative Faculty - McMillen, D., Williams, B., Williams, S., Suggs, W., Westley

Generalist Faculty - J. Parkinson, Trotter, McReynolds, J. Jones, Smith

**Pass**

**Fail**

**Over for instructions →**

---

**Class of 2013**

**Clinic Orientation Manual**

**DEPARTMENTAL GUIDELINES**

**Restorative Dentistry**

(Revised 5/11)
1. The Essential Clinical Patient Experience procedures must be performed on a patient.
2. At the time you sign in with your operative faculty declare that you are doing this as an essential clinical experience procedure. It must be declared before beginning the procedure.
3. Only one essential clinical experience per clinic session can be completed. The patient experience must be started within 30 minutes of the clinic session (with exceptions made for patient cancellations, e-chair and Lowry Clinic).
4. One day's notice should be given to the faculty member if a student finds it necessary to use a faculty member from another team.
5. 4th year operative procedures must be multi surface or complex restorations. Caries procedures must involve significant caries removal. Build-ups may be used for 4th Year Essential Clinical Experiences provided the tooth meets all other requirements.
6. Failure to complete all experiences in a timely manner will be reflected in the student’s clinic semester grade submitted by the Team Operative faculty.
7. For deadlines see clinic manual.
8. The completion of these procedures will help your operative faculty to determine your quality clinical grade.
9. Rubber dam will be used throughout the preparation and restoration portions of the procedure. Remove the rubber dam prior to checking occlusion and the final evaluation of the restoration.
10. Proper clinical procedures must be used throughout the examination period (PPE, protective eye-wear, gloves and appropriate instrument set up, infection control).
11. All procedures must be “Self Evaluated” prior to faculty evaluation.
12. Students should fill in the comments section to facilitate active learning with their faculty person.
13. Prepare the ideal prep first before any caries removal. After request for extension has been approved then caries can be removed.
14. The lowest score in each section is the total score for that section.
15. Optiguard can only be used after the restoration has been evaluated by the faculty.
16. Procedure automatic failures
   a. incomplete removal of caries
   b. failure to identify a pulp exposure
   c. improper treatment of a pulp exposure (i.e. failure to obtain proper consult when appropriate; failure to place liner when appropriate; inappropriate temporization when needed.)
   d. open margins or voids in restoration
   e. open contacts that should be closed, closed contacts that should be open (less than 0.5 mm) or contacts open by more than 1.0 mm (unless dictated by caries)
   f. inadequate esthetics
   g. Hooks on proximal walls, no reverse “S” on the buccal wall of amalgam if tooth is in contact
   h. Failure to properly isolate the area
   i. Marginal ridges less than 1.0 mm thick
17. Provide patient with proper post operative instructions and contact information for after hours complications or questions.

October 1, 2010
### Operative Dentistry – Patient Competency Procedures

<table>
<thead>
<tr>
<th>Student Name</th>
<th>Date</th>
<th>Team (Circle One)</th>
<th>1</th>
<th>2</th>
<th>3</th>
<th>4</th>
<th>Year</th>
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</tbody>
</table>

#### Student Evaluation 100 80 60 0

<table>
<thead>
<tr>
<th>Isolation/Moisture Control, Setup, Infection Control</th>
</tr>
</thead>
</table>

| Faculty Evaluation 100 80 60 0 |

| Faculty Comments |

#### Preparation 100 80 60 0

1. Outline Form - extension, dovetail, undermined enamel, width, height, access, contact

2. Internal Form - pulpal/lateral depth, walls, angles, smooth, resistance, axial/lateral line angle

3. Retention - convergence, micro & macro, bevels, grooves

4. Finishing Cavity margins - smooth, bevels, rough

5. Clean/Dry Preparation

6. Adjacent Proximal Surface, Soft Tissue Damage

7. Caries Removal

8. Correct Base/Liner Placement

#### Restoration 100 80 60 0

1. Margins, flash

2. Anatomy/Contour, Embrasure

3. Contact

4. Occlusion

5. Surface Finish

6. Esthetics, shade

| Procedure 100 80 60 0 |

| Student Evaluation 100 80 60 0 |

| Faculty Comments 100 80 60 0 |

| Student Comments 100 80 60 0 |

| Faculty Comments |

#### Preparations 100 80 60 0

1. Organization - asepsis, time management, records

2. Procedural Knowledge - sequence, materials, instruments

3. Professional conduct - attire, grooming, terminology, faculty interaction, post-operative instructions

| Preparation 100 80 60 0 |

| Faculty Comments |

| Restoration 100 80 60 0 |

| Faculty Comments |

| Preparations 100 80 60 0 |

| 80% or above is a passing score |

| Faculty Name - Back-up Operative Faculty: Purk Operative Faculty: McMullen, D. Williams, B. Williams, Skaggs, Woodsy Generalist Faculty: J. Parkinson, Trotter, McReynolds, J. Jones, Smith |

| Pass |

| Fail |

| Over for instructions → |
1. The operative competency procedures must be performed on a patient. The competency must be started within 30 minutes of the clinic session (with exceptions made for patient cancellations, e-chair and Lowry Clinic).

2. At the time you sign in with your operative faculty declare that you are doing this patient competency procedure. It must be declared before beginning the procedure.

3. One competency per clinic session. The student must complete the procedure without faculty help or guidance.

4. One days notice should be given to the faculty member if a student finds it necessary to use a faculty member from another team.

5. Build-ups may be used for 4th Year Patient Competencies provided the tooth meets all other requirements.

6. Failure to complete all competencies in a timely manner will be reflected in the student’s clinic semester grade submitted by the Team Operative faculty.

7. 4th year students must complete a minimum of 2 operative procedures with the operative faculty per semester starting with the Fall Semester of the 4th year. For deadlines see clinic manual. Operative procedures must be multi surface or complex restorations. Caries procedure must involve significant caries removal.

8. The completion of these procedures will help your operative faculty to determine your quality clinical grade.

9. Rubber dam will be used throughout the preparation and restoration portions of the procedure. Remove the rubber dam prior to checking occlusion and the final evaluation of the restoration.

10. Proper clinical procedures must be used throughout the examination period (PPE, protective eye-wear, gloves and appropriate instrument set up).

11. All procedures must be “Self Evaluated” prior to faculty evaluation.

12. Students should fill in the comments section to facilitate active learning with their faculty person.

13. Prepare the ideal prep first before any caries removal. After request for extension has been approved then caries can be removed.

14. The lowest score in each section is the total score for that section.

15. Patient automatic failures
   a. incomplete removal of caries
   b. failure to identify a pulp exposure
   c. improper treatment of a pulp exposure (i.e. failure to obtain proper consult when appropriate; failure to place liner when appropriate; inappropriate temporization when needed.)
   d. open margins or voids in restoration
   e. open contacts that should be closed, closed contacts that should be open (less than 0.5 mm) or contacts open by more than 1.0 mm (unless dictated by caries)
   f. inadequate esthetics
   g. Hooks on proximal walls, no reverse “S” on the buccal wall of amalgam if tooth is in contact
   h. Failure to properly isolate the area. Marginal ridges less than 1.0 mm thick
   i. Marginal ridges less than 1.0 mm thick

16. Provide patient with proper post operative instructions and contact information for after hours complications or questions.
SECTION OF FIXED PROSTHODONTICS

Section Head  
Dr. Donna Deines

Goals  
To provide the graduating dental student with a foundation of basic clinical skills, understanding, and professional values that will enable him/her to evaluate and treat patients in need of routine Fixed Prosthodontics within a framework of Comprehensive Care.

Objectives  
Based upon the clinical and didactic phases of the predoctoral program, it is expected that the dental graduate will be competent to meet the following objectives:

1. Complete a comprehensive exam of a patient.
2. Make a proper diagnosis and develop a treatment plan(s).
4. Utilize proper technique in tooth preparation, soft tissue management, and impressions.
5. Adequately fabricate and deliver physiologic provisional restorations.
6. Perform laboratory procedures and establish a working relationship with dental laboratory technicians to develop proper single crowns and fixed partial prostheses.
7. Properly seat, adjust, and cement fixed prosthodontic restorations that are occlusally correct and esthetic.
8. Provide management of occlusal disharmonies.
9. Understand when restoration is not possible and/or when referral is indicated.
10. Demonstrate critical thinking and problem solving skills, and select appropriate evidence-based references to support ideas and treatment decisions.

ASSESSMENT OF COMPETENCY

Overview  
It is expected that a broad range of experiences will lead to the development of competency at graduation; however, the department has identified the following as minimum clinical experiences and demonstration of the student’s didactic and clinical skills.
Essential Clinical Experiences

Students must complete the following in the UMKC clinic during regular clinic sessions and be evaluated as “acceptable” for credit:

1. At least fifteen (15) single crowns, ten (10) of which must be on natural teeth.
2. The restoration of at least two (2) edentulous areas, one (1) of which must be with a conventional fixed partial denture (natural tooth abutment/complete crown retainers).
3. The restoration of at least one (1) endodontically-treated tooth with a post-core (either custom cast post-core or pre-fabricated post and resin composite or amalgam core).

Portfolio Assessment (Third Year D6611C)

A portfolio assessment involving the documentation and assessment of a clinical case with reflective written papers; due at the end of the Summer Semester following the third year.

Competency Examinations (Fourth Year)

1. Single Crown Competency Examination (patient); due by Spring Break of fourth year.
2. Fixed Partial Denture Examination (typodont) completed in Spring Semester of the fourth year.
3. Trial Board Examination completed in Spring Semester of the fourth year.

Clinic Evaluations

Fixed Prosthodontics Clinical (D6611C)

Students in the third year are expected to complete patient treatment with at least four single crowns by the end of the Summer Semester. A grade for the Third Year Fixed Prosthodontics Clinical will be given at the end of the Summer Semester following the third year. The one credit hour grade (credit/no credit) will be based on satisfactory completion of the Portfolio Assessment.

For other semesters in the third and fourth years, the student’s performance in Fixed Prosthodontics is incorporated into the composite clinical grade in Comprehensive Patient Care. The student’s diagnostic judgement, clinical technical skills, and patient management are considered in these evaluations.

Clinical Protocol

Case Selection and Treatment Planning

It is expected that beginning typical clinical cases should be straight-forward and relatively uncomplicated. As the student develops clinical experience, knowledge, and competency, he/she will be expected to treat patients with less supervision and help. However, the patients selected for treatment should en-
able the students (not faculty) to provide care in a comprehensive manner yet fulfill their requirements.

The following are guidelines which must be followed when determining Case Selection:

• A minimum of two (2) single crowns must be completed in the Third Year before starting restoration with a fixed partial denture.

• Fixed Prosthodontic treatment plans which involves the restoration of more than three (3) contiguous teeth must be approved by the supervising faculty member and a second faculty member who will accept responsibility for supervision of the case.

• Fixed Prosthodontic treatment should be limited to patients categorized in the Prosthodontic Diagnostic Index as Class I or Class II:
  • Edentulous areas may be in 1 or 2 arches and may include:
    1) Any anterior maxillary span not to exceed two incisors (4-unit FPD)
    2) Any anterior mandibular span that does not exceed 4 incisors (6-unit FPD)
    3) Any posterior span that does not exceed two premolars, or one premolar and a molar, or any missing canine.
  • Condition of the abutments is moderately compromised:
    1) Deficient tooth structure to retain or support extra-coronal restorations.
    2) Abutments require localized adjunctive therapy.
  • Occlusion is moderately compromised:
    1) Occlusal correction or occlusal scheme correction is necessary.
    2) Anterior guidance should be intact.
  • Residual ridge conforms to the Class II complete edentulism.
  • Characteristics which increase case complexity:
    1) Class II and Class III molar and jaw relationships
    2) Significant esthetic concerns and challenges
• Contraindications to Fixed Prosthodontic treatment in the Undergraduate Clinic:
  • The occlusal scheme must not require re-establishment.
  • The occlusal vertical dimension must not be changed.
The absence of occlusion in a posterior sextant without the plan for replacement / restoration of posterior occlusion.

The presence of TMD symptoms must be addressed before restorative procedures are planned.

**Fixed Prosthodontics Work-Up & Consultation**

The following aspects are considered to be part of the Prosthodontic Work-Up. This diagnostic information should be reviewed with the supervising faculty member during the Prosthodontics Consultation, and signed on the Fixed Prosthodontics Card as you determine a prosthodontic treatment plan:

- Medical and dental history; clinical records including the TMJ / Occlusal Analysis
- Current appropriate radiographs
- Diagnostic casts neatly mounted on the Hanau-Mate or Wide-View semi-adjustable articulator with a facebow record — required for restoration of an edentulous space (FPD, implants), multiple single restorations, or when recommended by the faculty.

**Laboratory Procedures**

You are responsible for the following laboratory procedures:

- Pouring all impressions, fabrication of master cast and dies, including Pindexing, trimming margins, and mounting procedures (except dual-arch impressions).
- Diagnostic preparation and/or waxing for esthetics or occlusal plane determination; including the duplication of wax-up and pouring a stone cast and a matrix for provisional restorations.
- Custom trays
- Laboratory work authorization

**Treatment Scheduling**

It is in the best interests of all that treatment is completed by the student with the same supervising faculty for a particular case.

**Timeliness:** Credit will not be given if there is evidence of inappropriate patient management.

**Single crowns** must be completed within six (6) weeks / **FPDs** within eight (8) weeks:

1) Final impression: no more than one week after preparation(s) complete.

2) Lab work submitted within three (3) days after final impression.
3) In lab 5–10 working days depending on restoration / procedure
4) Try-in or insertion within one week after return from lab

All Fixed Prosthodontic treatment started by a student must be completed by that student before graduation.

Payment: Complete payment must be received before beginning tooth preparation for single crowns or fixed partial dentures unless the patient has an authorized payment plan.

**Documentation**

The Fixed Prosthodontics Card should be signed by the supervising faculty as each pertinent area is evaluated as “Acceptable”. At the completion of treatment, the faculty will make notes and assign credit, and the card is given to the Team Clerk for recording and filing. These cards are your record which will be used in determining your clinic competency grades.

**GUIDELINES FOR LABORATORY SUBMISSIONS**

All Fixed Prosthodontics laboratory work is submitted to the Production Lab Office, Room 390. Verification of complete payment will be made on CMS (required before tooth preparation).

- Case must be submitted within three days from the date of impression.

**Articulation of Casts**

Full arch casts mounted with a facebow transfer on the Hanau-Mate or Wide-View must be utilized for all cases of three units or more.

**Custom impression trays** must be used for FPDs.

**Dual-arch impressions** may be used with faculty approval:
- One single crown in a posterior sextant.
- Well-interdigitated occlusion must exist, both anterior and posterior to the prepared tooth.
- **Fixed partial dentures will not be fabricated using a dual-arch impression.**

**Diagnostic cast** showing desired esthetic results for anterior restorations is required.

**Custom anterior guide table** is required for anterior FPDs and multiple crowns.
Master Cast/
Die Preparation

Occlusal surfaces of all casts must be free of nodules and excess stone; casts must be in proper occlusal contact. Interocclusal records should be trimmed to provide support between prepared teeth and their opposing teeth only. A stone-to-stone (tooth-to-tooth) articulation is preferred when good interdigitation is possible.

Pindex System is used for all working casts/dies. Individual dies must be independently removable and stable on the base. A separate die is required for each crown/retainer preparation and pontic area.

• A lab technician will be available to help with pinning difficult situations, as requested by the faculty on a Work Authorization.
• The lab technician will prepare the working cast/dies for dual-arch impressions. Submit the impression with work authorization; student must trim die and return for completion of crown within one day.

Each working die should be accurately trimmed at least 3 mm apical to the margin, and the margin should be marked lightly with a red pencil to a fine, continuous line.

Do not apply cyanoacrylate glue (die sealer) or die spacer — this will be done in the lab.

Undercuts (small, within wall only) must be marked on the die; request lab to block out.

Reduction coping, if necessary, should be limited to the reduction of one surface only.

Static cast — submit an un-sectioned cast (second pour) to the lab with your case, and keep the impression available throughout treatment.

All-Ceramic Restorations

All-ceramic restorations will be sent to an outside lab for fabrication.

• All submissions will be evaluated (Q.A.) by mounted casts of the tooth preparations.
• Submit also the diagnostic cast (diagnostic waxing); final (disinfected) impression; interocclusal record; and work authorization signed by supervising faculty.
• The master cast and dies will be fabricated by the outside lab, and can be returned for faculty inspection after trimming, if desired.
- For CAD-CAM fabrication, a “scannable stone” working cast / die must be fabricated by the lab.

- **Requirements for All-Ceramic Fixed Partial Dentures:**
  1. Limited to the anterior sextant and not involving more than three teeth (one pontic).
  2. Analysis of occlusion and appropriate incisal guide table
  3. The determination and record of incisal length, labial position, and extension.
  4. Planned tooth preparations (duplicate diagnostic cast) are recommended to ensure the ability to provide adequate wall length / resistance form and connector length(≥4 mm).

**Survey crowns:** When preparing a working cast for survey crowns (RPD), the cast must be surveyed. It should be evaluated by the instructor in Removable Prosthodontics as well as Fixed Prosthodontics. The wax pattern may be requested for evaluation before casting. When the surveyed crown is completed, evaluate the contours with the surveyor and obtain approval from your Removable Prosthodontics instructor prior to the patient appointment.

---

**COMPETENCY EXAMINATION GUIDELINES**

**Overview**

The Competency Examinations will aid in evaluating student achievement in technical skills, clinical judgement, and self-assessment. It is expected that the student will receive NO help from faculty in the treatment of the “Competency Exam” patient; however, if there is a question, ask, rather than proceeding and causing patient harm.

**Single Crown Competency Exam**

1. The Competency Exam will consist of complete planning and treatment with a single crown for an assigned patient in the UMKC Dental Clinic.
2. Third year requirements (a minimum of four crowns and Portfolio Assessment) must be completed before taking the Competency Exam.
3. The examination will be conducted in the student’s team, and evaluated by the Fixed Prosthodontics faculty. Certain steps require evaluation by a second designated faculty member. The same faculty members should evaluate all procedures in the Competency Exam.
4. **Time limits**: The tooth preparation and impression must be completed in a maximum of two appointments, and the exam should be completed in a maximum of four appointments.

5. If the student does not pass the Competency Exam, the procedure must be completed, and credit for the procedure may be given, if appropriate.

*All grade cards must be turned in whether the exam is completed satisfactorily or failed.*

**Treatment Selection**

1. A tooth must be chosen which is not currently restored with a crown.
2. Endodontically treated teeth may be used, but an acceptable foundation must be present. If a post-core is required, it must be done by the student as part of the examination. Teeth exhibiting internal or external pulp pathology must first be endodontically treated.
3. The tooth must be in proper occlusion with an opposing tooth or teeth.
4. At least one proximal surface being restored must be in contact with an enamel surface or a permanently restored surface of an adjacent tooth. The proximal contact(s) of the tooth must be restored.

**Pre-Treatment Planning**

The treatment must be in the signed treatment plan in the patient record. You must be fully prepared to describe the rationale for placement of a crown, how the treatment relates to the overall plan of care, the current periodontal, pulpal, and occlusal status, the proposed preparation and restoration design, and any patient management considerations. All diagnostic aids will be available when the patient is presented for examination and during treatment:

1. Current radiographs (including a bite-wing and periapical)
2. Diagnostic casts, neatly mounted on articulator with a face-bow transfer; diagnostic waxing or custom anterior guide table that may be necessary; any aids for tooth preparation.

**Competency Exam Evaluation**

All criteria must be performed to a “Clinically Acceptable” level in order to pass the exam.

The Competency Exam Evaluation Form must be presented at the completion of each step, and *Procedures which are marked (*) must be evaluated by a second faculty evaluator*. All signature steps must be evaluated and recorded on the evaluation form by the Fixed Prosthodontics examiner(s). The evaluation
form must be turned in to the Team Clerk for recording, and a copy must be filed in the Restorative Department - all attempts must be recorded. A sample evaluation form is found at the end of the section.

**Competency Examination for Fixed Partial Dentures**

A manikin-based examination will be given in the Spring Semester of the fourth year during an assigned one-day period. The procedures must be accomplished using the manikin head, mounted in proper position on the clinic chair. Melamine (non-layered) typodont teeth will be prepared for a metal-ceramic retainer and a full cast crown retainer with path of insertion for a fixed partial denture. The preparations will be evaluated based on published criteria, with more detailed evaluation criteria available in the teams. Professional conduct, proper instrument management and infection control will be also be evaluated. A grade of Pass or Fail will be given based on all evaluation criteria being judged as Clinically Acceptable; a sample evaluation form is available at the end of the section.

**Trial Board Examination**

During the Spring Semester of the fourth year, a Trial Board Exam will be given. This exam is modeled after the Central Regional Dental Testing Service Exam (CRDTS) or Western Regional Examination Board (WREB), dependent on which examination will be given at UMKC. The procedure(s), evaluation criteria and grading will be conducted in accordance with the particular exam. A score of 75% is required to pass the exam.
**FIXED PROSTHODONTICS COMPETENCY EXAMINATION**

**SINGLE CROWN**

<table>
<thead>
<tr>
<th>Assessment: Prosthodontic Work-Up Presentation</th>
<th>CA</th>
<th>U</th>
</tr>
</thead>
<tbody>
<tr>
<td>Clinical/Occlusal Exam</td>
<td></td>
<td></td>
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<tr>
<td>Radiographic Evaluation (current radiographs)</td>
<td></td>
<td></td>
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<tr>
<td>Diagnostic Casts Evaluation (Articulation with Facebow Transfer)</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Appropriate conditions/considerations cited for restorative procedures</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Assessment: Crown Preparation (1st and 2nd Evaluators)</th>
<th>CA</th>
<th>U</th>
</tr>
</thead>
<tbody>
<tr>
<td>Occlusal/Incisal/Axial Reduction: sufficient for restorative material; appropriate for pulpal health</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Path of Insertion: in line with long axis of tooth and adjacent teeth</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Proximal Clearance: adequate/contact fully broken</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Retention/Resistance Form: maintained with adequate wall length, occlusal convergence, and morphologic tooth preparation (without over-convergence or undercut). Auxiliary retentive forms are used appropriately and effectively, when necessary.</td>
<td></td>
<td></td>
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<tr>
<td>Cervical Finish Line: appropriate design; continuity and definition; gingival compatibility; esthetics</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Adjacent tooth/soft tissue: no significant unwarranted iatrogenic damage</td>
<td></td>
<td></td>
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<tr>
<td>Caries Removal: complete, with no evidence of pulpal involvement</td>
<td></td>
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</tbody>
</table>

<table>
<thead>
<tr>
<th>Assessment: Provisional Crown* (1st and 2nd Evaluators)</th>
<th>CA</th>
<th>U</th>
</tr>
</thead>
<tbody>
<tr>
<td>Marginal Integrity; Axial Contour/Proximal Contact; Occlusion; Surface Finish; Esthetics</td>
<td></td>
<td></td>
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</tbody>
</table>

<table>
<thead>
<tr>
<th>Assessment: Impression/Master Cast and Die</th>
<th>CA</th>
<th>U</th>
</tr>
</thead>
<tbody>
<tr>
<td>Accurate impression/custom tray</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Accurately prepared and articulated master cast and die/Lab Request</td>
<td></td>
<td></td>
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</tbody>
</table>

<table>
<thead>
<tr>
<th>Assessment: Final Restoration* and Cementation</th>
<th>CA</th>
<th>U</th>
</tr>
</thead>
<tbody>
<tr>
<td>(Student evaluation of lab procedures/restoration)</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Final Restoration: completely seated, ready for cementation</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Marginal Integrity; Axial Contours/Proximal Contact/Occlusion; Surface Finish; Esthetics</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Cementation: complete seating; occlusion; complete removal of residual cement</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Student must complete all items to a “Clinically Acceptable” level to pass the examination.
### FIXED PROSTHODONTICS COMPETENCY EXAMINATION

#### FIXED PARTIAL DENTURE

Student __________________________________________                     Date ________________

Patient __________________________________________                      Grade: PASS/FAIL

Faculty __________________________________________

Place a checkmark ( √ ) in the appropriate box for each criterion under "CA" for clinically acceptable performance or under "U" for unacceptable performance. **Student must complete all items to a “Clinically Acceptable” level to pass the examination.**

<table>
<thead>
<tr>
<th>Criteria</th>
<th>Anterior Abutment</th>
<th>Posterior Abutment</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Occlusal Reduction</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td>– Proper anatomic occlusal reduction</td>
<td></td>
<td></td>
</tr>
<tr>
<td>– Proper clearance for design; leaves adequate wall length</td>
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<td></td>
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<tr>
<td><strong>Axial Reduction</strong></td>
<td></td>
<td></td>
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<tr>
<td>– Sufficient for restoration design; not excessive</td>
<td></td>
<td></td>
</tr>
<tr>
<td>– Walls prepared with long axis of tooth</td>
<td></td>
<td></td>
</tr>
<tr>
<td>– Proximal clearance is adequate/contact broken</td>
<td></td>
<td></td>
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<tr>
<td>– Correct contour; walls smoothly finished</td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>Occlusal Convergence</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td>– Adequate retention/resistance form with minimal loss of tooth structure</td>
<td></td>
<td></td>
</tr>
<tr>
<td>– Taper fully visual without over-convergence (≥25°) or undercut</td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>Cervical Finish Line</strong></td>
<td></td>
<td></td>
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<tr>
<td>– Width, position, and angle appropriate for finishing</td>
<td></td>
<td></td>
</tr>
<tr>
<td>– Smooth, well-defined, and continuous</td>
<td></td>
<td></td>
</tr>
<tr>
<td>– Placed for gingival compatibility, esthetics, and wall length</td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>Adjacent Tooth Tissue Treatment</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td>– Adjacent teeth are undamaged, or smoothed without significant contour change.</td>
<td></td>
<td></td>
</tr>
<tr>
<td>– Gingival tissue shows no evidence of significant damage inconsistent with procedure</td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>Path of Insertion “Bridge Factor”</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td>– Proper path of withdrawal between abutment teeth/adjacent teeth.</td>
<td></td>
<td></td>
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<tr>
<td>– Allows for seating of FPD in a direct vertical plane without significant rotation mesio-distally or facio-lingually.</td>
<td></td>
<td></td>
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<tr>
<td><strong>Professionalism</strong></td>
<td></td>
<td></td>
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<tr>
<td>– Professional/ethical behavior displayed.</td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>Infection Control</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td>– Infection control standards maintained throughout procedure.</td>
<td></td>
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</tr>
</tbody>
</table>

Comments:
SECTION OF REMOVABLE PROSTHODONTICS

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INTRODUCTION

Section Head

Dr. Weldon Elrod

Goals

The clinical philosophies of the Removable Prosthodontics Department are founded on the concept of “TOTAL PATIENT CARE.” During the treatment of removable prosthodontic patients, each student is to demonstrate his/her ability to deliver total patient care with a clear understanding of the special needs of each patient.

By fulfilling the clinical treatment needs of multiple removable prosthodontic patients, the student will become confident of his/her ability to provide quality care for patients with some or all missing teeth.

Behavioral Objectives

Upon completion of this course, the student should be able to:

1. Clinically evaluate the patient's unique oral anatomy, limitations and requirements for restoration.
2. Properly prepare the mouth for uncomplicated complete and partial removable dentures utilizing preextraction records, surgical reduction guides, occlusal reduction guides, articulator mounted diagnostic casts, design casts and prescription forms following a logical, planned sequence of treatment.
3. Select appropriate impression materials and make acceptable preliminary and final impressions for complete dentures and removable partial dentures.
4. Make accurate maxillo-mandibular relations records, mount casts and verify mountings and records for both complete and removable partial dentures.

5. Contour a maxillary occlusal rim and select appropriate artificial tooth molds and shades for optimum esthetics and functions.

6. Convey instructions to the laboratory by appropriate means for fabrication of removable partial denture frameworks.

7. Fit the framework to the mouth while evaluating the acceptability of the master cast and framework.

8. Perform both positional and esthetic try-in (verification) and make the necessary changes to improve appearance and function.

9. Communicate the proper information to the dental laboratory for all delegated laboratory procedures.

10. Judge the acceptability of completed laboratory procedures.

11. Troubleshoot, detail and insert both interim and definitive removable prostheses.

12. Give proper patient instructions for the care of oral tissues and the prostheses, including the use and functional limitations of the prostheses.

13. Evaluate existing prostheses and make appropriate recommendations for maintenance and/or remake of the prostheses.

14. Make appropriate adjustments and repairs.

15. Provide appropriate post-insertion and recall services.

**Competency and Requirements**

The student will be considered competent in Removable Prosthodontics when the minimum clinical experiences of the department are met, and the student has demonstrated his/her didactic and clinical skills. To accomplish this, the student will complete assigned patients by a specified semester timeline as well as a competency patient needing a removable partial denture or a patient requiring a maxillary complete denture or a maxillary and mandibular complete denture. (See section on Competency Examination.)

**Mitigating Circumstances**

Sickness or other mitigating circumstances must be brought to the attention of the Removable Prosthodontic section leader or Restorative Department chairman.
Clinical Experiences

Third Year

Students in their third year are expected to complete the restoration of at least two arches with removable prostheses by the end of the spring semester of their third year. (Does not include re-lines or rebases.)

Graduation Experience

In the area of Removable Prosthodontics, it is expected that students will achieve a broad range of experiences to include: the quality care of patients by treatment with complete dentures, removable partial dentures, relining of dentures, and immediate dentures.

Students should make every effort to find denture patients on their own.

Competency Examinations

Objective

The Competency Examination will aid in distinguishing student achievement in cognitive ability and psychomotor skills as demonstrated upon a selected patient requiring removable prosthodontic treatment.

Requirements

1. Students will apply to take the Competency Examination. However, permission to proceed will be given by the team prosthodontic instructor after assessment of the student’s past performance. Treatment of the Competency Examination patient must be performed in the team to which the student is assigned.

A “Competency Examination” patient may be chosen from patients needing one of the following treatment options:
(a) a single complete denture opposing mandibular natural teeth or restored mandibular arch, or
(b) a set of complete dentures (maxillary and mandibular complete dentures), or
(c) a distal extension (Kennedy class I or class II) removable partial denture using a cast metal framework with resin attached to it. The “Competency Examination” patient cannot be the first patient for that type of procedure for the student. A student who chooses to treat a patient with a distal extension removable partial denture as a “Competency Examination” must have completed successfully at least one distal extension removable partial denture for a patient. “Completed” means having come to an end and concluded successfully. It does not mean begun or in progress. It is ex-
pected that the student will receive NO help from faculty in the treatment of the “Competency Exam” patient.

2. One instructor will conduct each examination. The same instructor should be used throughout each patient treatment encounter.

3. All diagnostic aids will be available when the patient is presented for the examination.

4. The check-off card for the Competency Examination patient is orange-colored to differentiate it from the check-off card for a routine removable prosthodontics patient.

5. Competency in Removable Prosthodontics will be established upon successful restoration of at least six (6) arches with removable prostheses, one (1) of which must be a “Competency Examination.” Also, of the six arches referenced, at least two (2) arches must be restored each with a complete denture and at least two (2) arches must be restored each with a removable partial denture (cast metal framework).

Removable Partial Dentures

All non-prosthodontic treatment should be completed prior to the start of the removable partial denture fabrication.

The following steps in the RPD treatment procedure will be evaluated:

- Impressions
- Master cast/altered cast
- Laboratory work authorization
- Framework verification of fit
- Max-mand. relationship
- Final waxed prosthesis
- Insertion and two post-insertion appointments.

Completed Treatment

Final evaluation of the prosthesis will be made at a time when the student feels the patient is comfortable and ready to be released from treatment.

At any time during the treatment phase, if the clinical faculty member feels that by continuation of treatment as a Competency Exam the patient would suffer harm or the continued treatment is inappropriate, the treatment will be halted and no grade or time units given.

Complete Denture Competency Examination

The examination will include all phases of the complete denture treatment from diagnosis through final post-insertion adjustment. Grading criteria are published and will be provided.
The due date for all complete and partial denture Competency Examinations is spring break of the fourth year.

EVALUATIONS

Department Grades

Department grades will be given at the end of the spring session of the third year and at the completion of the spring session of the fourth-year.

Each Removable Prosthodontic grade will be for one hour of clinic and will be based on professional development in Complete Dentures and Removable Partial Dentures during the period of time involved.

Grading Criteria Summary

Removable Prosthodontics by the end of the third year spring semester:
- Two complete dentures
- One removable partial denture
- The student will receive a “B” if the prostheses are under construction but not finished. The student will receive a “C” if no prosthesis has been started.

Removable Prosthodontics Clinical Experiences
- Students must successfully restore at least six (6) arches with removable prostheses. At least two (2) of these six arches must be restored each with complete dentures. At least two (2) of these six arches must be restored with cast framework removable partial dentures. At least one (1) removable prosthesis must be done as a “Competency Examination.”

NOTE: Restoring more than the minimum number of six (6) arches may be necessary to establish competency. The section head of Removable Prosthodontics retains the right to certify clinical competency in Removable Prosthodontics.

QUALITY ASSURANCE (QA) PROCEDURES FOR COMPLETE DENTURES

QA Checks

A signed QA check indicates approval and the student may proceed with denture fabrication.

An unsigned QA check indicates discrepancies from what is correct and should be accompanied by notes indicating what is required to bring the work to a quality that would gain approval.
The student must **not** proceed until all corrections have been made and QA approval is checked off with a faculty signature.

**First QA Check**

The first Quality Assurance check is **FINAL CASTS WITH TRIAL BASES AND OCCLUSAL RIMS**.

The yellow step card must be signed by the instructor in the clinic to and including #11 prior to submission to QA. The following will be assessed:

**QA Assessments**

1. Proper extension
   
   This indicates whether the impressions were correctly extended and/or if the beading and boxing techniques were done correctly.

2. Proper trimming of the casts (Refer to complete denture manual.)

3. Stability and contour of the trial bases
   
   The record bases must be stable on the casts and yet be free enough so they don't scrape the casts on removal or placement.

   The record bases must fit the casts in all areas including the peripheries (areas of blockout or relief excluded).

   Peripheries must be rounded and not sharp. They should be like the impression was and like the denture will be.

   The occlusal rim must be contoured and smooth in the area of the maxillary anterior teeth.

4. Neatness
   
   The casts must be clean and free of smudge marks, wax, acrylic resin or stone. The land area must be free of blebs or holes, especially at the base of the cast. The base must be notched to allow for laboratory remounting of processed dentures. The acrylic resin record bases and wax occlusal rims must be smooth in contour and clean in appearance.

**Second QA Check**

The second Quality Assurance check is the completed wax up of the dentures mounted on the articulator after the final try-in with the patient. The waxed dentures must not be luted down except for immediate dentures. The posterior palatal seal should be evident in the maxillary cast. The yellow card must be signed to and including #23. The following will be assessed:
QA Assessments

1. Tooth arrangement
   This includes correct placement of the teeth in relation to the edentulous ridge, in relation to the plane of occlusion and in relation to the occlusal contacts.

2. Wax-up
   There must not be wax on the tooth surfaces. The gingival areas must not be overwaxed and if it appears the waxed dentures cannot be processed properly, they will be returned.

3. Neatness
   Please note that neatness is a factor in all areas of Quality Assurance and is especially important in the wax-up stage of denture construction. Acrylic resin will replace the wax. Unwanted wax means unwanted acrylic resin. Wax is much easier to adjust and clean up than acrylic resin.

4. Dentures ready for processing - adequate posterior palatal seal.

Third QA Check

The third Quality Assurance check is the finished dentures. This check assesses the laboratory technician’s work as well as the student’s work. The dental school laboratory will process all dentures and will polish the dentures. The student may process and polish, but these dentures must also be checked by Quality Assurance before delivery.

QA Assessments

1. Occlusal plane and tooth surfaces
   Have the tooth surfaces been overpolished?
   The occlusal scheme should have been maintained.

2. Peripheries
   Very little should be required to polish the peripheries, and they should be identical to the peripheries of the final impression and the master cast.

   Uniform thickness of the finished denture peripheries indicates incorrect finishing.

   The polished surface of the denture should be correctly contoured, smooth and lightly polished.
QUALITY ASSURANCE PROCEDURES FOR REMOVABLE PARTIAL DENTURES

QA Check
A signed Quality Assurance check indicates approval and the student may proceed. An unsigned Quality Assurance check indicates a discrepancy from what is correct. Notes should detail the discrepancies. Please ask questions! Students must not proceed until all corrections have been made and re-approved in QA.

First QA Step
Following the treatment planning procedures for removable partial dentures, a surveyed and tripoded diagnostic cast mounted with its opposing cast will be submitted to Quality Assurance. The blue step card and the worksheet will accompany the diagnostic cast with the following information:

1. The diagnostic casts are to be mounted on an articulator. When opposing a completely edentulous ridge, adequate space must be verified by an articulator mounting. Of special concern would be evidence of exhuberant posterior maxillary excess of residual alveolar ridges or irregular occlusal plane of opposing dentition or prosthetic restoration.

2. The worksheet will list any restorative work on proposed abutments, odontoplasties, extractions, surgical removal of soft tissue interferences, etc.

3. The worksheet will list proposed modifications necessary for the proposed design; i.e., odontoplasties, opposing occlusion interferences, unfavorable plane of occlusion, tissue/tooth concerns.

4. The worksheet should list extenuating circumstances necessary to support the proposed framework design; i.e., periodontal considerations, possible future loss of teeth, etc.

Prior to initiation of the definitive prosthodontic treatment and after all oral surgery, restorative and other treatments are completed, a new design cast must be submitted to QA.

Second QA Step
The second step for Quality Assurance will be after tooth modifications are completed and a master cast is produced. The items submitted will include:

1. Master Cast (See Requirements for Master Casts)
   • in die stone
   • with tripod score marks
mandibular cast will show the inferior border of the major connector
maxillary cast can have the posterior limit of the frame marked

**NO OTHER MARKS WILL BE ON THE MASTER CASTS**

2. Work Authorization — The format will be as follows:
   Information by tooth number:
   a. Guide plate/minor connector (describe location)
   b. Rests (describe type and location)
   c. Retention (describe clasp type, location and degree of undercut)
   d. Reciprocation (describe type)
   e. Any extenuating circumstances

3. The blue step card (dated and initialed in the proper place by prosthodontic faculty member)

4. A new design cast (an exact duplicate of the master cast with the correct design on the surveyed cast)

5. Opposing cast.

AFTER THIS STEP IS APPROVED, THE STUDENT CAN TAKE THE PAPERWORK TO THE THIRD FLOOR CROWN AND BRIDGE LABORATORY FOR A LABORATORY NUMBER. NUMBERS 1-5 ABOVE ARE THEN TAKEN BACK TO THE PARTIAL DENTURE LABORATORY TO HAVE THE FRAMEWORK FABRICATED.

---

**Third QA Step**

The third Quality Assurance check will be of the waxed dentures mounted on a suitable articulator, via the necessary maxillo-mandibular relationship records. Areas that will be evaluated include:

1. Occlusal scheme and occlusal plane
2. Position of the prosthetic teeth
3. Quality of the wax-up

NOTE: The waxed dentures are not to be luted down except for immediate denture situations, as well as other special situations that must be noted on the clinical card. No acrylic resin attached to the framework is permitted.

**Final QA Check**

The final Quality Assurance check will be of the polished dentures prior to insertion. Evaluated areas will be:

- denture base contours
the finish and polish

In the event that there are more than five Quality Assurance returns for inadequate progress during the two years of clinical experience, this will result in lowering the grade for the fourth-year grading period. This will be inclusive of both complete dentures and removable partial dentures.

CLINICAL PROTOCOL FOR DENTURE
DISINFECTING AND ULTRASONIC CLEANING

Procedure

To provide clean, sanitary, removable prostheses and leave the trimming device and rag wheel and their aerosols uncontaminated:

1. Identify prosthetic areas to be adjusted at the chairside.
2. Obtain denture cup filled with hypochlorite disinfectant* from dispensary.
3. Pre-rinse prosthesis in H₂O.
4. Place complete denture (not RPD) in denture cup and solution.
   a. Minimal debris and calculus on prosthesis: soak in disinfectant solution for ten (10) minutes.
   b. Debris and calculus laden prostheses: place lid over cup and immerse into the ultrasonic cleaners for eight (8) minutes.

CAUTION: Top of denture cup should not be submerged in ultrasonic cleaning solution. Choose a if possible.
5. Rinse in H₂O completely before inserting into patient’s mouth.
6. Complete necessary adjustments.
   For each additional adjustment required, resoak in disinfectant for thirty (30) seconds and rinse completely.
7. Soak in disinfectant for one minute.
8. Buff and polish with rag wheel. **
9. Resoak in disinfectant for thirty (30) seconds.
10. Rinse in water completely.
11. Return to patient.

* A 1:10 ratio of Clorox or Purex is suggested. (This will be approximately 3/4 cup hypochlorite per gallon of H₂O). Two table-
spoons of Calgon should be stirred into this solution to assist in removing surface soils from prosthesis.

** Rag Wheels will require autoclaving after thorough washing.

**CONSULTATION**

**Introduction**

Advice is frequently necessary in determining appropriate definitive treatment of a patient. This advice is part of the diagnosis to determine a plan of treatment and it will, for the most part, be taken care of by the Diagnosis Department. There may be occasion for additional information.

**Interdepartment Consultation**

In the interest of expedient treatment for the patient, requests for consultation will frequently be made to another department. It is the student’s responsibility to obtain this consultation. It is also the student’s responsibility to see that the patient’s record documents the consultation request and answer.

**Medical Consultation**

If additional medical information is required, the student must interact with the Diagnosis Department for the necessary forms to request the information. The medical consultation must be answered before progressing with the prosthodontic treatment.

**REFERRAL**

**Graduate Clinic**

Transfers between predoctoral and graduate students must be approved by the Associate Dean for Clinical Programs and the director of the graduate area.

In most situations, fees in the graduate areas will be different from those in the predoctoral clinic, and there may be a consultation fee. It is the student’s responsibility to advise the patient about the difference of fees.

If referral to a graduate area is desired for only partial treatment, the patient should remain assigned to the predoctoral student.
# REMOVABLE PROS. COMPETENCY EXAM

**COMPLETE DENTURES**

**PASS / FAIL**

**STUDENT:** ___________________________ **Date Started** ____________

**PATIENT:** ___________________________

**Patient #:** ________________________

**Type of prosthesis:**
- Max ____
- Mand ____
- Conventional ____
- Overdenture ____
- Immediate ____

Faculty place checkmark in column for “clinically acceptable” or “unacceptable” and initial.

<table>
<thead>
<tr>
<th>Step</th>
<th>CA</th>
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<th>Faculty</th>
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<tr>
<td>1. Oral exam, diagnosis &amp; treatment plan</td>
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<td>2. Secondary impressions</td>
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<tr>
<td>3. OVD established &amp; Max-md Regis.</td>
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<tr>
<td>4. Trial placement &amp; verification</td>
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<tr>
<td>5. Final waxing for processing</td>
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<tr>
<td>6. Insertion</td>
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<td></td>
<td></td>
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<tr>
<td>7. 72 – hr post-insertion appointment</td>
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<td></td>
<td></td>
</tr>
<tr>
<td>8. Professionalism/ ethical behavior</td>
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<tr>
<td>9. Satisfactory Self Assessment</td>
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**NOTE:** All 9 of the above steps must be performed by student at a clinically acceptable level to pass the competency exam.
REMOVABLE PROSTHODONTICS COMPETENCY EXAM:

**Rem Partial DENTURE(S)**

**PASS / FAIL**

STUDENT: _______________ Date Started __________

PATIENT: ____________________________

Patient #: ____________________

Type of prosthesis:  Max _____  Mand _____

Kennedy Classification: Class_______  Mod _______

Faculty place checkmark in column for “clinically acceptable” or “unacceptable” and initial.

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<tr>
<th></th>
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<th>Faculty</th>
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</thead>
<tbody>
<tr>
<td>1. Oral exam, diagnosis &amp; treatment plan</td>
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<td></td>
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<tr>
<td>2. Tooth modifications &amp; secondary imps</td>
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<tr>
<td>3. Master casts &amp; work authorization</td>
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<tr>
<td>4. Framework try-in</td>
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<tr>
<td>5. Final waxing for processing</td>
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<tr>
<td>6. Insertion</td>
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<td>8. Professionalism/ ethical behavior</td>
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<tr>
<td>9. Satisfactory Self Assessment</td>
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</tbody>
</table>

**NOTE:** All 9 steps above must be performed by student at a clinically acceptable level to pass the competency exam.
RESTORATIVE IMPLANT DENTISTRY

Implant Retained Fixed Prosth Restorations

Each third and fourth year dental student is encouraged to become involved in the treatment of dental patients with dental implants. Students have opportunities to restore dental implants in patients up to a maximum of three dental implants in one treatment. Treatment of dental patients requiring or presenting more that four dental implants is considered treatment which should be conducted in an advanced dental education program.

Once a patient has been identified as a potential dental implant patient, the student is required to seek a panoramic radiograph, surgical faculty and restorative faculty consultation for that patient and verify the need for dental implants. The surgical consultation can be performed by a Periodontal or Oral Surgery faculty member and a consultation should be recorded in the electronic record of that patient. The patient will also require a consultation by a restorative faculty member to verify that it is a restorable clinical situation and within the scope of training of the dental student. The Restorative Consultation should also be entered into the electronic record of the patient and can be performed by a member of the clinical faculty currently supervising student implant restorative procedures.

Implant Retained Removable Prostheses

Once a patient has been identified as a potential implant retained denture patient, the student is required to seek a panoramic radiograph, surgical and restorative consultation for that patient and verify the need for dental implants to retain the denture (either maxillary or mandibular). The surgical consultation can be performed by a Periodontal or Oral Surgery faculty member and the consultation should be recorded in the electronic record of that patient. The patient will also require a consultation by a restorative faculty member to verify that the patient could benefit from implants to retain their denture and is within the scope of training of the dental student. The Removable Restorative consultation should also be entered into the electronic record of the patient and can be performed by a member of the clinical faculty currently supervising student implant retained dentures.

The removable prosthodontic patient may be best restored with the complete denture before the implant process is initiated because there are often very successful treatments of patients with complete dentures without the use of dental implants to retain dentures. Hence the initiation of the implant evaluations process
Twins Program

The current fees for the implant retained denture are the same as those for dental implants and dentures in the predoctoral clinic program (except for the implant restorative parts).

<table>
<thead>
<tr>
<th>Code</th>
<th>Description</th>
<th>Fee</th>
</tr>
</thead>
<tbody>
<tr>
<td>70486</td>
<td>Computerized Axial Tomo Twins</td>
<td>$105.00</td>
</tr>
<tr>
<td>76376</td>
<td>Computerized Tomo-3D Twins</td>
<td>$53.00</td>
</tr>
<tr>
<td>D6010</td>
<td>Endosseous Implant Twins</td>
<td>$639.00</td>
</tr>
<tr>
<td>D6053</td>
<td>Implant Support Denture Twins</td>
<td>$419.00</td>
</tr>
<tr>
<td>D5110</td>
<td>Maxillary Denture Twins</td>
<td>$419.00</td>
</tr>
<tr>
<td>D6056</td>
<td>Predoc Imp. Restor Parts Twins</td>
<td>$281.00</td>
</tr>
</tbody>
</table>

**Total Cost** $2,836.00

Implant Treatment Planning Meeting

After each of the above listed procedures has been completed for the potential dental implant patient, the student should register for an appointment to present the patient data to the Implant Treatment Planning Committee. The student should prepare the following items for the Committee:

1. Panoramic radiograph
2. Surgical consultation in the electronic patient record
3. Restorative (or removable) consultation entered in the electronic patient record
4. Mounted diagnostic casts of the patient with the potential site waxed to full and proper contour (denture patient may be represented by a clean cast of the proposed edentulous ridge)
5. Acrylic resin surgical guide fabricated without the specific guide holes drilled for the proposed placement of the dental implants (guide holes will be drilled after the Implant Committee approves the patient for treatment and the surgery resident has evaluated the surgical guide)
6. Completed data sheet with the patient data, student data, and alternate possible treatments listed (The data sheet can be obtained from the Restorative Dentistry Office, Room 230.)

Risk management procedures (to be implemented during treatment of patients for dental implant procedures):

When patients are being treated for implant procedures, a throat pack (consisting of a 4 X 4 gauze) should be in place on the posterior aspect of the patient’s tongue and positioned vertically to
block the implant parts from reaching the back of the patient’s throat. There is often a small hole in implant wrenches and associated parts which enhance the threading of a piece of floss to aid retrieval if necessary. Tying a piece of floss around implant parts is also a very effective method of retrieving implant parts from the posterior portion of the patient’s mouth. These techniques should be used whenever possible to prevent patient ingestion or inhalation of small implant parts.
SECTION 5  TREATMENT PLANNING

Director
Tim Taylor, D.D.S., Associate Professor, Department of General Dentistry

Contact Information
Phone: (816) 235-2077
Email: TaylorT@umkc.edu

Required Reading
Treatment Planning in Dentistry, by Stefanac and Nesbitt, 2nd Edition ($59.00 available in the bookstore)

TREATMENT PLANNING REQUIREMENTS (DENT 6441C)

Introduction
Treatment planning and the complex sequence of events that lead up to it has been among the least discussed and appreciated in the dental curriculum. The coalescence of such a mass of technical, behavioral and biologic data and assessing the significance of each piece of information is a daunting task. It is, however, essential to become proficient because the proper treatment of your patients and the ultimate success of your practice depends on it.

To quote the authors: “Treatment planning is at the very core of our professional activity. When it is implemented effectively, it can lead to life-changing benefits for patients and can be deeply satisfying to the dental practitioner. Planning treatment for dental patients is a complex skill that develops over time and with experience.”

The text used for this class is the best book on Treatment Planning I have seen in over 20 years. It includes a CD-ROM with five patient cases that will be used to apply the information presented. The authors put a very strong emphasis on patient opinion and desires and their total involvement in the treatment planning process. The patient, as an active partner or co-therapist, is central to achieving optimal patient care. The vast majority of patients are treated by general dentists in our society, and the text was written within that premise. In addition, the general dentist is envisioned as the “captain of the team” in complex cases.
Treatment planning will be done in the teams by the identified faculty and will, in most cases, be a scheduled event. This allows for discussion and learning to take place in a more conducive atmosphere.

**Competency**

During the spring semester of the third year, students must take a competency exam on a patient of suitable difficulty and all categories must be progressing or better. During the fall semester of the fourth year, the competency exam **must** be successfully completed on a patient of suitable difficulty with all categories checked as competent. See form below. Copies of the exam are available in each Team.
### TREATMENT PLANNING COMPETENCY EXAM

**STUDENT NAME ___________________________ D3 SPRING __________________**

**FACULTY NAME ___________________________ D4 FALL __________________**

**CRITERIA**
- Winter 3rd-year DDS — All categories must be _progressing or better_ (due on/by the Friday prior to Finals Week).
- Fall 4th-year DDS — All categories must be _competent_, no help needed (due on/by the Friday prior to Finals Week).

**1. SYSTEMIC**

<table>
<thead>
<tr>
<th></th>
<th>COMP</th>
<th>PROGRESS</th>
<th>UNSAT</th>
</tr>
</thead>
<tbody>
<tr>
<td>Student has accounted for all systemic modifiers</td>
<td>☐</td>
<td>☐</td>
<td>☐</td>
</tr>
<tr>
<td>Medications affecting treatment planning:</td>
<td></td>
<td></td>
<td></td>
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<tr>
<td>– Effect on oral health (dryness, etc.)</td>
<td>☐</td>
<td>☐</td>
<td>☐</td>
</tr>
<tr>
<td>– Effect on dental drugs (anesthetics, analgesics, anti-infectives, etc.)</td>
<td>☐</td>
<td>☐</td>
<td>☐</td>
</tr>
<tr>
<td>– Premedication as necessary (critical failure)</td>
<td>☐</td>
<td>☐</td>
<td>☐</td>
</tr>
<tr>
<td>Systemic conditions affecting treatment planning</td>
<td></td>
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<tr>
<td>– Appropriate medical consult/referral done (critical failure/ pregnancy, diabetes, anticoagulants, kidney failure, etc.)</td>
<td>☐</td>
<td>☐</td>
<td>☐</td>
</tr>
<tr>
<td>– Should routinely be using <em>Dental Management of the Medically Compromised Patient</em> by Little and Falace</td>
<td>☐</td>
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</tr>
</tbody>
</table>

**2. ACUTE**

- Student has identified _all_ acute needs and has recommended appropriate treatment (pain, swelling, esthetics, traumatic injury, etc.)

**3. DISEASE CONTROL**

- Student categorizes and treats all disease control items (O&Rs, endo, prophy, S&RP, te of hopeless teeth, caries protocol, carious tooth restoration, etc.)

**RE-EVALUATION**

- Student recognizes the need for Preliminary Treatment Plan and Re-evaluation (if applicable)

**4. DEFINITIVE**

- Definitive treatment to address all problems in plan

**5. MAINTENANCE**

- Student has selected an appropriate initial interval
<table>
<thead>
<tr>
<th>GENERAL EVALUATION</th>
<th>COMP</th>
<th>PROGRESS</th>
<th>UNSAT</th>
</tr>
</thead>
<tbody>
<tr>
<td>• Student was prepared for treatment plan session, having all diagnostic information necessary (complete record, mounted study models, if necessary, consults, complete work sheets)</td>
<td>☐</td>
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</tr>
<tr>
<td>• Patient Modifiers have been accounted for: time, money, esthetics, age, poor general health, fear, motivation, destructive oral habits, etc.</td>
<td>☐</td>
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<tr>
<td>• Prognosis: Evaluation of prognosis of treatment is sound</td>
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<tr>
<td>• Diagnosis data interpreted correctly</td>
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<tr>
<td>• Complete problem list documented</td>
<td>☐</td>
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<tr>
<td>• Each identified problem from diagnosis has been treated</td>
<td>☐</td>
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<tr>
<td>• Sequencing in general and within each category done correctly</td>
<td>☐</td>
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<tr>
<td>• Alternate treatment options discussed and documented</td>
<td>☐</td>
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</tbody>
</table>

**ADDITIONAL COMMENTS**

______________________________________________________________________________

______________________________________________________________________________

______________________________________________________________________________

______________________________________________________________________________

______________________________________________________________________________

______________________________________________________________________________

______________________________________________________________________________
Things to Do Before Tx Planning Appointment

The diagnosis includes making decisions at the time of the appointment about what treatment is needed in most cases. You and the clinical faculty should decide at the diagnosis appointment what is to be done, what is defective or not. This may sound like an obvious point but it frequently doesn’t happen. Your diagnosis must be accurate before you can create a rational treatment plan.

1. **Assess Needs** – Can this patient be adequately treated in the pre-doctoral clinic? If so, what are the skills needed and who will supervise? If not, make the appointment referral to one of our other treatment areas (AEGD, Faculty Practice, etc.) or to outside practice.

2. **Specialist Consult** – Get all consults before the treatment planning appointment. Ask the faculty member at the diagnosis appointment if a specialist consult is needed. Most of the time a specialty consult is not needed, but in cases that require consultation they must be documented in the record.

3. **Discuss** – At the diagnosis appointment it is essential to discuss the patient’s wants and needs in light of what was found (esthetics, finances, time, etc.) Ask the diagnosis faculty to assist you with this process.

4. **Possibilities** – In advanced/difficult cases some procedures must be done to determine what is even possible (O&R’s and extractions, teeth with questionable periodontal prognosis, etc). In such cases you may need to do a **Preliminary TX Plan**. This treatment plan will include items I, II, and III on the Treatment Plan Outline: Systemic Phase, Acute Phase, Disease Control, and Re-evaluation/Post treatment Assessment sections. This will allow you the opportunity to get a better idea of what the patient’s options are and will avoid a lot of guesswork and treatment plans that have multiple deletions and additions. Once you have completed your Preliminary Treatment Plan, you should have a solid basis for further treatment.
What to Bring to the Treatment Planning Appointment

1. **Study Models** — should be mounted with a facebow transfer if extensive (3 units or more) crown and bridge work and for removable partial dentures. Partial denture design **must** be done before the treatment planning appointment.

2. **Work Sheets**
   a. **Problem List/Problem Plan Form** — with overall sequencing done for each procedure and sequencing done within each section.
   b. **Treatment Plan** — **All** areas listed on the treatment plan outline must be addressed. Even if nothing is done in a specific area you are to write in "N/A."

3. **Patient Record** — Good quality radiographs; all sections approved in computer; any consults ordered and completed.
TREATMENT PLAN OUTLINE

PATIENT NAME ____________________________ STUDENT NAME ____________________________

I. SYSTEMIC PHASE: Systemic disease-referral, consultation, prescribing/altering medication, pre-medication, etc.

II. ACUTE PHASE: Pain, swelling, traumatic injury (replacement teeth in some cases)

III. DISEASE CONTROL: Includes O&R’s, endodontics, transitional prosthesis, scaling and root planing, prophylaxis, extraction of hopeless/non-functional teeth, caries control protocol, restoration of carious lesions, etc.

ALL OF THE ABOVE IS PART OF A PRELIMINARY TREATMENT PLAN

IV. DEFINITIVE PHASE:

A. OPERATIVE:

B. ORTHODONTICS:

C. CROWN & BRIDGE:

D. REMOVABLE PROSTHETICS:

V. MAINTENANCE PHASE: Post-treatment assessment/exit exam, recall interval
# Problems List/Problem Plan Form

<table>
<thead>
<tr>
<th>Prob. #</th>
<th>Problem List</th>
<th>Problem Plan (Procedure)</th>
<th>Seq. #</th>
<th>Time Needed (Appts. &amp; Time Between Appts.)</th>
<th>Fee</th>
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**Total Estimated Time of Treatment**

**Total Fee**

**Treatment Objectives:**

**Prognosis of Treatment:**

**Patient Modifiers:**
SECTION 6  INFECTION CONTROL PROCEDURES/
SPECIAL MEDICAL CONDITIONS

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INTRODUCTION

Goals

1. Provide as safe an environment as possible (using sound biological principles) for our students, faculty, staff and patients.

2. Provide a reasonable, but effective infection control model that will aid in the education and understanding of infection control issues that are in accord with the recommendations of the American Dental Association (ADA), the American Dental Education Association (ADEA), the Centers for Disease Control and Prevention (CDC) and the Environmental Protection Agency (EPA).

3. Comply with the standards published by the Occupational Safety and Health Administration (OSHA) 29 CFR1910.1030, latest revision and CDC MMWR, Guidelines for Infection Control in Dental Health-care Settings — 2003.

Policy Statement

The following guidelines are provided as a synthesis of recommendations concerning infection control procedures. Effective implementation and success of these guidelines will be determined solely by the compliance of all faculty, staff and students.

Dental personnel are exposed to a wide range of microorganisms in the blood and saliva of patients they treat. Infections may be transmitted in dental practice by blood or saliva through direct contact, droplets or aerosols. Indirect contact contamination or infection by contaminated instruments is possible and as a result patients and dental health care workers (DHCW’s) have the potential of transmitting infections to each other.

A common set of infection control strategies should be effective for preventing transmission of infectious diseases (through virtually any route of infection) while providing dental care. The dynamic characteristics of clinical dentistry and the fact that all potentially infectious patients cannot be identified by history, physical examination, or laboratory tests, provide the incentive to adhere to the following guidelines while providing patient treatment. Specific infection control requirements and rationale follow. All employees and students should be familiar with the primary guidelines and rationale, and refer to this section of the manual for clarification of the basic primary guidelines.
STANDARD PRECAUTIONS OVERVIEW

Introduction

Infection Control Requirements are based on the theory of “Standard Precautions”. This means all patients are potentially infectious. These guidelines will be adhered to by all faculty, staff, students and patients.

Requirement 1

Immunization Policies

Appropriate and up-to-date immunizations are a requirement in the dental school’s infection control program.

Exemptions from the following immunizations are permitted for health and religious reasons. Any employee or student who elects not to have the vaccinations must sign a University of Missouri exemption form. For medical exemptions, the form must be completed by a physician. However, if at a later time the vaccination series is desired, notify the Administrative Assistant in Room 168 (x2136) to make application for the series. It is the responsibility of the students to provide their own vaccinations.

1. Measles/Mumps/Rubella

   The School of Dentistry supports the American College Health Association recommendation that all students should have two doses of measles/mumps/rubella vaccine. In the event of a measles outbreak, employees and students who have no documentation of immunization on file may be asked to leave University facilities, including the School of Dentistry.

2. Hepatitis B

   Vaccination against hepatitis B is a requirement for all employees and students who will have patient contact, and who handle any infectious lab dishes.

3. Tuberculosis

   The School of Dentistry requires all employees and students who are or will be directly involved in patient care to be tested for tuberculosis. It is expected that any individual who has tested positive for tuberculosis has received or will receive treatment for this condition.

Requirement 2

Personal Protective Equipment

The transmission of infection between the health care giver and the patient is of great concern in the health care field, in the
health care teaching environment, and to the general public. In order to help minimize the possibility of infection, the Office of Safety and Health Administration (OSHA) has established certain guidelines to which all health care facilities, including dental schools, must adhere. Included in those guidelines is the use of Personal Protection Equipment (PPE).

To provide for the safety of students and patients, and to ensure compliance with OSHA guidelines, all UMKC School of Dentistry students, staff and faculty who are exposed to blood and bodily fluids are required to wear the following Personal Protection Equipment:

1. Prescribed disposable gloves. Gloves will not be washed for reuse with another patient and gloves must be removed when leaving the patient operatory.

2. Prescribed (surgical) face masks.

3. Prescribed outer gown to be worn over appropriate street clothing. The gown is not to be worn away from the direct patient treatment areas and is used only in the prescribed treatment areas.

4. Prescribed eye wear, such as glasses with solid side shields, goggles or chin-length face shields.

The term “prescribed” refers to PPE that the School of Dentistry provides. Students must use the PPE that is provided. Students must provide their own appropriate eye wear with side shields. Eye wear may be obtained through the Health Sciences Book Store.

For protection of personnel and patients, gloves must always be worn when touching blood, saliva or mucous membranes. Gloves must be worn by Dental Health Care Workers (DHCWs) when touching blood-soiled items, body fluids or secretions, as well as surfaces contaminated with them. Gloves must be worn when examining or manipulating oral structures. Hands must be washed and regloved before performing procedures on subsequent patients. Repeated use of a single pair of gloves is not acceptable since such use is likely to produce defects in the glove material which will diminish its value as an effective barrier. Gloves will be restricted to the cubicle while providing care. Gloves should not be worn to other clinical areas.

Face (surgical) masks must be worn when splashing or spattering of blood or other body fluids is likely, as is common in dentistry. Face masks will be restricted to the patient treatment areas:
1. First floor
   a. Treatment cubicles
   b. Dispensaries while obtaining materials/supplies (treatment gloves will be removed)
   c. Walkways/hallways on the first floor to gain access to the various areas described (gloves and mask will be removed)

2. Second floor – Faculty Practice clinical treatment area

3. Third floor – Oral Surgery clinical treatment area

Gowns must be worn over street clothes when treating or examining patients. Gowns should be changed at least daily or when visibly soiled with blood. Gowns should not be worn outside the patient treatment area. Clinic gowns will be restricted to the patient treatment area.

The purpose of wearing protective eye wear with appropriate sideshields is to protect the eyes from airborne bacteria, particles and debris. Safety or prescription glasses with side shields or a face mask must be worn when performing all oral procedures or lab work. Eye wear should be cleaned and/or disinfected between patients according to manufacturers’ recommendations.

The Director of Risk Management (x2152 or x2136) may be contacted for further information.

**Requirement 3**

Sterilization

Infection Control/Instrument Management System (IC/IMS) is responsible for the collection and distribution of all instrumentation used during patient services while in the clinic at the University of Missouri-Kansas City School of Dentistry for the predoctoral clinic on the first floor. Please observe their rules and regulations as they apply to patient care situations.

**Requirement 4**

Regulated Waste

Regulated (medically-infectious) waste:

1. All sharps will be disposed of in appropriate puncture-proof containers.
2. All regulated (medically-infectious) waste will be disposed of by placing the waste in a red biohazard bag and depositing it in an appropriate biohazard container.
**Requirement 5**  
Cubicle Cleaning  
Cubicles will be cleaned and readied for treatment using the following procedures:  
1. Disinfect the cubicle with provided disinfectant  
2. Place all barrier wraps  
3. Equipment (carts, etc.) will be maintained in an aseptic state.

**Requirement 6**  
After Patient Treatment  
After patient treatment and at the end of the day, the use of heavy utility gloves will be worn:  
1. To remove excess debris from instruments and materials from trays and spatulas.  
2. To decontaminate all surfaces by removing infectious wastes and then disinfecting all environmental surfaces  
3. Rinse and disinfect all impressions, bite registrations and appliances before they are sent to the laboratory.

**Requirement 7**  
Personal Hygiene  
All DHCW’s will follow basic personal hygiene procedures:  
1. Hair cleared away from the face  
2. Facial hair covered by a face mask  
3. Fingernails should be clean and short.

**Requirement 8**  
Extracted Teeth  
Extracted teeth used in education should be considered infective and classified as clinical specimens. Extracted teeth should be cleaned and disinfected.

**Requirement 9**  
Failure to Comply  
Failure to comply with the above basic requirements will result in appropriate disciplinary action.
STANDARD PRECAUTIONS

Preamble
Infection Control requirements are based on the theory of Standard Precautions. This means all patients are potentially infectious. These guidelines will be adhered to by all faculty, staff, students and patients. Specific criteria for assessment can be obtained in the DDS Clinic Orientation Manual. See 29 CFR 1910.1030, latest revision.

Rationale
Standard Precautions as defined by the Centers for Disease Control (CDC) and the Occupational Safety and Health Administration (OSHA) refer to a set of precautions designed to prevent transmission of Human Immunodeficiency Virus (HIV), Hepatitis B (HBV), and other bloodborne pathogens in the health care setting. Using universal precautions, “. . . human blood and certain human body fluids are treated as if known to be infectious for HIV, HBV and other bloodborne pathogens.” (29 CFR 1910.1030, (b))

Limitations of Health Histories
Given the limitations of a routine health history, it is unlikely that dental personnel will identify the presence of infectious disease in patients because:

1. Many infected patients are unaware that they are infected and that their blood or saliva may be capable of transmitting certain infectious diseases.
2. Some patients will not reveal known infectious diseases to health care workers.
3. Health care providers cannot interpret negative findings from a comprehensive examination to mean that the patient is presently “infectious-disease free” or will remain so upon subsequent clinical visits.

Need for Protocol
This protocol of universal precautions is necessary and is sufficient for routine outpatient treatment and for treatment of Hepatitis B carriers, HIV antibody positive patients, diagnosed AIDS patients, and patients with other known bloodborne diseases.

Note
Infection control procedures to be used are not determined by the patient serological status for a particular infection.
**GUIDELINE 1: HEPATITIS B IMMUNIZATION**

**Requirement**

“All dental health care workers (DHCW’s) having patient contact are required to be immunized against Hepatitis B.”

**Procedure/Rationale**

The OSHA Standard, 29 CFR 1910.1030, Bloodborne Pathogens, requires immunization against HBV for health care workers who have occupational exposure; this would include all students, faculty and staff who have exposure to bloodborne pathogens. “Bloodborne pathogens means pathogenic microorganisms that are present in human blood and can cause disease in humans. These pathogens include, but are not limited to, hepatitis B virus (HBV) and human immunodeficiency virus (HIV).” (29 CFR 1910.1030 (b)).

Specifically the standard states, “The employer shall make available the hepatitis B vaccine and vaccination series to all employees who have occupational exposure, and post-exposure evaluation and follow-up to all employees who have had an exposure incident.” (24 CFR 1910.1030 (f)(1)(i). “The employer shall assure that employees who decline to accept hepatitis B vaccination offered by the employer sign the statement [of waiver]...” (29 CFR 1910.1030 (f)(2)(iii).

**Waiver in Lieu of Vaccination**

Those faculty, staff and students who elect not to have the vaccinations must sign the waiver of vaccination in lieu of having the series of vaccinations. However, if at a later time the vaccination series is desired, please notify Ms. Jennifer Smith in Oral Surgery at extension 2017 to make application for the series.

**Booster Inoculation**

Booster inoculation for individuals who have lost surface antibody titers continues not to be recommended.

**Student Responsibility**

It is the responsibility of the students to provide their own vaccination. Verification of completing the vaccination series prior to enrollment or commencement of the vaccination series within the first four weeks of enrollment will be monitored.

**GUIDELINE 2: BARRIER TECHNIQUES — USE OF PERSONAL PROTECTIVE EQUIPMENT**

**Requirement**

“All DHCW’s having patient contact will wear the following personal protective equipment (PPE) while providing patient care:

1. Prescribed disposable gloves (gloves will not be washed
2. Prescribed (surgical) face masks
3. Prescribed eye wear, such as glasses with solid side shields, goggles or chin-length face shields.
4. Prescribed outer gown to be worn over appropriate street clothing; the gown “shall be worn in occupational exposure situations” (29 CFR 1910.1030 (d)(3)(xi). The gown is not to be worn away from direct patient treatment areas and is to be used only in the prescribed treatment areas.

**Procedure/Rationale**

All procedures and manipulations of potentially infective materials should be performed carefully to minimize the formation of droplets, spatters and aerosols. Use of rubber dam, where appropriate, high speed evacuation, and proper patient positioning should facilitate this process.

The term “prescribed” used in the primary guidelines refers to PPE that the school requires. You must use the PPE that is provided and/or eyewear that is acceptable.

**Oral Surgery Procedures**

Sterile gloves and sterile water are recommended for all oral surgical procedures. Furthermore, either plain soap and water or an antimicrobial soap and water followed by an alcohol-based hand rub with persistent activity should be used before any oral surgical procedure.

**Gloves & Hand Washing**

For protection of personnel and patients, gloves must always be worn when touching blood, saliva, or mucous membranes. Gloves must be worn by DHCW’s when touching blood-soiled items, body fluids, or secretions, as well as surfaces contaminated with them. Gloves must be worn when examining or manipulating oral structures. Hands must be washed and regloved before performing procedures on subsequent patients. Repeated use of a single pair of gloves is not acceptable since such use is likely to produce defects in the glove material which will diminish its value as an effective barrier. Gloves will be restricted to the cubicle while providing care. Gloves should not be worn to other clinical areas.

**Face Masks**

Face (surgical) masks must be worn when splashing or spattering of blood or other body fluids is likely, as is common in dentistry. Face masks will be restricted to the patient treatment areas.
**Protective Eyewear**

The purpose of wearing protective eyewear with appropriate sideshields is to protect the eyes from airborne bacteria, particles and debris. Safety or prescription glasses with side shields or a face shield must be worn when performing all oral procedures or laboratory work. Eyewear should be cleaned and/or disinfected according to manufacturers’ recommendations between patients.

**Gowns**

Gowns must be worn over street clothes when treating or examining patients. Gowns should be changed at least daily or when visibly soiled with blood. Gowns should not be worn outside the patient treatment area. Clinic gowns will be restricted to the patient treatment areas.

**Patient Treatment Areas**

Patient treatment areas will consist of the following:

1. The first floor treatment areas including:
   a. Treatment cubicles
   b. Dispensary while obtaining materials/supplies (treatment gloves and mask will be removed)
   c. Walkways/hallways on the first floor to gain access to the various areas described (treatment gloves and mask will be removed)

2. Second floor treatment area (Faculty Practice) and

3. Third floor treatment area (Oral Surgery).

**Clinic Dress Restrictions**

Clinic dress will not be worn in any other area for any reason. The school will furnish and launder the clinic gown for all faculty, staff and students. Private offices and team offices are not part of the patient treatment area; the prescribed outer gown and treatment gloves are not allowed in the private offices or team offices.

**GUIDELINE 3: STERILIZATION**

**Requirement**

“All handpieces, contra angles, handpiece accessories, burs and other instrumentation used for direct patient care will be sterilized after each patient. Sterile packages will be opened in full view of the patient and after the patient has been seated for treatment.”

**Procedure/Rationale**

Objectives of the Infection Control/Instrument Management System: To provide a method of sterilization of instrumentation which will prevent cross-contamination to patients, faculty, students and staff.
**INFORMATION FOR UTILIZATION OF CSR:**

**About CSR**

A. CSR Location — Room #108  
B. CSR Hours — Monday through Friday, 7:30 a.m.–5:30 p.m.  
C. CSR contains three large steam sterilizers, six small steam sterilizers, three large instrument washers, and storage shelves for dental and hygiene student instrument cassettes and kits.

**Instrument Check-out**

Instruments that are requested with the scheduler will be distributed to student boxes twice a day, once for the morning session of patients and again in the afternoon.

1. Any change in instrumentation or additional instruments needed should be checked out from CSR.
2. Your student I.D. badge will be required to check out any instruments from CSR.
3. Students will be given 30 minutes after each session begins to check instrument kits to make sure they are complete and in working order. Any problems with instruments must be brought to CSR staff attention during this time period so that instruments can be exchanged. If CSR staff is not notified of any problems with instruments during this time, the student will then be responsible for any broken or missing instruments.

**Instrument Check-In**

1. Preparation of instrument cassettes for sterilization:
   a. Remove excess debris from instruments (cements and sealers from spatulas and placing instruments, amalgam from amalgam carriers, impression materials from impression trays and mixing spatulas)
   b. Check that all instruments are in the cassette and that cassette is closed and complete.
   c. Return the cassette to CSR for sterilization.
   d. Wait while the cassette is checked in to assure you are cleared for the cassette you checked out.
   e. If cassette, handpiece or any instrument is not returned to CSR, the student’s deposit will be charged for replacement.
**GUIDELINE 4: REGULATED WASTE**

**Definition: “Regulated Waste”**

“Regulated Waste means liquid or semi-liquid blood or OTHER POTENTIALLY INFECTIOUS MATERIALS; contaminated items that would release blood or other potentially infectious materials in a liquid or semi-liquid state if compressed; items that are caked with dried blood or other potentially infectious materials and capable of releasing these materials during handling; contaminated sharps; and pathological microbiological wastes containing blood or other potentially infectious materials.” (29 CFR 1910.1030 (b.).)

**Definition: “Other Potentially Infectious Materials”**

OTHER POTENTIALLY INFECTIOUS MATERIALS has been defined to specifically include saliva in dental procedures. The definition states “the following human body fluids: semen, vaginal secretions, cerebrospinal fluid, synovial fluid, pleural fluid, pericardial fluid, peritoneal fluid, amniotic fluid, SALIVA IN DENTAL PROCEDURES, any body fluid that is visibly contaminated with blood, and all body fluids in situations where it is difficult or impossible to differentiate between body fluids.” (29 CFR 1910.1030 (b.).)

**Requirement: Sharps**

All sharps will be disposed of in appropriate puncture-proof containers.

**Procedures/Rationale: Sharps**

Sharp items (needles, empty anesthetic carpules, scalpel blades, and other sharp instruments) should be considered as potentially infective and must be handled with extraordinary care to prevent unintentional injuries.

Disposable syringes and needles, scalpel blades, and other sharp items must be placed into the puncture-resistant containers located in the team area in which they were used. To prevent needlestick injuries, disposable needles should not be purposefully bent or broken, removed from disposable syringes, or otherwise manipulated by hand after use.

**Requirement: Other Regulated (medically-infectious) Waste**

All other (non sharps) regulated (medically-infectious) waste will be disposed by placing the waste in a red biohazard bag and then into an appropriate biohazard container.

**Procedures/Rationale: Other Regulated (medically-infectious) Waste**

All cotton products, saliva ejectors, aspirators, treatment gloves, etc. used in patient care are considered “regulated waste” and should be disposed of by placing these products in a red biohazard bag. The red bag should then be taken to nearest container that receives “regulated waste.”
All other waste should be disposed in the cubicle trash container. This waste would consist of paper towels used to dry your hands, bags used to sterilize your instruments, and other items not used in patient care.

**GUIDELINE 5: CUBICLE PREPARATION AND PATIENT TREATMENT**

**Requirement**

Cubicle treatment components will be cleaned, disinfected and readied for treatment using the following procedures:

1. Clean and disinfect the cubicle treatment components with provided disinfectant
2. Place all barrier wraps
3. Equipment (carts, etc.) will be maintained in an aseptic condition.
4. No laboratory work is to be performed in cubicles unless required during patient treatment.

Any surface within three feet of the patient’s mouth must be considered contaminated after providing treatment that produces spatter. Therefore, cabinet doors and drawers must be closed during treatment. However, only surfaces that are touched must be cleaned and disinfected or have disposable covers changed between patients.

**PATIENT TREATMENT**

**Procedures/Rationale:**

**Instrument Sterilization**

All handpieces, contra angles, handpiece accessories, burs and other instrumentation used for direct patient care will be sterilized. Sterile packages will be opened in view of the patient and after the patient has been seated for treatment.

**Hand Washing**

Wash hands and wrists in the cubicle and glove.

Hands must always be washed between patient treatment contacts (following removal of gloves), after touching inanimate objects likely to be contaminated by blood or saliva from other patients, and before leaving the operatory. The rationale for handwashing after gloves have been worn is that gloves become perforated, knowingly or unknowingly, during use and allow bacteria to enter beneath the glove material and multiply rapidly. Extraordinary care must be used to avoid hand injuries during procedures.

However, when gloves are torn, cut or punctured, they must be removed immediately, hands thoroughly washed, and regloving accomplished before completion of the dental procedure.
Persons with Herpes Simplex are restricted from patient contact and contact with patient’s environment until lesions heal.

Hand washing is mandatory (1) before treatment, (2) between patients, (3) after glove removal, (4) during treatment if an object is touched that might be contaminated by another patient’s blood or saliva, and (5) before leaving the operatory.

**Hand Washing Procedure**

The following is the recommended procedure for hand washing for routine dental procedures in the clinic and for routine laboratory work with contaminated items:

1. If necessary, remove visible debris from hands and arms with appropriate cleaner/solvent. Do not abrade skin by using a brush or sharp instrument.
2. Wet hands and wrists under cool running water.
3. Dispense sufficient soap or antimicrobial handwash to cover hands and wrists.
4. Rub the hand wash gently on all areas, with particular emphasis on areas around nails and between fingers, for 15 seconds minimum before rinsing under cool water.
5. Repeat steps 3 and 4, then dry thoroughly with paper towel. Hand washing is an extremely effective procedure for the prevention of many infections that are acquired from the transmission of organisms on the hands. Cool water prevents cornstarch from penetrating the skin pores and minimizes the shedding of microorganisms from the subsurface layers of the skin. “Residual” antiseptic handwash has a long lasting antimicrobial effect on the skin that improves with more frequent use throughout the day. (*Journal of the American Dental Assoc.*, Vol. 55, No. 9, p.624)
6. If hands are not visibly soiled, a non-antimicrobial soap, an antimicrobial soap or an alcohol-based hand rub may be used.

**Medical History**

Always obtain a thorough medical history. Include specific questions about medications, current illnesses, hepatitis, recurrent illnesses, unintentional weight loss, lymphadenopathy, oral soft tissue lesions, or other infections. Medical consultation may be indicated when a history of active infection or systemic disease is elicited.
Protective Eyewear

Protective eyewear must be worn when treating patients. **Patients, faculty, staff, and students** are required to wear protective eyewear under the following conditions:

1. While using hand instruments.
2. While operating rotary cutting instruments.
3. While operating lathes, torches, autoclaves, and other types of equipment.
4. While using or manipulating any material (liquid or solid).
5. During any other activity that could be construed as a potential danger to the eyes.
6. Since the use of protective eyewear is required by state law, any patient refusing to wear them **will NOT be treated in this clinic**.

Dental Unit Water Quality

The previous recommendation to flush waterlines at the beginning of each clinic day has been eliminated. If dental unit water treatments are successful in meeting the requirement for 500 CFU/mL, then there is no reason to continue initial flushing. The recommendation remains for flushing the high-speed handpiece for 20-30 seconds between patients to expel any patient material.

Barrier Wraps

Surfaces that will be contaminated, but not cleaned and disinfected between patients, should be covered with barrier wrap. Some examples include: light handles, light switch, air/water syringe control, etc.

Use Rubber Dam

A **rubber dam** should be used whenever possible in tooth preparation. The rubber dam is an excellent barrier against the spread of infectious materials caused by spatter.

Use High Speed Evacuation

High-speed evacuation should be used whenever possible when using the high-speed handpiece, water spray, ultrasonic scaler or during a procedure that causes spatter.

Reduce Splatter

The three-way syringe is another source of cross-contamination because it produces spatter. Therefore, caution must be used when spraying teeth and the oral cavity. When used, a potential for splatter must always be considered and appropriate precautions taken. The use of non-splatter producing methods, such as use of warm moist cotton pellets or use of water before air, is recommended.
**Dropped Instruments**
An instrument that is dropped will not be picked up and reused. If the instrument is essential for the procedure, a sterilized replacement must be obtained.

**Radiology**
See “Radiology” and “Treatment Planning” sections in your student orientation manual.
GUIDELINE 6: CLEANUP AFTER PATIENT TREATMENT

**Requirement**

After patient treatment and at the end of the day, the use of heavy utility gloves will be worn:

1. To remove excess debris from instruments (cements and sealers from spatulas and placing instruments, amalgam from amalgam carriers, impression materials from impression trays and mixing spatulas).
2. To decontaminate all surfaces by removing infectious wastes and then disinfecting all environmental surfaces.
3. Rinse and disinfect all impressions, bite registrations and appliances before they are sent to the laboratory.

**Procedures/Rationale:**

Any surface that becomes visibly contaminated with blood or saliva must be cleaned immediately and disinfected using the disinfectant provided in the cubicle. These products are usually applied, carefully wiped off with a disposable wipe, reapplied, and left moist for the recommended time interval. Blood and saliva should be thoroughly and carefully cleaned from instruments and materials that have been used in the mouth.

Many blood and saliva-borne disease-causing microorganisms, such as HBV and Mycobacterium tuberculosis, can remain viable for many hours (even days) when transferred from an infected person to environmental surfaces within dental operatories and other clinical areas. Since subsequent contact with these contaminated surfaces can expose others to such microbes and may result in disease transmission, adequate measures must be used in each clinical area to control possible transmission from contaminated surfaces.

**Use of Barriers**

A practical and effective method for routinely managing operatory surface contamination between patients is to use disposable blood/saliva impermeable barriers, such as plastic film and aluminum foil, to shield surfaces from direct and indirect exposure. Removal of blood, saliva and microbes is accomplished by routinely changing surface covers between patients. Time-consuming cleaning and disinfection procedures between patients can then be minimized.

**Cleaning between Patients**

Thorough cleaning between patients is necessary for those uncovered operatory surfaces that are routinely touched and become contaminated during patient treatment. The following guidelines will be followed.
Acceptable Disinfectants

Only those chemical disinfectants that are EPA-registered, ADA approved hospital-level mycobactericidal agents capable of killing both lipophilic and hydrophilic virus at use dilution are considered acceptable agents for environmental surface disinfection. Use of any chemical killing-agent not so approved is unacceptable.

Cleaning Protocol

The following protocol for disinfecting the dental delivery unit between patients will be used:

1. Remove gloves and wash hands immediately.
2. Complete entries on all forms and records relating to the treatment provided and dismiss the patient.
3. Put on utility gloves before beginning the clean-up.
4. Remove barriers from the dental equipment and items from the dispensary. Clean and disinfect as necessary and return all items to the dispensary in a clean container.

Separate Trash

5. Care should be taken to discriminate between “regulated” waste and non-regulated waste. All cotton products, saliva ejectors, aspirators, used treatment gloves, disposable wipes, etc. used in patient care are considered “regulated waste”, and should be disposed of by placing these products in a red biohazard bag. The red bag should then be taken to the nearest container designated for “regulated waste.”

All other waste should be disposed of in the cubicle trash container. This waste would consist of paper towels used to dry your hands, bags used to sterilize your instruments, and other items not used in patient care.

Sharps

Discard needles, such as anesthetic and suture needles, used anesthetic carpules and any disposable sharp instruments, such as scalpel blades, broken instruments, used burs, or any item that could puncture skin, into the rigid sharp’s container.

Disinfect Impressions, etc.

Bite registrations, impressions, models, dies and prostheses become contaminated. These items must be cleaned and disinfected prior to removal from clinical areas. Impressions made with materials containing an approved antimicrobial agent and poured with a gypsum product also containing an approved antimicrobial agent shall be rinsed with water, shaken dry and bagged in a headrest cover for transport to the laboratory.
**Clean Eyewear**

Rinse and clean eyeglasses, goggles or faceshield with detergent and water. Set aside to dry.

**Prepare Cubicle**

Prepare for next patient or prepare cubicle for days end. The following items should be disinfected:

- a. Delivery system
- b. Air/water syringe
- c. Light handles and switch
- d. Saliva ejector holder
- e. Evacuator hose and on-off knob on evacuator
- f. Patient chair - including base
- g. Assistant chairs and non-fabric parts of Doctor’s chair
- h. Paper product container
- i. Partition
- j. Top of rheostat
- k. Top and front of mobile cabinet
- l. Don’t disinfect or use alcohol on the light shield as it will pit and discolor.

**GUIDELINE 7: PERSONAL HYGIENE AND GENERAL CLINIC POLICY**

**Requirement**

All DHCW’s will follow the personal hygiene procedures:

1. Personal hygiene, including body and clothing, should always be above reproach.

2. Hair, beards and mustaches must be clean and neat. Hair must be cleared away from the face and secured in such a way that it will be out of the operating field. Facial hair must be covered by a face mask.

3. Fingernails should be clean and short. Length of nails should not interfere with instrumentation.

4. When working in the clinical laboratory, a student must have clinic dress and PPE available so that he/she can treat patients in the clinic.

5. No eating in the first floor patient treatment areas, Faculty Practice or Oral Surgery patient treatment areas.

When participating in lectures and in preclinical or production laboratory activities, student should comply with the following guidelines concerning dress and personal appearance:

1. Laboratory dress must conform with applicable safety and infection control regulations.

2. The same attire as identified for wear in clinical activities is acceptable for wearing in lectures and seminars, except...
that laboratory coats will be worn in the laboratory instead of clinic PPE. Trousers/slacks must reach to the ankle. Skirts/dresses must approximate the knee in length, or fall below it. Dress shorts are acceptable for classroom wear, but are not acceptable in any laboratory setting. Scrubs are recommended for wear over shorts in laboratories. Clean blue jeans and casual shirts may be worn, but jeans should not have holes, patches or ragged edges. No T-shirt style tank tops may be worn.

3. Gowns worn in laboratories must be clean and neat.

4. Clean socks or hose and shoes are required. Sandals are not acceptable in laboratory or on clinic floor; neither are surgical clogs with holes.

5. Personal hygiene, including body and clothing, should always be above reproach.

**Procedures/Rationale**

Hair and nails are known to harbor higher levels of bacteria than skin. Long nails are more difficult to clean and may potentially penetrate gloves. Jewelry that may potentially penetrate gloves should be removed for the same reasons. Dental health care workers with injured or cracked skin, erosions, or eczema on hands or arms should exercise additional caution such as using mild soaps and lotion until the lesions are healed.

Food consumption or preparation in the first floor patient treatment areas, clinical area of the Faculty Practice, and the oral surgery clinic is not allowed. Food can be stored in these areas and taken to areas authorized to eat. Beverages such as coffee, tea, and soft drinks can be consumed in areas away from designated patient treatment such as private offices and team offices (see Guideline 2 for definition of patient treatment area(s)).

Points of note concerning food consumption are as follows:
1) You may eat food in the graduate orthodontic conference room, but food preparation is not allowed; 2) You may eat food in oral surgery, but food preparation is not allowed.

**GUIDELINE 8: USE OF EXTRACTED TEETH**

**Teeth with Alloy Restorations**

Teeth removed in the oral surgery clinic are separated into two groups: teeth that contain alloy restorations and teeth that don’t contain alloy restorations. Teeth that contain alloy restorations are placed in household bleach diluted to 1:10. They are disposed of by the normal process used to destroy contaminated human tissue. They are placed in a biohazard waste receptacle.
The teeth are put in to a wide-mouth container to which bleach is added. The container is covered with a spill-proof lid.

The second (and largest) group of extracted human teeth do not contain amalgam restorations. These teeth are placed in plastic autoclavable cups to which distilled water is added. On Tuesdays and Fridays the teeth are autoclaved for 40 minutes at a temperature of 121 degrees centigrade at 15 PSI. After the specimen receptacles have been autoclaved, the distilled water is poured down the drain. The teeth are transported in the receptacles to the Department of Endodontics, where 0.2 thymol solution is poured in to the containers. They are then labeled “Autoclaved Teeth: Solution Is Harmful If Swallowed; May Cause Liver and Kidney Damage.”

Autoclaved teeth that have been approved for use in dental school classes are removed from the jars with cotton pliers and rinsed with tap water. These teeth are then soaked for several minutes in a separate container filled with tap water and then rinsed again. The teeth can now be safely handled with ungloved hands. Extracted teeth that have not been autoclaved must be handled with appropriate standard precautions (i.e., gloves, eyewear and PPE).

The collections of teeth with or without amalgam are kept in in a biohazard container that has a wide mouth and secure lid. All containers must be labeled properly.

Comments regarding this protocol should be referred to Dr. Brett Ferguson.

**GUIDELINE 9: ENFORCEMENT OF CLINICAL GUIDELINES**

**Requirement**

Failure to comply with the above Standard Precautions will result in appropriate disciplinary action.

**Procedures/Rationale**

Enforcement of infection control violations will be heard by the administrator directly responsible for the students education (e.g., Team Coordinator, Faculty Practice administrator, Chairman of Oral Surgery, etc.)

As additional developments may be needed, the Associate Dean for Clinical Programs should be consulted for recommendations.

All appeals will be heard by the Academic Standards Committee.
Final disposition of discipline within the University of Missouri-Kansas City School of Dentistry will be heard by the Dean of the School of Dentistry.

**ADDITIONAL AREAS OF CONCERN**

**HANDLING OF BIOPSY SPECIMENS**

**Requirement**

All tissue removed should be subjected to gross and/or microscopic examination, with all findings placed in the patient treatment record. In general, each specimen should be put in a sturdy container with a secure lid to prevent leaking during transportation. Care should be taken when collecting specimens to avoid contamination of the outside of the container. If the outside of the container is visibly contaminated, it should be cleaned and disinfected, or placed in an impervious bag.

**SPECIFIC MANAGEMENT PROBLEMS**

**Acquired Immune Deficiency Syndrome (AIDS)**

It is scientifically safe to treat these patients. The treatment procedures should be the same as those used for a known Hepatitis B carrier. Pursuant to Chancellor’s Memorandum #53 and UMKC AIDS Policy Statement dated October 24, 1988, the following should be considered the proper care for HIV+ and AIDS patients at the UMKC Dental School:

**Treating Patients**

All HIV+ patients will be treated the same as any other patient presenting for care at the dental school.

HIV+ patients will be screened either through Emergency Clinic if they present there; or through general screening if they present as a patient there.

HIV+ patients will be automatically assigned as described in the clinic manual.

Treatment for HIV+, AIDS, and Hepatitis patients will be rendered in the clinic just as for any other patient.
# Tuberculosis

## Tuberculosis (TB) Precautions for Outpatient Dental Settings.

### Administrative Controls
- Assign responsibility for managing TB infection control program
- Conduct annual risk assessment
- Develop written TB infection control policies for promptly identifying and isolating patients with suspected or confirmed TB disease for medical evaluation or urgent dental treatment
- Instruct patients to cover mouth when coughing and/or wear a surgical mask
- Ensure that dental health care personnel (DHCP) are educated regarding signs and symptoms of TB
- When hiring DHCP, ensure that they are screened for latent TB infection and TB disease
- Postpone urgent dental treatment

### Environmental Controls
- Use airborne infection isolation room to provide urgent dental treatment to patients with suspected or confirmed infectious TB
- In settings with high volume of patients with suspected or confirmed TB, use high-efficiency particulate air filters or ultraviolet germicidal irradiation

### Respiratory Protection (RP) Controls
- Use RP—at least an N95 filtering face piece (disposable)—for DHCP when they are providing urgent dental treatment to patients with suspected or confirmed TB
- Instruct TB patients to cover mouth when coughing and to wear a surgical mask

---

*Source: Jensen and colleagues.3(PP 25, 126)*

## Respiratory Hygiene and Cough Etiquette Measures.

- Use tissue to cover the nose and mouth and to contain respiratory secretions when coughing or sneezing
- Dispose of tissues in no-touch receptacles (such as those with foot-pedal-operated lids or an open, plastic-lined wastebasket)
- When coughing or sneezing, if tissues are not available, cover the mouth and nose with the inner surface of the arm and forearm, to keep pathogenic organisms away from the hands; although Mycobacterium tuberculosis cannot spread by the hands, other respiratory pathogens such as rhinoviruses can
- Practice hand hygiene (such as hand washing with nonantimicrobial soap and water, alcohol-based hand rub or antiseptic hand wash) after having contact with respiratory secretions or contaminated objects and materials; hand hygiene is recommended to prevent transmission of all respiratory illnesses, in general, but will not affect tuberculosis transmission

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*Source: Centers for Disease Control and Prevention.14*
### Tuberculosis (TB) Risk Categories and Recommended Testing Frequency.*

<table>
<thead>
<tr>
<th>Risk Category</th>
<th>Risk Classification</th>
<th>TB Testing Frequency</th>
</tr>
</thead>
<tbody>
<tr>
<td>Low</td>
<td>People with TB disease unlikely to be seen</td>
<td>Baseline,** at hiring; further testing not needed unless exposure occurs</td>
</tr>
<tr>
<td></td>
<td>Fewer than three patients with unrecognized TB treated in past year</td>
<td></td>
</tr>
<tr>
<td>Medium</td>
<td>People with TB disease likely to be seen</td>
<td>Baseline,** then annually</td>
</tr>
<tr>
<td></td>
<td>Three or more patients with unrecognized TB treated in past year</td>
<td></td>
</tr>
<tr>
<td>Potential Ongoing Transmission</td>
<td>Evidence of ongoing person-to-person transmission</td>
<td>Baseline,** then every eight to 10 weeks until evidence of transmission has ceased</td>
</tr>
</tbody>
</table>

*Source:  Jensen and colleagues.3(pp. 9-11, 134)

** Baseline screening should be conducted by a qualified health care professional using a two-step tuberculin skin test or single blood assay interferon gamma release assay.

### Comparison of Selected Changes Between 1994 and 2005 Editions of the Centers for Disease Control and Prevention’s Guidelines for Preventing Transmission of Mycobacterium Tuberculosis in Health Care Settings.*

<table>
<thead>
<tr>
<th></th>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>Terminology</td>
<td>“Facilities”: focuses mainly on hospitals</td>
<td>“Settings”: term encompasses inpatient settings, outpatient settings (for example, medical, dental), tuberculosis clinics, health-care settings in correctional facilities, home-based health care, emergency medical services and laboratories handling <em>M. tuberculosis</em> specimens</td>
</tr>
<tr>
<td></td>
<td>“Engineering controls”: limited to ventilation, ultraviolet germicidal irradiation and room air cleaners</td>
<td>“Environmental controls”: includes not only engineering controls but also other aspects of the environment, such as building, setting, facility &quot;Airborne infection isolation room&quot;</td>
</tr>
<tr>
<td></td>
<td>“Negative pressure isolation room”</td>
<td>“Tuberculin skin test” (TST)</td>
</tr>
<tr>
<td></td>
<td>“Purified protein derivative”</td>
<td></td>
</tr>
<tr>
<td>Respiratory Hygiene, Cough Etiquette</td>
<td>Not included</td>
<td>Included</td>
</tr>
<tr>
<td>Risk Assessment</td>
<td>Five categories: minimal, very low, low, intermediate and high</td>
<td>Three categories: low, medium, potential ongoing transmission</td>
</tr>
<tr>
<td>Diagnostic Methods</td>
<td>TST</td>
<td>TST or interferon gamma release assay</td>
</tr>
<tr>
<td>Frequently Asked Questions</td>
<td>Not addressed</td>
<td>Included</td>
</tr>
</tbody>
</table>

Source:  Centers for Disease Control and Prevention2 and Jensen and colleagues.3(pp. 2-3)
Yearly Skin Tests

Since a number of patients are treated in this institution who come from the higher risk groups for tuberculosis, it is recommended that all students and faculty who are non-responders to the various types of tuberculosis skin testing have skin tests run at least on a yearly basis.

Anticoagulant Treatment

Please see page 40 of this section for information concerning your patients who are taking medication for anticoagulant therapy. Please note that the Oral Surgery Department offers (at $25 per test) the International Normalized Ratio (INR) blood test. This test takes ten (10) minutes to administer and is an important assessment tool in situations in which blood clotting time may be an issue.

Contact Dermatitis and Latex Hypersensitivity

Dental health care providers must familiarize themselves about the signs, symptoms, and diagnoses of skin reactions associated with frequent hand hygiene and glove use. Immediate and delayed hypersensitivities have been associated with natural rubber latex (NRL) proteins and processing chemicals used in the manufacture of NRL gloves. Lotions should be used to prevent skin dryness associated with hand washing at the end of the workday. Lotions must be compatible with antiseptic products and must not compromise the integrity of gloves. Petroleum-based lotions will degrade NRL gloves.

Boil Water Advisories

While a boil-water advisory is in effect do not deliver water from the public water system to the patient through the dental operative unit, ultrasonic scaler, or other dental equipment that uses the public water system. Do not use water from the public water system for dental treatment, patient rinsing or hand washing. Use antimicrobial-containing products for hand washing that does not require water for use, such as alcohol-based hand rubs. If hands are visibly soiled, use bottled water and soap for hand washing or a detergent-containing towelette. When the boil-water advisory is cancelled, follow guidance given by the local water utility on proper flushing of waterlines. If no guidance is provided, flush dental waterlines and faucets for one to five minutes before using for patient care. Disinfect dental waterlines as recommended by the dental unit manufacturer.

Other Infectious Diseases

The use of the recommended sterilization and disinfection procedures will prevent or greatly reduce the danger of the spread of most infectious diseases, i.e., measles, mumps, colds, influenza, etc. It is recommended that all dental faculty, staff and students receive all standard immunizations.
**OCCUPATIONAL EXPOSURE PROTOCOL**

**Introduction**

Significant Exposures:
- Contaminated needle-stick.
- Puncture wound from a contaminated sharp instrument.
- Contamination of any obviously open wound or the mucous membranes by saliva, blood, or a mixture of both saliva and blood.

Exposure to the patient’s blood or saliva on the unbroken skin is not considered significant.

If you have been exposed to blood or body fluid from a patient, you may be at risk of exposure to bloodborne pathogens (disease-causing germs carried by blood, such as Hepatitis or HIV). Since we never know whose blood may carry germs, we need to take precautions regarding your exposure.

**Risk of Infection**

While the risk is very low, it is not zero.

- Exposure from needle sticks or cuts cause most infections. The average risk of HIV infection after a needle stick/cut exposed to HIV infected blood is about 1 in 300. 99.7% of needle stick/cut exposures do not lead to infection.
- The risk after exposure of the nose or mouth to HIV infected blood is estimated to be about 1 in 1,000.

**Exposure Accident Protocol**

1. Immediately cleanse the wound thoroughly with soap and water.

2. It is recommended that you seek evaluation/treatment as soon as possible. If you are treating a patient, we recommend you stop dental treatment and take the patient to Oral Surgery to have their blood drawn. You can then dismiss the patient and proceed to Truman Medical Center Occupational Health Department for evaluation/treatment.

3. If the source patient is unavailable or unknown, it is still imperative that you report to Truman Occupational Health Department as soon as possible for evaluation and determination of prophylactic drug regime.

4. If Truman Medical Center Occupational Health Department is closed, you should report to Truman Medical Center Emergency Department.

5. **If the source patient of the body fluids is known, please take the patient to Oral Surgery to have blood drawn.** The following tests will be done on the patient:
   - HIV — Consent is required.
b. HbsAG (Hepatitis antigen) — to see if the patient is a Hepatitis B carrier

c. HCV — to see if patient is a Hepatitis C Carrier.

6. The student will report to Truman Medical Center’s Occupational Health Department with the patient’s blood for counseling and blood work assessment. You may obtain a map to the Occupational Health Department from Oral Surgery or Ms. Dana Linville, room 168B.

7. In order to assess whether the student has been previously exposed to Hepatitis or HIV, the student’s blood will be drawn at Truman Medical Center and tested for the following:

   1. HIV (Human Immunodeficiency Virus), consent is required
   2. HbsAB (Hepatitis Anitbodies)
   3. HCV

8. When you return from Truman Medical Center Occupational Health, report the exposure incident to Dana Linville in Room 168B, phone x2124. If she is not available, please see Jennifer Smith, RN in Oral Surgery.

9. After-Hours Exposure: In the event of an after-hours exposure, please call Truman Medical Center Emergency Department (TMC ED) at 816-404-1500. The supervising faculty should speak to the charge nurse so that care can be expedited when you arrive at TMC ED.

### HIV Blood Test Results and Treatment Recommendations

<table>
<thead>
<tr>
<th>Source Patient</th>
<th>Student or Worker Exposed</th>
</tr>
</thead>
<tbody>
<tr>
<td>1. Diagnosed AIDS; HIV positive; refuses testing; or unknown source</td>
<td>1. Receive counseling and medical evaluation for post-exposure medication</td>
</tr>
<tr>
<td>2. Anti-HIV negative</td>
<td>2. Receive counseling and optional follow-up at 3 and/or 6 months</td>
</tr>
</tbody>
</table>

### If Post-Exposure Medication is Indicated

The short-term and long-term harmful effects of taking antiviral medication by a non-infected individual is uncertain at this time. The adverse effects of taking antiviral medication during pregnancy is not fully known at this time.

When taking post exposure prophylactic medication, you should be aware of the following side effects of each drug.

- Upset stomach (e.g. nausea, vomiting, diarrhea), tiredness, or headache for people taking ZDV
• Upset stomach and, in rare instances, pancreatitis for people taking 3TC
• Jaundice and kidney stones in people taking IDV, although these side effects are infrequent when IDV is taken for less than one month. The risk of kidney stones may be reduced by drinking 48 oz. of fluid per 24 hour period.

Is post-exposure treatment recommended for all types of occupational exposures to HIV?

No. Because most occupational exposures do not lead to HIV infection, the chance of possible serious side effects (toxicity) from the drugs used to prevent infection may be much greater than the chance of infection from the exposure. The risk of infection and possible side effects of the drugs should be carefully considered when deciding whether to take the medication. Exposures with a lower risk for infection may not be worth the side effects associated with these drugs.

What about exposures to blood for which the HIV status of the source patient is unknown?

If the source individual cannot be identified or tested, decisions regarding follow-up should be based on the exposure risk and whether the source is likely to be a person who is HIV positive. Follow-up HIV testing is available to all workers who are concerned about possible infection through occupational exposure.
### Hepatitis B Blood Test Results and Treatment Recommendations

<table>
<thead>
<tr>
<th>Exposed Worker</th>
<th>Treatment When Source Is Found To Be:</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>HbsAg-positive</td>
</tr>
<tr>
<td>Previously Vaccinated(^1)</td>
<td></td>
</tr>
<tr>
<td>1. Known Responder(^2)</td>
<td>No treatment</td>
</tr>
<tr>
<td>2. Known Non-Responder(^3)</td>
<td>1. Worker should receive two (2) doses HBIG (give second dose one (1) month after first dose) - OR- 2. Worker should receive one (1) dose HBIG plus one (1) dose Hepatitis B vaccine</td>
</tr>
<tr>
<td>3. Response Unknown(^4)</td>
<td>Test exposed worker for anti-HBs: 1. If inadequate(^5), dose HBIG plus Hepatitis B vaccine booster dose 2. If adequate(^5), no treatment</td>
</tr>
</tbody>
</table>

---

1. Exposed worker has already been vaccinated against Hepatitis B.
2. Anti-HBs were > to 10 milli-international units (Antibody Positive)
3. Anti-HBs were < 10 milli-international units (Antibody Negative)
4. Individual's antibody level was never tested
5. Adequate anti-HBs is > 10 milli-international units
Hepatitis C Blood Test Treatment Recommendations

• For the source, baseline testing for anti-HIV
• For the person exposed to the HCV-positive source, baseline and follow-up testing including:
  • baseline testing for anti-HCV; and
  • follow-up testing for anti-HCV at 12 weeks and 6 months
• Confirmation by supplemental anti-HCV testing of all anti-HCV results reported as positive by enzyme immunoassay

Definitions

1. HBsAg refers to the Hepatitis B surface antigen.
2. Anti-HBs refers to the antibody to the Hepatitis B surface antigen.
3. HBIG refers to Hepatitis B immune globulin.
4. Anti-HIV refers to the antibody to the human immuno deficiency virus.
5. Anti-HCV refers to the antibody to the Hepatitis C antigen.

Diabetic Patients

1. Assess patient’s level of control. If patient is aware of HbA1c, and is 6.5–8%, then OK to treat. If not in optimal range, refer to physician.
2. If the patient does not know, you are required to test the patient with a glucometer, which are available in all Teams. Optimal range is a fasting blood glucose reading of 70–110 mg/dL. Optimal post-prandial two hours after meal is below 140 mg/dL. Optimal post-prandial one hour after meal is below 190 mg/dL. Two consecutive post-prandial readings out of recommended range will require referral to physician.
3. In the case of an acute oral infection, antibiotics may be indicated, especially in poorly controlled diabetes, as well as possible alterations in a patient’s medication (e.g. increasing insulin dose to prevent hyperglycemia related to the pain and stress from infection, which can only be performed by a physician). If acute infection exists, prophylactic antibiotics should be considered and aggressive treatment of the source of the infection.

References

Public Health Service Guidelines for the Management of Health-Care Worker Exposures to HIV and Recommendations for Post-exposure Prophylaxis; MMWR 47 (RR-7); 1-28; Publication date 5/15/1998

Truman Medical Center-West Blood/Body Fluid Exposure on Health Care Workers
PROPHYLACTIC ANTIBIOTIC COVERAGE

Introduction

These protocols reflect sound medical/dental practice. They are not intended to be a rigid and comprehensive set of rules nor are they intended to replace the need for a medical consultation. They should, however, be helpful to all practitioners interested in a conscientious approach to medical and dental care.

See the following website for additional details:
www.americanheart.org/presenter.jhtml?identifier=11086

Table 1

Cardiac Conditions Associated with the Highest Risk of Adverse Outcome from Endocarditis for which Prophylaxis with Dental Procedures Is recommended

- Prosthetic cardiac valve
- Previous infective endocarditis
- Congenital heart disease (CHD)*
  - Unrepaired cyanotic CHD, including palliative shunts and conduits
  - Completely repaired congenital heart defect with prosthetic material or device, whether placed by surgery or by catheter intervention during the first six months after the procedure**
  - Repaired CHD with residual defects at the site or adjacent to the site of a prosthetic patch or prosthetic device (which inhibit endothelialization)
- Cardiac transplantation recipients who develop cardiac valvulopathy

* Except for the conditions listed above, antibiotic prophylaxis is no longer recommended for any other form of CHD

** Prophylaxis is recommended because endothelialization of prosthetic material occurs within six months after the procedure
Table 2: Dental Procedures for Which Endocarditis Prophylaxis Is Recommended for Patients in Table 1

All dental procedures that involve manipulation of gingival tissue or the periapical region of teeth or perforation of the oral mucosa*

* The following procedures and events do not need prophylaxis: routine anesthetic injections through noninfected tissue, taking dental radiographs, placement of removable prothodontic or orthodontic appliances, adjustment of orthodontic appliances, placement of orthodontic brackets, shedding of deciduous teeth and bleeding from trauma to the lips or oral mucosa.

Table 3: Regimens for a Dental Procedure

<table>
<thead>
<tr>
<th>Situation</th>
<th>Agent</th>
<th>Regimen — Single dose 30-60 minutes before procedure</th>
</tr>
</thead>
<tbody>
<tr>
<td>Oral</td>
<td>Amoxicillin</td>
<td>Adults 2 gm Children 50 mg/kg</td>
</tr>
<tr>
<td>Unable to take oral medication</td>
<td>Ampicillin OR ceftriaxone</td>
<td>Adults 2g IM or IV* Children 50 mg/kg IM or IV</td>
</tr>
<tr>
<td>Allergic to penicillins or ampicillin Oral</td>
<td>Cephalexin** OR Clindamycin OR Azithromycin or clarithromycin</td>
<td>Adults 2 g Children 50 mg/kg</td>
</tr>
<tr>
<td>Allergic to penicillins or ampicillin and unable to take oral medication</td>
<td>Cefazolin or ceftriaxone OR Clindamycin</td>
<td>Adults 1 g IM or IV Children 50 mg/kg IM or IV</td>
</tr>
</tbody>
</table>

* IM — intramuscular; IV — intravenous.

** or other first or second generation oral cephalosporin in equivalent adult or pediatric dosage.

† Cephalosporins should not be used in an individual with a history of anaphylaxis, angioedema, or urticaria with penicillins or ampicillin.
A Legal Perspective on Antibiotic Prophylaxis

ADA Division of Legal Affairs

Editor’s note: The following statement from the ADA’s Division of Legal Affairs is intended as a companion to the 2007 Prevention of Infective Endocarditis — Recommendations by the American Heart Association published in the June issue of JADA by the American Heart Association. When referring to the 2007 recommendations, readers also should consult this legal statement.

The 2007 AHA Recommendations is a departure from past AHA recommendations. The AHA states that the 2007 Recommendations were developed through an evidence-based approach, and were written in an attempt to reduce ambiguities about who might be eligible for antibiotic prophylaxis and under what conditions, and what antibiotics to use.

The ADA always recommends that a dentist exercise his or her independent professional judgment in applying any guideline, as necessary in any clinical situation. Nevertheless, dentists should certainly be aware that, while the precise standard of care may vary from state to state, these guidelines will likely be cited in any malpractice litigation as some evidence of the standard of care.

But what should the dentist do if the patient brings to the appointment a recommendation for premedication from his or her physician with which the dentist disagrees? The courts recognize that each independent professional is ultimately responsible for his or her own treatment decisions. Nevertheless, the goal should be consensus among the professionals involved. To reach consensus, communication is needed. For example, the physician's recommendation may be based on facts about the patient's medical condition that are not known to the dentist. On the other hand, the physician may not be familiar with this advisory statement or that premedication may be indicated in some situations but not in others. The careful dentist will attempt to ascertain the basis for the physician's recommendations and to acquaint the physician with the reasons why the dentist disagrees.

If consensus cannot be reached, the answer may lie in the concept of informed consent, which acknowledges the patient's right to autonomous decision making. Informed consent usually can be relied on to protect from legal liability the practitioner who respects the patient's wishes, as long as the practitioner is acting within the standard of care. However, for informed consent to be legally binding, it is incumbent on the practitioner to
inform the patient of all reasonable treatment options and the
risks and benefits of each. In the situation in question, the den-
tist would be prudent to inform the patient when the dentist's
treatment recommendations differ from those of the patient's
physician, and even encourage the patient to discuss the treat-
ment options with his or her physician before making a deci-
sion. All discussions with the patient and the patient's physician
should be well-documented in the patient's record. Oral com-
munications should be noted and electronic communications
printed out for the record. Of course, allowing the patient to
choose assumes that both the dentist's and the physician's treat-
ment recommendations are acceptable.

Dentists are not obligated to render treatment that they deem
not to be in the patient's best interest, simply because the
patient requests it. In such circumstances, referral to another
practitioner may be the only solution.

The above information should not be construed as legal advice
or a standard of care. A dentist should always consult his or
her own attorney for answers to the dentist's specific legal
questions.
ANTIBIOTIC PROPHYLAXIS FOR BACTEREMIA IN PATIENTS WITH JOINT REPLACEMENTS

This Information Statement was developed as an educational tool based on the opinion of the authors. Readers are encouraged to consider the information presented and reach their own conclusions.

More than 1,000,000 total joint arthroplasties are performed annually in the United States, of which approximately 7 percent are revision procedures. Deep infections of total joint replacements usually result in failure of the initial operation and the need for extensive revision, treatment and cost. Due to the use of perioperative antibiotic prophylaxis and other technical advances, deep infection occurring in the immediate postoperative period resulting from intraoperative contamination has been markedly reduced in the past 20 years.

Bacteremia from a variety of sources can cause hematogenous seeding of bacteria onto joint implants, both in the early postoperative period and for many years following implantation. In addition, bacteremia may occur in the course of normal daily life and concurrently with dental, urologic and other surgical and medical procedures. The analogy of late prosthetic joint infections with infective endocarditis is invalid as the anatomy, blood supply, microorganisms and mechanisms of infection are all different.

It is likely that bacteremia associated with acute infection in the oral cavity, skin, respiratory, gastrointestinal and urogenital systems and/or other sites can and do cause late implant infection. Practitioners should maintain a high index of suspicion for any change or unusual signs and symptoms (e.g. pain, swelling, fever, joint warm to touch) in patients with total joint prostheses. Any patient with an acute prosthetic joint infection should be vigorously treated with elimination of the source of the infection and appropriate therapeutic antibiotics.

Patients with joint replacements who are having invasive procedures or who have other infections are at increased risk of hematogenous seeding of their prosthesis. Antibiotic prophylaxis may be considered, for those patients who have had previous prosthetic joint infections, and for those with other conditions that may predispose the patient to infection (Table 1). There is evidence that some immunocompromised patients with total joint replacements may be at higher risk for hematogenous infections. However, patients with pins, plates and screws, or other orthopaedic hardware that is not within a synovial joint are not at increased risk for hematogenous seeding by microorganisms.

Given the potential adverse outcomes and cost of treating an infected joint replacement, the AAOS recommends that clinicians consider antibiotic prophylaxis for all total joint replacement patients prior to any invasive procedure that may cause bacteremia. This is particularly important for those patients with one or more of the following risk factors.
Prophylactic antibiotics prior to any procedure that may cause bacteremia are chosen on the basis of its activity against endogenous flora that would likely be encountered from any secondary other source of bacteremia, its toxicity, and its cost. In order to prevent bacteremia, an appropriate dose of a prophylactic antibiotic should be given prior to the procedure so that an effective tissue concentration is present at the time of instrumentation or incision in order to protect the patient’s prosthetic joint from a bacteremia induced periprosthetic sepsis. Current prophylactic antibiotic recommendations for these different procedures are listed in Table 2.19

Occasionally, a patient with a joint prosthesis may present to a given clinician with a recommendation from his/her orthopaedic surgeon that is not consistent with these recommendations. This could be due to lack of familiarity with the recommendations or to special considerations about the patient’s medical condition which are not known to either the clinician or orthopaedic surgeon. In this situation, the clinician is encouraged to consult with the orthopaedic surgeon to determine if there are any special considerations that might affect the clinician’s decision on whether or not to pre-medicate, and may wish to share a copy of these recommendations with the physician, if appropriate. After this consultation, the clinician may decide to follow the orthopaedic surgeon’s recommendation, or, if in the clinician’s professional judgment, antibiotic prophylaxis is not indicated, may decide to proceed without antibiotic prophylaxis.

### Table 1. Patients at Potential Increased Risk of Hematogenous Total Joint Infection

<table>
<thead>
<tr>
<th>All patients with prosthetic joint replacement</th>
<th>Previous prosthetic joint infections</th>
</tr>
</thead>
<tbody>
<tr>
<td>Immunocompromised/immunosuppressed patients</td>
<td>Malnourishment</td>
</tr>
<tr>
<td>Inflammatory arthropathies (e.g.: rheumatoid arthritis, systemic lupus erythematosus)</td>
<td>Hemophilia</td>
</tr>
<tr>
<td>Drug-induced immunosuppression</td>
<td>HIV infection</td>
</tr>
<tr>
<td>Radiation-induced immunosuppression</td>
<td>Insulin-dependent (Type 1) diabetes</td>
</tr>
<tr>
<td>Patients with co-morbidities (e.g.: diabetes, obesity, HIV, smoking)</td>
<td>Malignancy</td>
</tr>
<tr>
<td></td>
<td>Megaprostheses</td>
</tr>
</tbody>
</table>
Table 2

<table>
<thead>
<tr>
<th>Procedure</th>
<th>Antimicrobial Agent</th>
<th>Dose</th>
<th>Timing</th>
<th>Duration</th>
</tr>
</thead>
<tbody>
<tr>
<td>Dental</td>
<td>Cephalexin, cephradine, amoxicillin</td>
<td>2gm PO</td>
<td>One hour prior to procedure.</td>
<td></td>
</tr>
<tr>
<td>Ophthalmic</td>
<td>Gentamicin, tobramycin, ciprofloxacin, gatifloxacin, levofloxacin, moxifloxacin, ofloxacin, or meomycin gramicidin polymyxin B cefazolin</td>
<td>Multiple drops topically over 2 to 24 hours of 100 mg subconjunctivally</td>
<td>Consult ophthalmologist or pharmacist for dosing regimen.</td>
<td></td>
</tr>
<tr>
<td>Orthopedic*</td>
<td>Cefazolin Cefuroxime OR Vancomycin</td>
<td>1–2 g IV</td>
<td>Begin dose 60 minutes prior to procedure.</td>
<td>Discontinued within 24 hours of the procedure. For most outpatient/office-based procedures a single pre-procedure dose is sufficient.</td>
</tr>
<tr>
<td>Vascular</td>
<td>Cefazolin OR Vancomycin</td>
<td>1–2 g IV</td>
<td>Begin dose 60 minutes prior to procedure.</td>
<td></td>
</tr>
<tr>
<td>Gastrointestinal</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Esophageal, gastroduodenal</td>
<td>Cefazolin</td>
<td>1–2 g IV</td>
<td>Begin dose 60 minutes prior to procedure.</td>
<td></td>
</tr>
<tr>
<td>Biliary tract</td>
<td>Cefazolin</td>
<td>1–2 g IV</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Colorectal</td>
<td>Neomycin + erythromycin base (oral)</td>
<td>1 g</td>
<td>Dependent on time of procedure, consult with GI physician and/or pharmacist.</td>
<td></td>
</tr>
<tr>
<td></td>
<td>OR metronidazole (oral)</td>
<td>1 g</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Head and neck</td>
<td>Clindamycin + gentamicin OR cefazolin</td>
<td>600–900 mg IV</td>
<td>Begin dose 60 minutes prior to procedure.</td>
<td></td>
</tr>
<tr>
<td></td>
<td>1.5 mg/kg IV</td>
<td>1–2 g IV</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Obstetric and gynecological</td>
<td>Cefoxitin, cefazolin Ampicillin/sulbactam</td>
<td>1–2 g IV</td>
<td>Begin dose 60 minutes prior to procedure.</td>
<td></td>
</tr>
<tr>
<td></td>
<td>3 g IV</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Genitourinary</td>
<td>Ciprofloxacin</td>
<td>500 mg PO or</td>
<td>One hour prior to procedure. Begin dose 60 minutes prior to procedure.</td>
<td></td>
</tr>
<tr>
<td></td>
<td>400 mg IV</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

*If a tourniquet is used the entire dose of antibiotic must be infused prior to its inflation.
This statement provides recommendations to supplement practitioners in their clinical judgment regarding antibiotic prophylaxis for patients with a joint prosthesis. It is not intended as the standard of care nor as a substitute for clinical judgment as it is impossible to make recommendations for all conceivable clinical situations in which bacteremias may occur. The treating clinician is ultimately responsible for making treatment recommendations for his/her patients based on the clinician’s professional judgment.

Any perceived potential benefit of antibiotic prophylaxis must be weighed against the known risks of antibiotic toxicity, allergy, and development, selection and transmission of microbial resistance. Practitioners must exercise their own clinical judgment in determining whether or not antibiotic prophylaxis is appropriate.

References:

1. Number of Patients, Number of Procedures, Average Patient Age, Average Length of Stay - National Hospital Discharge Survey 1998-2005. Data obtained from: U.S. Department of Health and Human Services; Centers for Disease Control and Prevention; National Center for Health Statistics.
5. Guntheroth WG: How important are dental procedures as a cause of infective endocarditis? Amer J Cardiol 1984;54:797-801.


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Information Statement 1033

For additional information, contact the Public Relations Department at 847-384-4031.
Safety of outpatient dental treatment for patients receiving warfarin (Coumadin) anticoagulant therapy

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<th>Dental Treatment</th>
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<tr>
<td>Open-fracture reduction, orthognathic surgery</td>
<td></td>
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</tr>
</tbody>
</table>

1 Adapted from Herman, WW et al, Current perspectives on dental patients receiving coumarin anticoagulant therapy. JADA 1997; Mar 128 (3): 327-35
2 INR is this ratio: [PT (patient)/PT (control)]$^{15a}$
3 INR 2.5-3.5 = therapeutic range for mechanical prosthetic heart valves
4 INR 2-3 = therapeutic range for venous thrombosis, pulmonary embolism, systemic embolism (MI, valvular, atrial fibrillation)
5 White boxes indicate that it is safe to proceed in a routine manner (local factors such as periodontitis/gingival inflammation can increase the severity of bleeding, the clinician should consider all factors when making a risk assessment).
6 Diagonal shading = procedure not advised at current INR level; refer to physician for adjustment.
7 IR = insufficient research
8 Use local measures: Increased need for sutures, oxidized cellulose hemostat, topical thrombin and tranexamic acid
9 IR = insufficient research, but research data available for other similar procedures
U.M.K.C. School of Dentistry Bisphosphonate Policy

Patients taking oral bisphosphonates:

1. Patients may be treated in the predoctoral clinic.

2. Follow ADA guidelines:
   American Dental Association Council on Scientific Affairs. Dental management of patients receiving oral bisphosphonate therapy. JADA 2006; 137: 1144–50.

3. A comprehensive oral evaluation should be performed for all patients about to begin oral bisphosphonate therapy.

4. Patients should be informed that
   a. There is a low risk of developing BON (bisphosphonate osteonecrosis of the jaw) while taking oral bisphosphonates.
   b. There are ways to minimize the risk, but not to eliminate the already low risk.
   c. Good oral hygiene along with regular dental care is the best way to lower risk.
   d. There are no diagnostic techniques to identify those at increased risk of developing BON.
   e. Osteonecrotic bone may be present and surgical procedures are more likely but not the only factor in exposing these areas, and that any non-dental trauma to the jaws may expose necrotic bone.

5. Appropriate consults and informed consent has been signed by patient.

Patients taking intravenous bisphosphonates:

1. Dental treatment should be referred to Special Patient Care, AEGD and other graduate level areas.

2. The following should be considered for cancer patients:
   a. Receive a dental examination prior to initiating therapy with intravenous bisphosphonates.
   b. Avoid invasive dental procedures while receiving intravenous bisphosphonate treatment.

3. Patients should be educated on maintaining excellent oral hygiene to reduce the risk of infection.

4. Dentists should check and adjust removable prostheses to avoid soft-tissue injury.

5. Routine dental prophylaxes should be performed with care not to injure soft tissue.

6. Dental infections should be managed aggressively and nonsurgically (when possible).

7. Endodontic therapy is preferable to extractions; and, when necessary, coronal amputation with root canal therapy on retained roots to avoid the need for extraction.
SECTION 7  RISK MANAGEMENT

Coordinator  Linda M. Wells, D.M.D., M.B.A.

Contents
This section of the Orientation Manual contains the following:

- Emergency Procedures and Code Blue Alert
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- ASA Physical Status Classification ................. 2
- Management Of Unusual Events Or Outcomes
  - Reporting Unusual Events and Outcomes ........ 4
  - Unusual Events and Outcomes
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  - Incident Report Procedures ................. 7
  - Avoiding Litigation ............................ 7
  - Guidelines For Management Of Patients Who
    May Be Seeking Professional Or Legal
    Condemnation Of Previous Dental Treatment . 9
  - Unassigned Patients Seeking Consultation .... 11
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- Breach Notification Policy and Procedures

EMERGENCY PROCEDURES AND CODE BLUE ALERT

Oxygen Equipment
Make sure you know where the oxygen equipment is and you
know how to operate it.

Emergency Medical Management
You must be thoroughly familiar with medical emergency
management code blue procedures. When you have a medical
emergency, it is too late to learn the proper procedure.

PROTOCOL

Introduction
Careful patient evaluation, constant patient observation, and
early recognition of a medical emergency will go far in prevent-
ing serious medical complications. However, should a car-
diopulmonary arrest occur, it becomes our immediate duty to
identify the problem and begin basic cardiac life support procedures. The protocol to be followed is as follows:

Your Responsibilities

Attending personnel will:

1. Recognize the signs of the medical emergency.
2. Begin proper management of the emergency and initiate cardiopulmonary resuscitation if indicated.
3. Ask someone to call the in-house emergency number (ext. 4444) in the Oral Surgery Clinic.
4. The person who made the call to ext. 4444 will proceed at once to the stairway next to the elevator on the first floor, wait for the emergency team to arrive, and then lead the emergency team to the site of the incident.

Emergency Team

Upon arrival, the emergency team members will take over the care of the patient.

Patient Transfer

Under the supervision of a member of the Department of Oral and Maxillofacial Surgery, the emergency team members will ensure that the patient is transferred to the emergency room of TMC for definitive treatment if indicated.

Report Required

For proper insurance protection for yourself or your patient, an incident report must be executed whenever an unusual outcome occurs. Incident report forms may be obtained from Room 168.

ASA PHYSICAL STATUS CLASSIFICATION

ASA I

Patients are considered to be normal and healthy. Patients are able to walk up one flight of stairs or two level city blocks without distress. Little or no anxiety. Little or no risk. This classification represents a "green flag" for treatment.

ASA II

Patients have mild to moderate systemic disease or are healthy ASA I patients who demonstrate a more extreme anxiety and fear toward dentistry. Patients are able to walk up one flight of stairs or two level city blocks, but will have to stop after completion of the exercise because of distress. Minimal risk during treatment. This classification represents a "yellow flag" for treatment. Examples: History of well-controlled disease states including non-insulin dependent diabetes, prehypertension, epilepsy, asthma, or thyroid conditions; ASA I with a respirato-
Patients may have underlying medical conditions, pregnancy, and/or active allergies. May need medical consultation.

Note: Patients who demonstrate a more extreme anxiety and fear toward dentistry have a baseline of ASA II even before their medical history is considered; that situation raises the classification system.

ASA III

Patients have severe systemic disease that limits activity, but is not incapacitating. Patients are able to walk up one flight of stairs or two level city blocks, but will have to stop enroute because of distress. If dental care is indicated, stress reduction protocol and other treatment modifications are indicated. This classification represents a "yellow flag" for treatment. Examples: History of angina pectoris, myocardial infarction, or cerebrovascular accident, congestive heart failure over six months ago, slight chronic obstructive pulmonary disease, and controlled insulin dependent diabetes or hypertension. Will need medical consultation.

ASA IV

Patients have severe systemic disease that limits activity and is a constant threat to life. Patients are unable to walk up one flight of stairs or two level city blocks. Distress is present even at rest. Patients pose significant risk since patients in this category have a severe medical problem of greater importance to the patient than the planned dental treatment. Whenever possible, elective dental care should be postponed until such time as the patient's medical condition has improved to at least an ASA III classification. This classification represents a "red flag" a warning flag indicating that the risk involved in treating the patient is too great to allow elective care to proceed. Examples: History of unstable angina pectoris, myocardial infarction or cerebrovascular accident within the last six months, severe congestive heart failure, moderate to severe chronic obstructive pulmonary disease, and uncontrolled diabetes, hypertension, epilepsy, or thyroid condition. If emergency treatment is needed, medical consultation is indicated.

ASA V

Patients are moribund and are not expected to survive more than 24 hours with or without an operation. These patients are almost always hospitalized, terminally ill patients. Elective dental treatment is definitely contraindicated; however, emergency care, in the realm of palliative treatment may be necessary. This classification represents a “red flag” for dental care and any care is done in a hospital situation.
ASA VI

Clinically dead patients being maintained for harvesting of organs.

ASA-E: Emergency operation of any variety (used to modify one of the above classifications, i.e., ASA III-E).

* Status can change as medical history changes; adapted by Margaret J. Fehrenbach, RDH, MS, from the American Society of Anesthesiologists, Medical Emergencies in the Dental Office (Malamed, Mosby, 2008), and included in Saunders Review of Dental Hygiene (Fehrenbach and Weiner, Elsevier, 2009).

Updated 1/2/2010

MANAGEMENT OF UNUSUAL EVENTS OR OUTCOMES

Introduction

The office of Dr. Linda Wells functions as the coordinating point for those activities related to incident reporting and management of unusual events or outcomes.

REPORTING UNUSUAL EVENTS AND OUTCOMES

Definitions

An unusual event is a physical accident not directly induced or caused by treatment rendered to the patient. The result may or may not involve physical injury.

An unusual outcome is the result of treatment rendered to a patient where the outcome exceeds the normal expectations. The result may or may not involve physical injury to the patient. For a list of reportable unusual outcomes see Attachment #1 in this risk management section.

A non-employee is a patient, student, volunteer, visitor or outside contractor.

Risk management is a broad-based program — an ideal by-product, of which, is improved quality of patient care — which identifies and attempts to contain, reduce, prevent, eliminate, or manage the risk of financial loss to the School and its faculty due to unusual events, incidents and outcomes.
**Reporting Requirements**

All unusual events and outcomes which may involve injury, possible injury or alleged injury to non-employees that occur in the Dental School and/or Clinics must be reported to the Coordinator of Patient Services **WITHIN 48 HOURS**. If any question of need exists, the office of Dr. Linda Wells should be notified.

**Note**

All threats of legal action against the University, the School of Dentistry, the faculty, employees or students must be reported as soon as possible to Dr. Linda Wells, the Risk Management Officer, Room 123A.

**Purpose**

The purpose of the policy is to provide a mechanism for documenting and reporting incidents occurring in the University of Missouri-Kansas City School of Dentistry. The primary intent is use in patient care, but is applicable to all non-employees, including visitors and students delivering health care.

The documentation and reporting of incidents is a Quality Assurance effort in which all professional, administrative, technical, and clerical staff participate to reduce the number of incidents and unusual outcomes and to reduce exposure to litigation. The primary purpose for reporting is to provide an informational base from which corrective and preventive action can be taken and to comply with the terms of the School’s Professional Liability insurance.

**Report Maintenance**

The School shall maintain a current complete file on all reported incidents which could involve either court action, reimbursement, adjustment or charges rendered, arbitration, or conciliation.

Reports shall be filed with the office of Dr. Linda Wells and a copy of the report shall not be included in the patient’s record. Objective facts of the incident or unusual outcome shall be reported in the patient’s record as appropriate to patient treatment, diagnosis, and documentation requirements.

Facts of occurrence shall be discussed with the patient, as appropriate, by attending treatment faculty. The reports are confidential and non-discoverable to the extent provided by the law for such Quality Assurance efforts.

Patient records shall not be revealed unless proper forms are signed by the patient according to HIPAA guidelines.
Use of Reports

Filing a report shall not, in and of itself, subject faculty, students or staff to punitive or disciplinary actions. The Office of Risk Management shall analyze and categorize all reports and issue statistical data summarizing the types, numbers and locations of incidents and unusual outcomes for the Risk Management Committee.

UNUSUAL EVENTS AND OUTCOMES REPORTING PROCEDURE

Non-Emergency Situations

The student must report the incident to the faculty supervising the patient’s care. The Office of Risk Management must be notified. Appropriate incident reports and record data entries must be completed.

If treatment is required, the student should follow the direction of the supervising faculty.

Emergency Situations

Follow the instructions for a Code Blue Alert. The office of Dr. Linda Wells must be notified and appropriate incident reports and record data entries must be completed.

UNUSUAL EVENTS AND OUTCOMES REPORTED BY TELEPHONE

Non-Emergency Situations

Report the incident the next clinic day to the faculty supervising the patient and the Risk Management Officer. Appropriate incident reports and record data entries must be completed.

Make arrangements with faculty if treatment is required. Follow the direction of the faculty in treating the patient.

Emergency Situations

Please be informed and inform your patients of the following after-hours emergency procedure for patients being actively treated:

1. Provide your patients with your home phone number. Ask them to call you first if any problems arise. If you cannot solve their problems,

2. Call the appropriate Team Coordinator or team faculty member. If the faculty member cannot solve the problem, have the patient call 816-235–2011 and leave their number or you call and leave the patient’s number.

3. Emergency personnel will call and give directions to the patient.
If the emergency requires medical attention, direct the patient to the nearest hospital.

Report the incident to the office of Dr. Linda Wells the next clinical day. Appropriate reports and record data entries must be completed.

INCIDENT REPORT PROCEDURES

Types of Forms

1. Non-Employee — Unusual Event  
   (Attachment #2)
2. Patient — Unusual Outcome  
   (Attachment #3)
3. Employee — Unusual Event  
   (Attachment #4)

All forms are obtained from Room 168.

Form #200

This form is used for students, faculty and general public in reporting incidents not related to dental treatment (i.e. a person falls out of a chair in the lobby, slips on the floor, etc.). In most instances, the reception desk will handle filling out the necessary forms for general public.

If a student or faculty is injured, they will fill out the form themselves.

This form should be returned to Room 168.

Form #192

This form should be used for reporting all unusual outcomes involving patient treatment. The form should be filled out by the attending faculty member with the student listed as a witness. Return the form to Room 168.

Form #3

Used for reporting an employee injury. The employee does not fill out the report. His/her supervisor or the Code Blue team must fill out the report. Return completed form to Room 168.

AVOIDING LITIGATION

Treatment Area

The UMKC School of Dentistry dental clinic is a dental treatment area. Specifically, the dental treatment area is focused on our treatment cubicles and the immediate surrounding clinical area. This dental treatment area is restricted to dental treatment personnel and the patient being treated ONLY. No other person should be in the dental clinic area. If for some reason an exception is required (e.g. a legal guardian is required), you
should be granted permission from the Team Coordinator or another supervisor.

**Patient Discussions**

Discussions with patients should include descriptions of reasonable expected outcomes and should not include any promises or guarantees.

**Emergency**

“Something has gone wrong” and the reasonable expected outcome is not attained. The “DUTY” of the doctor “owed to the patient” in case of an emergency is:

1. Primary prevention from further injury or debilitation
2. Secondary relief from discomfort

**Abandonment**

The termination of a UMKC School of Dentistry patient must be in writing to the patient and a copy must be included in the record. This termination must be initiated by the Risk Manager or Assistant Dean for Clinical Programs. The School has the legal obligation to continue treatment to a logical stopping point.

1. Do it in writing
2. Give sufficient notice
3. Offer to refer

**Before Dismissal**

Faculty will make sure students have made proper entries in the Treatment Notes before authenticating the students. The schema for anesthetic and prescribed treatment should be completed as provided in CMS. See each department’s guidelines for details.

**Adequacy of Records**

It is important that the tendency toward abbreviated and cryptic references be avoided. Many years may elapse between the creation of the record and the need to defend it. All entries and signatures must be legible.

Dentist’s personal observations as to patient’s disposition and attitude are appropriate. Such observations must be factual and not malicious. Such observations should not make judgmental or diagnostic statements that are outside the author’s area of specialization. A record of how well patients follow recommendations and treatment plan goals should be made. A record of all drugs prescribed, dosage, expected results and number of refills should be included.
Consent

Implied Consent grants permission to examine the patient.

Informed Consent by court judgment must inform the patient of all:

- Risks
- Consequences
- Benefits
- The proposed procedure
- Alternate procedures
- Possible consequences of no treatment

The explanations must be done in “lay terms.”

Late Entries

Protocol for making a late entry or addendum to CMS — The late entry or addendum should be made in the Treatment Notes of CMS. The treatment date that the late entry or addendum references should also be listed. The entry must be authenticated by a faculty member.

Correcting Errors

Correcting an error in charting — The error should be corrected in the appropriate area of the patient chart.

A statement of correction should be made in the Treatment Notes and authenticated by a faculty member.

Records Audit

Audit of Records for Adequacy of Documentation — The administrative section for Quality Assurance will have responsibility for audit of patient records for adequacy of documentation. Inadequacy will be brought to the attention of the student and the appropriate Department Chairman.

GUIDELINES FOR MANAGEMENT OF PATIENTS WHO MAY BE SEEKING PROFESSIONAL OR LEGAL CONDEMNATION OF PREVIOUS DENTAL TREATMENT

Purpose

These guidelines are set forth to establish uniform procedures to manage patients who may express concern, or who may be seeking professional and/or legal advice regarding previous dental treatment.

Applicability

These guidelines apply to assigned clinical patients only. Unassigned patients seeking consultation will be handled under other established guidelines.
Philosophy

It is the position of UMKC School of Dentistry that we have the obligation to, with our best professional judgment, present a true and accurate assessment of the dental needs to every assigned dental patient. This assessment of dental needs should be based on a thorough diagnosis and approved treatment plan. The dental treatment should restore optimal oral health and function, considering the current status of the patient. The development and presentation of the treatment plan is to obtain the goal of optimal oral health and function for the patient and not intended as criticism of previous dental treatment. However, we should not avoid recommending the replacement of existing restorations, prosthesis or any other treatment when necessary to obtain the treatment goals.

Precaution

The student and faculty are cautioned to refrain from making judgmental remarks concerning past or proposed future treatment. This is particularly important during the early phases of diagnosis. If the patient inquires about past or proposed future treatment, the patient should be told their condition and proposed treatment will be carefully reviewed at the time the treatment plan is presented.

Procedure Treatment Plan

1. Regardless of the quality of previous treatment, the patient should be presented with an APPROVED treatment plan. It is unnecessary to dwell on previous treatment except as it relates to the patient’s ability to maintain the future treatment.

2. After the approved treatment plan is presented, if the patient expresses concern for the quality of previous treatment, the following procedures should be followed:
   a. The faculty member responsible for the treatment plan should be asked to explain the situation to the patient and carefully document the patient’s concern in the Progress and Treatment Notes.
   b. If, in the opinion of the faculty member, a problem may still exist, the Department Chairman of the involved discipline should be consulted and noted in the patient’s record.
   c. The Department Chairman will make a final evaluation of the patient and make appropriate documentation in the Progress and Treatment Notes in the consultation section of the patient’s record.
   d. If the patient requests advice concerning steps to be taken to recover for previous dental treatment, they should be
directed to contact the dentist who provided the treatment in question.

e. If, after contacting the dentist who provided the treatment in question, the patient still seeks advice concerning steps to be taken to recover for previous dental treatment, they should be directed to contact the local dental society who can assist them. This may be done by contacting the local dental society office. In Kansas City the Greater K.C. Dental Society phone number is 816-737-5353.

UNASSIGNED PATIENTS SEEKING CONSULTATION WILL BE TREATED IN THE FOLLOWING MANNER:

1. The patient will be referred directly to the appropriate Department Chairman.

2. It will be the Department Chairman’s individual prerogative to charge a consultation fee of $50.00. If the chairperson provides the consultation as a courtesy to the patient, a fee waiver must be executed.

3. In all instances, a patient record must be completed and computer number assigned. The consultation must be thoroughly documented in the patient record.

CARDIOPULMONARY RESUSCITATION CERTIFICATION

All faculty members, students and staff who will have patient contact are expected to maintain continuous CPR affirmation. It is the responsibility of Department Chairs, Program Directors and Team Coordinators to monitor continuous affirmation or excuse an individual from this requirement. Affirmation and re-affirmation courses are taught periodically throughout the year at the School of Dentistry.

HIPAA REGULATIONS

The Health Insurance Portability and Accountability Act of 1996 (HIPAA) and the draft regulations the Secretary of Health and Human Services (HHS) has promulgated under the authority of HIPAA radically raise the stakes with regard to electronic medical record compliance issues. The purpose of this section is to help you comply with HIPAA as efficiently and cost effectively as possible and to give you the confidence that you have not let anything slip past you in your efforts to bring all aspects of your entity into compliance.
What HIPAA Requires

HIPAA requires you, as medical information professionals, and the entities you serve, to maintain reasonable and appropriate administrative, technical, and physical safeguards to ensure the integrity and confidentiality of healthcare information, to protect against reasonably foreseeable threats or hazards to the security or integrity of the information, and to protect against unauthorized uses or disclosure of the information. In addition, HIPAA provides criminal penalties for failure to comply with these requirements. Because Congress failed to enact a comprehensive confidentiality and security law by August 1999, HIPAA required HHS to draft regulations covering confidentiality and security of healthcare information that could go into effect early in the year 2000. Providers, except small health plans, will then have two years to get themselves into compliance. Small health plans will have three years.

The HIPAA regulations have standards for the security of individual health information and electronic signatures for health plans, health care clearinghouses, and health care providers. The draft regulations divide these proposed security requirements into four categories:

1. Administrative procedures to guard data integrity, confidentiality, and availability.
2. Physical safeguards to guard data integrity, confidentiality, and availability.
3. Technical security services to guard data integrity, confidentiality, and availability.
4. Technical security mechanisms to prevent unauthorized access to data transmitted over a communications network.

From those four simple categories come many specific requirements for those of you who maintain and transmit electronic health data, including no less than thirty-two separate policies and procedures you must implement, such as an overall security policy, a personnel security policy, a sanction policy, termination procedures, media controls, access authorization verification procedures, a workstation use policy, a disaster recovery plan, and the like.
BREACH NOTIFICATION POLICY AND PROCEDURES

UNIVERSITY OF MISSOURI – KANSAS CITY
SCHOOL OF DENTISTRY

University of Missouri – Kansas City School of Dentistry (UMKC SOD) has adopted a Breach Notification Policy and Procedures Policy (“Policy”) pursuant to the HITECH Act of the American Recovery and Reinvestment Act of 2009 and the rules and regulations issued by the U.S. Department of Health and Human Services (“HHS”). The purpose of the Policy is to detect possible breaches of protected health information (PHI), conduct a risk assessment to determine whether a breach of unsecured PHI has occurred, and provide any required notification. This Policy must be observed by all faculty, staff, administration, students, residents, fellows and independent contractors within UMKC SOD.

I. Discovering Possible Breaches

Persons will exercise reasonable diligence to discover any possible breach of PHI. When a member of the School has knowledge of a possible breach, he/she will immediately notify the Office of Clinical Programs, Room 123, of the possible breach and the date it was discovered. Sanctions up to and including possible termination or expulsion, will apply to a School member who has knowledge of a possible breach and fails to notify the Office of Clinical Programs.

II. Risk Assessment

Upon discovering a possible breach, or receiving notice of a possible breach, the Office of Clinical Programs will investigate and conduct a risk assessment to determine whether a breach of unsecured PHI has occurred. The Office of Clinical Programs will document the risk assessment whether or not the risk assessment reveals that a breach has occurred.

III. Mitigation

If the Office of Clinical Programs determines that a breach of unsecured PHI has occurred, the School will take steps to mitigate the breach and any harm that is likely to result from the breach. The School will take steps to prevent similar breaches from occurring in the future.

IV. Breach Log

The Office of Clinical Programs will keep a log of all breaches and report annually to HHS in the manner specified on the HHS Web site. For more information on reporting go to: www.hhs.gov/ocr/privacy/hipaa/administrative/breachnotificationrule/brinstruction.html.

V. Notification

A. Names and Information. If a breach of unsecured PHI has occurred, the Office of Clinical Programs will collect the names and contact information for individuals affected by the breach and the information required for the notification.

B. Urgent Situation. In an urgent situation involving the possibility of imminent misuse of unsecured PHI, the Office of Clinical Programs may notify affected individuals by telephone in addition to providing written notice.

C. Timing of Notice. The notice will be sent without unreasonable delays, and in no case later than 60 days after the discovery of the breach.

D. Contents of Notice. The notice will include a brief description of what happened, including the date of the breach and the date of discovery, if known, a general description of the types of unsecured PHI involved, any steps individuals should take to protect themselves from potential harm resulting from the breach, a brief description of what the School is doing to investigate, mitigate harm, and protect against future breaches, and
contact procedures for individuals to ask questions or learn additional information (including telephone number, e-mail address, Web site, postal address, or toll-free telephone number, as appropriate).

**IMPORTANT:** The notification must not include any PHI or any other sensitive information.

**E. Means of Sending Notice.** The Office of Clinical Programs will provide written notice to each affected individual. Notices will be sent via first-class mail to their last known address.

**F. Unreachable Individuals.** If the School lacks contact information for any affected individual, the Office of Clinical Programs will attempt to obtain current contact information so that appropriate notices may be sent. If the School is unable to obtain current contact information for fewer than 10 individuals, the Office of Clinical Programs may provide substitute notice that is reasonably calculated to reach them. Options include phone, e-mail and/or posting a notice on the School Web site. If the School is unable to obtain current contact information for 10 or more individuals, the Office of Clinical Programs will post a conspicuous notice for 90 days on the home page of the School Web site that includes a toll-free telephone number for individuals to call to inquire. The toll-free number will remain active for 90 days.

**G. More than 500 Individuals.** If the unsecured PHI of more than 500 individuals is breached, the Office of Clinical Programs will notify HHS without unreasonable delay and in no case later than 60 days after discovery of the breach in the manner specified on the HHS Web site.

**H. More than 500 Individuals in a state or jurisdiction.** If a breach of unsecured PHI affects more than 500 individuals in a single state or jurisdiction such as the metro Kansas City area, the Office of Clinical Programs will send a press release to prominent media outlets serving the affected area, in addition to providing notification to the affected individuals and HHS. The press release will be sent without unreasonable delay and will contain a toll-free number for individuals to call.

**VI. Plan Administration and Updates**

All members of the School will receive a copy of this Policy and will be instructed as to its procedures. The Policy will be reviewed periodically and updated as needed. Any questions about this Policy should be addressed to the Office of Clinical Programs.
UNUSUAL REPORTABLE OUTCOMES

• Abandonment Claims
• Allergic reaction (from drugs or materials)
• Anesthesia (wrong quadrant or tooth)
• Aspiration or swallowed substances (instruments, restorations, etc.)
• Broken instrument (unable to locate broken part, in root canal, etc.)
• Burns
• Complaints (dissatisfied patient or parent)
• Damage to patient-owned appliance
• Damage from failed product (headrest failure, etc.)
• Drug (abuse, allergy, reaction)
• Excessive pain, bleeding or swelling during or following treatment
• Extraction (wrong tooth)
• Fracture as a result of treatment (bone or tooth)
• Lacerations as a result of treatment
• Lack of informed consent (even with a signed consent form)
• Medical complications resulting from or during treatment
• Misadventure in the execution of a procedure
• Oral-antral fistula
• Paresthesia (severed or damaged nerve)
• Perforation (bur, file or instrument)
• Prescription (incorrect drug, dose, instructions)
• Post-operative instructions (lack of, or wrong regimen given)
• Treatment (wrong tooth restored, endodontics, etc.)
INSTRUCTIONS: Accidents and incidents resulting from, arising out of and directly relating to the University's premises (owned, rented or leased) and operations; or resulting from arising out of and directly relating to an employee's position of employment by the University, are to be reported on this form, provided:

(1) the accident caused:
   (a) bodily injury to or the death of any person, excluding patients in any University Medical Facility and University employees; or
   (b) damage to property owned by any person, excluding property owned by patients of any University Medical Facility and University employees;

or

(2) the incident resulted in a threat or utterance of intent to take legal action against the University or an employee due to an alleged Personal Injury. (See Item 16 below for kinds of Personal Injury.)

This form shall be submitted by:
(1) The academic staff member in charge of the student's activities at the time of the accident or incident or to whom the accident or incident was reported; or
(2) the person in charge of the building or facility or the person sponsoring the meeting or event attended by the student or general public at the time of the incident; or
(3) any employee who witnesses an accident or incident or to whom the accident or incident is reported or to whom a threat or utterance of intent to take legal action was made due to an alleged Personal Injury; or
(4) the Campus Police, if called to investigate the accident or incident.

This form shall be TYPED with original only, signed by the person submitting the form and forwarded to the Office of the Business Officer or if Central Administration, to the Director of Property and Risk Management WITHIN 48 HOURS AFTER THE ACCIDENT OR INCIDENT. This report is intended solely for internal use by the University's Office of Property and Risk Management and the Office of the General Counsel.

In completing the report below, "accident" and "incident" will be referred to as "occurrence." The name to be indicated in Item 5 shall be the name of the person who sustained bodily injury, had property damaged or alleges to have sustained Personal Injury.

<table>
<thead>
<tr>
<th>1. DATE OF REPORT</th>
<th>2. DATE OF OCCURRENCE</th>
<th>3. TIME OF OCCURRENCE</th>
<th>4. PLACE OF OCCURRENCE (name of bldg., room No., or describe University property)</th>
</tr>
</thead>
<tbody>
<tr>
<td>5. FULL NAME OF INJURED OR AGGRIEVED PERSON</td>
<td>6. TELEPHONE</td>
<td>7. SEX</td>
<td>8. AGE (actual or apparent)</td>
</tr>
<tr>
<td>9. ADDRESS (if student, give campus address)</td>
<td>10. MARRIED</td>
<td>11. STATUS</td>
<td></td>
</tr>
</tbody>
</table>

12. DESCRIBE DETAILS OF THE OCCURRENCE, INCLUDING YOUR OPINION AS TO HOW BODILY INJURY, PROPERTY DAMAGE OR PERSONAL INJURY OCCURRED AND HOW YOU OBTAINED THE INFORMATION. ATTACH COPIES OF ANY CORRESPONDENCE, POLICE REPORTS OR ANY OTHER INFORMATION AVAILABLE WHICH MIGHT ASSIST IN THE INVESTIGATION OF THIS OCCURRENCE.

13. DESCRIBE FULLY THE SPECIFIC PART OF THE BODY INJURED AND NATURE OF INJURY.

14. COMPLETE THE FOLLOWING QUESTIONS IF THE INCIDENT WAS AN OCCUPATIONAL EXPOSURE.
   • What type of incident occurred?
   • Type of instrument involved in exposure?
   • Type of body fluid involved?
   • Amount of fluid?
   • Was the source patient tested for HIV, Hepatitis B, Hepatitis C?
   • Does the student request to undergo OSHA-recommended blood testing?

15. DESCRIBE DAMAGE TO PROPERTY OF OTHERS AND ESTIMATE COST TO REPAIR OR REPLACE PROPERTY.
16. NAMES AND ADDRESSES OF WITNESSES

<table>
<thead>
<tr>
<th>NAME</th>
<th>ADDRESS</th>
<th>TELEPHONE</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
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<td></td>
</tr>
</tbody>
</table>

17. INDICATE BELOW THE NATURE OF THE ALLEGED PERSONAL INJURY RESULTING FROM THE INCIDENT

- False Arrest
- False Imprisonment
- Malicious Prosecution and Humiliation
- Libel
- Defamation of Character
- Wrongful Eviction
- Wrongful Detention
- Assault and Battery
- Slander
- Invasion of Right of Privacy
- Discrimination as Prohibited by Law

THIS REPORT HAS BEEN REVIEWED AND ACCURATELY REFLECTS ALL OF THE INFORMATION KNOWN REGARDING THE ACCIDENT OR INCIDENT

SUBMITTED BY (typed name of person submitting report)  TYPED TITLE OF PERSON SUBMITTING REPORT

SIGNATURE OF PERSON SUBMITTING REPORT  TYPED NAME OF DEPT. OF PERSON SUBMITTING REPORT & TELEPHONE #

REPORT OF ACCIDENT INVESTIGATION

18. WHAT ACTION HAS OR WILL BE TAKEN TO PREVENT RECURRENCE:

INVESTIGATED BY (typed name of person investigating report)  TYPED TITLE OF PERSON INVESTIGATING REPORT  DATE

SIGNATURE OF PERSON INVESTIGATING REPORT  TYPED NAME OF DEPT. PERSON INVESTIGATING REPORT AND TELEPHONE #
UMKC SCHOOL OF DENTISTRY PATIENT INCIDENT REPORT

INSTRUCTIONS: This form is to be used to report an incident, which is defined as any happening which is not consistent with the routine or commonly practised care of a particular patient, including an accident or a situation which might result in an accident. This form is to be used to report an incident or an accident involving a School of Dentistry patient which occurs in a facility owned or used by the University. This form is also to be used to report damage to personal property of a patient.

This form shall be submitted by:
(1) the physician whose name appears in Item 18, or if not applicable by:
(2) the employee who witnessed or who was first advised of the incident or accident.

One TYPED copy of this form is to be signed by the person submitting the form and forwarded to the Office of the Risk Management WITHIN 24 HOURS AFTER THE ACCIDENT OR INCIDENT.

All information provided on this form including any appended materials and data, is privileged and confidential, and is furnished as a report to the Quality Assurance Committee of the Dental School for the purpose of improving the quality of patient care and to the University Legal Counsel as communication prepared in the event of litigation.

<table>
<thead>
<tr>
<th>1. NAME OF PATIENT</th>
<th>2. DATE OF BIRTH</th>
<th>3. PATIENT NUMBER</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

4. HOME ADDRESS

5. SSN

6. HOME PHONE NO.

7. DESCRIPTION OF INCIDENT:

8. TREATMENT AND/OR ACTIONS TO BE TAKEN TO RESOLVE INCIDENT:

9. DATE & TIME OF INCIDENT

10. DEPARTMENT INCIDENT TOOK PLACE IN:

11. PATIENT’S RESPONSE AND COMMENTS ABOUT INCIDENT:

12. DESCRIPTION OF DAMAGE TO PATIENT’S PROPERTY & ESTIMATED COST TO REPAIR OR REPLACE PROPERTY.

13. DESCRIBE DETAILS OF THE OCCURRENCE, INCLUDING YOUR OPINION AS TO WHAT HAPPENED, WHY IT HAPPENED, AND THE CAUSE. IF AN INJURY, STATE PART OF BODY INJURED.

14. NAME, ADDRESS AND PHONE NUMBER OF WITNESS(ES)

15. WAS PATIENT INVOLVED SEEN BY A PHYSICIAN AFTER INCIDENT?

   Date

16. TIME SEEN

17. WHERE

18. PHYSICIAN’S NAME

<table>
<thead>
<tr>
<th>19. DATE OF REPORT</th>
<th>20. SIGNATURE &amp; TITLE OF PERSON SUBMITTING REPORT</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
</tr>
</tbody>
</table>

NOT A PART OF THE MEDICAL RECORD

Class of 2013
Clinic Orientation Manual

RISK MANAGEMENT

Sec. 7.18

(Revised 5/11)
# UMKC Report of Employee Injury

**Attention UMKC Risk Management (Fax #235-5576)**

1. Shaded areas should be reported immediately to Risk Management (235-1623)
2. Completed form should be received by Risk Mgmt. within 24 hrs. of injury by Fax or Campus Mail.
3. Form may be completed neatly in pen.

<table>
<thead>
<tr>
<th>Name (Last, First, Middle)</th>
<th>Employee ID #</th>
</tr>
</thead>
<tbody>
<tr>
<td>Home Address</td>
<td>Sex</td>
</tr>
<tr>
<td>Job Title</td>
<td>Home Phone #</td>
</tr>
<tr>
<td>Pay Rate</td>
<td># days worked per week</td>
</tr>
<tr>
<td>Full pay for day of injury?</td>
<td>Did salary continue?</td>
</tr>
<tr>
<td>Date of injury</td>
<td>Time employee began work</td>
</tr>
<tr>
<td>Part(s) of body affected (be specific - left/right, etc.)</td>
<td>Nature or type of injury (be specific)</td>
</tr>
<tr>
<td>Location where accident or illness exposure occurred</td>
<td>List all equipment, materials or chemicals employee was using at time of accident or illness exposure</td>
</tr>
<tr>
<td>Specific activity employee was engaged in when accident or illness exposure occurred</td>
<td>Work process the employee was engaged in when accident or illness exposure occurred</td>
</tr>
<tr>
<td>How did injury or illness occur? Describe the sequence of events and include any objects or substances that directly injured the employee or made the employee ill.</td>
<td>Date employee returned to work</td>
</tr>
<tr>
<td>Were safeguards or safety equipment provided?</td>
<td>Were they used?</td>
</tr>
<tr>
<td>List equipment</td>
<td>Witness(es) - Names &amp; Daytime Phone #</td>
</tr>
</tbody>
</table>

**Check one - Employee:**
- [ ] is requesting medical attention under Workers’ Compensation
- [ ] does not want medical attention at this time
- [ ] wishes to pursue medical attention on their own and at their own expense

---

Supervisor’s signature ___________________________ Date _____________

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**Class of 2013**
**Clinic Orientation Manual**
**RISK MANAGEMENT**
**Sec. 7.19**
**(Revised 5/11)**
UMKC SCHOOL OF DENTISTRY
BLOODBORNE PATHOGEN POLICY

Bloodborne Pathogen Status

It is the responsibility of all health-care workers (HCW) to include faculty, staff and students who perform exposure prone procedures to know their bloodborne pathogen status, specifically human immunodeficiency virus (HIV) and Hepatitis B antigen and hepatitic C antigen.

Reporting Test Results

It is the responsibility of the faculty, staff or student who test positive for a bloodborne pathogen (e.g. HIV, HbV or HCV) to report test results to the Chairman of Infection Control Committee, University of Missouri-Kansas City School of Dentistry. The chairman in turn will report this information to the Dean and refer the HCW to an expert review panel for determination of the circumstances, if any, under which they may continue to perform exposure prone procedures.

Positive Status

The bloodborne pathogen positive HCW will refrain from performing exposure prone procedures until such time as the expert review panel has reached a decision.

Expert Review Panel

The expert review panel will consist of:

a. HCW’s personal physician(s)

b. An infectious disease specialist with expertise in the epidemiology of bloodborne pathogen transmission
c. The chairman of the Infection Control Committee
d. State or local public health official(s)
e. Associate Dean for Clinical Programs, University of Missouri-Kansas City School of Dentistry. Specifically the bloodborne pathogen status of a HCW is confidential information. Precautions will be made to protect the confidentiality of all HCW’s bloodborne pathogen status.

**Review Panel Decisions**

If, in the opinion of the expert review panel, the faculty, staff or student cannot satisfactorily complete the requirements for graduation, or job-related duties, career counseling and job training should be encouraged to promote the continued use of the HCW’s talents, knowledge and skills.

**Future Recommendations**

As changes occur routinely in the science for the diagnosis, treatment and prognosis of bloodborne pathogens, the determination of exposure prone procedures will be determined using the new emerging science. The recommendation defining exposure prone procedures will be determined by the expert review panel for each occurrence for a HCW.
UMKC Student Health and Wellness Service

4825 Troost, Suite 115 — 816-235-6133 — www.umkc.edu/studenthealth

Primary Care

The Student Health and Wellness Service is staffed by nurse practitioners, registered nurses, a part-time pharmacist and front desk staff. Our goal is to help students optimize their health and develop healthy lifestyles.

A nurse practitioner is a nurse with advanced graduate education in the assessment and treatment of acute and chronic illnesses. A nurse practitioner can assess, diagnose and treat acute illnesses and stable chronic illnesses, and can prescribe medication for these illnesses.

When an illness needs further evaluation, the staff will assist the student with an appropriate referral, taking into consideration any existing health insurance.

Appointments

Clinic Hours

M–F 8:30 a.m.–12:30 p.m. and 1:30–4:30 p.m.
Tuesday and Wednesday, extended hours until 6:30 p.m.
Please call for an appointment and current schedule:  816-235-6133, or check website.

Fees

There is no charge for a visit and assessment. Some services or laboratory testing may involve a charge. Prescriptions may be filled at any pharmacy and may be covered by the student’s health insurance if available. The Student Health Pharmacy is open on Tuesdays and Thursdays.

Students who have health insurance through Student Assurance Services (the UMKC student health policy) will maximize their benefits by visiting the Student Health and Wellness Service first.

Student Health and Pharmacy charges can be charged to a student’s UMKC account.

Services

Common complaints that can be assessed and treated include:

- Abdominal discomfort or pain
- Allergies
- Elevated temperature
- Indigestion
- Muscle sprains and strains
- Skin rashes and lesions
• Upper respiratory infections, coughs, colds, sore throats
• Urinary tract infection
• Vaginal discharge

If you are unsure whether a clinic visit is needed, call or e-mail the clinic to discuss your symptoms.

Other Services
• Allergy injections with student-furnished serum (administration fee)
• Blood pressure measurement
• Contraceptive counseling
• First aid (nonemergency)
• Immunizations (cost + administration fee)
• Nebulizer treatment for acute asthma
• Physical examinations
• Pregnancy testing
• STD testing
• TB testing (cost + administration fee)

Onsite Laboratory Tests
Student Health can perform several lab tests on-site, including:
• Blood glucose
• Hemoglobin
• Pregnancy
• Strep throat
• Urinalysis

Wellness Services
The Student Health and Wellness Service is committed to assessing and meeting the health information needs and health concerns of UMKC students in order to prevent illness and promote health.

Disease Prevention Services
• Informational brochures and targeted handouts
• Smoking cessation
• Web site: www.umkc.edu/studenthealth

Health Promotion Services
• Education on health issues
• Health fair booths
• Classroom presentations
• Wellness presentations
• Alcohol awareness activities
EMERGENCY EVACUATION PLAN

Introduction

Should it be necessary to evacuate UMKC School of Dentistry, a safe and orderly evacuation will be assured by following a four-step process:

STEP 1. Warning or Alarm (Notification)

Should a fire occur, the building fire alarm will be sounded to notify all building occupants to initiate evacuation. If an emergency evacuation is necessary for other reasons, the Administration and UMKC Police will use their discretion to determine the best method of notification to initiate a safe and orderly evacuation.

To report any emergency situation, notify UMKC Police at 816-235-1515.

STEP 2. Evacuation

Once an emergency evacuation notice is given, all personnel should evacuate the building in the following manner:

1. Maintain silence. Everyone will be able to hear emergency orders. A calm atmosphere saves lives.
2. Shut down any gas-fired, electrical, or mechanical equipment if possible.
3. Walk to the designated exit. Exits are identified by EXIT signs.
4. Throughout your exit route, beginning with your room or office door, shut every door after you pass through it, especially the stairwell doors.
5. If you are unable to evacuate because of smoke or fire, go to a room with windows to the outside of the building. Shut and seal door behind you with materials to prevent smoke entering the room. Break out a window and hang a sheet, towel, or some object out the window and await rescue.
6. Never use an elevator during an emergency evacuation. Power might be lost for a number of reasons which would trap people in the elevator cars. Persons under I.V. sedation should be removed in wheelchairs available in these areas where such medications are used.
7. The stairwells adjacent to the passenger elevators will be designated for use by emergency personnel. All persons evacuating the school should remain to the right when using these stairs.
STEP 3. Assemble Outside

All groups exiting to the north should assemble in the area south of Children’s Mercy Hospital. Those exiting to the south should assemble in the park across 25th Street. All personnel should assemble in their designated area and remain quiet and orderly.

STEP 4. Evacuation Assessment

The Office of the Dean will appoint the necessary number of personnel monitors for each floor who will:

1. Account for all personnel in that working group, department, or quadrant who were in the building when the evacuation was begun. The evacuation officer should take a list of those personnel to the assembly area and check each person in.

2. Report to UMKC Police as soon as possible anyone who failed to evacuate the building. Include the name of the individual who failed to evacuate, last known location, and any information available as to possible reason they did not evacuate.

3. Inform those in their working group or department when notified by UMKC Police that you may either return to the building or go home.
FIRST FLOOR — EVACUATION ROUTES
THIRD FLOOR EVACUATION ROUTES

[Diagram of third floor evacuation routes with labels for fire extinguisher, fire alarm pull station, and storm shelter.]
FOURTH AND FIFTH FLOOR EVACUATION ROUTES
SECURITY PROCEDURES

Introduction
Due to the ever increasing need to protect students, staff, and faculty and to prevent loss of property from these people and from the University, the following policies were implemented. These procedures were developed in concert with University security.

1st & 2nd Floor Access
The entrance doors on the first and second floors will be open from 7:00 a.m. until 5:00 p.m. Monday through Friday.

Evening & Weekend Access — Card System
For entrance to the School of Dentistry after 5:00 p.m. and on weekends, a card access system has been installed. In order to use the system, you will need a UMKC Identification Card that has been validated by the UMKC Police Department. The card access system is located at the east entrance on the first floor and at the east entrance on the second floor. The system is computer controlled and will record who enters, the date, and time of entry. The system is only activated during times when the building is normally locked; you don’t need to use it when the building is open. Entry can be gained up to 11:00 p.m. through the week and up to 10:00 p.m. on weekends. No one is to remain in the building after these hours unless written approval has been granted by the Business Office.

Library Hours
Students must be out of the building within 30 minutes after the library closes unless working in the laboratories. Library hours are as follows:

- 7:30 a.m.–9:00 p.m. Monday–Thursday
- 7:30 a.m.–6:00 p.m. Friday
- noon–5:00 p.m. Saturday
- noon–5:00 p.m. Sunday

Lab Hours
The laboratories will be open for student use until 11:00 p.m. weekdays, 10:00 a.m. to 10:00 p.m. on Saturdays and Sundays.

Sunday Access
On Sundays, the only part of the building accessible to students will be the Library and laboratories unless special authorization is received from the Business Office in advance.

Visitors
All other visitors, except students, their immediate families,
staff, or faculty, desiring entry to the building after 5:00 P.M. weekdays and on weekends must have a security pass from the Business Office.

**Subject to Search**

When exiting the building, all briefcases, packages, or parcels may be subject to inspection by the Police Officer or Security Guard.

**Gold**

Students should be extremely cautious when handling and storing gold. Students are responsible for the value of gold in their possession.

**Signature Required**

Certain items require students’ signature to be issued from the dispensaries. Students are responsible for the value of these items until returned.

**Unlocked Carts**

Any students’ cart found unlocked will be taken to Room 168. These carts will be released to the students only when they are accompanied by a faculty member.