The intent of this manual is to provide the University of Minnesota School of Dentistry Students, Faculty, and Staff with a resource regarding clinical policies and procedures. The manual is available to all students, faculty, and staff in electronic format through the School of Dentistry Intranet. Alternate formats are available upon request.
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General Clinic Information

Welcome to the University of Minnesota Dental Clinics! Approximately 450 patients visit the clinics daily. In order to provide the best education opportunities to students and the best dental care to patients, it is important that all individuals involved in the clinics utilize this manual as the resource for policies and protocols.

Clinic Directory

Over 400 faculty and staff are a part of the clinic operations. Some staff members, such as the Patient Care Coordinators, Dental Assistants, Dispensary Staff, Laboratory Technicians, and Treatment Planning Coordinators are individuals students may interact with on a daily basis, while others, such as Health Information Management and Insurance personnel will often work with patients or behind the scenes supporting patients, students, faculty, and other staff.

The following is a list of the clinic areas that students will work in throughout their academic experience:

<table>
<thead>
<tr>
<th>CLINIC</th>
<th>LOCATION</th>
<th>PHONE</th>
</tr>
</thead>
<tbody>
<tr>
<td>Admissions</td>
<td>Comprehensive Care Clinics</td>
<td>612-625-2495</td>
</tr>
<tr>
<td>Comprehensive Care</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Silver (Dr. Stefani)</td>
<td>9th floor</td>
<td>612-625-2198</td>
</tr>
<tr>
<td>Purple (Dr. Mills)</td>
<td>9th floor</td>
<td>612-625-5999</td>
</tr>
<tr>
<td>Green (Dr. Nadeau)</td>
<td>9th floor</td>
<td>612-625-8987</td>
</tr>
<tr>
<td>Yellow (Dr. Owen)</td>
<td>9th floor</td>
<td>612-626-4192</td>
</tr>
<tr>
<td>Blue (Dr. Meyer)</td>
<td>8th floor</td>
<td>612-625-0324</td>
</tr>
<tr>
<td>Orange (Dr. Peterson)</td>
<td>8th floor</td>
<td>612-624-4191</td>
</tr>
<tr>
<td>Maroon (Dr. Wittenberg)</td>
<td>8th floor</td>
<td>612-624-2481</td>
</tr>
<tr>
<td>Dental Implants</td>
<td>7th floor</td>
<td>612-625-3649</td>
</tr>
<tr>
<td>Endodontics</td>
<td>8th floor</td>
<td>612-624-2661</td>
</tr>
<tr>
<td>Oral Radiology</td>
<td>7th floor</td>
<td>612-625-5642</td>
</tr>
<tr>
<td>Oral Surgery</td>
<td>7th floor</td>
<td>612-624-8600</td>
</tr>
<tr>
<td>Orthodontics</td>
<td>6th floor</td>
<td>612-625-6444</td>
</tr>
<tr>
<td>Pediatric Dentistry (Undergrad)</td>
<td>6th floor</td>
<td>612-625-7171</td>
</tr>
<tr>
<td>Periodontology (Grad/Undergrad)</td>
<td>7th floor</td>
<td>612-625-6177</td>
</tr>
<tr>
<td>Prosthodontics</td>
<td>9th floor</td>
<td>612-625-5441</td>
</tr>
<tr>
<td>TMD/Orofacial Pain</td>
<td>6th floor</td>
<td>612-626-0140</td>
</tr>
</tbody>
</table>

Here is a link to a more detailed directory of School of Dentistry Clinics and Departments.
Clinic Hours

The U of M Dental Clinic schedules provide patients with a variety of appointment options. Students must check their clinic schedules to be certain that they will be available when discussing appointment options with patients. State law prohibits students treating patients without a faculty member being in attendance; this applies to before, during, or after the clinic session. The Comprehensive Dental Clinics, including Undergraduate Endodontics and Undergraduate Periodontics, operate on the following schedule during the academic year:

<table>
<thead>
<tr>
<th>A.M.</th>
<th>P.M.</th>
</tr>
</thead>
<tbody>
<tr>
<td>9:00</td>
<td>Students and Faculty in Clinic</td>
</tr>
<tr>
<td>9:15</td>
<td>Patients Seated</td>
</tr>
<tr>
<td>12:00</td>
<td>Patient Dismissal</td>
</tr>
</tbody>
</table>

**Dental Hygiene Clinic Hours**

**Double Clinics 1 day semester five, all clinic sessions semester six according to the following schedule:**

<table>
<thead>
<tr>
<th>A.M.</th>
<th>P.M.</th>
</tr>
</thead>
<tbody>
<tr>
<td>8:00</td>
<td>Students and Faculty in Clinic</td>
</tr>
<tr>
<td>8:15</td>
<td>Obtain x-ray prescriptions for patients 1 &amp; 2</td>
</tr>
<tr>
<td>9:30 – 10:00</td>
<td>Final Evaluation patient #1</td>
</tr>
<tr>
<td>10:15</td>
<td>Patient #2 Seated</td>
</tr>
<tr>
<td>11:30 – 12:00</td>
<td>Final Evaluations patient #2</td>
</tr>
</tbody>
</table>

**DDS & DT Clinic Hours**

<table>
<thead>
<tr>
<th>A.M.</th>
<th>Set-Up</th>
<th>Treatment</th>
<th>Clean up</th>
</tr>
</thead>
<tbody>
<tr>
<td>Fourth Year</td>
<td>8:45-9:45</td>
<td>9:00-12:00</td>
<td>12:00-12:15</td>
</tr>
<tr>
<td>Third Year</td>
<td>9:30-9:45</td>
<td>9:45-12:00</td>
<td>12:00-12:15</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>P.M.</th>
</tr>
</thead>
<tbody>
<tr>
<td>Fourth Year</td>
</tr>
<tr>
<td>Third Year</td>
</tr>
</tbody>
</table>

Summer session AM start times depend upon the didactic schedule. Clinic set-up times begin after the end of the didactic session.

Dispensary hours are:

<table>
<thead>
<tr>
<th>North (clean instruments)</th>
<th>South (used instruments)</th>
</tr>
</thead>
<tbody>
<tr>
<td>7:45 am – 12:00 pm</td>
<td>9:00 am – 1:30 pm</td>
</tr>
<tr>
<td>12:15 – 4:30 pm</td>
<td>1:45 – 5:45 pm</td>
</tr>
</tbody>
</table>
Mission of the School of Dentistry

The University of Minnesota School of Dentistry improves oral and craniofacial health by educating clinicians and scientists who translate knowledge and experience into clinical practice. The School is committed to:

- graduating professionals who provide the highest quality care and service to the people of the State of Minnesota and the world
- discovering new knowledge through research, which will inspire innovation in the biomedical, behavioral and clinical sciences; and
- providing oral health care to a diverse patient population in a variety of clinical settings

Patient Brochure

The Patient Brochure has been developed to outline Patient Rights and Responsibilities for individuals interested in becoming a patient at the University of Minnesota School of Dentistry. These individuals will be provided with a copy of the brochure prior to their New Patient (IFC) appointment and will be asked to sign a form stating that they have read the brochure and understand their rights and responsibilities as a patient. Students, faculty, and staff all have been given a copy of the rights and responsibilities. They should be familiar with the material in the brochure and refer to the document for answers to questions.
General Clinic Policies

Medical Emergencies

Basic Life Support Training

Students, staff, and faculty members who attend to patients in the UMN Dental Clinics are required to maintain current Basic Life Support for Healthcare Providers certification. Regularly scheduled trainings for School of Dentistry students, staff, and faculty are provided. All instructors are American Heart Association certified trainers. Students are certified twice: during their first year orientation week and prior to the beginning of their third year. For additional information, contact the Compliance Officer (Room 8-376D).

Medical Emergency Information is posted in every cubicle, by phones, and in other locations throughout the clinics on gold-colored forms.

Medical Emergency Protocol in Dental Clinics (Floors 6-9, 8AM - 4:30PM)

If a dental patient is having signs or symptoms of an actual or impending medical emergency including:

- Shortness of breath
- Seizure
- Blotches on skin
- Diminished consciousness
- Aspiration of foreign body
- Malaise or fatigue
- Wheezing
- Chest pain
- Loss of awareness
- Asthma attack

1. Stay with patient
2. Alert faculty and clinic staff; obtain clinic emergency kit
3. Maintain Continuous assessment: ABCs of BLS, blood pressure, pulse, symptoms
4. Treat urgent situation
5. Discharge patient if non-emergency
6. Escort the patient to Fairview University ER if necessary
7. Document the event in the patient chart
8. Complete an Incident Report Form within 24 hours Return the form to 8-376D Moos Tower.

If an emergency situation worsens and there is need for additional support:

1. Send one person to call 1 2 3 4 5 (Fairview Southdale Operator):
   request one of the following:
   a. CODE BLUE TEAM: No pulse or breathing
   b. DENTAL RESPONSE TEAM: Breathing with pulse, patient not recovering normally

2. Caller must state the following information:
   a. Type of Code
   b. East Bank
   c. School of Dentistry, Moos Tower
   d. Floor of emergency
   e. Department and cubicle
f. Call back number
3. Delegate staff or students to wait at each set of elevators and along the route from the elevators to the cubicle to direct responders. Return to the elevators as responders may arrive individually
4. Student and Faculty must stay with patient until code/response team leave scene.
5. Document the event in the patient chart
6. Document the event by completing an Incident Report form within 24 hours. Return the form to 8-376D Moos Tower.

Universal Treatment of Emergencies
It is important to respond quickly to the symptoms of the emergency using "universal modes of treatment" common to nearly all emergencies.
   a. Place the patient in a supine position with the torso parallel to the floor and feet elevated slightly. EXCEPTION: Respiratory problems and chest pain should be handled in a semi-supine position (20 degrees from horizontal).
   b. Establish and maintain open airway and administer oxygen. EXCEPTION: Hyperventilation
   c. Establish respiration.
   d. Establish pulse.
   e. Check blood pressure.
   f. If medical assistance is required, call 1 2 3 4 5, following protocol listed above.

Medical Emergency Equipment
Emergency materials and equipment for comprehensive care clinics are located throughout the clinics. Refer to this chart to locate the closest kits.

<table>
<thead>
<tr>
<th>Floor</th>
<th>Equipment</th>
<th>Locations</th>
</tr>
</thead>
<tbody>
<tr>
<td>9</td>
<td>North Dispensary</td>
<td>South Dispensary</td>
</tr>
<tr>
<td>8</td>
<td>North Dispensary</td>
<td>South Dispensary</td>
</tr>
<tr>
<td>7</td>
<td>7-458 OMS CSR</td>
<td>Perio CSR</td>
</tr>
<tr>
<td>6</td>
<td>South Peds Clinic</td>
<td>6-348 Ortho</td>
</tr>
<tr>
<td>4</td>
<td>Supply Room</td>
<td></td>
</tr>
</tbody>
</table>

Items available include:
- Oxygen delivery systems (oxygen tank, bag, and mask)
- Portable suction system
- Basic emergency kit containing:
  - Blood pressure cuff and stethoscope
  - Nitrolingual tablets
  - Epinephrine “Bee Sting Kit”
  - CPR Pocket masks
  - Semi-liquid sugar source/glucose
  - Aspirin tablets (325 mg)
  - Benadryl Capsules (25 mg)
  - Albuterol Inhaler
  - Alcohol wipes
  - Sterile 4 x 4s

AED LOCATION: AEDs are located by the south bank long stack of elevators on all floors.

Clinic supervisors are responsible for checking oxygen tanks weekly and emergency supplies every month. Documentation is located in the notebooks attached to the oxygen tanks and emergency kits.
Indoor Directions from Dental School to University of Minnesota Fairview Medical Center, Emergency Room

- Take any elevator to second floor Moos Tower
- Exit to the south and proceed to main concourse into Phillip-Wangensteen Building
- Follow tunnel signs marked “University of Minnesota Medical Center, Fairview” until you reach the glass enclosed ramp (hairpin turn on ramp)
- Proceed upward through the ramp and enter the doorway marked “University of Minnesota Medical Center, Fairview”
- Follow directional signs on walls through the Hospital to the Emergency Room
- Check in at the Information Desk/ER

Protocols for Referring People for Outside Medical Treatment after an Accident
The following information applies to Patients; Dental, Dental Therapy and Dental Hygiene students; Graduate students and residents; Auxiliary education trainees; Faculty and Staff; a chart outlining these protocols can be found at the end of this section.

NEEDLE STICKS AND OTHER EXPOSURE TO BLOOD OR BODY FLUIDS
Between the hours of 8:00 AM and 4:30 PM for injuries involving exposure to blood, the injured person and the source patient should report to Boynton Health Center within two hours of the incident. Alternatively, blood can be drawn for patients only from a Dental School nurse if one is available. Patients may decline treatment. When patients consent to testing, charges will be paid by the U of M Dental Clinics. After 4:30 PM the injured person and source patient must call Boynton Health Service’s 24-Hour Triage Nurse at (612) 625-7900 to have the risk assessed and be directed as to where to seek treatment. If assessments indicate a high risk of infectious disease, seek prophylactic medication treatment within two hours of needlestick. The Boynton Heath Services Triage Nurse will suggest a site for initial treatment.

Whatever the risk assessment, every student with a needle stick must complete a follow-up exam at Boynton Health Service within 72 hours of exposure. Prophylactic and follow-up treatments will be covered at Boynton Health Services by student fees. Additional online information can be found at www.ahceducation.umn.edu.
All other injuries are handled as follows:

**PATIENT INJURIES AND MEDICAL EMERGENCIES**
Patients requiring further evaluation and/or treatment are to be escorted to the University of Minnesota Fairview Medical Center, Emergency Room.

When patients are taken to the Emergency Room, the patients will not be billed for accidents arising as a direct result of dental treatment. Inform the Emergency Room admitting personnel that billing should be directed to the Clinical Systems Office, Room 8-434 Moos Tower.

**DENTAL AND DENTAL HYGIENE STUDENTS, DENTAL THERAPY STUDENTS, GRADUATE STUDENTS AND RESIDENTS**
All students must report to Boynton Health Service if medical treatment is required following personal injury. Student charges at Boynton Health Service and related referrals may be covered by health service fees. University policy stipulates that all students carrying more than six (6) credits must pay the health service fee. The health service fee does not cover hospitalization or surgery expenses and Regents policy stipulates that all students must carry supplemental hospitalization coverage. Policy This additional coverage may be purchased from the University; proof of coverage with an employer-based, non-university plan is required by the university through the Student Health Benefit waiver process.

**Students who self-refer to the University Hospital Emergency Room between the hours of 8 AM and 4:30 PM or go to the outpatient clinics in University of MN Health Clinics and Surgery Center will incur expenses for which they, not the University of Minnesota, will be responsible.**

**AUXILIARY EDUCATION TRAINEES**
Dental assistant trainees are referred to Boynton Health Service for emergency medical treatment. Trainees may choose to go to their own medical provider. Payment for Health Service treatment is the responsibility of the student or their training program. The on-site dental assistant coordinator should be informed and accompany the trainee to Boynton Health Service.

**FACULTY AND STAFF**
Faculty and staff may report to Boynton Health Services, their own clinic/doctor, or Health Partners Occupational Clinic in cases of work related injury. If the condition is life threatening, individuals are to go to the Fairview University Hospital Emergency Room.
### University of Minnesota Dental Clinics

Accidental Injuries Requiring Treatment Outside of the UofM Dental Clinics

#### Accidental Injuries (EXCEPT NEEDLESTICKS see below)

<table>
<thead>
<tr>
<th></th>
<th>Between 8-4:30:</th>
<th>After 4:30:</th>
<th>Complete:</th>
<th>Submit Form To:</th>
</tr>
</thead>
<tbody>
<tr>
<td>Patients</td>
<td>UofM Medical Center Fairview</td>
<td>UofM Medical Center Fairview Emergency Room</td>
<td>UofM Dental Clinics Incident Report (SD130)</td>
<td>Associate Compliance Officer 8-376D Moos Tower</td>
</tr>
<tr>
<td>All Students, Predoctoral, Graduate, Resident, Trainees</td>
<td>Boynton Health Service</td>
<td>UofM Medical Center Fairview Emergency Room</td>
<td>UofM Dental Clinics Incident Report (SD130)</td>
<td>Associate Compliance Officer 8-376D Moos Tower</td>
</tr>
<tr>
<td>Faculty and Staff</td>
<td>Boynton Health Service, Employee choice or Occupational Medicine Clinic Health Partners 2220 Riverside Avenue So Minneapolis, MN 55454 952-883-6999</td>
<td>UofM Medical Center Fairview Emergency Room</td>
<td>U of M Employee First Report of Injury (Supervisors report the incident) UofM Dental Clinics Incident Report (SD130)</td>
<td>Supervisor for forwarding to Workman's Compensation Department Associate Compliance Officer, 8-376D Moos Tower</td>
</tr>
</tbody>
</table>

#### NEEDLESTICKS and other Exposures to Blood or Body Fluids

<table>
<thead>
<tr>
<th></th>
<th>Between 8-4:30:</th>
<th>After 4:30:</th>
<th>Complete:</th>
<th>Submit Form To:</th>
</tr>
</thead>
<tbody>
<tr>
<td>Patients,</td>
<td>Boynton Health Service within two hours of the incident On-site Nurse if available</td>
<td>UofM Medical Center Fairview Emergency Room within two hours of the incident</td>
<td>UofM Dental Clinics Incident Report (SD130)</td>
<td>Associate Compliance Officer 8-376D Moos Tower</td>
</tr>
<tr>
<td>Students</td>
<td>Boynton Health Service within two hours of the incident On-site Nurse if available</td>
<td>UofM Medical Center Fairview Emergency Room within two hours of the incident</td>
<td>UofM Dental Clinics Incident Report (SD130)</td>
<td>Associate Compliance Officer 8-376D Moos Tower</td>
</tr>
<tr>
<td>Staff and Faculty</td>
<td>Boynton Health Service within two hours of the incident On-site Nurse if available</td>
<td>UofM Medical Center Fairview Emergency Room within two hours of the incident</td>
<td>U of M Employee Incident Form and First Report of Injury (UM1536) UofM Dental Clinics Incident Report (SD130)</td>
<td>Supervisor for forwarding to Workman's Compensation Department Associate Compliance Officer, 8-376D Moos Tower</td>
</tr>
</tbody>
</table>

*Critical Care Injuries are defined as those injuries which prohibit travel and demand immediate active medical attention but are not so severe as requiring 911 service. Examples are chemical burns or eye injuries. Sprains, strains, and contusions are not considered Critical Care Injuries. Incident Report forms are available in the forms cabinets in the Central Clinics. (2019)*
Dental Emergencies

Managing dental emergencies is an important part of any dental practice. Because we have so many patients and multiple programs in the U of M Dental Clinics, how we manage dental emergencies requires knowledge of the patient's status as a U of M Dental Clinics patient. This section describes how patients receive emergency care based on their student assignment, active or inactive status, and even the time of day that they seek care.

MANAGEMENT OF PATIENTS WITH DENTAL EMERGENCIES

Patients with dental emergencies are managed through the Urgent Care Clinic and Comprehensive Care Group Clinics and treated either in these clinics or in specialty clinics, most commonly the Endodontics Clinic or Oral Surgery Clinic, as indicated. During semester breaks and patients of record may be treated in the Urgent Care clinic by volunteer students.

Undergraduate students complete an Emergency Clinic rotation in the Urgent Care Clinic. Students whose schedules are open or who have patient cancellations or failures are expected to be available to provide care to emergency patients.

Emergency patients who are new to the School of Dentistry will be assigned to any Comprehensive Care Group based on availability of students and chairs. Patients of record will be assigned to their group clinic for emergency care. Students should check in with their PCC and Color Group Leader at the beginning of each session if they are open or have a patient cancellation, at which time they will be assigned an emergency patient.

Comprehensive Care Clinic faculty will supervise emergency patient care in the color groups. Group leaders may provide oversight for any emergency patients at their discretion or as circumstances dictate.

*Students must complete a Competency Exam in Management of Dental Emergencies prior to graduation. Oversight for this exam is provided by the by the Comprehensive Care Clinic Group Leader or designated faculty.

FEES

Emergency patients are registered in each color group at the reception window. Patients’ medical history and registration information is currently completed on paper. The medical history is transferred to the electronic health record in the axiUm system where all patient information including digital radiograph taken will be located. A basic evaluation fee is charged to all emergency patients. A fee for service will be charged for care provided. Patients who have unpaid balances from previous visits may be denied further non acute care or may be dismissed from the school.

Patients Assigned to a Particular Student

DENTAL EMERGENCIES

When one of your patients contacts you with an emergency or an immediate need, you should attempt to rearrange your schedule to assist your patient. This may involve shortening a previously arranged appointment with another patient or scheduling your patient during an open appointment time or at the end of the clinic session. Please schedule your patient in your Color group Clinic with your Patient Care Coordinator for evaluation and treatment of the patient’s chief complaint. All students are encouraged to care for their own assigned patient's emergency needs. Patients on outreach or who are otherwise unavailable will be seen by another color group student.

Urgent Care Clinic
During semester breaks all emergency patients will be seen for dental emergencies in the Urgent Care clinic. Phones are answered Monday thru Friday from 8:15-12:00 and from 1:00-4:00. Appointments are scheduled the same day and next day for emergency service and temporary treatment of dental pain. The cost of an Urgent Care appointment is usually between $110 and $250. Payment is due at the time of the visit unless patients have dental insurance. Patients should expect to spend up to 3 ½ hours for the visit. Patients may have to wait to be seen.

**Endodontic Emergencies**

You may refer your patient to the Endo Emergency Clinic (612-624-2661) for treatment of endodontic post-operative pain. Endo Emergency appointments are scheduled on the eighth floor with the Endodontic clinic patient care coordinator. Endo Emergency appointments are scheduled Monday-Friday from 8:30-4:30. Evening/Weekend Endo Emergencies are covered by the resident on call at 651-321-4946 pager or the hospital 612-273-2700.

**Dental Emergencies after Clinic Hours**

If patients call with a dental emergency that requires immediate attention they are asked to contact University Medical Center Fairview at 612-273-3000 and ask for the resident on call. Patients may also contact their local hospital emergency department.

**Finals Week and Semester Breaks**

The Urgent Care Clinic is open during all finals weeks and semester breaks to treat dental emergencies for assigned, unassigned, and new patients with dental emergencies. During these times, student volunteers are staffing the Urgent Care Clinic. Students are not required to be in the clinic during break times. There are, however, various times throughout the year when the clinic is closed. At these times, patients are provided directions for obtaining care when they call the clinic phone lines.

**Emergency Procedures**

**Link to Emergency Plan**

Refer to the Emergency Plan for detailed information and links to important University resources. For more information refer to Campus Safety Information here.

Contact the Compliance Officer for the School of Dentistry at 612-626-7820 to report emergencies.

Emergencies that may require evacuation include:

**Fire Alarms**

Anyone discovering a fire or seeing smoke should take the following actions in the order indicated:

1. Remove or alert anyone in immediate danger.
2. Confine the fire by closing the doors around it.
3. Report the fire by pulling the nearest alarm box. (Located next to all exit doors)

If the alarm is sounded on the clinic floor all students, staff and faculty should move out of the clinic area to an adjacent building or down the closest stairwell. Elevators are not to be used.

4. Have someone meet the fire department at the ground level main entrance.
5. Secure the area by shutting all doors as you leave the area.

Extinguish a fire only if:

- You are familiar with the proper use of a fire extinguisher.
- The fire is small.
- Several people are available to assist.
Severe Weather Warnings
Tornado Warnings and Severe Thunderstorm Warnings may require curtailment of activities. Evacuate all perimeter rooms with windows. Move to inner rooms and/or lower floors of the building. Avoid large areas with poorly supported roofs, glass areas, and temporary buildings. Evacuate the top floor. **CAUTION:** Close doors when leaving rooms. This will limit wind effects if the windows are blown out.

**Chemical Spills**

**Evacuate**
- Leave the spill area, alert others in the area and direct/assist them in leaving the area.
- Without endangering yourself: remove victims to fresh air, remove contaminated clothing and flush contaminated skin and eyes with water for 15 minutes. If anyone has been injured or exposed to toxic chemicals or chemical vapors, call 911 and seek medical attention immediately.

**Confine**
- Close doors and isolate the area. Prevent people from entering spill area.

**Report**
- From a safe place, call the Department of Environmental Health and Safety (EHS) (612) 626-6002 during working hours, 911 after hours (Twin Cities Campus 911 operators will contact on-call EHS personnel).
- Report that “this is an emergency” and give your name, phone and location; location of the spill; the name and amount of material spilled; extent of injuries; and safest route to the spill.
- Stay by that phone, EHS will advise you as soon as possible.
- EHS or the Fire Department will clean up or stabilize spills, which are considered high hazard. In the case of a small spill and low hazard situation, EHS will advise you on what precautions and protective equipment to use.

**Secure**
- Until emergency response personnel arrive: block off the areas leading to the spill, lock doors, post signs and warning tape, and alert others of the spill.
- Post staff by commonly used entrances to the area to direct people to use other routes.

*In case of injury to staff, the supervisor(s) must complete the on-line workers’ compensation reporting forms within 24 hours. A School of Dentistry Incident Report Form should be completed after any incident.*

**Other Threats to Health & Safety may include the following events**
- Bomb Threat
- Fire Safety
- Medical emergencies
- Personal safety
- Severe summer weather
- Shelter information
- Utility outages
- Warning systems/sirens

**UNIVERSITY WARNING SYSTEMS:**
The University has several systems in place to communicate campus-wide emergencies.

1. **Outdoor Warning System - The Siren**
   Alert Signal (often called the "tornado siren"): The alert signal is a five-minute steady tone
sounded over our outdoor siren system. When sirens sound, building occupants should always seek shelter and tune to local weather information on radio, television, or NOAA Weather Radio for more information. Most often used in severe weather, it is not only a tornado alert; this siren simply means that you should turn on your radio or television for information and recommended action. This system is tested on the first Wednesday of every month at 1:00 p.m.

Attack Warning (This is often called the "air raid siren"): The attack warning is a five-minute wavering tone. This signal means that an attack against the country has been detected and that personal protective action should be taken. Turn your radio to an Emergency Alert Station (E.A.S.) for more information.

For more information click here

2. Internal Warning System - Safe-U Alerts

The University of Minnesota uses the Safe-U Alert system to notify students, staff, and faculty of emergency situations on campus including public safety events, chemical spills, and weather emergencies. University-affiliated persons are notified via text, e-mail, or phone and can control how they receive alerts. The alert system is tied to the user’s U of M e-mail address, but the user can add e-mail addresses or phone numbers of parents, spouses, or others to receive Safe-U alerts.

For more information click here

3. Tone Alert Radio

The Tone Alert Radio or "TAR," is a one-way radio receiver. The University of Minnesota Police Department will activate the radio anytime there is urgent information regarding a situation affecting the Twin Cities campus. For example:

1. Severe weather (tornado, thunderstorm) watches or warnings
2. Street/building closures due to fire, gas leak, chemical spill, etc.
3. "All-clear" messages after any of the following

The Tone Alert Radios are located at each 6th, 7th, 8th and 9th floor front desk as well as other locations in the School of Dentistry.

The School of Dentistry’s Health & Safety Office, in conjunction with the University’s Department of Emergency Management, has placed Emergency Tone Alert Radios (TARs) throughout the School. TARs are provided so that emergency information can be communicated throughout the School. IF AN ALERT IS ISSUED, the radio will sound a loud alarm and the police dispatcher will broadcast a verbal message with information and instructions. The TAR has a six-hour battery backup. In cases requiring mass evacuations the radio should be unplugged and taken to the predetermined central meeting locations. Staff can then receive any additional directions issued by the University police.

In the School of Dentistry, there is a minimum of two radios per floor and individuals monitoring the radios will respond to all alerts by notifying colleagues in their respective areas. The Police Department will test the system at 1:05 p.m. on the first Wednesday of each month.

4. TXT-U is the University’s emergency notification text messaging system to provide students, faculty, and staff with critical campus safety information. The University will enroll all students, faculty and staff; all personnel have the option to opt out of using this safety tool.
Emergency Evacuations
Preparedness is necessary to avoid confusion in an emergency. Familiarize yourself with evacuation plans outlined in the Emergency Plan for your work and classroom areas. Examples of emergencies which require evacuation of clinics include fire alarms, storm warnings, chemical spills, and other threats to the health and safety of building occupants.

- You and your patient must leave the area when the alarms sound or you are instructed to leave by faculty or staff
- Use the most direct way to exit Moos Tower without creating crowding
- Elevators must not be used during evacuations.

Floors 4, 6, 7, 8, and 9:
- North Clinics: Exit through the north stairwell to descend, or through the north stairwell to enter the Weaver-Densford building
- Central Clinics: Exit through the east stairwell to descend, or through the north stairwell to enter the Weaver-Densford building
- South Clinics: Exit through the south stairwell to descend, or through the south skyway to enter the Phillips-Wangensteen building
- Reception Areas: Ask occupants of lobby to follow you. Exit through the west stairwell to descend, or through the south skyway to enter the Phillips-Wangensteen building
- Laboratories: Exit through the east stairwell to descend
- Special Considerations: Assist individuals with mobility or other limitations. Connect parents or guardian with minor children, and then exit the area. Note: In situations of imminent danger, minors should be escorted by a School of Dentistry employee or student to a safe place and then reunited with their parents or guardian as soon as possible.

Guidelines for anesthetized dental patients: The decision to not evacuate a patient is the responsibility of the treatment provider and must be based on the safety risk assessment that immediate evacuation would be harmful to the patient, not on convenience.
1. An observer must be assigned to watch the corridor area
2. Stabilize patient as soon as possible
3. Evacuate immediately if:
   . Ordered to by the Fire Department
   . Observer becomes aware of danger, e.g., smoke is seen or smelled

Floors 15, 16, 17, and 18:
- Exit through the west or south stairwells to street level exits, or move laterally into other buildings where or when possible
- The Phillips-Wangensteen building is accessible starting on the 14th floor, at the southwest corner of Moos Tower. Floors 14 to 7 are accessible from Moos Tower.
- The Weaver-Densford building is accessible starting on the 9th floor, at the northeast corner of Moos Tower. Floors 9 to 4 are accessible from Moos Tower.
- Special Consideration: Assist individuals with mobility or other limitations
Mass Emergency Evacuation of Moos Tower - Predetermined Central Meeting Locations:

<table>
<thead>
<tr>
<th>Location #1</th>
<th>Location #2</th>
</tr>
</thead>
<tbody>
<tr>
<td>4th floor</td>
<td>PWB 3rd floor escalator lobby</td>
</tr>
<tr>
<td>6th floor</td>
<td>PWB 2nd floor escalator lobby</td>
</tr>
<tr>
<td>7th floor</td>
<td>PWB 2nd floor escalator lobby</td>
</tr>
<tr>
<td>8th floor</td>
<td>PWB 2nd floor by Freshii</td>
</tr>
<tr>
<td>9th floor</td>
<td>PWB 2nd floor by Freshii</td>
</tr>
<tr>
<td>15th floor</td>
<td>PWB 14th floor elevator lobby</td>
</tr>
<tr>
<td>16th floor</td>
<td>PWB 14th floor elevator lobby</td>
</tr>
<tr>
<td>17th floor</td>
<td>PWB 14th floor elevator lobby</td>
</tr>
<tr>
<td>18th floor</td>
<td>PWB 14th floor elevator lobby</td>
</tr>
</tbody>
</table>

If location #1 is not accessible, please move to location #2.

If neither location is accessible, everyone should meet at the Graduate Hotel on the 2nd floor ballroom.

University Closure Due to Severe Weather or Emergencies

As a general practice, the University of Minnesota does not close unless the health, safety, and security of University personnel and students are seriously brought into question. When this does happen, either because of severe weather conditions or other emergencies, the Executive Vice President and Provost is responsible for initiating closing procedures for the campus.

Official Announcements

If the decision to close the Twin Cities campus is made, University Relations is responsible for notifying the University community and the public. The University attempts to have closure decisions announced before 6:00 AM. All official University announcements will be made exclusively through University Relations and will, to the extent possible, specify the starting and ending times of the closing, and whether the closing includes specific University services, events, and evening or Saturday classes and programs.

The radio is the primary source of information on University closings. The University community is expected to listen to radio announcements for closing information. Calling University offices will not guarantee that the latest or most accurate information is provided to the caller.

University Relations phone: 612-624-6868 will contact the wire services and the following media outlets:

<table>
<thead>
<tr>
<th>Radio K-AM 770</th>
<th>WCCO-AM 830</th>
<th>KFAN-AM 1130</th>
</tr>
</thead>
<tbody>
<tr>
<td>KSTP-AM 1500</td>
<td>WCCO-TV 4</td>
<td>KSTP-TV 5</td>
</tr>
<tr>
<td>WMNN-AM 1330</td>
<td>KARE-TV 11</td>
<td>Minnesota Daily</td>
</tr>
</tbody>
</table>

Information will also be posted on the University home page: [www.umn.edu](http://www.umn.edu)
Quality Improvement/Patient Safety

The University of Minnesota School of Dentistry (UMSOD) Quality Improvement/Patient Safety (QI/PS) policy has been established to monitor and assess the quality and appropriateness of patient care and clinical performance on an ongoing basis. The objectives of the QI/PS program are to:

1. Routinely assure continuous improvement and/or maintenance of the quality of care provided to our patients consistent with recognized professional and scientific guidelines of care and consumer expectations.

2. Educate our students, residents, dental hygienists, and dental assistants in the pursuit of continuous improvement of care and provide experience in quality of care assessment.

3. Encourage interaction regarding QI/PS among students, residents, faculty, and staff.

4. Constantly modify our clinical and administrative delivery systems through assessment of short- and long-term outcomes and periodically to assess the results of such corrective actions.

Specific Components/Tasks of the Program

Quality Improvement monitoring will include evaluation of the following:

1. Appropriateness of care and services provided to our patients including, but not limited to:
   a) Quality of patient access to services at the UMSOD clinics.
   b) Quality and appropriateness of diagnostic and therapeutic procedures and prescription of medications.
   c) Quality of patient/provider communications.
   d) Patient level of satisfaction with our services.
   e) Appropriateness of outcomes of the services provided.
   f) Quality, content, and completeness of patient records.
   g) Performance of administrative and clinical staff.
   h) Utilization and cost analysis of services.
   i) Safety of equipment and the environment.

2. Resources that will be utilized to perform the above evaluation may include, but are not limited to the following:
   a) Documentation monitors
   b) Clinical monitors
   c) Patient surveys
   d) Patient complaints
   e) Incident reports
   f) Safety reports

General Standards of Quality Care
Patient Care Guidelines:

Patients seeking treatment at the University of Minnesota, School of Dentistry will NOT be denied admission to any of its clinics or provisions of care based on race, color, creed, religion, national origin, sex, age, marital status, disability, public assistance status, veteran’s status, or sexual orientation.

Patients will be accepted into the predoctoral clinics for treatment when the patients’ dental needs are within the scope of the SOD’s predoctoral program to assure that the delivery of care is within the appropriate degree of expertise of the SOD students and their supervising clinical faculty. Patients not accepted under these criteria will be informed at the time of their screening examination/consultation and will have it documented as such in the patient’s chart. Patients not appropriate for the predoctoral program may be referred to the SOD specialty clinics or area private dentists.

Patients will be treated with dignity, courtesy and respect at all times.

Patients will be notified of their personal responsibilities and all applicable SOD policies and procedures prior to the initiation of comprehensive elective treatment. Each patient will receive a copy of the Patient’s Rights and Responsibilities, have an opportunity to discuss them or ask questions, and will be provided understandable answers in layperson terms and/or in a common level of communication.

SOD patients (or their parent or legal guardian) will have reasonable and informed participation in decisions concerning their dental health. They will be informed of reasonable treatment alternatives, the benefits and risks inherent there-in, including the risk of no treatment and prognosis in common understandable terms. A summary of the primary and/or alternative treatment plans will be documented in the Patient’s Electronic Health Record (EHR).

Patient care will be provided under the supervision of licensed faculty members.

The SOD will provide emergency dental services for active patients of record during normal clinic hours initially via their assigned provider. After this time and/or when the SOD is normally closed, the patient is instructed to contact the Fairview Hospital Emergency Room where dentists from the school’s General Practice Residency are available to respond to emergency dental needs. If the emergency is life threatening, the patient is instructed to seek care at the nearest hospital emergency room.

Authorized faculty in consultation with the Associate Dean of Clinical Affairs, may elect not to accept patients for treatment or to discontinue the care of patients who request care that is not in accordance with the SOD’s Standards of Care, who are non-compliant, and/or whose behavior poses a threat to the SOD and/or the well-being of a SOD student, faculty or employee.

Patients whose dental treatment is discontinued in accordance with SOD guidelines will be advised of it in writing. The SOD will ensure that the patient’s dental status is stable, will provide emergency service for a period of 30 days and will suggest in writing that the patient seek an alternate provider of dental care for continuance and/or completion of care.

Patients’ Dental Records

1. An Electronic Health Record will be established and maintained for all registered comprehensive care patients that documents all diagnostic and therapeutic actions as well as all communication related to that patient’s care.

2. The SOD Patient Dental Records are confidential documents and must be managed in accordance with state and federal laws.

Management of Medical Emergencies
1. Medical emergencies that occur in the SOD will be brought to the immediate attention of the nearest attending faculty member where that emergency occurs (minor emergencies will be handled by that attending faculty member).

2. The attending faculty member will further evaluate the patient's medical status concerning their Airway, Breathing, and Circulation (ABC's) and determine if additional expertise and/or equipment is required due to a potentially life-threatening medical emergency situation.

3. If additional expertise or equipment is needed, the faculty member will activate the emergency protocol given in the Clinic Manual and posted on all clinic telephones.

**Infection and Biohazard Management/Control**

1. All SOD patients will receive treatment that is in accordance with the policies and procedures delineated in the SOD's Infection and Exposure Control Management Plan. This plan will be in accordance with the current guidelines of the ADA, CDC, OSHA, NIOSH and the laws of the State of Minnesota.

2. Current universal precaution infection control standards will be utilized for all patient treatment rendered in the SOD and affiliated clinics.

3. A documented on-going compliance assessment program will be maintained to assure that the standards for infection and biohazard control are met, that discrepancies are noted, and that mechanisms are in place for timely corrective actions and for systematic follow-up reevaluation.

**Anesthesiology Best Practices**

1. The patient's medical history, current treatment plan, and signed informed consent form will be reviewed and updated as necessary by the student and attending faculty member prior to any administration of anesthesia and/or medication.

2. The type, dosage (cartridges, milliliters, cc's, milligrams etc.), and injection location of local anesthesia will be recorded in the patient's chart.

3. Medications must be justified based upon the patient's current medical condition/needs. They will be prescribed only by a clinical faculty member and legibly documented in the patient's dental record indicating the following: name of medication; dosage of medication; amount/number requested; regimen; and number of refills if any.

**Comprehensive Care Best Practices**

Comprehensive care is defined as an integrated patient centered approach to address the total oral health needs of our patients.

1. Chief complaint is documented.
2. Current medical history is taken.
3. Current exam within the last year includes:
   a. Periodontal findings
   b. The clinical exam form
   c. Hard tissue exam
4. Current radiographs based on risk factors include: FMS less than or equal to 5 years and BWs within one year unless there is a documented refusal.
5. Documented radiographic interpretation is present.
6. Current treatment plan is present.
7. Appropriately sequenced care is documented.
8. Current recall is established and followed.
9. If indicated, patient receives timely referral to a specialist.

**Dental Hygiene Best Practices**

1. Dental hygiene care is evidenced-based.
2. Each patient’s medical/dental history is reviewed and updated at every dental hygiene appointment.
3. A Medical Management Plan is completed to address medical/patient issues affecting dental treatment.
4. The dental hygiene care plan is patient-centered and based upon the medical/dental history, recognized assessment (diagnostic) information that includes vital signs, extra/intra-oral examination, gingival observations, hard tissue examination, periodontal examination, current radiographs and dental examination by the attending dentist.
5. The dental hygiene care plan for periodontal therapy is patient-centered and based on an assessment of risk factors and present disease as determined by gingival observations, periodontal probing measurements, attachment level measurements, mobility, furcations, mucogingival involvement, occlusion and restorations in need of margination.
6. The dental hygiene care plan for caries prevention and control is patient-centered and based on an assessment of risk factors and present disease as determined by the patient’s restorative treatment plan, findings from the attending dentist’s hard tissue examination and clinical findings recorded by the student hygienist.
7. A recall interval appropriate for the degree of caries risk and extent of periodontal disease is documented.
8. An attending dentist will authorize all non-routine dental hygiene care.
9. Radiographic frequency and type is based on risk and authorized by an attending dentist. A dental examination is performed by an attending dentist when radiographs are exposed and as needed. Exposed radiographs will meet the standards of quality set by the School of Dentistry.
10. The dental hygiene care plan documents the informed consent of the patient. The dental hygiene care plan is integrated into the patient’s written progress notes to include treatment risks, benefits, alternatives, and goals.
11. Dental hygiene treatment outcomes for periodontal therapy will be determined through evaluation of those factors listed in #5 of this document and/or change in periodontal classification. A documented consultation with an attending dentist will confirm treatment success and/or need for additional therapy options or referral.
12. Dental hygiene treatment outcomes for caries preventive therapy will be determined through evaluation of those factors listed in #6 of this document and/or change in caries classification. A documented consultation with an attending dentist will confirm treatment success and/or need for additional therapy.
13. The self-care discussion is documented in the patient’s record.
14. Documentation is thorough and has been approved by faculty.

**Dental Therapy Best Practices**

1. Patient’s health history is reviewed and up to date.
2. OHIP data is completed.
3. Vital signs are reviewed and updated appropriately.
4. Caries risk assessment is completed.
5. Radiographs are appropriately up to date and of diagnostic quality.
6. Treatment plan is reviewed and signed by all parties before the treatment plan is initiated.
7. Necessary referrals are made appropriately and timely.
8. Documentation is thorough and has been approved by faculty.

**Endodontic Best Practices**

1. Endodontic treatment was based on documented diagnostic criteria.
2. A dental dam was used during the Endodontic procedure.
3. Endodontic treatment plans were completed within 3 clinical appointments.
4. Patient was informed of potential need for future endodontic treatment.
5. Patient signed refusal of treatment form.
6. Care related to re-treatment has been documented or provided.
7. Recall Appointments are documented.

**Operative Best Practices**

1. **Restoration Quality** Restorations placed in clinic which fall under the egis of Operative Dentistry will adhere to the high quality standards taught in the preclinical courses.
2. **Caries Control** – Caries active patients will have appropriate caries control strategies employed including appropriate recall examinations to verify the success of control efforts.
3. **Timely Care** - Comprehensive treatment plans will be commenced within a reasonable period of time and will be completed in a timely manner.
4. Active disease of hard and soft tissue will be controlled prior to initiating definitive restorative care.
5. Incipient caries lesions will be treated non-surgically.
6. Early cavitated primary caries will be treated, where possible, with lesion-specific restorations (minimally invasive restoration design)—isolation or access issues may make choice of bonded restorations inappropriate.
7. Existing restorations will be replaced only when considered clinically unacceptable. Restorations that deviate from ideal but are otherwise serviceable will not be replaced.
8. Restorations will be placed in a manner that protects periodontal and pulpal health.
9. All treatment will be provided utilizing appropriate infection control protocols.
10. Adequate isolation will be maintained during restorative treatment.
11. Soft tissues will be protected and controlled during restorative treatment.
12. Effective anesthesia will be employed when indicated.
13. Restorations will be completed as efficiently as possible (i.e., with as few appointment hours as possible).

**Oral Diagnosis/Oral Medicine/Oral Radiology**

1. Radiographic order is signed by DDS.
2. Reason for radiographic order is listed.
3. Radiographic exam of highest diagnostic yield is selected.
4. FMX series is technically diagnostic.
5. Documentation is required for more than three retakes.
6. Image artifacts were present.
7. Radiographic interpretation is written in 0-30 days.
8. Radiographic interpretation is written in 31-60 days.
9. Radiographic interpretation is written in 60+ days.
10. Radiographic interpretation is countersigned by DDS.

**Oral Maxillofacial Surgery Best Practices**

1. Patients had informed consent obtained and documented prior to surgical procedure.
2. Patients had documentation of drugs/meds used during procedure.
3. Patients had documentation of drugs/meds prescribed or recommended after procedure.
4. Patients had biopsy results requested, evaluated, and annotated in treatment record.
5. At post-surgery visits patients had documented state of healing and treatment rendered in sufficient detail.
6. Patients were free from post-op complications.
7. Wrongful extractions are documented.
8. Post-op hospital admissions are documented.
9. Damage to adjacent tooth/teeth is documented.
Orthodontic Best Practices

1. All comprehensive orthodontic patients will have a comprehensive examination and appropriate diagnostics records as suggested by the American Association of Orthodontists Clinical Practice Guidelines for Orthodontics and Dentofacial Orthopedics. This provides a baseline for diagnostic assessment and for documentation of growth and treatment changes.
2. All comprehensive orthodontic patients will have a documented problem list including dental, facial, skeletal, functional, and/or psychosocial problems, and a faculty-approved treatment plan designed to best address these problems.
3. All comprehensive care patients will be seen on a regular basis throughout active treatment in order to facilitate efficient completion of care.
4. All comprehensive care patients will undergo a formal evaluation of treatment progress in mid-treatment and receive appropriate adjustments to the treatment plan if needed.
5. The decision to conclude treatment will be approved by the appropriate faculty and communicated to the patient/family.
6. All comprehensive orthodontic patients will have post-treatment records as suggested by the Clinical Practice Guidelines for Orthodontics and Dentofacial Orthopedics. This provides a basis to review treatment outcome, inform the patient/family of future treatment needs and to assess any post-treatment change that may occur.

Pediatric Dentistry Best Practices

1. Health history form is complete and up to date including the use of the medical management plan form, necessary alerts, and attachment of physician correspondence when indicated.
2. Radiographs are appropriately ordered, of diagnostic quality, interpreted correctly, and documented appropriately.
3. Assessment of caries risk including adequacy of fluoride sources is appropriately assessed and documented.
4. Recall appointment is done within 6 months, or an attempt to schedule a recall appointment is documented.
5. Examination of developing dentition and occlusion is appropriately documented.
6. Plaque, gingival, and periodontal examination is documented.
7. Oral pathology examination is documented.
8. Child behavior, behavior management techniques used, and patient response to treatment are appropriately documented, including necessary consent forms.
9. Age appropriate and clinically appropriate anticipatory guidance and patient/family counseling is documented.
10. Fluoride varnish is applied or documented as offered at intervals appropriate to the individual’s caries risk.
11. Moderate and high risk patients receive sealants on their permanent first molars within 4 years of eruption.
12. Treatment plan is reviewed and signed by all parties before the treatment plan is initiated.
13. Necessary referrals are made appropriately and timely.

Periodontic Best Practices

1. Adult patients had a periodontal evaluation and charting as part of treatment plan.
2. Patients with probing depth >5mm receive documented treatment prior to prosthodontic treatment.
3. Patients with early onset periodontal disease receive periodontal consult.
4. Comprehensive Care patients have periodontal recall date established, documented, and scheduled.
5. Patients receive initial periodontal therapy as indicated in treatment plan.

Preventive Services Best Practices

1. All comprehensive care patients will have an individualized treatment plan directed towards maintenance of function and prevention of disease.
2. All comprehensive care patients will have preventive services explained in understandable terms and
integrated into their written sequenced treatment plan. These services include, but may not be limited to, the following: plaque control, mechanical debridement, oral health counseling, caries control, appropriate use of fluorides, sealants, diet counseling, and athletic mouth guards.

3. Comprehensive care patients will have an oral prophylaxis and/or recall examination date established at an interval level appropriate for their risk of developing further oral disease

**Prosthodontics Best Practices**

1. Phase 1 (disease control) completion ADA code and periodontal treatment completion code has been approved by comprehensive and periodontal faculty before patient is present for prosthodontic treatment plan appointment.
2. All the prosthodontic procedures planned from the prosthodontic treatment planning appointment have been completed or in the process of completion.
3. One student dentist who initiated the prosthodontic treatment plan has completed all procedures so far.
4. All planned prosthodontic procedures have been completed w/in 1 year of planning appointment.
5. There are no unapproved step codes or progress notes.
6. The time and number of visits for single unit crowns and implants, fixed partial dentures, removable partial dentures, and complete dentures are tracked.
7. Total Adjustments due to inadequate prostheses are tracked.

**Urgent Care Best Practices**

1. The patient's medical history, vital signs and chief complaint will be recorded and reviewed for each new patient.
2. Each patient will receive a diagnosis and appropriate treatment options relative to their chief complaint.
3. Patients will be informed of their next treatment need and given an opportunity to make another appointment at the School of Dentistry.
Standards of Professional Conduct

The University of Minnesota and the School of Dentistry are committed to the highest standards of professional conduct. Therefore, all members of the University community and the School of Dentistry are expected to adhere to the highest ethical standards of professional conduct and integrity. The values we hold among ourselves to be essential to responsible professional behavior include honesty, trustworthiness, respect and fairness in dealing with other people, a sense of responsibility toward others, and loyalty toward the ethical principles espoused by the institution and the School of Dentistry. It is important that these values and the tradition of ethical behavior be consistently demonstrated and carefully maintained.

Members of the University community and the School of Dentistry have the obligation to respect and to be fair to faculty, staff, students, and patients and to foster their intellectual and professional growth and well-being. Members must not engage in, nor permit, harassment and illegal discrimination. Members must not abuse the authority they have been given, and care must be taken to ensure that any personal relationships do not result in situations that might interfere with objective judgment.

Workplace, patient care, and educational experiences must impart ethical standards of professional conduct through example, instruction, and clinical practice. Members of the University community and the School of Dentistry are expected to conscientiously fulfill their obligations in the performance of their duties and as part of the University community.

Respectful Workplace
The School of Dentistry is proud of the respectful environment that we have developed for faculty, staff, students, and patients. We believe that our goal is to maintain an academic, work, and patient care environment that is positive and respectful of others. Respect is provided to every person regardless of gender, race or color, religious or spiritual beliefs or creed, nationality, sexual preferences or affection, disability, credit or financial situation, public assistance, veteran status, or physical condition. We believe in providing a respectful and positive learning and working environment that maximizes the potential of all individuals.

With these values as the foundation for the School of Dentistry, we have established guidelines, based on University policy, for the behavior of our faculty, staff, and students.

We will engage in legal and ethical conduct and will not tolerate offensive behavior. Offensive behavior is defined as action or conduct that has the purpose or effect of unreasonably interfering with an individual's work, academic, or professional performance or creating an intimidating or hostile work environment. Employment and academic experiences will be based on respect and performance.

Explicit or implicit harassment, unwelcome advances, requests for sexual favors, or unwelcome physical conduct of a sexual nature will be promptly addressed. In addition, a hostile workplace, including abusive language, discriminatory or offensive remarks or humor, offensive visual displays, pornography, or aggressive physical contact will be addressed.

Equal Opportunity, Diversity, and Affirmative Action
The University of Minnesota and the School of Dentistry are committed to the policy that all persons shall have equal access to its programs, facilities, and employment without regard to race, color, creed, religion, national origin, sex, age, marital status, disability, public assistance status, veteran status, or sexual orientation. The University and the School of Dentistry shall seek to:

1. Provide equal access to its programs and facilities, including patient care clinics.
2. Advocate and practice affirmative action in employment including the use of recruiting and search processes to enhance participation of racial minorities, women, persons with a disability, and veterans.
3. Establish and nurture an environment that actively acknowledges and values diversity and is free from racism, sexism, and other forms of prejudice, intolerance, or harassment for all faculty, staff and students.
4. Provide equal educational access to members of under-represented groups and develop affirmative action admission programs where appropriate to achieve this goal.
5. The School of Dentistry currently has a Diversity Committee with representation from faculty, staff, and students.

Disability Services
The Board of Regents of the University of Minnesota is committed to provide for the needs of faculty, staff, and enrolled or admitted students with disabilities under the Rehabilitation Act of 1973 and the Americans with Disabilities Act of 1990 (ADA). The School of Dentistry shall make services available for any faculty member, staff, or student who can document a disability. Disability Services, with support from the School of Dentistry, will provide appropriate services, including: (1) support, counseling, and information; (2) communications with medical provider; and (3) assistance with reasonable accommodations.

Drug-Free Workplace
Having a respectful workplace also includes having a workplace where faculty, staff and students can work and learn in a healthy and productive environment. We believe that drug and alcohol abuse affects the health, safety, and well-being of all employees and students and restricts their ability to perform. This is particularly critical for those who work with and practice dentistry with patients. Therefore, the School of Dentistry supports and follows the University of Minnesota's Drug-Free Campus and Workplace policy. This policy prohibits the unlawful possession, use, or distribution of alcohol and illicit drugs by employees and students. Furthermore, it prohibits the unlawful manufacture, distribution, dispensation, possession, or use of controlled substances in the school. For more information on this policy, go to link.

Students Suspected of Chemical Use or Abuse
The University of Minnesota and the School of Dentistry strongly support a Drug Free University. For more information on this policy, see policy.

Within the School of Dentistry, student violations of this policy will be dealt with as follows:

**First Offense:**
- Immediately upon detection or suspicion of impairment, or potential for impairment, the student will be dismissed from class or lab. If a student in the clinic is suspected of impairment or potential for impairment, he or she will be removed from the clinic and any appointed patients for the remainder of the day will be canceled or reassigned.

- Faculty or staff involved in the incident will immediately file a professional behavior report form with the Office of Academic Affairs. This report will be passed on to the Ethics Committee for disposition.
**SUBSEQUENT OFFENSE:**

- Immediately upon detection or suspicion of impairment, or potential for impairment, the student will be dismissed from class, lab, or clinic and a professional behavior report form will be filed with the Office of Academic Affairs.

- The student will be escorted to Boynton for urinalysis/blood test and for assessment for chemical dependency.

- If the student is determined to be chemically dependent, the Policy for Dealing with Student with Chemical Dependency Problems will be enforced. See the [Student Handbook](#).

- If the student is determined not to be chemically dependent, the matter will be referred to the Ethics Committee for disposition.

**Sexual Harassment**

Sexual harassment by or toward faculty, staff, students, patients, or members of the University community is prohibited. Prompt and appropriate action will be taken when sexual harassment is discovered. Persons who suspect sexual harassment should report it to an appropriate authority, such as the Dental School's EEO Officer or Human Resources Department; or the University's EEO Office. A violation of the sexual harassment policy may lead to disciplinary action, up to and including termination of employment or academic dismissal.

**Recourse and Reporting**

It is not necessary for any faculty, staff, or student who feels that he or she is the subject of offensive, harassing or discriminatory behavior to handle the matter alone. We encourage you to directly object to any behavior you believe to be offensive. However, if you feel offended by faculty, staff, your Supervisor, peers, or others whom you encounter in the course of your employment or academic studies and do not feel you are able to deal directly with the problem, go immediately to your supervisor, or, you may report the behavior to the School of Dentistry's Equal Opportunity Officer, Dr. Carol Meyer (626-2332) Human Resources Department (626-4172) or the University of Minnesota's Office of Equal Opportunity and Affirmative Action (624-9547).

All allegations of offensive behavior will be responded to appropriately. The facts shall determine the response to each complaint and each situation will be handled discreetly. Retaliation and intimidation directed toward anyone who makes a complaint is prohibited. This practice applies to each and every full-or part-time faculty, staff and student in the School of Dentistry.

**Student Appearance**

The personal appearance and demeanor of every person affects, either directly or indirectly, the care and management of patients. The image communicated to patients through personal attire and appearance, behaviors, and interactions will influence their perceptions of the quality of care they will receive at the University of Minnesota School of Dentistry and their confidence in the person providing that care. A presentation of professionalism is essential to uphold the standards of excellence set by the University of Minnesota, the School of Dentistry, and the dental profession.

Dentists, in their own practices, will decide for themselves what appearance promotes a demeanor of professionalism. Throughout the School of Dentistry this is best accomplished by a reasonable degree of conformity in attire and grooming.

All faculty, staff and students are responsible for maintaining a clean, neat and well-fitting wardrobe.
The following guidelines apply for all DDS, DT, DH, and students:
Personal hygiene and grooming habits are essential components of professional appearance and presentation.

- **Hair** (including beards and mustaches): should be clean, neatly trimmed, and well maintained. Those who shave must be clean-shaven. Long hair should be pinned or held back so that it does not interfere with the field of vision or require handling during treatment procedures.

- **Makeup and perfume/after-shave**: Strong perfumes and cologne may be offensive to others, therefore avoid excessive use; heavy application of make-up should also be avoided.

- **Personal hygiene**: Body hygiene is required so that offensive body odor is avoided. Fingernails should be trimmed, clean and well groomed.

- **Jewelry**: Rings that may compromise clinical protective barriers should not be worn in clinics. No facial piercing should be evident during the school/clinic day (i.e. no rings or studs may be worn on the face or in the mouth.)

All students will wear the School of Dentistry matching scrub shirt, pants, and/or skirt in the color designated for their program (navy blue for DDS students, burgundy for DH students, black for DT students). Scrub pants and skirts should not touch or drag the ground when standing or seated. Scrubs must be maintained in a clean, neat, and professional manner. Any head coverings such as hijabs, yarmulkes, or face veils must be changed or washed daily. In addition, clean, predominately white, black or color matching shoes (closed toed and fluid resistant) and white socks (crew length or longer) are required. We suggest these shoes be worn only in Moos Tower so they remain clean and professional in their appearance. Skirts must be at or below the knee. Legs must be covered with nude, black or color matching hose, tights or scrub pants. Students may wear white, black or color matching tee shirts underneath their scrub tops if desired. Nametags must be visible.

**Dress Code Violations or Complaints**

It is the duty of the attending faculty member or staff supervisor, either because of personal observation or by report from others, to inform a student in violation of the above guidelines.

The notification process will be conducted in a polite, courteous, professional manner but may include instruction to leave the clinical area until professional appearance is attained.

Repeated violations of the Clinical Dress and Grooming Guidelines by a student will be reported to the Associate Dean, Clinic Administration, and Patient Care office for further action. See policy.

See the Student Handbook for more information.
Student Assignments

General Information

Patients will be assigned to students in accordance with protocols determined by various divisions and Clinical Systems. Included in the assignment process is a review of current patients assigned to student and availability within the student’s schedule to ensure that the patient will be seen in a timely manner. Total experience needed per division will depend upon the quality and overall distribution of patient treatment to which the student has been assigned and which they have completed.

Students should plan their work so that patients are dismissed promptly at the end of a clinic session.

A student’s whereabouts must be known to the School should the latter need to communicate with them. This availability is part of the responsibility of a professional. In the event of illness or emergency, the student is responsible to submit the absence request in myDentApps, to ensure that Faculty, Staff, and their Patient Care Coordinator (PCC) are informed immediately. The PCC will take responsibility for rescheduling, or notifying scheduled patients of the student’s absence.

Each division determines its own policy regarding absences from its clinics. In general, reasons for excused absences include illness, subpoenas, jury duty, military service, recognized religious observances, emergency, bereavement, NBDE Exam (DDS4 only) or official school business. Students must complete a “Planned Absences Request” through myDentApps for all planned absences. The only way that a planned absence will be considered excused is by formally having the absence approved by using the request form. Further information about the “Planned Absences Request” process can be obtained from the Office of Student Affairs (15-106 Moos Tower).

Use of Personal Sessions

Students are given seven days, or fourteen clinic sessions, each academic year. Personal sessions should be used for job interviews, doctor’s appointments, day care changes, personal time, or sick days. Any additional time out of the clinic must be made up in a manner agreed upon between the student and the Group Leader.

Attendance Information – DDS, DT and DH Students

The School of Dentistry has the responsibility of preparing its students both academically and clinically for the practice of dentistry. Successful skill and knowledge-based development requires continuous attendance in all classes and instructional sessions and participation in clinical assignments as designated by curriculum/clinical schedules.

School of Dentistry students are expected to demonstrate professional behavior in keeping with this attendance policy by attending all classes and/or clinics as indicated on their schedules.

Excused Absence Policy
Student absences from class or clinic may be excused for the following reasons:

1. Illness of the student or his or her dependent*
2. Subpoenas
3. Jury duty
4. Military service
5. Recognized religious holidays
6. Family emergency
7. Death in the family
8. Participation in School of Dentistry student groups, as approved by a faculty advisor
9. Official school business

If a student is absent due to circumstances identified above, the instructor may not penalize the student and must provide reasonable and timely accommodations or opportunity to make up exams or other course requirements that have an impact on the course grade (*Regents Policy: Makeup Work for Legitimate Absences*).

Students who plan to be absent due to circumstances identified above must submit a planned absence request, if possible, to the Office of Student Affairs. Students must submit requests and notify instructors as far in advance as possible so that instructors have adequate time to make alternative arrangements.

*In the case of illness, students are required to submit a physician’s note if they are absent on the day of any graded course component to the Student Schedule and Academic Records Manager or through the MyDents App. See here for links and complete policy information. Students must also follow the same day absence notification process for illness. Clinical faculty and administration also reserve the right to request a doctor’s note for any clinical session absence due to illness.

A student with multiple absences due to illness may be scheduled to meet with the Associate Dean for Academic Affairs to discuss the situation, the impact on the student’s education and potential strategies for moving forward to ensure the student’s long-term success.

**Additional Information regarding Clinic Absences**

Students are expected to be in school every day and readily accessible even when a patient is not scheduled as there may be need for them to assist with an emergency in clinic or other patient care.

Students absent from clinic must report all absences, both personal and excused to ensure consistency in patient care.

Personal sessions must be submitted to Clinical Systems (Kathy Hughes) at least two weeks in advance. Requests submitted after two weeks may not be approved.

Excused absences must be submitted to Clinical Systems (Kathy Hughes) at least two weeks in advance whenever possible.

**Students who are in both class and clinic must submit a planned absence request to the Office of Student Affairs and Kathy Hughes for all excused absences. Instructors will not offer make-up work (e.g., exams, quizzes, practicals, etc.) if a student’s absence is not excused.**

**Other Attendance Information**

Records of submitted absence requests will be maintained by the Office of Academic Affairs. This information will be reported to Scholastic Standing Committees as needed.
Scholastic Standing Committees may review multiple absences of any student to determine whether the integrity and continuity of the student’s education has been compromised and make recommendations regarding remediation.

### Comprehensive Care Clinic

Dental students will provide Operative and some Prosthodontic procedures within their group clinic, while Periodontic and Predoctoral Prosthodontic procedures will take place in the 7N and 9N clinics respectively. Dental students are expected to be in the comprehensive care clinic at all times, except when scheduled into a specialty clinic rotation or with appointments in the Endodontic, Periodontic, and advanced Restorative clinics. Dental students are expected to complete all necessary treatment on each patient assigned for comprehensive dental care. In the event that graduation or student needs cause the treatment to be interrupted, the Group Leader is responsible to oversee the transfer of the patient to another student in their group to complete the treatment (see Patient Management, Section G for details of transfers).

### Specialty Clinic Rotations

Rotations to specialty clinics are assigned to students throughout the entire clinical experience. Students are to report to rotation clinics when scheduled. No patients are to be scheduled by students for treatment in any other clinic during these assignments. In order to maintain the proper functioning of the specialty clinics, all students must report to their assignments.

Dental Therapy students rotate through Oral Surgery, Pediatric Dentistry, Admissions, Endodontics, Outreach Clinics, as well as the Comprehensive Care Clinics beginning in their fifth semester.

DH students enter into the Comprehensive Care clinics in the second semester of their first year. DH students rotate through Admissions in their third semester.

Fourth year dental students rotate through Admissions, Urgent Care Clinic, Oral Surgery, Pediatric Dentistry, and Outreach. Third year dental students rotate through Admissions, Pediatric Dentistry, Graduate Periodontology Assisting, Endodontic Recall, Undergrad Periodontic Assisting, Oral Surgery Operating, and Oral Surgery Assisting. Second year dental students enter the Comprehensive Care Clinic Spring semester treating Periodontal recall and assisting.

A student who must leave any clinic must notify an instructor in the clinic of their destination and the period of time they plan to be absent. Unannounced departures will be considered patient abandonment.

When a student cannot attend a rotation for reasons other than illness, they must secure an alternate student from their own class to take the assignment. In order for the change to be official, the students must complete a “Clinic Block Schedule Change Request” form and submit to the Coordinator of Scheduling Services (8-274), ensuring that the change is made in the clinic computer system. Some block changes require approval from course Faculty. Switching of assignments among students is strongly discouraged.

### Summer Session for Dental Students

The start of summer session marks the starting point for the next academic year. Therefore, on the first day of classes/clinic for summer, the most senior group of students enters their fourth year. During the summer, the fourth year students will be scheduled into clinic full time and will provide a majority of the treatment in the clinics during the session. The new third year class will also be in clinic during the summer months, however, their schedule allows for clinical experiences only in the afternoons, until the completion of Summer Classes.
Patient Routing Procedures

Patient Admissions

Adult persons (18 years of age or older) wishing to become patients at the UM Dental Clinics make an initial evaluation appointment by calling 612-625-2495 or in person at any of the reception desks on the 8th or 9th floors of Moos Tower.

Patients seeking care at the U of M Dental Clinics are seen in the Comprehensive clinic color groups for the Admissions appointment (previously called Initial Faculty Consultation; IFC). Two dental students from each group, along with a Dental Therapy Student and/or a Dental Hygiene Student (if available) are blocked for the Admissions rotation each morning and afternoon session Monday through Thursdays. Patients check in at the color group they are assigned to.

Translation Services

Foreign language and hearing impaired interpreter services are available.

Referring Friends and Relatives

Students who have a friend or family member they would like to have assigned as one of their patients should schedule a reverse admissions appointment for the individual with their Patient Care Coordinator.

Radiographic Appointments

Most patients have radiographs exposed as part of their Admissions appointment. Appointments may be scheduled at a later date at the discretion of the patient or when radiographs have been requested from an outside dentist.

Students will not be permitted to make an appointment for diagnosis and treatment planning unless the patient has an appropriate set of interpreted radiographs.

Patient Parking

Preferential parking for patients is reserved at the Washington Avenue Parking Ramp, 501 Washington Avenue SE, Minneapolis MN, 55455 across the street from Moos Tower. Patients may enter the ramp by using the center lane and telling the attendant that they are a dental patient. Even if the signs say the ramp is full, patients are to use the center lane and talk with the attendant.

Patients must bring the parking ticket with them to their appointment, as the only way to qualify for reduced rates patients is to request validation of their parking ticket when they check in at any of the clinic reception desks at the end of their appointment.

Handicapped parking space is available immediately next to the elevator on each level of the Washington Avenue ramp. University of Minnesota direction information is available at 612-625-5000.
Patient Management

New Patient Assignment

The student who completes the IFC appointment usually is assigned to the patient. All patients must have a Patient Assignment form completed in Axium and approved by the supervising faculty.

The completed assignment form is forwarded to the Patient Management Office (PMO). If the patient is not assigned to the student, the PMO staff will work to match the patient with a student dentist, considering factors including, but not limited to:

- Student clinical experiences
- Patient’s dental needs
- Student clinical schedules
- Patient’s schedules

The patient is then contacted for further appointments.

Patients assigned to a dental student will commonly be treated by another member of the dental team. Dental therapy students and dental hygiene students participate in the treatment planning of the patient and will perform treatments within their profession’s scope of practice on patients assigned to dental students. Every effort is made to keep patients with the same team members, however, occasionally a patient may be seen by a student not on the team or in a different comprehensive care group. Typically these changes are made for educational reasons or patient related requests. Any change in patient assignment is facilitated by the assigned student’s group leader and coordinated with the PMO via a patient transfer form. If the change involves the patient seeing another provider that is not assigned to them, the assigned student and/or the student’s group leader will inform the patient of the prospective change, why the change is being proposed, and will ask for the patient’s agreement with making the change. Unless the assigned student is unable to provide care for the patient, for example referral to a graduate program because of the complexity of the case, the patient will have the option to refuse the change and have their assigned student continue to provide their treatment.

The Student-Patient Listing (SPL)

Format of SPL (Patient Assignments)
The Student-Patient Listing (SPL) is an Axium list which contains the names, chart numbers, and status of the adult patients you treat during your clinical program.

This listing can be found in each student’s personal planner under the tab heading Active/Inactive.

The following is a brief description of the format of the SPL.

Active Patients: These are patients in current treatment with the assigned student dentist.
In this section can be found the patient's chart number, patient name, date assigned to student, last appointment with assigned student dentist, and the next appointment with the assigned student.

Inactive Patients: These patients are still assigned to the dental student, but are not in current treatment. (With the exception of transferred patients).

The three reasons patients are listed as inactive are:

- **Completed Treatment** - All treatment-planned work has been addressed by the assigned student
- **Dismissed** - Several reasons may determine why a patient is dismissed. The most common reasons include: patient has chosen to discontinue treatment at the school, lack of patient’s interest in scheduling treatment over an extended period of time, a hold has been placed on the patient’s account due to financial reasons or behavior issues.
- **Transferred** - These patients are no longer being treated by the assigned student. The patient’s care is now being provided by another dental student, a resident, or a faculty member.

At the time of a student’s graduation, ALL patients must be listed in the inactive section of the student’s SPL.

The assigned student is responsible for total care of patients appearing in their SPL.

### Changing Information on the SPL

The Student-Patient Listing (SPL) is the document through which the student and the School of Dentistry "communicate" about a patients' ongoing clinical status. If the information of the SPL is inaccurate, it is the student’s responsibility to change it: they are responsible for keeping their SPL current and accurate.

Treatment planning is completed in the AxiUm system. Information is printed for each patient. All students must see a Treatment Planning Coordinator to review the information with the patient and student. Financial responsibility and insurance information will be discussed and patients will sign and approve proposed treatment. Patient Management staff will review patient Treatment and update students’ SPL. This will be done during individual SPL review meetings scheduled with PMO staff. Three review sessions will be blocked into each student’s schedule. This will occur once junior year (fall), and twice senior year (summer and spring). In addition to these scheduled meetings, it is the student’s responsibility to keep PMO staff informed of changes to patient status. This is best accomplished by using AxiUm messenger.

### Avoiding Patient Abandonment

The doctor-patient relationship is the central focus of any dental practice and as a medical professional, you are trusted to make decisions and take actions that benefit your patient's health. This relationship can end for many reasons. Whatever the reason, termination of care can adversely affect the patient. The law protects the patient in this situation, even when the patient terminates the relationship. The doctor-patient relationship simply doesn't end when the patient leaves your office or care. It continues until either party properly ends it. Unless the relationship is legally terminated, the courts may consider it to exist even years after the patient and dentist last communicated.

**LEGAL RESPONSIBILITY**

Our courts hold you responsible for properly ending or handling the patient' termination of the relationship. Once a doctor-patient relationship has been established, the doctor has a legal duty to treat a patient until the relationship is terminated. Some of the typical ways this relationship might end include:

- the patient changes dentists
- the patient moves
• the dentist initiates termination due to the patient's failure to follow treatment failure to pay for services, or failure to show up for appointments

Avoiding the charge of abandonment
How you handle the termination of the relationship will depend upon who initiates termination. Be sure to document any letter and/or any subsequent correspondence or conversations in the patient’s dental record/AxiUm record.

• In order to avoid a charge of patient abandonment the following must be done:
  • Advise the patient of cost and process of obtaining dental record and x-rays
  • Provide a list of unmet dental needs and associated risks
  • Give the patient adequate time to find another dentist before terminating relationship
  • Be able to prove that you have made a "reasonable effort" to get the above information to the patient (certified mail).

Dealing with patient problems
The following is a list of situations that should be discussed with your Group Director and the Patient Management Office Staff.

• Difficulty scheduling patient appointments
• Chronically late patient for scheduled appointments
• Chronic failure to appear for scheduled appointments
• Patient requesting treatment or lack of treatment which falls outside accepted standards of care
• Behavioral problems
• Unable to contact patient or they do not respond to telephone call messages, etc. after they have been treatment planned or treatment has commenced
• Patient who defers treatment more than 4-6 months

For a patient who has not returned for completion of a specific procedure (ex: RCT, cement a crown) use the appropriate letter and address the associated risk using the Unresolved Dental Problem/Associated Potential Risk form.

Protocol for Advisory Letters to Patients

Letters
There are several types of advisory letters for patients, each customized to the particulars of the situation. The letters are available on disk in the Dental Learning Resource Material Center (DLMRC) and must be typed by students in the DLRMC. Two copies of the letter must be prepared, with one copy (the patient’s) on U of M School of Dentistry letterhead. Both copies of the letter must be signed by the student dentist and the group leader. After the letters are signed they are to be brought to the Patient Management Coordinators by the student.

Once the Patient Management Office receives the copies of the letter, the staff will mail the original, scan the second copy in the patient's record and make a notation in the progress notes. Letters are documented in the AxiUm progress notes when letters are sent to the patients.

Documentation needed for dismissal
It is extremely important that all records are properly maintained. When patients are dismissed from our clinical program for whatever reason, it is absolutely necessary that the record be appropriate and properly documented. Important information to record includes:
• All late, failed, and canceled appointments must be listed in the progress notes and signed by students and faculty.
• All canceled/rescheduled appointments done at the initiative of the student dentist must also be recorded.
• It is important to record the incident and give details but do not make any judgments--ex: the patient is psychotic (you are not qualified to make this judgment).
• Document your patient phone calls or any other communication in the patient’s contact note section of AxiUm. For example: called patient and left a message on answering machine (or with friend). This type of documentation is mandatory to prove that we have made a "reasonable" effort to contact the patient, i.e., we have not "abandoned" the patient.

Completing Patient Treatment
As a portion of quality assurance of patient care, when the patient’s final or agreed on treatment plan has been completed, it is the student’s responsibility to:
• Assure the completion of the patient’s care as agreed on.
• Assure the patient’s current condition is updated to account for any changes in the patient’s problems or needs since the original data base collection.
• QA Perio and QA Restorative are completed before beginning prosthodontic treatment.

Document Completion of Patient Treatment
This may be accomplished with any faculty member, most logically the faculty supervising the patient's last procedure or group leader.
• The Quality Assurance – Patient’s Treatment Complete code is entered when all criteria are met - including documenting the Quality Assurance is completed in the AxiUm record.
  o If any item is not "up to date" these changes should be made or accomplished prior to signifying completion.
• If postoperative radiographs are indicated, they may be taken at this time, or the patient may be referred to radiology for a full mouth series. These radiographs will be charged to the patient, in the same manner as for a "recall appointment."
  o Record the taking of all radiographs in the AxiUm progress notes.
• If new problems are identified, update the master Problem List and/or revise the existing uncompleted treatment plan or create a new plan, whichever is most appropriate.
• Once the patient’s accepted treatment plan is complete, have supervising faculty approve all notes for that clinic session.
• Send an AxiUm message to PMO staff to include patient name and chart number indicating the patient’s treatment is complete. At that time the student’s SPL status will be updated.
Patient Records

All people receiving treatment in the UofM Dental Clinics must be registered and a record of their treatment kept on file. Patient records are legal documents which outline the care the patient receives at the UofM Dental Clinics. These records are the sole means the School of Dentistry has for documenting patient treatment. It is essential that these records be available at all times and that no treatment be provided without the patient record.

The School of Dentistry clinics uses axiUm Dental Management Software to maintain electronic health records (EHR) and MiPACS imaging software to store digital radiographs. The students document all patient treatment in the AxiUm chart.

Using the Patient Record

You must make an entry for daily treatment in your patient's AxiUm record. Entries must be completed and signed by your instructor before your instructor leaves the clinic the day of treatment.

A HOLD of any kind (Accounting, etc.) on a dental record requires an approval from the appropriate office placing the hold prior to treating the patient.

Confidentiality of Patient Records

The information included in dental records is protected health information (PHI) and may not be released for use outside of the UofM Dental Clinics without written patient consent except as provided by law.

The dental record is a patient's file containing treatment-related information, and the provider is legally obligated to send copies of the record to whomever the patient desires. A provider’s failure to safeguard or provide copies to the patient may result in legal action against the school or provider. Also, the school or provider may face a breach of confidentiality charge if PHI is disseminated inappropriately or without the patient's consent.

A dental record, or any part of a dental record, cannot be forwarded without the patient's consent. Furthermore, the patient's approval must be expressed in writing with a records-release consent form. This form should specify to whom the record is to be sent. It should also be signed and dated by the patient. Release forms are available from central records. A processing fee will be charged.

It is important for students, faculty, and staff to restrict conversation about a patient's histories except where it is relevant to their care.
HIPAA Standards
University Of Minnesota HIPAA Notice of Privacy Practices
Effective Date: April 14, 2003

The Notice of Privacy Practices can be found here. The notice describes how medical information may be used and disclosed and how to get access to this information. PLEASE REVIEW IT CAREFULLY. If you have any questions about this notice, please contact the Privacy Office at (612) 624-7447.

WHO WILL FOLLOW THIS NOTICE
- The notice applies to all University of Minnesota facilities providing healthcare services.
- Any health care professional authorized to enter information into electronic medical records.
- All health care departments, clinics and units including Boynton Health Services, the Community University Health Care Center (CUHCC), the School of Dentistry, or a student health service.
- Any member of a volunteer group we allow to participate in patient care.
- All University health care employees, staff and other personnel, and students.
- In order to help the University provide quality health care, all of the above entities, sites and locations may share health information with each other for treatment, payment or operations purposes described in this notice.

COMMITMENT REGARDING HEALTH INFORMATION

Health information is personal. The University of Minnesota is committed to protecting health information and complying with all applicable federal and state privacy and confidentiality requirements. Accordingly, the University has developed policies, enhanced the controls over computers and other information systems, and educated the workforce about protecting health information.

The University is required by law to make sure that health information is kept private; to inform faculty, staff, students, and patients of privacy practices; and follow the terms of the notice that is currently in effect.

The University and the School of Dentistry use electronic record systems to improve the quality and safety of the care we provide. Physicians, authorized practitioners, and authorized members of the workforce are given access to these systems so that they can access your information when needed. The University of Minnesota has policies, procedures and technical safeguards in place to protect information from being accessed by anyone other than those authorized.

While the internal information systems are reasonably secure from access by unauthorized parties, e-mail communication between the University of Minnesota and other e-mail service providers is not secure because it is transmitted through public communication lines (the Internet) and can be intercepted or received by an unauthorized person. School of Dentistry providers will not communicate with patients using e-mail or personal cell phones. Patients may receive e-mails through axiUm if they have enrolled in patient access.

HOW WE MAY USE AND DISCLOSE MEDICAL INFORMATION ABOUT YOU

The Notice of Patient Privacy and the patient consent form describe ways that medical information may be used including:

For Treatment. Medical information is used to provide the best medical treatment or services and can be shared with personnel who are involved in taking care of patients. Different units of the University may share medical information if it is in the best interests of the patient. Signed consent is required to disclose information to others outside the University involved a patient’s care. These may include specialists who are consulted, home health agencies or medical equipment suppliers who provide services that are related to care, and physicians on record.

For Payment. We may use and disclose medical information so that treatment and services may be billed and payment may be collected from a responsible party (guarantor) such as Medicare or other governmental
programs, an insurance company, or another third party. Patients are asked for consent to disclose information outside the University as necessary to obtain payment for health care or to obtain prior approval for treatment.

**For Health Care Operations.** These uses and disclosures are necessary to run the health care units of the University and make sure that all of our patients receive quality care through chart reviews and staff performance evaluations. Chart reviews will be used to provide information to doctors, students, and other personnel and trainees for educational and quality improvement purposes. Identifying information will be removed so that others may use chart reviews to study and improve health care and health care delivery.

**Business Associates.** When it is necessary to hire outside parties (business associates) to perform certain health care operations or services, the school has contracts with the business associates. Examples include computer maintenance, consultants, and dental device manufacturers. We require business associates and other University of Minnesota departments to appropriately safeguard your information.

**Appointment Reminders.** We may use and disclose health information to contact patients with appointment reminders.

**Treatment Alternatives.** We may use and disclose health information to inform patients of alternative treatment options.

**Health Related Benefits or Services.** We may use and disclose health information to tell patients about health related benefits or services.

**Fundraising Activities.** We may use certain information to contact patients in an effort to encourage donations for the University. We will only release contact information, such as name, address and phone number and the dates of treatment or services at the University. When, and if, the University of Minnesota or a related foundation contacts patients to encourage a donation, they can choose to opt out of any future contacts. If they do not want the University or foundation to contact them for fundraising efforts, they can contact the Privacy Office at MMC 501, 420 Delaware Street SE, Minneapolis, MN 55455.

**Individuals Involved in Care or Payment for Care.** Unless patients object, we may communicate medical information to a family member or friend who is involved in their medical care or payment for care. If conditions prevent such communications, we will use our professional judgment to determine with whom we should communicate. In addition, in the event of a natural disaster or other disaster, we may disclose information to an entity assisting in a disaster relief effort so that families can be notified.

**Other Care Providers.** With consent, we may disclose medical information to health care professionals who have cared or currently are caring for a patient, such as, a referring hospital and its physicians, rescue squads or a nursing home medical director, for them to use in treating, seeking payment for treatment, and certain health care operations, such as evaluating the quality of their care and the performance of their staff, providing training, and licensing and accreditation reviews.

**Research.** Under certain circumstances, we may use and disclose medical information for research purposes in order to improve patient care. We may retain samples from tissue or blood and other similar fluids normally discarded after a procedure for later use in research projects. All these research projects, however, are subject to review and approval to balance the research needs with patients' need for privacy. Before we use or disclose medical information for research, the project will have been approved and patient consent will be provided if necessary. All the information that identifies patients (such as name, medical record number) will be removed before data can be released. We may use or release data for research with a few identifiers retained—dates of birth, admission and treatment, and general geographical information (not a specific address), without special approval. However, in this case we will have those who receive the data sign an agreement to appropriately protect it.

**As Required By Law.** We will disclose medical information when required to do so by federal, state or local law.

**To Avert a Serious Threat to Health or Safety.** We may use and disclose medical information when necessary to prevent an immediate, serious threat to health and safety of the patient or the public.
disclosure, however, would only be to someone able to help prevent the threat.

Organ and Tissue Donation. If a patient is an organ donor, we may release medical information to organizations that handle organ or tissue procurement or to an organ donation bank, to further organ or tissue donation and transplantation.

Military and Veterans. If a patient is a member of the armed forces, we may release medical information as required by military command authorities. We may also release medical information about foreign military personnel to the appropriate foreign military authority.

Workers’ Compensation. We may release medical information for workers’ compensation or similar programs. These programs provide benefits for work-related injuries or illness.

Public Health Risks. We may disclose medical information for public health activities including the following:

- to prevent or control disease, injury or disability;
- to report births and deaths;
- to report endangering disabilities of drivers and pilots;
- to report abuse or neglect of children and vulnerable adults;
- to report reactions to medications or problems with products;
- to notify people of recalls of products they may be using;
- to notify a person who may have been exposed to a disease or may be at risk for contracting or spreading a disease or condition;
- to notify the appropriate government authority if we believe a patient has been the victim of abuse, neglect or domestic violence. We will only make this disclosure if the patient agrees or when required or authorized by law.

Health Oversight Activities. We may disclose medical information to a health oversight agency for activities authorized by law. These oversight activities include, for example, audits, investigations, inspections, and licensure. These activities are necessary for the government to monitor the health care system, government programs, and compliance with civil rights laws.

Lawsuits and Disputes. If a patient or provider is involved in a lawsuit or a dispute, we may disclose medical information in response to a court or administrative order. We may also disclose medical information in response to a subpoena, discovery request, or other lawful process by someone else involved in the dispute.

Law Enforcement. We may release medical information if asked to do so by a law enforcement official. Examples of where information may be released to a law enforcement official without individual authorization include:

- In response to a court order;
- About certain types of wounds or wounds made by certain weapons;
- For medical examiner investigations;
- In emergency situations;
- For child abuse investigations;
- To identify a deceased person;
- About the victim of a crime if, under certain limited circumstances, we are able to obtain the person’s agreement; and
- About criminal conduct.
Coroners, Medical Examiners and Funeral Directors. We may release medical information to a medical examiner. This may be necessary, for example, to identify a deceased person or determine the cause of death. We may also release medical information about deceased patients to funeral directors as necessary to carry out their duties.

National Security and Intelligence Activities. We may release health information to authorized federal officials for intelligence, counterintelligence, and other national security activities authorized by law so they may provide protection to the President, other authorized persons or foreign heads of state.

Inmates: Health information about inmates of a correctional institution or under the custody of a law enforcement official may be released to the correctional institution or law enforcement official if necessary (1) for the institution to provide health care; (2) to protect the health and safety of others; or (3) for the safety and security of the correctional institution.

Rights Regarding Medical Information

Patients have the following rights regarding medical information:

Right to Inspect and Copy. They have the right to inspect and copy medical and billing records. They may submit request on line here or in person.

Right to Request Amendments. Patients may ask us to amend information if they feel that medical information is incorrect or incomplete. They may request an amendment for as long as the information is kept by or for us. They must provide a reason that supports the request, and we may deny the request if the information:

- Was not created by us,
- Is not part of the medical information kept by or for the University;
- Is not part of the information patients are permitted to inspect and copy; or
- Is accurate and complete.
- If the request is denied, patients have the right to submit a written statement of reasonable length disagreeing with the denial.

Right to an Accounting of Disclosures. Patients have the right to request an "accounting of disclosures." This is a list of disclosures of medical information that were not for treatment, payment or health care operations. The request must state a time period, which may not be longer than six years and may not include dates before April 14, 2003.

Right to Request Restrictions. Patients have the right to request a restriction or limitation on the medical information we use or disclose for treatment, payment or health care operations. They also have the right to request a limit on the medical information we disclose to someone who is involved in their care or the payment for their care.

We are not required to agree to patient request. If we do agree, we will comply with the request unless the information is needed to provide emergency treatment.

Right to Request Alternative Communications. Patients have the right to request the manner in which we communicate with them including the means and location. Patients must inform us if their phone number or address change or if they would like to change the means in which we communicate with them.

Right to a Paper Copy of This Notice. Patients have the right to a paper copy of this notice.

- They may obtain a copy of this notice at our Web site, here.
- You may obtain a copy of the notice by e-mailing the privacy office at privacy@umn.edu to request a copy of the notice.
**Changes to This Notice**
We are required to abide by the terms of the notice currently in effect and will post a copy of the current notice in reception areas of the clinics and on our Web site.

**Complaints**
Patients may file a complaint with the University or with the Secretary of the Department of Health and Human Services if they believe their privacy rights have been violated. To file a complaint, contact the University’s Privacy Office at MMC 501, 420 Delaware Street SE, Minneapolis, MN 55455 or at (612) 624-7447. All complaints must be submitted in writing. Patients may also submit complaints directly to the Department of Health and Human Services — Region V, Office for Civil Rights, U.S. Department of Health and Human Services, 233 N. Michigan Ave., Suite 240, Chicago, IL 60601.

**More Information**
For more information, contact the Privacy Office at (612) 624-7447.

**Training**
As part of the University’s ongoing commitment to comply with the HIPAA Privacy & Security Regulations, every University of Minnesota student, faculty member, researcher, and staff person who may have access to protected health information must complete one or more online courses about privacy and data security.

**Providing Training and Education on Privacy of Health Information**

Members of the University community who are required to complete training will receive an e-mail with specific information regarding the training schedule. Your Privacy Coordinator will be able to assist you through the training process as needed.

**Training Requirements**
- These requirements will depend on your job duties and some of the options include:
  - Introduction to HIPAA Privacy and Security Video
  - Online HIPAA Courses accessible through the portal
  - Safeguarding PHI on Computers
  - Privacy and Confidentiality in Research
  - Privacy and Confidentiality in the Clinical Setting

**How to access training**
All University employees and students can enter training through the "MyU" portal [here](#). Alternative formats for training materials are available. Please contact the Privacy & Security Office at 612-624-7447. Or contact the School of Dentistry Compliance Office at 612-626-7820.

**Technical Requirements**
For Technical Help on Training please call 1-HELP or 612-301-HELP.
Patient Appointments

The patient appointing system, operatory assignments, and appointing limits will be outlined in this section. The procedural steps for reserving space in the U of M Dental Clinics, and the limits for the number of reservations you may have at any one time are also discussed.

The primary objective of the clinical appointing system is to aid you and your patients in making future appointments in the U of M Dental Clinics. The patient appointing system also provides an effective means for allocating space and distributing student, staff, and faculty time.

The clinical appointing system is designed to facilitate the distribution of patient records, the preparation and distribution of instruments to cubicles, documentation of each patient visit, and cumulative information about your clinical activities.

There are a limited number of spaces available in the U of M Dental Clinics. This can create minor competition for chair space. However, if you work within the structure of the clinical appointing system, respecting the restrictions for the number of appointments you can carry, you should not have difficulty completing your required clinical practice. It is important that you strive to make "quality" appointments: this means that ideally you confirm appointments with your patients while they are still in the clinic.

Initial Appointment Following Admissions (IFC) Assignment

All new patients appointed into the Comprehensive Care Clinic will be screened by a student and faculty to determine whether their dental needs are appropriate for a School of Dentistry teaching case. Each patient will have a medical history review, a soft tissue exam, and an appropriate prescription for radiographs that will be entered into the AxiUm EHR/chart by the student. At this time, patients are typically assigned to the dental student completing the exam. Patients are escorted to the Radiology clinic where the prescribed digital radiographs are taken. The student will escort the patient to the reception desk after the exam appointment to process payment for the services rendered. A follow up appointment is typically made, or requested in the scheduling system by the student at this time. Students will complete an assignment form within the EHR for the Patient Management Office to assign the student within the system.

Informed Consent

Prior to providing care to a patient, the patient must sign a statement indicating that they have been informed of the care that will be provided and that they consent to the treatment. Some patients, for various reasons, will not be able to sign or provide their consent themselves. Such situations include patients who are minors and patients who physically cannot sign a document.

Consent to Treat Minors

Minors under age 18 must have consent of a parent or guardian for dental treatment. Consent from one parent is sufficient for services performed at the School of Dentistry.

Emancipated Minors may consent to ANY medical services. Emancipated means:

- Living apart from parents and managing their own financial affairs
- Has been married
Emergency Treatment may be rendered to minors of any age without the consent of a parent or legal guardian when, in the professional’s judgment, the risks to the minor’s life or health is of such a nature that treatment should be given without delay and the requirement of consent would result in delay or denial of treatment.

Information to Parents
The professional may inform the parent or legal guardian of the minor patient of any treatment given or needed where, in the judgment of the professional, failure to inform the parent or guardian would seriously jeopardize the health of the minor patient.

Patient Unable to Sign Consent Form
Adult Patient without a Personal Representative Present
When a patient is unable to sign for treatment consent, write in the chart the reason the patient was unable to sign, and obtain the signature of a witness. (The treating student/dentist may not be the witness.) In addition to their signature, the witness should also print their name.

Adult Patient with a Personal Representative Present
If a personal representative is present, the personal representative should sign for the patient. The personal rep should also print their name and address, and describe their relationship to the patient and why the patient cannot sign.

Scheduling
Initial Appointment for Friends, Relatives, and Patient Referrals
Anyone wishing to schedule an appointment for friends, relatives, and patient referrals should schedule a reverse admissions appointment with any color group Patient Care Coordinator.

Re-Appointments
Each semester, a dental hygiene student will have several re-appointment times in their schedule. These are reserved for patients who need to return for completion of dental hygiene treatment. If the dental hygiene student has not appointed a patient in their reappointment slot one week prior to the appointment date, the reappointment will automatically be taken off the dental hygiene student’s schedule to free the appointment time for other patients.

Initial Appointment with Transferred Patients
When a student has a patient transferred to them, they must review the patient chart, i.e. treatment plan (sequenced), and determine the procedure(s) to be performed at the next appointment. After the review, the student should call to introduce themselves to the patient and discuss with the patient the intended treatment for the next appointment.

After discussing the upcoming appointment, the student should inform the patient that all appointments are made by clinical staff. Students may request the next appointment within the scheduling system or with their color group PCC. Students calling from the school can request the appointment through the scheduling system, or provide the clinic phone number for the patient to schedule at a later date. It is important that students make the call to patients from the school to insure that private information about the student (i.e., home or cell phone numbers) will not inadvertently be provided to patients.
If the student is unable to speak with the patient, but is able to leave a message on an answering machine, a brief message telling the patient who is calling and why should be left. For example, "This is John Smith from the U of M Dental Clinics calling for Mary Adams. I'm your student dentist. Please call me at (PCC phone number) to discuss your next appointment. Thank you." In this situation, the student should message the PCC at their color group desk to schedule the patient's next appointment. It is important to give the appointment information to any of the appointing staff in case your patient calls for an appointment.

If a student who is unable to talk to the patient and unable to leave a message, they must complete the Student/Patient Appointing form and turn the completed form into the assigned PCC for their group.

Students are responsible for reviewing either their scheduling screen in order to know the date and time of the scheduled appointments. Students should also review the screen for blocks. It is important that the student review each of these screens several times a day. Appointments are made in several areas from 8:30 am to 4:30 pm. These screens are the link between the patient's and student's schedule.

**Patient Appointment Following Treatment Sessions**

At the completion of the current appointment, establish the next visit with the patient and faculty and schedule accordingly. Complete and have approved all chart entries, such as but not limited to: the charges for that day’s appointment, progress notes, and medical management forms. If necessary accompany the patient to the reception desk to collect any fees.

**Subsequent Patient Appointments (Patient Not Present)**

If a patient appointment is to be scheduled when the patient is not present, the student dentist will work with the PCC for future appointments.

- Attempt to contact the patient during business hours from one of the cubicles provided for student use. If the patient can make their appointment transfer the call to the front desk. Students may submit an appointment request through AxiUm.
- See the Patient Care Coordinator. It is then processed on a first come, first serve basis. Three attempts, at various times during the day, will be made to reach the patient by phone. If the staff is unable to contact the patient, the attempt to notify your patient will be documented in the patient contact notes in AxiUm.

If the staff is unable to contact the patient within a reasonable time period, the student dentist is contacted for follow-up.

**Cancellations**

**By Patient**

When the patient calls reception staff the appointment will be immediately canceled on the computer. If possible, the patient is reappointed during this conversation. Students are responsible for reviewing their AxiUm scheduling screen for cancellations and messages.

**By Student**

In the event that the student finds out that an appointment needs to be cancelled, either by the patient or the student, the student must report the cancellation to the reception staff. If a student needs to cancel at the last minute, e. g. taken ill, the student will submit a Same Day Absence Request through myDentApps. The PCC will either contact the patient to reappoint, or reschedule with another available student from the same Color Group.

**Same Day**
Any of the staff (front desks) will work with the student to fill a time slot vacant due to a same-day or 24 hour cancellation. If the student knows of a patient who can come in on short notice they can either contact that person or ask a staff member to do so. If the student arranges the appointment they must enter the appointment request in Axium and notify PCC staff as soon as possible.

It is the responsibility of the student to submit a request to have the patient rescheduled when they cancel or fail. Before submitting the request the student must verify that the patient has not already rescheduled their appointment.

**Failures**

If the patient fails, the student must report to their color group for further assignment no later than 30 minutes after the patient’s scheduled appointment. An attempt to reach the patient should be made before that time.

**Miscellaneous Appointment Rules**

No appointments except emergencies will be made by the appointment staff unless the student has provided them with the necessary appointing information.

- Each student dentist will be responsible for:
  - Monitoring the schedule for new appointments and changes.
  - Submitting leave (PERS), request through myDentApps a minimum of 10 days in advance to schedule out of clinic time as allowed.
  - Notifying the proper persons regarding block schedule changes.
  - Documenting each encounter in the patient chart and instructing the patient about payments for services.
Fees, Payments, Insurance

Students are expected to comply with the UM Dental Clinic payment policies and procedures. Students need to assure that patients pay for each service by cash, check, Visa, MasterCard, Discover, American Express, or Care Credit at the time the service is provided. This includes co-payments from insurance or Minnesota Health Care Programs (MHCP). The fee should be explained to the patient and entered on the treatment plan in the electronic health record (EHR).

Down-payments are required for lab related treatment (i.e.: crowns, bridges, partials, dentures) defined by the clinic. Students are expected to see that these down-payments are made prior to beginning treatment. For cases requiring 1/3-1/2 down-payments, students must notify the patient prior to the day the procedure is scheduled to begin. This notification prepares the patient to pay and avoids sending the patient home. There can be no exceptions to down payments.

At diagnosis and treatment planning sessions, students are expected to review the patient's EHR. The Patient Card/Insurance Tab will indicate how the patient should plan to pay for the fees. If information is not in the record, or if the information is not up to date, bring the patient to the front desk area on the 7th, 8th, or 9th floor to update information.

Patients with no insurance information are expected to pay at each appointment for the services. When insurance is listed, confirm the insurance information with your patient. If there are changes or updates to the insurance information, immediately bring the patient to the front desk area on the 7th, 8th or 9th floor to update information. Check with a patient accounting representative to be sure the patient insurance benefits are payable to the school. If not, the patient is expected to pay at each appointment for services. Check with a patient accounting representative for dental procedures requiring prior authorization or services not payable by the Minnesota Health Care program (MHCP/MA).

Patient accounting representatives must review the U of M School of Dentistry Treatment Plan, verify faculty approval, and obtain patient’s electronic signature of acceptance. Treatment plan financial consultation is accomplished when the student accompanies their patient to the accounting office after the treatment plan has been presented to the patient (i.e.: case presentation). It is necessary that the student is present with the patient during the financial consultation, both to answer questions and to provide an opportunity to utilize alternate plans and achieve consensus on a final accepted plan. The electronic Treatment Plan form will be used to document the fees. Down-payments or copayments will be due at each appointment. The treatment plan is used to clearly communicate patient financial responsibility.

The financial consultation must be completed prior to beginning treatment. Failure to complete the financial consultation may result in an electronic hold on the patient's record which will prevent future appointments with this patient.

As a part of the treatment planning/financial consultation, the accounting representative will discuss payment methods, down payment requirements, treatment plan changes, financial holds, and review payment due-dates specific to your patient's treatment. Additionally, the accounting representative will provide assistance with financial forms, including insurance predeterminations, Minnesota Health Care Programs (MHCP) prior authorizations, and demographic and insurance updates.
Payment Methods and Procedures

The patient accounting office needs to approve all fee payment methods. Students that need assistance or have questions are encouraged to stop in at the patient accounting office and discuss the issue with the staff. The various payment methods are described below:

**Cash**
Patients are expected to pay the full fee by cash, check or credit card (Visa, MasterCard, Discover, American Express, or Care Credit) as each service is completed. 1/3-1/2 of the fee on any treatment requiring lab materials must be paid before the treatment begins and the balance is due at completion (i.e.: when the crown is seated or when the denture is delivered). Upon completion of a service, procedures are entered as C (completed) and faculty approval obtained which creates a charge in axiUm. Under no circumstances should students continue to provide care for cash basis patients who have outstanding balances due. Contact the patient accounting office if there are any questions about the status of a patient.

**Dental Insurance**
All patients must provide current insurance information at each appointment. If a patient cannot provide complete insurance information, they will be considered a cash paying patient until such time all information necessary to file claims is provided. For dental insurance plans where the benefits to the patient/guarantor are NOT assigned to the School, the cash payment method applies.

Most commercial insurance plans have a yearly maximum on average of $1,500 to $1,800 per calendar year. In these cases, the cash method of payment will apply for services above the insurance maximum. It is helpful to re-enforce communications to patient when maximum benefits are near or met to avoid non-payment of services.

The insurance unit will submit an insurance claim within 3-4 working days after the completed service is entered into the EHR.

It is important to inform patient accounting staff when patients do not assign insurance benefits to the School because they must pay cash for services. There are several insurance plans for which the benefits must be assigned to the patient. Check with staff in the patient accounting office if you are unsure of the provider status before you begin any work.

Additionally, there are many insurance plans for which the School is not a provider. It is important to check with staff in the patient accounting office prior to beginning any work, if there is a question of the provider status.

A down-payment of 1/3-1/2 of the total fee for lab related procedures is required on insurance accounts. Students are expected to have the patient pay the down-payment prior to treatment. Co-pays are due at the time of service.

Many insurance companies pay approximately 50% for major services (i.e.: crowns, bridges, partials, dentures.) If a patient's insurance company pays 100% for lab related services, an exception may be made to the down-payment requirement. In this situation, the student will need to obtain an approval from the patient accounting office.

**Minnesota Health Care Programs (MHCP/MA)**
Students are responsible for making sure the patient has verified eligibility with front reception staff or patient accounting prior to every appointment. Students need to adhere to the warning notices in axiUm regarding the need for prior authorization on certain procedures. Prior authorization forms are available in the patient accounting offices for all services requiring approval; this is a must before beginning treatment. If a student has any doubts about the patient's eligibility, they should have the patient report to the front reception desk at the beginning of the appointment in order for the staff to verify the patient's eligibility.
It is important to remember that fees for non-covered services must be communicated with the patient. The **patient must sign the Department of Human Services non-covered service agreement form** in the patient accounting office acknowledging the communication.

Additionally, keep in mind that the normal response time for prior authorizations from MHCP is 3-4 weeks. Failure to obtain approval on treatment requiring prior authorization results in non-payment of services to the School.

Treatment plans may be changed to allow patients to pay for their treatment in stages. In a case such as this, the student will need to discuss and finalize the alternative treatment options with the clinic faculty and patient. Once completed, finalize the payment methods with the patient accounting representative.

**Collection of Payment from Patients**

Inform patients when down-payment, co-payments and/or other payments are due and have the patient make payment at any of the reception desks on 6th, 7th, 8th, or 9th floor or at the cashier’s window on the 7th floor. Be sure a copy of the Patient Walk-out Statement is given to the patient for their records. All payments are posted on the patient/guarantor account. Patients paying by Visa, MasterCard, Discover, or American Express will need to provide their credit card at the reception desk. Care Credit payments must be made in person with a patient accounting representative or online.

When a patient is making a down-payment, the student needs to inform the staff that the payment is for a down-payment. When a down-payment is made, all current or previous balances including co-pays on past services must also be paid in full.

**Payment Schedules for Specific Clinics**

The following clinical divisions have fee payment schedules with which students should be familiar.

**Fixed Prosthodontics**

Down payment is due at the time of the preparation and the balance is due upon completion. Procedures involving gold or other lab materials will not be dispensed and/or cases will not be sent to the lab without the down payment having been paid in advance for work which is done by commercial dental labs (or by Dentistry's in-house lab technicians).

**Operative and Endodontics**

Clinical fee is paid at the time of completion of each restoration or service. Gold will not be dispensed for casting without the down payment having been paid in advance.

**Periodontics**

The total treatment fee is due at the time of service. The fee is based on the number of teeth involved and/or quadrant involvement. Check the fee schedule.

**Removable Prosthodontics**

Down payment is due at the time of the preparation or impression and the balance is due upon delivery.

**Patient Fees**

**Reduced Clinic Fees U of MN Dental Clinic Student Discount**

Reduced clinic fees are available for pre-doctoral students, dental hygiene students, dental therapy students, and post-doctoral students in graduate programs. Your immediate family members (spouse, mother, father,
and your children) are eligible for the reduced costs. The reduced clinic fees may also be available for up to two other patients if you are not utilizing the student discount for immediate family members. Contact patient accounting in room 7-200B, 7-200C, 8-218, 9-214, or 9-216 to apply for this discount.

The fee will be one-half the regular cost for all non-laboratory procedures completed in the U of MN Dental Clinics. For procedures involving lab work, the fee is two-thirds of the regular cost. Reduced clinic fee policies do not apply to orthodontic or TMJ treatment, Faculty Practice Clinic, or implant services.

**Patient Fee Schedule**

A complete list of patient fees is found in the Links drop down in axiUm. The U of MN dental fees are subject to change during the year. Students are expected to quote the most recent fee estimate(s) to the patient and/or responsible party upon implementation of the revised fee schedule.

At the time of the treatment plan presentation, it is very important to inform the patient that the fees are an estimate and are subject to change when a new fee schedule is implemented. However, once a treatment plan is established and the patient has gone through the financial consultation, the fees on the treatment plan will be honored for a one year period. It is equally important as services are provided that patients are informed of the cost of each service before the service(s) begins.

Communicate and document treatment plan changes and quote the fee(s) for revised plan. For minor changes (i.e.: number of surfaces on filling, placing composite instead of amalgam), clearly record in the EHR Treatment History notes. If there is a significant change (i.e.: removable partial denture to complete denture), complete new treatment plan and discuss with patient accounting personnel. Be sure to obtain required faculty approval/signatures in either case.

For further information about patient fees, consult the patient accounting office.

**Financial Hardship Policy**

The school does not provide free care and does not have a sliding fee scale; there is no discount due to financial need.

**Financial Policy**

The financial policies for dental and medical charges are:

**Dental**

Dental fees are educationally discounted. Collection of fees on the day services are provided is expected. Payment policies are located in the Patient Information Brochure.

**Medical**

Medical fees are not educationally discounted, including waiving co-pays and deductibles, billing charges “insurance only,” and research participation discounts. Consult the medical compliance office if you have any questions.

Fees, except co-pays are generally not collected on the day services are provided. Policy is to bill patients for balances remaining after insurance payment.

**Billing Patient for Dental Service**

The collection of down payments, co-payments and/or other payments including adjustments need to total the service provided. Every attempt should be made to remind patients payments are due on the day of service. If there is a remaining balance, a billing statement will be mailed to the patient for the difference. Billing statements are not mailed to patients/responsible party when full payment is made on the completed service unless other outstanding services were not paid.
If a patient expresses a problem or concern about a charge or payment on account billing, the student should immediately bring or refer a patient to the patient accounting office. Concerns regarding treatment should be addressed with Clinical Systems, Bonita Falkingham, room 8-434 Moos Tower.

Students need to initiate a charge by entering treatment as complete (C) in the EHR after the following conditions occur:

- When a service is completed and appropriate authorizations are obtained by faculty in the clinic at each appointment.
- When all required information is documented in the EHR Treatment History, including:
  - Date of Service
  - Tooth Number /Quadrant (if applicable)
  - Brief Description of Service
  - ADA Code or U of MN Dental Clinic code if applicable (from Fee Schedule)

### Late Patient Payment

Under no circumstances should a student continue to provide care for a patient who has not paid for the care they received. If a patient is not making the payments agreed upon, contact the patient accounting office (7-200B, 7-200C, 8-218, 9-214, or 9-216) as soon as possible.

A hold will be placed on patient records when an account becomes past due. Students cannot start new treatment until the patient's payments have been brought up to date.

**Additionally, students will not be issued lab materials and/or cases will not be sent to the lab until at least 1/3-1/2 of the fee has been collected and any current or past due balances have been paid.**

### Adjustment to Patient Fees

Complete an Accounts Receivable (A/R) adjustment form for fee adjustments via EPR forms in axiUm. Provide the requested information. Be sure to include a short and concise reason why the adjustment is needed (for accounting and auditing purposes) as well as being sure to obtain an authorized faculty's approval.

**Electronic A/R adjustment requests should be routed to the Adjustment Requests group within 24 hours of the completion of treatment or when an adjustment on services is determined to be necessary. Delays in adjustment can cause incorrect or unnecessary insurance claim submissions and billings to patients.**

Additionally, it is important to minimize missing information and/or questionable reasons why an A/R adjustment is necessary, as the lack of information or solid reason will cause delays in processing. Additional effort and time from you and/or the faculty will be required. Other consequences of delayed adjustments could be patient benefits, fee collections, public relations and other account problems and issues. It is important to process A/R adjustment forms quickly. Patient insurance benefits can be delayed and patient complaints or concerns may be received.
Medical-Related Documentation and Billing Policies

Medical Billing Compliance Webpage
The Medical Billing Compliance Office webpage is a reference tool for faculty, staff and residents to view the education, training, policy documents and requirements used in medical compliance initiatives.

In addition to the following medical compliance policies, you will find information about internal and external compliance resources and compliance office staff contact information:

- Addenda

  Compliance Policies and Guidelines
  Basic Information Elements in Patient Record
  Legibility of Patient Record
  Correction, Addenda, Late Entries in Record
  Use of Documentation Templates
  Timely Documentation
  Referencing other Documentation in the Patient Record
  S.O.A.P. Note Format
  Medical vs. Dental Billing
  Consult vs. Referral Billing
  Documentation for Using Modifier 25
  Evaluation and Management Documentation Guidelines Prescription Drug Management
  Billing Based on Time
  Maxillofacial Prosthetics Billing
  Financial Hardship
  Checking the OIG Website
  Information regarding Fraud and Abuse
  Documentation for Oral Radiology Services
  Teaching Physician Documentation requirements
  Advance Beneficiary Notice Documentation
  Research Related Documentation

Clicking on this link directs you to your X-500 log-in. Once you are logged in your browser will go directly to the Medical Billing Compliance Office webpage. The webpage can also be found by navigating through the intranet on the School of Dentistry website.
Billing Compliance Program
Below is the guiding document, titled "Billing Compliance Program" for School of Dentistry medical billing compliance.

Introduction
The University of Minnesota School of Dentistry (SOD) has established this Billing Compliance Program (the “Program”) to assure it continues to meet its compliance obligations. This Program will focus on improving compliance-related services and systems, awareness and education, oversight, and evaluation of billing practices and procedures. In adopting the Program, Clinical Systems affirms an ongoing commitment to identify to its employees areas of activity where standards of conduct are essential and conforming behavior expected.

General Policy Statement
The SOD is committed to operating in accordance with the highest level of professional, academic, and business ethics in compliance with applicable laws and University policies. This commitment is advanced and secured through the integrity and ethical actions of our officers, clinicians, students, and employees.

All professional services rendered shall be provided and documented in accordance with federal and state laws, regulations, interpretations, and University policies. It is the policy of the SOD that all clinicians shall comply with the guidelines set forth in the Clinic Manual. In accordance with this Program, SOD policy prohibits the submission of any bill or claim by or on behalf of any faculty or non-faculty member for services that fail to satisfy applicable requirements for payment by government and private payers.

Scope
This Program shall apply to medical billing for clinical activity. Dental billing may be added to the program in the future. The Dean of the University of Minnesota School of Dentistry approves this Compliance Program. It has been developed with the assistance of counsel and the University Institutional Compliance Office.

Goals and Objectives
The goals and objectives of the Program are to:
1. Improve compliance-related services and systems;
2. Identify and respond to compliance risks, including Clinic-specific compliance initiatives, to ensure that practices reflect current requirements;
3. Clarify roles and responsibilities associated with billing compliance;
4. Assure appropriate billing policies and procedures are in place and followed;
5. Assure effective education and training programs are delivered to improve awareness of the required standards for professional medical billing and to ensure staff are updated in a timely manner on any changes in billing standards or policy changes;
6. Improve lines of communication to interested parties on billing compliance issues;
7. Provide a means for faculty, clinicians, students and staff to address questions and receive guidance, as well as a mechanism for individuals to report concerns of alleged non-compliance so that such reports can be investigated;
8. Adequately monitor and oversee billing activities;
9. Take corrective action to address issues of non-compliance with policies and procedures where appropriate; and
10. Continually evaluate the effectiveness of this Program and institute changes as appropriate based upon such evaluation.
Administrative Order of Responsibility

1. **Dean of the School of Dentistry**: The Dean of the School of Dentistry is responsible for the overall maintenance of an atmosphere conducive to ethical conduct and compliance with the Program. The Dean, in consultation with the Chief Financial Officer will have authority for corrective action and the substance of corrective action for non-compliance with the Program.

2. **Chief Financial Officer**: Chief Financial Officer will report to the Dean concerning the operation of the Program.

3. **Director of Patient Accounting** (Robin Solemsaas): The Director of Patient Accounting is responsible for implementation and maintenance of the program. The Director of Patient Accounting shall monitor the performance of the Compliance Coordinators. The Director of Patient Accounting will report to the Chief Financial Officer concerning the operation of the Program.

4. **Compliance Specialist - Education, Documentation, Coding and Q.A. Program Associate (TBD)**: This specialist shall be responsible for documenting compliance efforts, prospective and retrospective chart audits, and education and training. This position will work with Information Systems to ensure accurate billing, and perform other billing compliance duties as assigned by the Director of Patient Accounting. This person shall report to the Director of Patient Accounting on all matters relating to the Program, including recommended Program changes and improvements.

5. **HIPAA Privacy Coordinator** (Catherine Harding-Rose)

6. **Insurance Supervisor** (Gayle Waedekin)

These specialists work closely with the Director of Patient Accounting and Compliance Specialist–Program Associate, to ensure HIPAA privacy and electronic billing standards are followed, assist with claim and information system integrity, and other compliance issues.

Policies and Procedures

**Policy on Billing Responsibility & Record Documentation**

The School of Dentistry abides by all laws, rules, regulations and University policies that apply to billing and record documentation. In selecting codes to describe services rendered, SOD faculty, staff, students and clinicians are to select codes that they believe, in good faith, correspond to services actually rendered, as documented in the patient chart. SOD faculty, staff, clinicians and students have a collective responsibility to be knowledgeable about the meaning of the codes applicable to their area of practice, including relevant directives from billing authorities. The SOD further recognizes the importance of maintaining accurate patient records in accordance with applicable requirements. [Clicking on this link](#) directs you to the Medical Billing Compliance Office webpage.

**Policy on Direct Reports of Alleged Unethical or Illegal Conduct and Corrective Action**

Anyone may report instances of alleged unethical or illegal conduct directly to the Director of Patient Accounting, Associate Dean for Clinical Systems, Dean, or other appropriate SOD or University official, or through the University’s anonymous reporting service. Such reports may be anonymous. No adverse action or any form of retaliation shall be taken against any person who in good faith reports alleged unethical or illegal conduct.

Billing compliance violations shall be reported to and acted upon by the Dean or Dean’s designee. Such designee shall have sufficient authority to deal objectively with the reported matters. The existence and nature of the reporting system shall be communicated to all employees of the SOD. No person may intimidate or impose any form of retribution on any employee who utilizes such reporting system in good faith to report suspected violations (except that appropriate action may be taken against such employee if such individual is one of the wrongdoers).
Any alleged violation of the Code of Conduct that could have a material adverse effect on the SOD or that is otherwise of material importance to the University shall be promptly reported to the Dean’s office.

**Investigation of Violations**

If, through the operation of the SOD’s compliance monitoring and auditing systems or its confidential disclosure program or otherwise, the SOD receives information regarding an alleged violation of the Billing Compliance Program, the Chief Financial Officer, the Director of Patient Accounting, and/or Compliance Specialists (or such other person or persons authorized by the Dean to investigate alleged violations of the Program) shall take prompt corrective action, which may include:

A. evaluate such information as to gravity and credibility;
B. initiate an informal inquiry and/or, as the Chief Financial Officer shall determine is necessary, a formal investigation with respect thereto;
C. prepare a report setting forth the results of such inquiry or investigation, including recommendations as to the disposition of such matter;
D. present the matter to the Dean for imposition of such disciplinary measures as the Dean shall deem necessary and appropriate;
E. if and as appropriate, recommend changes in the Program necessary or desirable to prevent further similar violations.

**Corrective Actions**

A. The SOD shall consistently enforce its Billing Compliance Program through appropriate means of discipline and corrective action. The Dean shall review whether violations of the Program have occurred. If a violation has occurred, the Dean shall determine the disciplinary measures to be taken against any employee, agent or independent contractor of the SOD who has violated the program.
B. Corrective actions, which may be invoked at the discretion of the Dean, may include counseling, oral or written reprimands, warnings, probation, suspension or loss of clinical privileges, demotions, reduction in salary, denial of a salary increase, denial of a bonus, incentive compensation, or merit increase and restitution.

**Jurisdiction of the Dean**

The Dean, together with administrative officers, is responsible to effectuate and maintain an effective Program.

**Billing Policy for Teaching Clinician With Residents**

The School of Dentistry will follow Medicare’s Teaching Clinician Guidelines. Guidelines can be found [here](#) “Guidelines for Teaching Physicians, Interns, and Residents” while hard copies may be obtained from the Privacy Coordinator - Program Associate.

**Policy on Monitoring for Clinician’s Using Medical Procedure Codes**

Under the supervision of the Director of Patient Accounting, a sample of patient records and corresponding bills will be periodically reviewed for compliance with the SOD’s billing policies and with legal requirements. Billed services and medical records from each Clinic submitting medical procedure codes shall be reviewed at least biannually, but the Director of Patient Accounting may require more frequent reviews. The results of such reviews will be reported to the Chief Financial Officer and appropriate Clinic Director and/or provider who was audited. The Compliance Director shall maintain audit records. Dental billing may be added to the Program.
Policy on Revisions to this Program

The Billing Compliance Program is intended to be flexible and readily adaptable to changes in federal and state regulatory requirements. The Program will be regularly reviewed to assess whether it is working. The Program will be modified in response to evidence that indicates a certain approach is not effective or suggests a better alternative. The Chief Financial Officer and Director of Patient Accounting with the approval of the Dean shall have the authority to modify or revise the program.
Infection Control Manual

BLOODBORNE & OTHER PATHOGENS EXPOSURE CONTROL PLAN AND HAZARDOUS MATERIALS MANAGEMENT

March 2019 Revision

Introduction

Infectious diseases have been a concern of dentistry for a long time, but it has only been during the past several decades, with the emergence of the Hepatitis viruses and the Human Immunodeficiency Virus (HIV) that more attention has been turned to dental infection control. Dental practices are concerned with preventing the spread of infectious diseases between patients, from patients to health care providers, and from health care providers to patients. In the School of Dentistry, dental students under the supervision of faculty provide almost all the dental care with the help of qualified staff. Therefore, this Infection Control Manual is written not only to protect the patients from infection during dental treatment but also the students, faculty and staff in an academic setting.

The University of Minnesota School of Dentistry’s Infection Control Manual follows the laws as written by our state and federal government agencies in addition to following the recommendations of various organizations such as state and federal OSHA, the Centers for Disease Control and Prevention, and the American Dental Association. Primarily this guidance follows the regulations found in the Occupational Exposure to Bloodborne Pathogens Standard of 1992 and the 2001 revisions pursuant to the Needlestick Safety and Prevention Act.

In addition, since dental schools do research involving human tissues and fluids, strict infection control regulations again must be followed by law to protect the faculty, students, and staff who are involved in research as well as patient care.

The Purpose of the Bloodborne Pathogens Standard

The Occupational Safety and Health Administration (OSHA) recognized that workers who came into contact with blood and other potentially infectious materials (such as saliva in the case of dental health care providers) were at risk of contracting a variety of infectious diseases. OSHA’s purpose in writing the Bloodborne Pathogens Standard was to minimize or eliminate exposure of health care employees to these bloodborne diseases by a variety of means as enumerated in an Exposure Control Plan which was to be developed by every employer. The exposure control plan is, in essence, an infection control plan. The means by which exposure for these workers is to be minimized or eliminated include the following:

- Identifying those workers who are at risk (Exposure Determination)
• Identifying work practices or engineering controls that minimize or eliminate exposure *(Methods of Compliance)*
• Providing a schedule of training for health care workers to educate and train them *(Awareness)*
• Providing Hepatitis B vaccination for employees *(Prevention)*
• Providing post-exposure evaluation and follow-up as required *(Post-Exposure follow-up)*
• Communicating hazards to employees by labels, signs, and training *(Warning)*
• Keeping medical records and training records for the employees *(Documentation)*

Students, by law, are not considered employees. However, in order to ensure the same high level of protection that the Bloodborne Pathogens Standard provides to our employees as well as students in a health care setting, students will be considered in the same light as employees of the School everywhere in this manual except where specifically noted. Therefore, the Infection Control Manual provisions apply equally to students, faculty and staff. Throughout the Infection Control Manual the term “health care worker” will be used to designate anyone in the School of Dentistry, be it student, faculty or staff, who may have exposure to infectious or contaminated materials.

The Occupational Safety and Health Administration (OSHA) of the Department of Labor has put into law the Occupational Exposure to Bloodborne Pathogens Standard and Needlestick Safety and Prevention Act. This manual is to serve as the annual required review of the Exposure Control Plan and Infection Control Manual for the School of Dentistry. Annual review and updates to the manual occur prior to the start of the new school year and in conjunction with the annual review of the SOD Clinic Manual. The Exposure Control Plan and Infection Control Manual will be modified during the year whenever new or modified procedures affect occupational exposure of the health care worker and if new job titles are created that have occupational exposure.

The Compliance Officer is Ms. Catherine Harding-Rose. Her office is in 8-376D Moos Tower and her phone number is 626-7820. Ms. Harding-Rose reports directly to Dr. Paul Olin, the clinic dean, and works closely with Clinic Administration, Patient Care, faculty, and students. However, successful infection prevention requires a team that works well together. **Faculty in the undergraduate clinics, the pre-clinical areas, and attending faculty in the graduate clinics are responsible for monitoring infection control in their areas.** All faculty, staff, and students are encouraged to monitor their environments and report concerns to ensure a “safety culture” is maintained at the School of Dentistry.

**Glossary**
*(Taken from: CDC. Guidelines For Infection Control In Dental Health-Care Settings, MMWR 52 (RR17):1-66 (2003)).*

**Alcohol-based hand rub**: an alcohol-containing preparation designed for reducing the number of viable microorganisms on the hands.

**Antimicrobial soap**: a detergent containing an antiseptic agent.

**Antiseptic**: a germicide used on skin or living tissue for the purpose of inhibiting or destroying microorganisms (e.g., alcohols, chlorhexidine, chlorine, hexachlorophene, iodine, chloroxylenol [PCMX], and quaternary ammonium compounds).

**Bioburden**: Microbiological load (i.e., number of viable organisms in or on an object or surface) or organic material on a surface or object before decontamination, or sterilization. Also known as *bioload* or *microbial load*.

**Decontamination**: Use of physical or chemical means to remove, inactivate, or destroy pathogens on a surface or item so that they are no longer capable of transmitting infectious particles and the surface or item is rendered safe for handling, use, or disposal.
Dental treatment water: nonsterile water used during dental treatment, including irrigation of nonsurgical operative sites and cooling of high-speed rotary and ultrasonic instruments.

Disinfectant: a chemical agent used on inanimate objects (e.g., floors, walls, or sinks) to destroy virtually all recognized pathogenic microorganisms, but not necessarily all microbial forms (e.g., bacterial endospores). The U.S. Environmental Protection Agency (EPA) groups disinfectants on their basis of whether the product label claims limited, general, or hospital disinfectant capabilities.

Disinfection: destruction of pathogenic and other kinds of microorganisms by physical or chemical means. Disinfection is less lethal than sterilization, because it destroys the majority of recognized pathogenic microorganisms, but not necessarily all microbial forms (e.g., bacterial spores). Disinfection does not ensure the degree of safety associated with sterilization processes.

Droplet nuclei: particles ≤ 5 μm in diameter formed by dehydration of airborne droplets containing microorganisms that can remain suspended in the air for long periods of time.

DHCW: dental health-care worker. Sometimes the term DHCP, dental health-care professional is used.

Germicide: an agent that destroys microorganisms, especially pathogenic organisms. Terms with the same suffix (e.g., virucide, fungicide, bactericide, tuberculocide, and sporicide) indicate agents that destroy the specific microorganism identified by the prefix. Germicides can be used to inactivate microorganisms in or on living tissue (i.e., antiseptics) or on environmental surfaces (i.e., disinfectants).

Hand hygiene: general term that applies to handwashing, antiseptic handwash, antiseptic hand rub, or surgical hand antisepsis.

Intermediate-level disinfection: disinfection process that inactivates vegetative bacteria, the majority of fungi, mycobacteria, and the majority of viruses (particularly enveloped viruses), but not bacterial spores.

Intermediate-level disinfectant: liquid chemical germicide registered with EPA as a hospital disinfectant and with a label claim of potency as tuberculocidal.

Occupational exposure: reasonably anticipated skin, eye, mucous membrane, or parenteral contact with blood or OPIM that can result from the performance of an employee’s duties.

OPIM: other potentially infectious materials. OPIM is an OSHA term that refers to 1) body fluids including semen, vaginal secretions, cerebrospinal fluid, synovial fluid, pleural fluid, pericardial fluid, peritoneal fluid, amniotic fluid, saliva in dental procedures; any bloody fluid visibly contaminated with blood; and all body fluids in situations where differentiating between body fluids is difficult or impossible; 2) any unfixed tissue or organ (other than intact skin) from a human (living or dead); and 3) HIV-containing cell or tissue cultures, organ cultures; HIV- or HBV-containing culture medium or other solutions; and blood, organs, or other tissues from experimental animals infected with HIV or HBV.

Parenteral: means of piercing mucous membranes or skin barrier through such events as needlesticks, human bites, cuts, and abrasions.

Persistent activity: prolonged or extended activity that prevents or inhibits proliferation or survival or microorganisms after application of a product. This activity can be demonstrated by sampling a site minutes or hours after application and demonstrating bacterial antimicrobial effectiveness when compared with a baseline level. Previously, this property was sometimes termed residual activity or substantivity.

PPE (personal protective equipment): specialized clothing or equipment worn by an employee for protection against a hazard. General work clothes not intended to function as protection against a hazard are not considered to be personal protective equipment.

Sterile: free from all living microorganisms; usually described as a probability (e.g., the probability of a surviving
microorganism being 1 in 1 million).

**Sterilization:** use of a physical or chemical procedure to destroy all microorganisms including substantial numbers of resistant bacterial spores.

**Ultrasonic cleaner:** device that removes debris by a process called cavitation, in which waves of acoustic energy are propagated in aqueous solutions to disrupt the bonds that hold particulate matter to surfaces.

**Washer-disinfector:** automatic unit that cleans and thermally disinfects instruments, by using a high-temperature cycle rather than a chemical bath.

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**I. EXPOSURE DETERMINATION**

According to the Bloodborne Pathogens Standard, an exposure determination must be made if any health care worker has occupational exposure: skin, eye, mucous membrane, or parenteral contact with blood or other potentially infectious materials. Other potentially infectious materials (OPIM) are most bodily fluids, including saliva in dental procedures, any bodily fluid that is contaminated with blood or any bodily fluid in situations where it is difficult to determine what the bodily fluid is. For the purposes of the School of Dentistry, since saliva and blood are likely to come into direct or indirect contact with most of the students, faculty, and staff at some time, we will have a large number of individuals who come under the purview of The Bloodborne Pathogens Standard. In addition, research efforts may necessitate the handling of body tissues, body fluids and cultures. Therefore, the majority of our health care workers and research scientists will have occupational exposure.

To determine precisely which of these individuals are at risk, a list of tasks and procedures has been identified which could result in possible occupational exposure at our School. This exposure determination is made without regard to the use of personal protective equipment.

Tasks that could result in **probable** occupational exposure are the following:

- Patient treatment procedures
- Radiographic procedures
- Cleaning, disinfection and sterilization of instruments
- Environmental surface and equipment disinfection
- Dental laboratory procedures
- Handling contaminated laundry
- Handling infectious waste
- Repairing dental equipment
- Handling infectious tissues and body fluids in the research laboratory

**NOTE:** Custodial personnel are not employees of the School of Dentistry and, as such, are not part of our Exposure Determination Plan. However, all UMN custodial personnel working in the School of Dentistry are trained by Facilities Management on proper environmental cleaning procedures and disposal of all types of waste.

Tasks that could result in **possible** occupational exposure are the following:

- Filing and handling dental patient records at the main and auxiliary reception areas
- Filing and handling dental patient records at the specialty clinic reception areas
- Handling patient records in the dental insurance area
- Handling patient records at the data processing areas
- Handling patient records at the Cashiers’ Office
- Handling patient records at the Office of the Associate Dean of Clinic Administration and Patient Care
- Handling prosthetic cases for shipment to outside dental laboratories
Handling patient records in the patient accounting areas

Reflecting the tasks listed above, the job classifications that have probable occupational exposure include the following:
- Clinical Dentists, Dental Therapist, and Dental Hygienist
- Clinical Instructors
- Clinical Staff
- Dental Engineering Services personnel
- Some research scientists & technicians

Reflecting the tasks listed above, the job classifications that have possible occupational exposure include the following:
- Receptionists (Patient Care Coordinators)
- Records clerks
- Data processing personnel
- Patient Accounting & Insurance personnel
- Cashiers

Tasks at our School that have no occupational exposure include the following:
- Routine secretarial work in non-treatment areas
- Dental School student admissions personnel
- Dental School finance personnel
- Dental School student affairs personnel
- Dental School student record keeping
- Dental School fund raising and development
- Handling and maintaining computer & audio-visual equipment

II. METHODS OF COMPLIANCE

A. GENERAL

The Bloodborne Pathogens Standard requires that health care workers practice dentistry using the concept of Universal/Standard Precautions. According to this concept, all human blood and certain other bodily fluids of our patients, including saliva, are treated as if they are infectious of HIV, HBV and other bloodborne pathogens. Remember that if you cannot distinguish between body fluids, you should assume that the fluid in question is infectious. Although a thorough medical history and physical exam is likely to uncover the possibility of an infectious disease in one of your patients, this is not always possible. Therefore, by assuming that all of your patients are infectious, you can proceed with the appropriate controls to protect yourself and others around you.

B. ENGINEERING AND WORK PRACTICE CONTROLS

1. Under the Standard, engineering controls and work practices shall be used to minimize or eliminate exposure of health care workers to infectious diseases. When these controls cannot effectively protect the health care workers, personal protective equipment provided by the School shall be used as well.
   a. Engineering controls are those controls that isolate or remove the bloodborne pathogen from the workplace (e.g. sharps containers, self-sheathing scalpels and needles, foot controls for the faucet).
   b. Work practice controls are controls that reduce the likelihood of exposure by altering the manner in which a task is performed (e.g. prohibiting recapping of needles using a two-handed technique).

2. Engineering controls will be examined, maintained, and replaced on a regular schedule. For example,
sharps containers will be replaced when full. The Compliance Officer is responsible for facilitating the timely removal and replacement of these containers. Facilities management personnel are responsible for transporting secured, full containers for disposal.

3. The employer shall provide hand-washing facilities. In the School there are hand-washing facilities in every cubicle and in other appropriate, convenient locations. These hand-washing facilities include a sink, disposable paper towel dispenser, antimicrobial soap and an appropriate waste disposal container for the used paper towels. Hand washing is one of the most effective ways of controlling the microorganisms on your hands, whether they are resident or transient. OSHA recognizes this fact and, as a result, wrote several provisions of the Bloodborne Pathogens Standard to reflect the significance of hand washing as protection to both the health care worker and patient.

4. Health care workers at the School must wash their hands immediately at the beginning of the day, before they glove, using an antimicrobial soap. Hands must be washed or an alcohol hand rub must be used before regloving. Gloves must be changed between patients, if they become excessively soiled or torn during a procedure, or in the event of any interruption of treatment that results in hands coming into contact with objects other than those being directly used in the treatment of that patient. For example, if an instrument is dropped, the health care worker must pick up the instrument with their gloved hand, place the dirty instrument in the sink, then deglove, wash hands or use an alcohol based rub and reglove before resuming treatment of the patient.

5. Health care workers must wash hands and any other skin with antimicrobial soap or flush mucous membranes with water for 15 minutes immediately after contact with blood or OPIM (e.g. saliva). Such contact could occur if ungloved hands or any other area of unprotected skin comes into direct contact with the patient or if ungloved hands happen to come in contact with an inanimate object that is likely to be contaminated with body fluids from a patient. Contact could also occur if blood or OPIM penetrate or splash beyond personal protection such as gloves, mask, eye protection or clothing.

6. Contaminated needles shall not be bent, recapped or removed unless they need to be recapped for specific medical reasons. In the case of many dental procedures, it is desirable to perform multiple injections during treatment. The needles can be recapped between injections on the same patient if the recapping is accomplished using the one handed “scoop” technique or using a mechanical device. After using the needle for the last time, deposit it with the used anesthetic cartridges in the nearest sharps container.

7. Sharps containers are provided at accessible locations throughout clinical areas and close to the immediate area where sharps are found. Sharps containers will be:
   a. Closable
   b. Puncture resistant
   c. Leak-proof on sides and bottom
   d. Labeled or color coded (red) in accordance with the labeling requirements of the Standard
   e. Maintained upright throughout use

   If you must handle a sharps container, close the container to prevent spillage or protrusion of contents before you handle it or move it. If leakage is possible, place it in a secondary container that is closable, leak-proof and color coded or labeled.

   Any sharps, such as scalpel blades or orthodontic wire, must be deposited in the sharps container after use. Use a mechanical device or hemostat to remove a disposable blade from the handle. Never remove scalpel blades using your fingers.

8. Other regulated waste, such as blood-soaked gauze, will also be placed in appropriate containers. Regulated waste is liquid or semi-liquid blood or OPIM plus the following: contaminated items that would release blood or OPIM in a liquid or semi-liquid state if compressed; items that are caked with dried blood or OPIM and are capable of releasing these materials during handling; contaminated
sharps; and pathological and microbiological wastes containing blood or OPIM. In the clinical area of
the School of Dentistry, waste is classified as:
   a. Biohazardous medical waste (regulated)
   b. Regular or non-biohazardous medical waste
   c. Hazardous chemical waste

Regular non-biohazardous medical waste in the clinics is to be disposed of in the regular waste cans
provided in each cubicle.

Biohazardous waste must be disposed of in red biohazard bags, available in the Dispensary and each
cubicle. Close the red bag securely, place it in a secondary containment tray, and set the tray next to a
trash can. Red bag biohazard waste is picked up daily by the University’s Facilities Management staff
trained in biohazard waste removal.

Amalgam contains small amounts of mercury which is considered Hazardous Waste. All excess
amalgam (i.e. scrap and capsules) from dental procedures will be collected in properly labeled waste
containers. Once a container is full it will be removed by the Compliance Officer and disposed of as
hazardous waste according to University, federal, state, and local regulations.

Extracted teeth must be disposed of as hazardous waste. Amalgam-containing teeth must be separated
from teeth that do not contain amalgam. Teeth may be returned to patients upon request. See
Appendix J for details on disposing teeth.

Suitable containers for hazardous waste are as follows:
   o Closable, Plastic Container
   o Constructed to contain all contents and prevent leakage during handling, storage or transport
   o Labeled as Hazardous Material or Amalgam Scrap.
   o Closed prior to removal to prevent spillage during transport

9. One of the simplest work practices that minimizes or eliminates exposure is to not eat, drink, chew
gum, smoke, apply cosmetics or lip balm, or handle contact lenses in dental treatment areas, dental
laboratory areas or sterilization areas.

   NO EATING OR DRINKING IN ALL CLINICAL AND PRE-CLINICAL AREAS. THIS
   INCLUDES STUDENTS, STAFF, FACULTY, AND PATIENTS.

10. Do not store or keep food or drink in refrigerators, freezers, shelves, cabinets, countertops or bench
tops in clinics, labs, dispensing, or where blood or OPIM are present.

11. Perform all dental procedures in such a manner so as to minimize splashing, spraying, and spattering or
generation of droplets that might contain infectious materials. This includes the use of high volume
suction, the rubber dam, judicious use of the air/water syringe, and properly positioning the patient.

12. Do not mouth pipette or mouth suction blood, OPIM, or any other liquids.

13. Before servicing or shipping any dental equipment that may have been contaminated, decontaminate
the equipment. Label the parts of the equipment that have not been decontaminated and be sure to tell
any serviceman, shipper or manufacturer the exact state of contamination the equipment is in.

C. Personal Protective Equipment
When engineering and work practices do not provide enough protection to health care workers or
others exposed to infectious disease, another layer of defense against infectious organisms is the use of
personal protective equipment.
OSHA requires that employers (in our case the School of Dentistry) provide, at no cost to employees, appropriate personal protective equipment such as, but not limited to, gloves, gowns, masks, eye protection, resuscitation bags, pocket masks or other ventilation devices. Students shall be provided with gloves, masks, eyewear, and gowns. Students provide their own eye protection, and eyewear is also available at dispensing. Personal protective equipment is only appropriate if it does not allow blood to pass through and reach the employees work clothes, street clothes, undergarments, skin, eyes, mouth or other mucous membranes under normal conditions of use. The School of Dentistry will also provide eye protection to all patients. Students and Faculty must request that patients wear eye protection during any and all dental procedures. If a patient refuses the eye protection, this refusal must be noted in the patient’s dental record. Patients may use their own eyewear for protection.

1. **Protective garments**

Clinic gowns are to be worn by students, staff, or faculty at all times in the clinical areas when providing patient care. The clinic gowns are high-necked and long-sleeved and are made of a material that will not allow body fluids to pass through under normal conditions. The gown must be of sufficient length and size for the wearer and must be worn whenever there is likely to be exposure to infectious fluids or contaminated materials and during intraoral examinations.

**All students and staff are required to wear the clinic gown when performing dental treatment, when handling or exposing radiographs, or when performing any other task in which exposure to OPIM is likely to occur.** Clinic gowns are to be removed when leaving the clinic area. Hooks are available in cubicles and clinic areas for placing these gowns. Yellow disposable gowns are worn only in laboratory areas. Dispensary personnel, dental laboratory personnel, and darkroom technicians will wear appropriate protective clothing when necessary.

Providers draw a clinic gown from the Dispensary at the start of each clinic day. Gowns will be turned in to the “dirty” Dispensary at the end of each session. If the gown becomes excessively soiled or OPIM penetrates the material during the session, the soiled gown is exchanged for a clean gown as soon as possible. **Under no circumstances** are gowns to be left in clinic spaces overnight or removed from the clinics (i.e. stored in a personal locker). Clinic gowns will be cleaned, laundered repaired or replaced as necessary by the School of Dentistry.

Dispensary personnel will wear appropriate gloves when handling contaminated laundry.

Dispensary personnel will ensure that the containers holding the contaminated laundry are properly labeled or color-coded. In addition, before transporting the contaminated laundry to be laundered, it must be covered to prevent the potential spread of infectious microorganisms.

To summarize:

- Wear your clinic gown in clinic when exposure is likely to occur.
- Wear your yellow disposable gowns in laboratory areas.
- When leaving the cubicle to eat or do other tasks remove your clinic gown and leave it in your cubicle or treatment area until you return. However, at the end of the session, return the clinic gown to the dirty dispensary.
- All students will wear heavy-duty gloves and protective eyewear when hand cleaning instruments.
- In addition all students will wear eye protection and facemasks when performing laboratory work in all areas, clinical or pre-clinical.
2. Gloves

Because our hands can easily be the source of bacteria that can infect our patients, hand washing or using an alcohol based handrub alone may not be sufficient to protect our patients from cross-infection. In addition, it is easy enough for bacteria from our patients to enter our bodies through minute breaks in our skin. Therefore, gloves protect both the patient and health care worker. For these reasons, OSHA has ordered that all health care workers wear gloves when it can be reasonably anticipated that health care workers may have hand contact with blood or OPIM, non-intact skin, patients, or when handling or touching contaminated items or surfaces.

- Disposable non latex (single use) gloves, such as surgical or examination gloves shall be replaced as soon as feasible when contaminated, when they are torn or punctured, or when their ability to function as a barrier is compromised.
- Disposable (single use) gloves shall not be washed or decontaminated for re-use.
- Utility gloves may be decontaminated for re-use if the integrity of the gloves is not compromised. However, they must be discarded if they are cracked, peeling, torn, punctured, or exhibit other signs of deterioration or when their ability to function as a barrier is compromised.
- The School of Dentistry will provide hypoallergenic gloves for those who are allergic to the gloves normally used.
- Do not leave your cubicle or other treatment area with your gloves on, since this could lead to contamination of other areas. In addition, do not handle documents while wearing gloves. Only after a procedure is completed and gloves are removed, should paper or other objects be touched. If, during a procedure, treatment is interrupted and you must touch another object, either deglove or overglove.

3. Masks

Wear facemasks or full-length face shields with facemasks while treating patients or whenever splashes, spray, splatter or droplets of blood or OPIM could be generated. These masks should be able to prevent the passage of microorganisms. If your mask becomes damp during use, discard the mask as soon as possible, and put on a fresh mask.

4. Eye Protection

Eye protection must be worn in all clinical patient treatment areas. Wear appropriate eye protection whenever there is the possibility of an aerosol spray, splatter, splashes, droplets or contaminated foreign objects (i.e. pieces of amalgam). This means use eye protection when doing patient treatment as well as while doing laboratory work. Eye protection can be eyeglasses with solid eye shields, Googles™, goggles, or full-face shields. Eye protection must be appropriate to the task. Remember, during dental treatment, the patient’s eyes must also be protected. You may leave the patient’s eyeglasses on if they normally wear them. Otherwise, protect the patient’s eyes with suitable eye protective glasses that are provided for this purpose.

5. Surgical Caps or Hoods and/or Shoe Covers or Boots

These should be worn in instances where gross contamination could be generated such as during surgery, when an aerosol-generating handpiece is causing a great deal of splatter.

6. Computer Keyboard and Mouse

If a student is recording information during the exam and going from the patient to the keyboard, the keyboard and mouse are to be covered with a plastic bag provided at the
D. HOUSEKEEPING

1. General
The School of Dentistry shall ensure that the work site is kept clean and in sanitary condition. The School of Dentistry has determined and implemented an appropriate written schedule for cleaning and decontaminating various locations within the facility.

2. Equipment and Services
All equipment and environmental surfaces shall be cleaned and decontaminated after patient visits and contact with blood or OPIM.

- Contaminated work surfaces should be decontaminated with an appropriate disinfectant after completion of patient visits; immediately or as soon as feasible when surfaces are overly soiled or after any spill of blood or OPIM; and at the end of the work shift if the surface may have been contaminated since the last cleaning.

- Protective coverings such as barrier film, plastic wrap, and aluminum foil or imperviously backed absorbent paper may be used to cover equipment and environmental surfaces but must be removed and replaced between patients, whenever they may become excessively soiled, and at the end of the work shift. Protective coverings are useful in dentistry to protect those surfaces and pieces of equipment that are difficult to disinfect, such as light handles, x-ray tube heads, etc. In addition, barriers are faster and more effective than using disinfectants to decontaminate an area.

- All bins, pails, cans, and other similar receptacles intended for re-use which have a reasonable likelihood of being contaminated with blood or OPIM will be inspected and decontaminated on a regularly scheduled basis and cleaned and decontaminated immediately or as soon as feasible upon visible contamination.

- Use mechanical means such as a brush and dustpan, tongs, or forceps to pick up broken glassware. If such an incident occurs, report to the dispensary where appropriate clean up equipment is available. Remember to wear utility gloves, mask, eye protection and a protective garment during the cleanup. After the spill is cleaned up, decontaminate the area using disinfectant; then decontaminate the equipment.

- Do not place reusable contaminated dental instruments and other sharps into small containers that you have to reach into by hand in order to retrieve. The sink may be used since it is a large container and your risk of sustaining a puncture wound would be slight. However, should it become necessary to wash instruments by hand, caution should be exercised. Place only a few instruments into the sink at one time and do not use a soap that creates too many suds. Also, wear utility gloves that are puncture-resistant as well as being capable of being disinfected or sterilized.

3. Regulated Waste
Contaminated sharps that are disposable must be discarded immediately or as soon as possible after their use. They shall be placed into containers that meet the standards for sharps as described in the Engineering Control section of Methods of Compliance. These containers will be accessible and close to the area where they are used. They will not be overfilled. Other regulated waste will be placed in containers that are suitable. In instances where blood, vomitus, fecal matter, urine or other body fluids are involved, report to the dispensary and obtain a kit to safely clean up the material involved. Again, wear proper eye protection, mask, utility gloves and protective clothing. Decontaminate the area using the wipe-discard-wipe technique; then decontaminate the equipment before returning it to the dispensary.

4. Laundry
Contaminated laundry shall be handled as little as possible. When you are finished with your clinic gowns at the end of the day, if it becomes excessively soiled, or if OPIM penetrates the material, place them in the laundry bags at the dirty dispensary. Faculty will also turn in their clinic gowns when they become visibly soiled, contaminated or if OPIM penetrates the
material, and at the end of the day. Dispensary personnel shall handle the laundry in the dispensary as little as possible. Dispensary personnel will securely close the labeled or color-coded bags or containers and place the bags into bins where the laundry service will collect them. Since our dispensary utilizes Universal/Standard Precautions in the handling of our laundry, alternative labeling or color-coding is acceptable if it permits all health care workers to recognize the containers as requiring compliance with Universal/Standard Precautions. If dispensary personnel must handle the contaminated laundry, they will wear protective gloves and aprons or gowns.

E. **DAILY PROTOCOL**

1. **General**
The main goal of infection control is to ensure that we as faculty, students, and staff are able to provide dental care for our patients in a safe manner that minimizes or eliminates the possibility of transmitting infectious diseases. This daily routine consists of a combination of using engineering controls and work practices that keep our patients and us safe. Here are some of the practices and procedures we should be following in order to achieve the maximum protection possible. Keep in mind that the principles of Universal/Standard Precautions are followed while doing all these routines.

2. **At the Beginning of the Clinic Treatment Day**

- When you first arrive at your treatment area, wash your hands thoroughly as described in the Hand Washing Technique section of Appendix A.
- Students and staff alike should prepare their equipment, draw whatever supplies are necessary (such as instruments, disposable items and unit doses of dental materials such as restorative materials) for the treatment to be rendered, access the patient’s chart, and do what is essential to prepare for smooth, uninterrupted treatment. By being properly prepared, one does not have to stop to get additional supplies, instruments, or equipment. Uninterrupted treatment means safe, efficient treatment, and interruptions greatly increase the chance of spreading contamination. To achieve safe dental treatment, keep the area of contamination as small as possible. Keep all equipment and supplies within easy reach of the dental student and assistants. It goes without saying that the cubicle or dental operating area should be in a sanitary condition. Countertops should be clean and clear of clutter.
- How to prepare the dental operatory for treatment:
  - Gather all materials needed from the clean dispensing area. Place instruments on covered counter top. Wash hands and don gown, gloves, mask, and eyewear.
  - Place a clean plastic barrier over the headrest and the back of the chair.
  - Remove air-water syringe and slow & high speed evacuation hoses. Place a clear plastic barrier on the assisting arm. Place clear barrier bags over the air water syringe and slow & high speed evacuation hoses.
  - Remove handpiece hoses, air-water syringe and cavitation hose. Place clear plastic barrier over the handpiece control arm. Place clear plastic barrier over the air water syringe, hand piece hoses and cavitation hose.
  - Place blue barrier film (4” x 6” piece) over the dental light handles, dental light switch, viewbox switch, intercom buttons, and curing light handle.
  - Place plastic barrier over curing light wand.
  - Run tap water for 30 seconds.
  - Fill water bottle with tap water.
  - Flush the water lines (handpiece and air-water syringes) for one to three minutes.
  - Remove gown, mask, and eyewear; wash hands. Go to reception area to greet patient; escort patient to your cubicle.
• Seat patient. Follow the use of PPE guidelines.
• At this time your operatory should be prepared for patient treatment. Instructors or Dental Assisting staff must verify visually that all handpieces and instruments have been sterilized (are in sealed bags) and the operatory is properly prepared. Upon approval, the clinic instructor or Dental Assistant will swipe the Infection Control start check in the AxiUm system. Kits may then be opened in front of the seated patient, and treatment may be started after verifying that the kit is sterile according to the internal indicator strip.

3. **During Patient Treatment**

During patient treatment, the following procedures should be observed:

- Seat the patient.
- Give/offer the patient a pair of protective eyewear to wear during dental treatment, even if the patient has eyeglasses.
- Mouth rinse will be available for patient use.
- Just before gloving, wash and dry your hands using antimicrobial soap.
- Place rubber dam whenever possible. Non-use of rubber dam must be approved by your clinic instructor.
- If making entries in patient’s record during treatment plastic barriers must be placed on the keyboard and mouse.
- Once gloved, do not touch anything but the patient, barrier and covered areas, or areas that were already decontaminated at the end of the last patient visit.
- If you leave your cubicle for any reason, deglove and wash your hands; no one is to walk around the clinics outside their cubicles or immediate treatment areas with gloves on.
- When taking radiographs, set up the x-ray room before regloving. Prepare the record in AxiUm to take digital radiographs. Cover tube head, chair, and controls with protective covers and barrier film. After patient is seated, place lead apron on patient. Glove. Expose radiograph(s). Save radiographs in the system. Release the patient and disinfect the xray area.
- Use high-speed evacuator to prevent spread of contamination when using high-speed handpieces, water spray, ultrasonic scalers, or any other piece of equipment likely to produce aerosols, splatter or droplets.
- If an instrument is dropped, do not pick it up and re-use it. Leave it where it has fallen until you are finished with your treatment; then pick it up with your gloves. If it is a hazard and you must remove it immediately, pick it up with your gloves and then place it in the sink or any other appropriate place out of your immediate operating area. Deglove, wash your hands and reglove before proceeding.
- Disposable items are what the name implies. Use them once and only once and then discard. This includes gloves, masks, saliva ejectors, etc.
- If, during treatment, prosthetic-related items need to be transported somewhere else in the clinic such as the laboratory, these items must be cleaned and disinfected before leaving the treatment area. These items include impressions, models, die, prostheses, bite registrations, crowns, wax-ups, etc. Clean, place in plastic bag, disinfect to transport to labs and remove gloves; then you can safely take the items to another area or ship them outside the School. All items must be disinfected in the plastic bag for 10 minutes.

4. **Upon Completion of Treatment**

After the patient’s treatment is completed, remove patient napkin and place in your trash container. Take off your gloves, wash your hands, and make your appropriate entries on the dental record. Escort the patient to the reception area.

Return to your cubicle:
• Put on your gown, utility gloves, and mask and proceed with cubicle cleanup.
• Place sharps in sharps container and any regulated waste product (i.e. amalgam, biohazardous) in appropriate waste container.
• Gather your instruments. Remove your handpiece(s) and air-water syringe tip and flush the hoses with water for 1-3 minutes to clear the lines of any contaminants. Direct the spray into your high volume evacuator or sink. The rest of your instruments should be placed back into your cassette or sterilization pouch along with your sterilizable air/water syringe tip. This cassette is then closed. Any instruments that do not go into the cassette should be returned to the dirty dispensary with your cassette. All instruments will be sent to the central sterilization area.
• Dispose of all barriers (patient napkin, plastic wrap, chair covers, dental light cover, bracket table cover, etc.), saliva ejector tip, paper cups, rubber dam and any other non-regulated waste. Disinfect all areas of your cubicle with hospital level disinfectant supplied by the School. Use the wipe-discard-wipe technique. Be sure to use the disinfectant according to the manufacturer’s recommendations.
• Remove barriers from and disinfect all equipment that will be returned to the dispensary.
• Remove your gloves, wash your hands, and return any equipment to the dispensary that needs to be returned. If you have another patient, start over again with step 2 by gathering your materials (instruments, etc.), prepare your cubical with the appropriate barriers, etc.
• Remove your eye protection touching only the earpiece, and your facemask touching only the ties – not the mask itself.

5. **At The End Of Each Clinic Treatment Session**

At the end of the treatment session following the dismissal of the last patient, additional tasks must be carried out before leaving. While still wearing protective equipment, disinfect all clinic contact surfaces. Disinfect the countertop, dental unit, chair, and light using the wipe-discard-wipe technique. Be sure the base of the dental chair is clean. Also be certain your dental stool and walls of your cubicle are clean. A neat appearance promotes patient confidence.

The end of the session also offers the opportunity to attend to other details that make for a clean and neat cubicle. Dental chairs should be raised to the highest position; the dental light should be placed over the head of the chair. Be sure items such as Hanau torches and rubber bowls are cleaned and disinfected and returned to the dirty dispensary.

Flush all water lines for 30 seconds but do not run the water lines dry. Remove and empty the water bottle in the sink, and place the water bottle upside down in the holder above the sink to dry.

Faculty instructors will inspect your cubicle, work practices, and equipment daily to be sure the standards of cleanliness and infection control are upheld.

F. **SPECIAL PROTOCOLS**

1. **General**
   
The following pages describe specific protocols for tasks such as sterilization and disinfection as well as prosthodontic, orthodontic, and radiographic procedures.

2. **Sterilization**
   
   Sterilization is at the center of what we do to prevent cross-infection, since sterilization is a process that kills all forms of life including fungi, bacteria, and viruses. If an instrument is sterile, there is no way it can pass on an infectious agent to another patient or health care worker. It is the ideal. Sterilization is carried out most effectively and easily with the use of the steam autoclave. The
sterilization of instruments for our undergraduate students is done in the Central Sterilizing areas, although some sterilization is also done in the graduate clinics. In all these areas, the steam autoclave is utilized. For any sterilization process to be effective in killing all the microorganisms, the instruments must be clean. Here at the School, the washer-disinfector and the ultrasonic (and occasional manual washing) techniques are used. All are good if done properly; however, use the washer-disinfector method whenever possible since it is safer and probably more effective. Students can turn their cassettes in for processing at the dispensary or the appropriate sterilization area in their respective clinics.

a. Washer-disinfector Method
Dispensary and other authorized personnel using the washer-disinfector method should ensure that:
   i. The proper solutions are used in the washer-disinfector equipment. Improper solutions may damage the equipment and/or dental instruments.
   ii. The washer-disinfector is run for the recommended period of time and according to manufacturer’s instructions.
   iii. The instruments or cassettes are placed correctly in the washer-disinfector (not too near the bottom or sides) so that the equipment can function properly.
   iv. Instruments are rinsed thoroughly and then dried thoroughly when the washer-disinfector cycle is complete.

b. Ultrasonic Method
Dispensary and other authorized personnel using the ultrasonic method should ensure that:
   i. The proper solution is used in the ultrasonic cleaner. Improper solutions will damage the cleaner and are not as effective as the ones that have a detergent action.
   ii. The ultrasonic cleaner has been run for the recommended period of time.
   iii. The ultrasonic cleaner is covered while in operation.
   iv. Baskets are used to prevent sharps injuries.
   v. The solution is changed when recommended or if it becomes too dirty.
   vi. The instruments or cassettes are placed in the cleaner correctly (not too near the bottom or sides) so that the cleaner will function properly.
   vii. Instruments are rinsed thoroughly after the ultrasonic cycle is completed.
   viii. Instruments are dried thoroughly, either with air-drying or clean paper.

c. Personnel Using Manual Scrubbing
When manually scrubbing, you should:
   i. Wear protective gear (eye protection, mask, utility gloves, and protective clothing).
   ii. Use a detergent that allows you to see the instruments clearly.
   iii. Cover the instruments with sufficient water so that both the instrument and brush are beneath the surface of the water in order to prevent splashing or splattering. Have and scrub only one instrument at a time in the sink.
   iv. Rinse the instruments thoroughly.
   v. Dry the instruments completely.

After the instruments are cleaned and dried, inspect them carefully to be certain that all visible debris has been removed. Instruments must be bagged or wrapped before being put in the steam autoclave. The use of cassettes is an ideal way to contain the instruments because it prevents needle sticks and helps to minimize the loss of instruments since the instruments are kept together in a container. Sterilization pouches can be used for one or several instruments, but use caution since there is always a danger of puncture which could result in a sharps injury or a contaminated instrument. Do not over pack cassettes or pouches with instruments which might impede the circulation of steam throughout the cassette or pouch. Open hinged instruments so that the steam will reach all areas of the instrument.

Dispensary and other authorized personnel will see that the cassettes are put through the
washer-disinfector, rinsed and dried before being bagged or wrapped for sterilization. After being sterilized, the students’ cassettes and pouches are in the dispensary until they are returned to the students.

Dispensary and other authorized personnel operating autoclaves in other locations will ensure the autoclaves are working properly by using process indicators such as sterilization tape, placing a chemical indicator inside each package, and by performing biological monitoring using the appropriate spore tests. BowieDick testing (SPS Medical #LCR-025) is completed at the start of each day. Every load has a test pack that includes One Certol Integrator (Class 4) and one Steam Plus Class 5 integrator monitor which are processed in the steam sterilization cycle. The sterilization pouches used are the Crosstech Sure Check Multiparameter Indicator (Dual test) Class 4 pouches. Sterilization personnel will keep a log of the sterilization cycles which will include the results of biological monitoring. The Central Sterilization supervisors will monitor all results. The spore tests will be performed at least weekly or more often if circumstances dictate. Biological monitoring is the most reliable form of testing since live spores are used. To properly perform biological monitoring, place the biological monitors within the instrument pack according to directions and then run the normal cycle of the autoclave. For a control, select a biological monitor that has not been run through the autoclave. After processing the monitors, the results are satisfactory if the test monitor is negative and the control monitor is positive. If the biological monitor that was placed in the autoclave is positive, then these additional steps must be taken:

- Stop using the autoclave immediately.
- Rerun the spore test. Many failed spore tests are due to human error.
- If the second test is positive, re-sterilize all packs that have been processed through the sterilizer since the last negative results.
- Notify repair personnel as soon as possible.
- After repairs are complete, retest the autoclave immediately. If test results are still positive, continue to seek the cause for the positive results.
- Do not begin routine use of the autoclave until negative results are obtained in 3 consecutive spore tests after the repair.

3. Disinfection

Disinfection is the process by which most, but not all, microbial life is killed or inhibited; therefore, it is not an ideal method of eliminating pathogens, however, it is very effective for semi-critical items, which are those items that come into contact with mucous membranes or non-intact skin but do not penetrate soft tissues, contact bone, enter into or contact the bloodstream or other normally sterile tissue. An example of a semi-critical item is the plastic rulers used in clinic. Non-critical items are items that come into contact with only intact skin, not mucous membranes.

As said earlier, it would be ideal to sterilize everything. But for non-critical items such as countertops or the dental unit, this is neither practical nor necessary. Therefore, all surfaces touched by hands contaminated by blood or OPIM need to be cleaned and disinfected before each patient. When using a disinfectant, be sure that the disinfectant is an intermediate level EPA registered, FDA approved solution that is anti-tuberculocidal. An alternative to using disinfectants is to cover these surfaces with barriers which can be made of plastic, aluminum foil or impervious-backed paper. In fact, covering a surface with a barrier is faster, easier on the equipment (almost all disinfectants are potent, corrosive chemicals) and is probably more effective. In addition, a barrier is a visible sign to the patient that infection control procedures are being followed. Thus, whenever possible, use a barrier to prevent environmental surfaces from being contaminated. When using and changing barriers between patients, it is not necessary to clean and disinfect those surfaces until the end of the clinic session, unless the
barrier is damaged or gross contamination occurs. Then remove the spoiled barrier, disinfect
the area, and place a new barrier before proceeding with treatment.

a. **Cleaning**

Before disinfecting a surface, it must be clean. Cleaning destroys many bacteria and removes
any bioburden or debris that may interfere with the effectiveness of the disinfectant to be
applied. It is possible to combine the cleaning and disinfecting steps by using an appropriate
disinfectant with the “wipe-discard-wipe” technique. This technique will accomplish cleaning
and disinfecting clinical contact surfaces.

The wipe-discard-wipe technique is accomplished as follows:

i. Saturate two pieces of 4 X 4 gauze with hospital level disinfectant or use a commercial
product like saniwipes. Wipe and wet the surface with the appropriate level of
cleaner/disinfectant solution to clean.

ii. Repeat the above procedure, leaving surface wet.

iii. Allow the surface to remain wet for at least ten minutes.

iv. At the end of ten minutes, wipe the surface dry with a paper towel or let it continue to
air dry.

1. **Laboratory Protocols**

The protocols for prosthodontics and orthodontics are similar since there are both a patient
treatment and laboratory phase for these areas of dentistry. As a result, there is a greater danger of
transmitting infectious agents from the cubicles to the laboratory which may lead to cross
contamination. Think before you leave your cubicle or other patient treatment area with
contaminated impressions, orthodontic appliances, and removable and fixed prostheses.

To prevent carrying contaminated impressions to the labs, first rinse the impression with water to
remove all saliva and blood. Then disinfect it using an appropriate disinfectant. While performing
these tasks, be sure you are wearing protective clothing, mask, eye protection and gloves.
Disinfecting impressions must be completed before leaving the cubical area. Place the impression
in a plastic bag and cover with disinfectant. Allow items to disinfect in the plastic bag for 10
minutes before transfer to the laboratory for processing.

When impressions or interim prostheses are sent to an outside lab or the School of Dentistry’s
internal technician’s lab, they must be appropriately labeled to indicate that they have been
disinfected. Cases should also be packed so as to protect those handling the prosthesis from being
stuck or injured by the prosthesis.

Laboratory areas and equipment require disinfection regularly. If possible, separate areas and
equipment should be set aside for prostheses that have made intraoral contact and for prostheses
that are new.

Cover the work area with disposable barriers as much as possible and change these barriers
between cases. Disinfect these areas at the end of the day. Areas that are not covered should be
disinfected between cases.

- Do minor adjustments of interim and completed prostheses in your cubicle using sterilized
  burrs, polishing wheels, and disks.

- If adjustments need to be made in the student labs, rinse, disinfect for required minimum
time, and bag item before going to the lab.
• In the case of completed prostheses or prostheses that need adjustment in the laboratory, use sterilized burs and disposable rag wheels and pumice.

A disposable paper basket should be placed in the lathe. When finished, dispose of all pumice and the paper basket in the regular waste.

All health care workers who work in a dental laboratory or handle laboratory cases on a regular basis should be vaccinated against Hepatitis B.

2. **ORAL RADIOLOGY PROTOCOL**

   a. **Standard Operating Procedure**
      - Report to Radiology Clinic, sign in and staff will assign a cubicle to you.
      - Prepare your cubicle for the imaging that is prescribed by your faculty.
      - Cover sensors and computer mouse with the provided sheaths.
      - Seat your patient and place lead shield on your patient.
      - Student is required to wear gown, mask, eyewear, and gloves provided by the Radiology Clinic. **NEVER WEAR OR BRING YOUR PPE FROM ANOTHER CLINIC!**
      - Wash your hands and put on clean gloves.
      - Expose images in axiUm.
      - When finished, remove dirty gloves and then remove lead apron.
      - When using Phos Plates, wipe outside of plates clean with a saniwipe before placing in cup. Staff will open plate with a glove and drop them on counter for scanning.
      - **Always remove gloves when exiting your cubicle.**
      - After all radiographs are taken, escort patient to radiology seating area to wait for you.
      - Return to the radiography cubicle for clean-up.
      - Remove plastic from mouse pad and wipe down computer area with saniwipe.
      - Wipe down chair, tubehead, lead apron, and counter.
      - Replace headrest cover and exit the cubicle.
      - Radiology staff will set up clean cubicle for the next patient.

   b. **Evaluate radiographs.** Discuss evaluation with faculty and staff. Take retakes if necessary.

   c. **Radiographs in Satellite or Outreach clinics**
      - Students are to follow Universal Precautions and must wear protective eyewear, masks, gowns, and clean gloves when taking radiographs.
      - Tubeheads and headrests are to be bagged before a patient is seated. These are to be discarded after each patient and the student taking the radiographs must clean/disinfect the tube head and chair. The lead apron is to be hung up after removing from patient and cleaned/disinfected.
      - Disposable barriers are to be used to cover x-ray switches and computer mouse. New barriers are to be applied prior to each patient and discarded as part of the standard cleaning protocol.

**III. AWARENESS**

**GENERAL**

In order for health care workers to be knowledgeable of the latest infection control techniques and information, they must be continually trained. Through this training health care workers learn how to minimize or eliminate their exposure to bloodborne pathogens. OSHA has recognized this fact and requires that the employer provide training for their employees. In our case, as required by OSHA, the School of Dentistry provides the following training for faculty and staff. Students constantly receive this information throughout their four years of dental education, beginning with the freshman year.
• Training for faculty and staff shall be provided as follows:
  o When hired
  o At the time of initial assignment of new tasks where occupational exposure may take place
  o At least annually thereafter.

• Annual training for all faculty and staff shall be provided within one year of their previous training.

• The School of Dentistry will provide additional training when changes in tasks or procedures affect the occupational exposure of health care workers. The additional training may be limited to addressing the new tasks or procedures.

• In addition to general training, site-specific training will be provided to all employees by their supervisor, the Compliance Officer, or another designated authority.

• Material appropriate in content and vocabulary to the educational level, literacy, and language of our health care workers will be used.

• The training program will contain at a minimum the following elements:
  o An accessible copy of the regulatory text of the Standard and an explanation of its contents;
  o A general explanation of the epidemiology and symptoms of bloodborne diseases;
  o An explanation of the modes of transmission of bloodborne pathogens;
  o An explanation of the School of Dentistry’s exposure control plan and the means by which the health care worker can obtain a copy of the written plan;
  o An explanation of the appropriate methods for recognizing tasks and other activities that may involve exposure to blood and OPIM;
  o An explanation of the use and limitations of methods that will prevent or reduce exposure including appropriate engineering controls, work practices, and personal protective equipment;
  o Information on the types, proper use, location, removal, handling, decontamination and disposal of personal protective equipment;
  o An explanation of the basis for selection of personal protective equipment;
  o Information on the Hepatitis B vaccine, including information on its efficacy, safety, method of administration, the benefits of being vaccinated, and that the vaccine and vaccination will be offered free of charge;
  o Information of TB infection including test requirements;
  o Information on the appropriate actions to take and persons to contact in an emergency involving blood or OPIM;
  o An explanation of the procedure to follow if an exposure incident occurs, including the method of reporting the incident and the medical follow-up that will be made available;
  o Information on the post-exposure evaluation and follow-up that the School of Dentistry is required to provide for health care workers following an exposure incident;
  o An explanation of the signs and labels and/or color coding required by the Standard to warn health care workers of potentially infected items;
  o Information on how to access the School of Dentistry’s database of Safety Data Sheets for chemicals used in our clinics and labs;
  o An opportunity for interactive questions and answers with the person conducting the training session.

IV. PREVENTION

GENERAL
According to Federal and Minnesota OSHA (MNOSHA) employees who have occupational exposure to bloodborne pathogens must be offered the hepatitis B vaccination free of charge. In addition, it is HIGHLY RECOMMENDED that all clinical personnel, if they are not already immune, be immunized against measles,
mumps, rubella, varicella, tetanus and influenza, and to be tested for exposure to *Mycobacterium tuberculosis* by means of a tuberculin skin test (TST) or *QuantiFERON-TB Gold (QFT)*. Employees and students should always consult their own health-care provider prior to any immunization.

The purpose of the immunization policy is to protect the student, the employee, and the patient; to provide expert and safe patient care, and to provide a safe learning and working environment.

**ALL STUDENTS** matriculating into the School of Dentistry are required to submit verification of:

- Proof of vaccination, initiation of vaccination, or immunity for hepatitis B
- Proof of vaccination or immunity for varicella
- Proof of vaccination or immunity for rubella, mumps, and measles
- Proof of vaccination or immunity for tetanus/diphtheria
- Screening for tuberculosis

**Note:** First year students are given until the end of their 1st semester to complete all requirements, after that time registration will be withheld until completion of immunization requirements.

*Influenza (flu) shots are offered free of charge in the fall of each year to all AHC students, faculty, and staff.*

**HEPATITIS B VACCINATION**

Dental health care workers are at a substantial risk for acquiring hepatitis B (HBV) if exposed to infected patient’s blood via puncture injury, mucous membrane, or non-intact skin exposure. It has been shown historically that DHCWs have much higher rates of hepatitis B infection than the general population. Additionally, transmission of HBV infection from DHCW to patients has been documented. This disease can have severe and even fatal consequences. The vaccines currently used are safe and effective. They stimulate the production of protective antibodies in up to 96% of those immunized. The vaccine is offered to employees with occupational exposure to blood or body fluids unless: 1) the employee has received the complete hepatitis B vaccination series; 2) previous antibody testing has revealed that the employee is immune, or 3) the vaccine is contra-indicated for medical reasons. The vaccine is provided at no cost to the employee. The vaccine is strongly recommended for all employees with occupational exposure. Post-vaccination testing to document antibodies have been acquired is also provided by the School of Dentistry at no cost to the employee. If an employee declines to accept the vaccination, a Hepatitis B Vaccination Declination form must be signed. The employee may decide later to receive the vaccination, and it will be provided if occupational exposure can be reasonably anticipated.

Prophylactic treatment to prevent HB infection should be considered by DHCWs after accidental percutaneous or permucosal exposure to HBsAg positive blood or OPIM. Hepatitis B immune globulin (HBIG) derived from plasma has been developed to provide passive immunization for individuals after exposure to a patient infected with HBV. While there are currently no prospective studies testing the efficacy of combining HBIG with the vaccine, the CDC recommends a single dose of HBIG within 24 hours if possible or up to 7 days following exposure.

**MEASLES, MUMPS, RUBELLA (MMR), VARICELLA (CHICKEN POX), AND TETANUS**

Employees should check with their physician to confirm that these vaccines have been administered if they are not already immune.

**TUBERCULIN SKIN TEST AND INTERFERON-GAMMA RELEASE ASSAYS (IGRA)**

The tuberculin skin test (TST) is sometimes referred to as a PPD (purified protein derivative) or a Mantoux test. *QuantiFERON-TB Gold (QFT)* is a simple blood test that aids in the detection of *Mycobacterium tuberculosis*, the bacteria which causes tuberculosis (TB). QFT is an interferon-gamma (IFN-γ) release assay, commonly known as an IGRA, and is a modern alternative to the tuberculin skin test (TST, PPD).

While the School of Dentistry Clinics are not equipped to treat active TB patients, providers may be exposed to TB from persons who do not know they have TB. For this reason it is recommended that all employees as well as students have initial baseline testing upon hire or entering a program. Providers should also be tested after a
known exposure. While not required, annual testing for employees will be available through the Occupational Medicine Program at Health Partners Occupational and Environmental Medicine (HPOEM) or periodic on-site testing. TB testing is provided for students through Boynton Health Care and their student services program. If a test reveals a positive reaction, the employee should discuss with their physician what steps, if any, need to be taken (e.g.: chest x-ray, prophylactic mediation).

V. MANAGEMENT OF BLOOD AND BODY FLUID EXPOSURE

GENERAL
The Centers for Disease Control and Prevention (CDC) has published guidelines for dealing with exposure of health care workers to body fluids. The following Exposure Incident Protocol outlines the steps to be taken to meet these guidelines.

Any employee or student who experiences a percutaneous (skin puncture) or mucosal exposure to body fluids MUST follow the Exposure Incident Protocol. **Adherence to steps described in the following flow charts and reporting forms is essential for timely and appropriate management of exposure incidents.**

A. Immediately after an exposure incident:
   i. Bleed and wash the wound with antimicrobial soap and cool water for 15 minutes.
   ii. Report to your supervising faculty.
   iii. Perform first aid.
   iv. Supervising faculty will determine ability to complete procedure enough to ensure patient comfort and safety.
   v. Review patient’s medical history. If the patient is still present, do not release the patient at this time even if they have a negative history and there is no suspicion of disease.
   vi. Complete the exposure incident reporting form. Obtain the appropriate form from the forms file. Document the route(s) of exposure and the circumstances of the exposure incident, sign the incident report, and have it signed by the supervising faculty. Bring the incident report to the Compliance Office within 24 hours.

B. Source Individual
   i. Identify the source individual, if possible.
   ii. Supervising faculty and/or student will talk to the source patient. The patient will be informed of the incident and asked to consent to blood tests at the appropriate health care facility. (See chart.)
   iii. The supervising faculty will obtain consent and send the source individual to the appropriate health care facilities for a blood test, at no cost to the patient, for HBV, HCV, and HIV infectivity. This is voluntary.
   iv. If consent for a blood test for HBV, HCV, and HIV infectivity cannot be obtained from the source individual, document it on the Exposure Incident Report Form.

C. Exposed Employee/Student
   i. Refer the exposed individual to the appropriate health care facility. (See chart.)
   ii. The health care facility to provide treatment should receive a copy of the Exposure Incident Report form and a copy of the Bloodborne Pathogens Standard. Complete the exposure incident reporting form. Obtain the appropriate form from the forms file. Document the route(s) of exposure and the circumstances of the exposure incident, sign the incident report, and have it signed by the supervising faculty. Bring the incident report to the Compliance Office within 24 hours. The employee’s supervisor must complete the FROI to notify Workmans Compensation of the incident.

INJURIES REQUIRING TREATMENT OUTSIDE THE U OF M DENTAL CLINICS
The following information describes policies/procedures for referring people for medical treatment after an accident that requires treatment outside of the School of Dentistry’s Dental Clinics.

This information covers:
   ● Patients
NEEDLESTICKS AND OTHER EXPOSURE TO BLOOD OR BODY FLUIDS Between the hours of 8:00 a.m. and 4:30 p.m. for injuries involving exposure to blood, the injured person and the source patient should report to Boynton Health Center within two hours of the incident. After 4:30, if a student is involved in an exposure, the injured person and source patient should contact the Boynton Health Center at (612) 625-7900 to receive step-by-step directions as to where and when to go to get the services that are needed. In exposures that involve faculty and/or staff members and it is after 4:30 PM, the injured person and source patient should report to the University of Minnesota Medical Center, Fairview, Emergency Room. Patients may decline treatment. When a patient consents to testing, charges will be paid by the U of M Dental Clinics.

ALL OTHER INJURIES:

- Patient Injuries and Medical Emergencies
  - Call 1, 2, 3, 4, 5 (Fairview Southdale ER Coordinator) for immediate assistance. Patients requiring further evaluation and/or treatment are to be escorted to the University Hospital Emergency Room.
  - When patients are taken to the Emergency Room, the patients will not be billed for accidents arising as a direct result of dental treatment. Inform the Emergency Room nurse that billing should be directed to the Clinical Affairs Office, Room 8-426 Moos Tower.

- Dental, Dental Therapy and dental hygiene students, graduate students and residents
  - All students must report to Boynton Health Service if medical treatment is required following personal injury.
  - Student charges at Boynton Health Service and related referrals may be covered by health service fees. University policy stipulates that all students carrying more than six (6) credits must pay the health service fee. The health service fee does not cover hospitalization or surgery expenses and Regents policy stipulates that all students must carry supplemental hospitalization coverage. This additional coverage may be purchased from the University and proof of coverage may be requested by the School of Dentistry to assure compliance with the Regents policy.
  - Students who self-refer to the University of Minnesota Medical Center, Fairview Emergency Room between the hours of 8 a.m.-4:30 p.m. or go to the outpatient clinics in Phillips-Wangensteen will incur expenses for which they, not the U of M will be responsible.

- Auxiliary education trainees
  - Dental assistant trainees are referred to Boynton Health Service for emergency medical treatment. Payment for Health Service treatment is the responsibility of the student or their training program. The on-site dental assistant coordinator should be informed and accompany the trainee to Boynton Health Service.

- Faculty and Staff
  - All faculty and staff report to Boynton Health Services, their own clinic/doctor, or Health Partners Occupational and Environmental Medicine, Riverside Clinic, 2220 Riverside Avenue, Minneapolis here.
  - Their phone number is 952-883-6999. If the condition is life threatening, go to the University of Minnesota Medical Center, Fairview Emergency Room.
Accidental Injuries (EXCEPT NEEDLESTICKS see below)

<table>
<thead>
<tr>
<th></th>
<th>Between 8-4:30:</th>
<th>After 4:30:</th>
<th>Complete:</th>
<th>Submit Form To:</th>
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</thead>
<tbody>
<tr>
<td>Patients</td>
<td>Fairview University Hospital Emergency Room</td>
<td>Fairview University Hospital Emergency Room</td>
<td>UofM Dental Clinics Incident Report (SD130)</td>
<td>Associate Compliance Officer 8-376D Moos Tower</td>
</tr>
<tr>
<td>All Students</td>
<td>Boynton Health Service</td>
<td>Fairview University Hospital Emergency Room</td>
<td>UofM Dental Clinics Incident Report (SD130)</td>
<td>Associate Compliance Officer 8-376D Moos Tower</td>
</tr>
<tr>
<td>Predoctoral,</td>
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<td>Graduate,</td>
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<td>Trainees</td>
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<tr>
<td>Faculty, Staff,</td>
<td>Boynton Health Service</td>
<td>Fairview University Hospital Emergency Room</td>
<td>U of M Employee Incident Report <a href="https://onestop2.umn.edu/froi/">https://onestop2.umn.edu/froi/</a></td>
<td>Supervisor for forwarding to Workman's Compensation Department</td>
</tr>
<tr>
<td>and Residents</td>
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<td>UofM Dental Clinics Incident Report (SD130)</td>
<td>Associate Compliance Officer 8-376D Moos Tower</td>
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<td>Boynton Health Service</td>
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<td>Employee choice or Occupational Medicine Clinic</td>
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<td>952-883-6999</td>
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<td>Critical Care Injuries*</td>
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<td>Hospital Emergency Room</td>
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NEEDLESTICKS and other Exposures to Blood or Body Fluids

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<tr>
<th></th>
<th>8-4:30:</th>
<th>After 4:30:</th>
<th>Complete:</th>
<th>Submit Form To:</th>
</tr>
</thead>
<tbody>
<tr>
<td>Patients</td>
<td>Boynton Health Service within two hours of the incident or On-site nurse</td>
<td>Contact Boynton health Center (612)625-7900 for step-by step directions within two hours of the incident</td>
<td>UofM Dental Clinics Incident Report (SD130)</td>
<td>Associate Compliance Officer 8-376D Moos Tower</td>
</tr>
<tr>
<td>Students</td>
<td>Boynton Health Service within two hours of the incident</td>
<td>Contact Boynton Health Center (612)625-7900 for step-by step directions within two hours of the incident</td>
<td>UofM Dental Clinics Incident Report (SD130)</td>
<td>Associate Compliance Officer 8-376D Moos Tower</td>
</tr>
<tr>
<td>On-site Nurse if available</td>
<td></td>
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<td></td>
</tr>
<tr>
<td>Staff, Faculty, and Residents</td>
<td>Boynton Health Service within two hours of the incident</td>
<td>Fairview University Hospital Emergency Room within two hours of the incident</td>
<td>U of M Employee Incident Form and First Report of Injury (<a href="https://onestop2.umn.edu/froi/">https://onestop2.umn.edu/froi/</a>)</td>
<td>Supervisor for forwarding to Workman's Compensation Department</td>
</tr>
<tr>
<td>On-site Nurse if available</td>
<td></td>
<td></td>
<td>UofM Dental Clinics Incident Report (SD130)</td>
<td>Associate Compliance Officer, 8-376D Moos Tower</td>
</tr>
</tbody>
</table>

*Critical Care Injuries are defined as those injuries which prohibit travel and demand immediate active medical attention but are not so severe as requiring 911 service. Examples are chemical burns or eye injuries. Sprains, strains, and contusions are not Critical Care Injuries. All required forms are available in the forms file cabinets in the Central Clinics on floors 8 and 9.  (Updated 10/9/2018)
UNIVERSITY OF MINNESOTA
DENTAL CLINICS
INCIDENT REPORT
(Replaces Personal Injury Accident Report – BA 165)

Instructions:
• Use this form for reporting all incidents of theft, accidents, property damage or other hazards involving
  patients, students, staff, and faculty.
• For SeroLogic Tests Following Needlestick Exposure:
  Following accidental exposure to blood or body fluids, patients, students, faculty and staff report to
  BOYNTON HEALTH SERVICE. Request that the exposure source accompany the exposed person for
  Hepatitis B and HIV tests to help determine the course of treatment.
• For injuries other than the above:
  o Students report to Boynton Health Service.
  o All patients and staff/faculty with a life-threatening emergency report to Fairview University Hospital
    Emergency Room.
  o Staff and faculty report to appropriate supervisor or departmental office for instruction on
    treatment and reporting.

Person initiating form ____________________________
Person involved in incident (if different):

□ Student
□ Employee
□ Patient

Student ID No. _______ Phone _______
Chat No. _______

Incident Location ____________________________

Date __________ (mm/dd/yy)
Time __________ (24-hr)

Type of Incident

□ Personal Injury
□ Exposure to Bloodborne Pathogens
□ Property Loss (call University Police)
□ Other ____________________________

Description of Incident

_________________________________________
_________________________________________
_________________________________________
_________________________________________

Resolution of Incident

_________________________________________
_________________________________________
_________________________________________
_________________________________________

Signature – Division/Clinic Director or Staff Supervisor ____________________________ Title __________ Phone __________ Date __________

Return completed form within 24 hours to the Compliance Office Run 8-J76D.
Form SD130 – Rev 04/19
VI. WARNING

GENERAL
Even though a health care worker may be well trained in infection control procedures and may have their vaccinations up to date, they may still be at risk because infectious organisms are invisible to the naked eye. Therefore, at times, the only warning a health care worker has of exposure to contaminated materials or surfaces is through the use of labels and signs. OSHA has recognized this danger and mandated the use of labels and signs.

LABELS
Warning labels shall be affixed to containers of regulated waste, refrigerators and freezers containing blood or OPIM, and other containers used to store, transport, or ship blood or OPIM.

Labels required by the Standard shall include the following legend:

![BIOHAZARD](image)

These labels shall be fluorescent orange or red with lettering or symbols in a contrasting color. Labels are required to be affixed as close as feasible to the container by string, wire, adhesive, or other method that prevents their loss or unintentional removal. Red bags or red containers may be substituted for labels.

Containers of blood components or blood products that are labeled as to their contents and have been released for transfusion or other clinical use are exempted from labeling requirements.

Individual containers of blood or OPIM that are placed in a labeled container during storage, transport, shipment or disposal are exempted from the labeling requirement. Labels required for contaminated shipment shall be in accordance with this paragraph and shall also state which portions of the equipment remain contaminated. Regulated waste that has been decontaminated need not be labeled or color-coded.

SIGNS
The School of Dentistry will post signs at the entrance to work areas (clinics and laboratories) specifying any hazards contained in the space, required precautions for entry, and emergency contact information. Hazards include radioactive materials, organics and chemical hazards, carcinogens and poisons, and biohazards including HIV, HBV, or other infectious diseases. The purpose of signage is to inform employees and students and to provide emergency responders, Facilities Management staff, and visitors with information. Comprehensive signage fulfills several hazard posting requirements and makes hazard communication at the University of Minnesota more standardized and recognizable.
Example of Signage

AUTHORIZED PERSONNEL ONLY!
THE FOLLOWING HAZARDS ARE PRESENT

Organic Peroxides  Corrosives  Carcinogens  Oxidizer

Radioactive Material  Biohazard

Permit Holder: P. I. Faculty  BSL 2

REQUIREMENTS:
No Food or Drink in Lab
Long Pants/Skirts and Closed-toe Shoes Required
Minimum PPE Required to Enter: Labcoat and Goggles

EMERGENCY CONTACTS:
Peter I. Faculty 220-666-8888
Janet Staff 220-555-4444
Paul Student 220-777-1111

Call 911 for all emergencies!

Updated: 9/31/2014
VII. DOCUMENTATION

GENERAL
The last part of the Standard is concerned with recordkeeping. OSHA has mandated that certain records be kept. These include medical records and training records.

STERILIZATION LOGS
Each area that operates an autoclave will keep an operating and testing log. This log will indicate when the loads of instruments were processed, whether they reached temperature as indicated by the sterilization tape or wheel, and results of the integrator test. Biological spore monitors must be done at least weekly. Multiparameter integrators are placed in each autoclave load run in Central Sterilizing. The load must pass the integrator test before it is released to the clinics. The sterilization log should be checked and initialed by the Central Sterilizing supervisors.

MEDICAL RECORDS
The School of Dentistry shall establish and maintain accurate records for each dental health care worker in accordance with Federal, State, and local regulations.

- CONFIDENTIALITY
  The School of Dentistry shall ensure that the following health care worker medical records required by the Standard are:
  - Kept confidential
  - Not disclosed or reported without the health care worker’s express written consent to any person within or outside the workplace except as required by the Standard or as may be required by law.
  - The School of Dentistry shall maintain the medical records as specified by the section on Recordkeeping for at least the duration of employment plus 5 years.

TRAINING RECORDS
Training records shall include the following information:

- The dates of the training sessions;
- The contents or a summary of the training sessions;
- The names and qualifications of persons conducting the training or source of on-line training;
- The names and job titles of all persons attending the training sessions.
- Training records shall be maintained for three years from the date on which the training occurred.

AVAILABILITY
- The School of Dentistry shall ensure that all records required by the Standard shall be made available on request to the Assistant Secretary of Labor for Occupational Safety and Health or designated representative (hereafter referred to as “Assistant Secretary”), and the Director of the National Institute for Occupational Safety and Health, U.S. Department of Health and Human Services, or designated representative (hereafter referred to as (“Director”), for examination and copying.
- Health care workers’ medical records shall be provided upon request for examination and copying to the subject health care worker, and to anyone having written consent of the subject health care worker.

TRANSFER OF RECORDS
If the school of dentistry ceases to do business, medical and training records must be transferred to the successor employer. If there is no successor employer, the employer must notify the Director, NIOSH, U.S. Department of Health and Human Services, for specific directions regarding disposition of the records at least three months prior to intended disposal.
APPENDIX A
PERSONAL AND HAND HYGIENE

The following guidelines apply to ALL clinic personnel including students, residents, faculty, and staff who may come in contact with blood, body fluids, and/or tissues.

PERSONAL AND HAND HYGIENE
1. Eating, drinking, chewing gum, smoking, applying cosmetics or lip balm, or handling contact lenses is prohibited in the clinics, laboratories, sterilization, and dispensary areas. Additionally, food and drink may not be stored in these areas.
2. Long hair must be pulled back to avoid contamination.
3. Hand hygiene is mandatory 1) when hands are visibly soiled; 2) after barehanded touching of inanimate objects likely to be contaminated by blood, saliva, or OPIM; 3) before and after treating each patient; 4) before donning gloves; 5) immediately after removing gloves; and 6) before leaving the cubical. Hands should be free of rings that could damage gloves. Excess moisture and organisms also tend to collect under rings contributing to the development of dermatitis. Wrists should be free of watches and jewelry that cannot be decontaminated if exposed to patient’s body fluids or covered by clinic coat sleeves.
4. Individuals with open lesions or weeping dermatitis of the hands must refrain from direct patient contact and contact with patient care equipment until the condition is resolved.
5. Keep fingernails short with smoothly-filed edges to allow thorough cleaning and prevent glove tears. Use of artificial fingernails is not recommended.

HAND HYGIENE PROCEDURE
1. Wet hands and wrists under cool running water.
2. Dispense sufficient antimicrobial hand wash to cover hands and wrists.
3. Rub the hand wash gently onto all areas. Be sure to lather the backs of your hands, between your fingers, and under your nails. Scrub your hands for at least 20 seconds before rinsing under cool water.
4. Dry thoroughly with paper towels.
5. Hand lotion can be applied at lunchtime or after the treatment day to help keep your skin from drying and chapping.

Rationale: Hand washing is extremely effective in preventing many infections acquired from the transmission of organisms on the hands. Cool water minimizes the shedding of microorganisms from the subsurface layers of the skin and assists in reducing the potential for skin irritation. The antiseptic hand wash used in the clinical areas has a residual long lasting antimicrobial effect on the skin that improves with more frequent use throughout the day. It also contains emollients to help protect the skin from irritation. Alcohol-based hand antiseptics may only be used instead of hand washing when hands are not visibly soiled. They serve as an adjunct to the dental school’s primary antiseptic mode of hand washing with a parachlorometaxlenol (PCMX) antiseptic soap.

SURGICAL SCRUBS
Surgical procedures require a higher standard of hand washing since invasive procedures allow a greater transmission of bacteria. Therefore, before surgery:
1. Be sure all jewelry is removed including rings, bracelets, watches, etc.
2. Clean fingernails.
3. Scrub hands, fingernails and forearms to the elbows with antimicrobial soap for two minutes.
4. Rinse thoroughly, first the hands, then forearms, allowing the water to run from your hands down the forearms.
5. Repeat this several times.
6. Dry with a sterile towel.
7. Use an alcohol based handrub, apply to palm of one hand, rub hands together covering all surfaces until dry.
APPENDIX B

COMMON PROSTHODONTIC / ORTHODONTIC ITEMS

To Be Sterilized (Autoclaved)

- bristle brushes
- orthodontic pliers
- all burs including acrylic
- stock impression trays
- central bearing plates for articulator
- rag wheels
- compound heater tray
- #7 wax spatula
- metal handle mixing spatulas
- facebow fork

To Be Disinfected

- articulator
- trial bases
- casts
- torch
- compound heater
- shade guides
- facebow (minus fork)
- rulers
- knives
- mold guides
- mixing bowl & mixing spatulas

APPENDIX C

DISINFECTION OF DENTAL MATERIALS AND USE OF DISPOSABLE PUMICE WHEELS

Items such as impressions, jaw relation, records, casts, prosthetic restorations and devices that have been in the patient’s mouth should be properly disinfected (as shown in the table below) prior to transferring to a dental laboratory. Disinfected impressions that are sent to the dental laboratory should be labeled as such in order to prevent duplication of the disinfection protocol. Impressions must be rinsed to remove saliva, blood and debris, and then disinfected at the cubical area. Impressions can be disinfected with an EPA registered hospital level disinfectant. Since the compatibility of an impression material with a disinfectant varies, manufacturers’ recommendations for proper disinfection should be followed. The use of disinfectants requiring times of no more than 10 minutes is recommended.

**DISINFECTION OF PROSTHETICS AND IMPRESSIONS PROTOCOL**

The required protocol for disinfection of Prosthetic and Impression materials is:

1. Place Items in Plastic Bag.
2. Apply EPA-Registered Hospital Level Disinfectant Thoroughly.
3. Disinfect For Time Recommended by Manufacturer.
4. Materials Included in this protocol are:
   - All Impressions
   - Acrylic Prostheses
   - Wax Bites/Rims & Bite
   - Removable Prostheses w/ Metal Frame/Base
   - Porcelain/Gold

**INSTRUCTIONS FOR THE USE OF DISPOSABLE PUMICE WHEELS**

Disposable wheels, single dose pumice and disposable trays are available at the dispensing station.

1. Mount wheel on blue mandrel only and secure with black “O” ring*
   a. If not secured by the “O” ring the wheel will not stay on the mandrel.
   b. The disposable wheels will not work on any other type of mandrel.
2. Make stiff slurry of pumice and water. Apply liberal amounts of pumice slurry to the restoration to be polished. It is important to keep the wheel and restoration wet with the pumice slurry, if the wheel becomes too dry it will burn the acrylic.
   a. Initially more pressure may need to be applied to the area to be polished. To achieve a higher polish, thin the pumice slurry and use lighter pressure to polish. Always use liberal amounts of pumice slurry to prevent burning the acrylic.
3. When finished, remove the wheel replacing the black “O” ring on the mandrel and dispose of the wheel and unused pumice. Disinfect “O” ring with hospital grade disinfectant. Be sure to save the black “O” ring! Replace on mandrel for further use.
4. Rinse the restoration and place in a plastic bag with hospital grade disinfectant according to the school’s infection control policy.
   a. Instructions are posted on the yellow signs by each sink in the labs.

*If “O” ring is missing or broken please get a new “O” ring from dispensing, as the wheel will not stay on the mandrel when polishing.
APPENDIX D

DISPOSAL OF WASTE MATERIALS
Disposable materials such as gloves, masks, wipes, paper drapes and surface covers that are contaminated with body fluids should be carefully handled with gloves and discarded in the appropriate waste container. Small amounts of blood, disinfectants and sterilants may be carefully poured into a drain connected to a sanitary sewer system. Care should be taken to ensure compliance with applicable local regulations. It is recommended that drains be flushed each night to reduce bacterial accumulation and growth. Sharp items, such as needles and scalpel blades, should be placed in puncture-resistant containers marked with the biohazard label. Human tissue may be placed in leak-proof and puncture-resistant containers with the biohazard label and a label that identifies the contents. Regulated medical waste (Soft Waste and Sharp Waste) should be disposed of according to the requirements established by local or state environmental regulatory agencies (see U of M Regulated Waste here. See Appendix K.)

PRACTICES FOR THE DENTAL LABORATORY
Dental laboratories should institute appropriate infection control programs. Such programs are to be coordinated with the School of Dentistry.

9TH FLOOR GOLD ROOM (RECEIVING AREA): A receiving area has been established separate from the production area. Countertops and work surfaces should be cleaned and then disinfected daily with an appropriate surface disinfectant used according to the manufacturer's directions.

INCOMING CASES: All cases should be disinfected before they are received. Containers should be disinfected after each use. Packing materials should be discarded to avoid cross contamination.

DISPOSAL OF WASTE MATERIALS: Solid waste that is soaked or saturated with body fluids should be sealed in a sturdy impervious bag labeled as BIOHAZARD. Place the sealed bag in a secondary container near the regular waste. The bag will be disposed of following regulations established by local or state environmental agencies.

PRODUCTION AREA: Persons working in the production area should wear a clean uniform or laboratory coat, a facemask, protective eyewear and disposable gloves. Work surfaces and equipment should be kept free of debris and disinfected daily. Any instruments, attachments, and materials to be used with new prostheses or appliances should be maintained separately from those to be used with prostheses or appliances that have already been inserted in the mouth. Disposable rag wheels and single use disposable containers of pumice are available for individual use on each case. Brushes and other equipment should be disinfected at least daily. The excess should be discarded.

OUTGOING CASES: Each case should be disinfected before it is returned to the School of Dentistry. The School of Dentistry should be informed about infection control procedures that are used in the dental tech laboratories.
APPENDIX E

HEPATITIS B VACCINE DECLINATION

I understand that due to my occupational exposure to blood or other potentially infectious materials I may be at risk of acquiring hepatitis B virus (HBV) infection. I have been given the opportunity to be vaccinated with hepatitis B vaccine, at no charge to myself. However, I decline hepatitis B vaccination at this time. I understand that by declining this vaccine, I continue to be at risk of acquiring hepatitis B, a serious disease. If in the future I continue to have occupational exposure to blood or other potentially infectious materials and I want to be vaccinated with hepatitis B vaccine, I can receive the vaccination series at no charge to me.

Employee signature

Date
APPENDIX F

HEPATITIS B IMMUNIZATION STATUS RECORD

Please check one of the following selections for your current Hepatitis B immunization status. Return this completed form and documentation to Catherine Harding-Rose, 8-376D Moos Tower.

__1. I have received the three-injection series of the Hepatitis B vaccine. Accompanying this form is or will be (circle one) appropriate verification from my medical records.

__2. I have received the three-injection series of the Hepatitis B vaccine. However, I do not know where or how to access verification from my medical record.
   • The year was approximately ________________

__3. I am in the process of receiving the Hepatitis B vaccine and I will notify you when the immunization is complete.
   • My 1st injection was received ________________

__4. I have naturally acquired immunity, or I had the disease Hepatitis B. Accompanying this form is or will be (circle one) appropriate verification from my medical record.

__5. I elect to receive the Hepatitis B Vaccination.

__6. I elect to have a titer test done to determine my current Hepatitis B status.

__7. I want to sign a declination form for the Hepatitis B vaccination. I understand I can change my decision at a later date.

Employee Signature: ____________________________________________

Employee Name (print): __________________________________________

Date: __________________________________________________________

Job Title: _______________________________________________________

Department/Division: _____________________________________________

Rev. 7/18chr
APPENDIX G

HAZARD COMMUNICATION

I. GENERAL
This written hazard communication program has been established for the University of Minnesota School of Dentistry in compliance with federal and state regulations. This program applies to all procedures and tasks in areas where employees may be exposed to hazardous substances under normal working conditions or during an emergency situation.

Under this program, employees will be informed of the contents of the hazardous properties (if any) of the chemicals, products, and materials with which they work; safe handling procedures; and measures to take to protect themselves from chemical hazards. Employees will also be informed of the hazards (if any) associated with non-routine tasks or outside contractors working within their areas.

II. HAZARD DETERMINATION
The School of Dentistry relies on the evaluation of the chemical manufacturer, distributor, and importers shown in the SDSs, to meet hazard determination requirements.

III. LABELS
A. The School’s Materials Manager or the person in charge of ordering or receiving supplies will be responsible for seeing that all containers of hazardous products coming into the department are properly labeled.
   1. Identity
   2. Appropriate hazard warning
   3. Company name and address

B. If employees transfer hazardous materials from a labeled container to a portable container that is intended for immediate use only, no labels are required on the portable container.

C. If employees become aware of any portable or non-portable container holding a product or material containing a hazardous chemical that may be used more than once, it is their responsibility to immediately notify their supervisor or the compliance officer.

D. The following are exempt from the labeling requirements:
   1. Consumer products and hazardous substances subject to a consumer product safety standard of labeling requirements.
   2. Pesticides subject to the labeling requirements of the Federal Insecticide, Fungicide, and Rodenticide Act.
   3. Any food, food additive, color additive, drug, or cosmetic.

E. Medical devices are exempt from labeling requirements if they are in their original container.
   1. Amalgam alloy
   2. Resin tooth bonding agent
   3. Calcium hydroxide cavity liner
   4. Cavity varnish
   5. Zinc-oxide eugenol dental cement
   6. Dental cement other than zinc oxide eugenol
   7. Coating material for resin fillings
   8. Partially fabricated denture kit including teeth
   9. Impression material
   10. Resin impression tray material
   11. Tooth shade resin material
   12. Dental mercury
13. Bracket adhesive resin and tooth conditioner
14. Denture relining, repairing or rebasing resin
15. Denture adhesive or cleaner
16. Pit and fissure sealant, and conditioner
17. Temporary crown and bridge resin
18. Root canal filling resin, paper point, silver point, gutta percha
19. Oral cavity abrasive polishing agent
20. Intraoral dental wax
21. Stabilizing splints
22. Articulating paper
23. Base plate shellac
24. Rubber dam and accessories
25. Dental floss
26. Disposable fluoride trays

F. All labels shall contain:
   1. Identity
   2. Physical and Health hazards (including target organ effect)

IV. SAFETY DATA SHEETS
A. The Materials Manager is in charge of ordering and receiving supplies and will assist the Compliance Office to maintain a file with an SDS on every product that contains a hazardous chemical.
B. Copies of SDSs for all hazardous chemicals to which the school may be exposed are available from vendors electronically, in the Health and Safety Tab of the Faculty and Staff Intranet, or by contacting the School of Dentistry’s Compliance Office.
C. SDSs will be available for review by all employees during working hours or on the intranet at any time. Copies will be available upon request from the Health & Safety officer.
D. The school’s Compliance Officer and/or the person in charge of ordering supplies is responsible for acquiring and updating SDSs. They will request SDSs on all orders of new products or if an SDS had not been supplied with an initial shipment.
E. This school posts the required OSHA and MNOSHA posters.

V. EMPLOYEE INFORMATION AND TRAINING
A. Everyone in the school who works with (or is potentially exposed to) hazardous chemicals will receive initial training on the Minnesota Employee Right To Know Act, The Federal Hazard Communication Standard and the safe use of chemicals.
B. The training program will be administered by the Compliance Officer who will maintain the training records.
C. Regular departmental meetings are used to review information presented at the trainings and any new hazard in the work area. Employees are asked to sign health & safety review session records.
D. Before starting work, or as soon as possible thereafter, each new employee will be trained on the hazardous materials in their department/division.
E. Information and training includes:
   2. Any task in the department where hazardous chemicals are present.
   3. The location and availability of the written hazard communication program, including the required list(s) of hazardous chemicals and SDSs.
   4. Methods and observations that will be used to detect the presence or release of a hazardous chemical in the work area.
5. The physical and health hazards of the chemicals in the work area.
6. The measures employees can take to protect themselves from these hazards including proper PPE.
7. The details of this written hazard communication program including an explanation of the labeling system and the SDSs and how employees can obtain and use the appropriate hazard information.

F. Employees are informed that the employer is prohibited from discriminating against an employee who exercises their rights regarding information about hazardous chemicals in this department.

VI. HAZARDOUS NON-ROUTINE TASKS
A. Prior to starting work on non-routine tasks, each employee will be given information about the hazards involved with non-routine tasks. This information will include:
   1. Specific chemical hazards.
   2. Protection/safety measures employees can take to lessen risks.
   3. Measures the department has taken to lessen the hazards including ventilation, safety glasses, gloves, masks, presence of another employee, and emergency protocol.
B. It is school policy that no employee is allowed to begin work on any non-routine task without first receiving a safety briefing.

VII. INFORMING CONTRACTORS
A. The current Dental Engineer Services supervisor, Greg Johnson, and Compliance Officer, Catherine Harding-Rose, will advise outside contractors of any chemical hazards they may encounter in the normal course of their work on the premises, the labeling system used, the protective measures to be taken, and the safe handling procedures to be used. These contractors will also be notified of the location and availability of SDSs. It is the responsibility of the contractors to inform their employees.
B. Any outside contractor bringing chemicals onto the premises where our staff may be exposed to them must provide the appropriate hazard information, including labels used and the precautionary measures to be taken with these chemicals. It is the responsibility of the Director of Infection Control and Safety to obtain this information and pass it on to the employees of the School.

VIII. PIPES AND PIPING SYSTEMS
A. Information on the hazardous contents of pipe or piping systems can be obtained by Dental Engineering or Facilities Management.
B. Piping systems shall be identified at access points and labeled every ten feet where the piping is eight feet or closer to employee contact by Facilities Management for the University.

IX. HOW TO REVIEW SDSs
A. The SDSs are arranged alphabetically. A database of SDSs is in the Health & Safety tab of the Faculty and Staff Intranet on the School of Dentistry web page.
B. If in place of an SDS you find a letter requesting the SDS this means the manufacturer, distributor or importer has not responded to our request for an SDS. This letter is proof of our intent.
C. In place of an SDS you may find a letter from the manufacturer stating that either the product is non-hazardous or that they do not need to comply with the Federal Hazard Communication Standard.
D. For your information The Federal Hazard Communication Standard does not apply to:
   1. Hazardous waste
   2. Tobacco or tobacco products
   3. Wood or wood products
   4. Articles (manufactured items other than fluid or particles which under normal conditions of use do not release hazardous chemicals).
   5. Food, drugs or cosmetics intended for personal consumption by employees in the workplace.
APPENDIX H

LATEX ALLERGY POLICY

INTRODUCTION

Background
Latex gloves have proved effective in preventing transmission of many infectious diseases to health care workers. But for some workers, exposures to latex may result in allergic reactions. Reports of such reactions have increased in recent years, especially among health care workers.

Latex allergy is a reaction to certain proteins and chemicals in latex rubber products. The amount of latex exposure needed to produce sensitization or an allergic response is unknown; however, increasing the exposure to latex increases the risk of developing allergic symptoms. Health care workers are at risk due to their continued exposure to the latex proteins. Since 1988, FDA reported the number of allergic reactions to latex-containing medical devices at 1-6% of the general public and 8-12% of healthcare workers and others exposed to latex on their jobs.

In sensitized persons, symptoms usually begin within minutes of exposure, but they can occur hours later and can be quite varied. Mild reactions to latex involve skin redness, rash, hives, or itching. More severe reactions may involve respiratory symptoms such as runny nose, sneezing, itchy eyes, scratchy throat, and asthma (difficult breathing, coughing spells, and wheezing). Rarely, shock may occur; however, a life-threatening reaction is seldom the first sign of latex allergy.

Latex is a common component of disposable gloves, stethoscopes, adhesive bandages, syringes, rubber dams, prophy cups, suction tips, bite blocks, IV tubing, rubber bands, pencil erasers, and many other medical and dental supplies. Because of frequency of use, latex gloves are the most significant source of exposure among healthcare workers. Cornstarch powder previously used to line disposable gloves can absorb latex proteins and then become airborne resulting in asthmatic reactions among individuals who did not use gloves but merely inhaled latex-containing dust.

Definitions

Irritation Dermatitis - is the most common reaction to latex products and is characterized by development of dry, itchy, irritated areas on the skin, usually the hands. This reaction is caused by skin irritations from using gloves, powder in the gloves, and possibly exposure to other workplace products and chemicals. Irritation dermatitis is a non-specific response and a true immune allergic reaction.

Allergic Contact Dermatitis (Type IV hypersensitivity or delayed hypersensitivity) - results from exposure to the chemicals added to latex during harvesting, processing, or manufacturing. These chemicals can cause skin reactions similar to those caused by poison ivy. As with poison ivy, the rash usually begins 24-48 hours after contact and may progress to oozing skin blisters.

Latex Allergy (Type I or immediate) - the most serious of the reactions that usually begins within minutes of exposure to latex, but can occur hours later with a variety of symptoms. Mild reactions to latex involve skin redness, hives, or itching. More severe reactions may involve respiratory symptoms such as runny nose, sneezing, itchy eyes, scratchy throat, and asthma. Anaphylactic shock may occur on rare occasions.

Severity of Latex Reaction
The type and severity of reaction depend on the level of sensitivity, the amount of allergen, and the site of exposure. A number of exposures may occur before any clinical symptoms appear. In attempting to predict latex reaction, it is important to remember three key factors:

a) the severity of a previous reaction does not reliably predict the severity of a future reaction,
even casual contact with latex can cause severe reactions in highly sensitive individuals, and latex allergy can be mistaken for other allergies.

**Exposure Control for Health Care Workers**

Implementing the following recommendations outlined by NIOSH (National Institute for Occupational Safety and Health) can minimize latex exposure in the dental setting:

1. Use non-latex gloves.
2. Wash hands with a mild soap and dry thoroughly after removing gloves.
3. Frequently clean work areas that may be contaminated with latex particles.
4. If you develop symptoms of latex allergy, avoid direct contact with latex gloves and products until you can see a physician experienced in treating latex allergy.
5. Attend continuing education programs and review training materials about latex allergy.

**PROCEDURES FOR TREATING PATIENTS**

**Identification**

Identifying patients at risk should be a specific and integral part of the medical history, both initial and update. The following questions can help determine the likelihood of a patient with a latex allergy:

1. Have you ever had or been told you had an allergy to latex (rubber) products?
2. When exposed to rubber gloves, glove powder, balloons, adhesive bandages, rubber toys, or other rubber products have you ever experienced itching, swelling, watery eyes, hives, wheezing, or other breathing difficulties.
3. Have you ever experienced itching, swelling of the lips, or other allergic reaction during a dental exam or during the use of a dental rubber dam?
4. Have you ever experienced an unexplained allergic reaction during surgery, a urinary catheterization, barium test, or other medical procedure?
5. Have you ever experienced itching or swelling of the mouth or other allergic reaction when eating avocados, chestnuts, bananas, kiwi, papaya, or other tropical fruits? If the patient answers YES to any of these questions, the dental healthcare provider should consult with the patient’s allergist before proceeding with any dental care.

**Precautions for latex allergic patients**

1. Obtain latex-free materials if possible.
2. Encourage latex-allergic, latex-sensitive patients to obtain and carry with them some type of allergy identification such as a medical alert bracelet.
3. If a patient demonstrates symptoms of latex allergy, immediately stop procedure, remove any problematic items from contact with patient, and notify your supervising faculty. They will determine if a medical emergency response is necessary.

**Exposure control for patients**

The amount of exposure necessary to sensitize individuals is not known, but reductions in exposure to latex proteins can result in decreased sensitization and symptoms, according to NIOSH. Care must be taken with all patients to reduce their levels of exposure to latex by:

1. Wear non-latex gloves when setting up the dental operatory and handling instruments.
2. Avoid touching any latex object, then touching the patient.
3. Non-latex gloves and Non-powdered latex gloves should be utilized whenever possible.
APPENDIX I

HANDLING OF EXTRACTED TEETH

1. Disposal of extracted teeth
   a. Teeth that do not contain amalgam can be placed in 10% bleach solution (container is found at the dirty dispensing window). The teeth are disposed of as hazardous waste according to state and federal regulations (see appendix K).
   b. Teeth that contain amalgam must be treated with a disinfectant that does not contain bleach or chlorine for at least 2 weeks, air dried, and stored in a sealed container. The teeth are disposed of as hazardous waste according to state and federal regulations concerning amalgam waste.

2. Collection of extracted teeth for educational purposes
   a. Remove gross debris including blood and soft tissue from amalgam-free teeth using a soft brush and soap and water.
   b. Amalgam-free teeth can be stored in formalin in a leak-proof container with a biohazard label.
   c. Before use, the teeth should be rinsed and heat-sterilized for 40 minutes for safe handling.

3. Returning teeth to patients
   a. Patients may request to keep their own extracted teeth.
   b. Before returning any teeth to patients, wash off any blood or soft tissue debris using soap and water and a soft brush. Place the teeth in a small plastic bag.
   c. Once returned to the patient, the tooth is no longer considered a risk to dental health care personnel and is no longer subject to the OSHA Bloodborne Pathogens Standard.

4. Teeth brought by first-year students entering the preclinic
   a. Students arrive with teeth collected in a labelled container of formalin.
   b. The containers are stored in a properly vented hood or storage cabinet for 2 weeks.
   c. After 2 weeks of formalin treatment the teeth are considered disinfected, and the formalin is replaced with formalternate to reduce student and employee exposure to formalin. Formalin is disposed of as chemical hazardous waste.
   d. Practice teeth in formalternate may be kept in the student's locker or dental simulation unit.
APPENDIX J

SHARPS MANAGEMENT AND DISPOSAL PROTOCOL
“Sharps” must be placed in disposable, closable, leak proof, puncture-resistant containers that are labeled or color-coded (red). These containers are located in clinic cubicles at the point-of-use, laboratories, and dispensing areas. These containers should not be over-filled or have any objects protruding from the opening.

Procedure
1. Full Sharps Containers: Sharps containers are full when the sharps reach the "Full Line" marked on the container. No additional sharps can be placed into a container that has reached the "Full Line". If the used sharps create a hill or peak which reaches the "Full Line", the container is deemed full. Never shake full containers to make additional room in a container.

2. Monitoring for Full Sharps Containers: Dental Assistants will monitor sharps containers in their areas of responsibility. If an area does not have a dental assistant, the area’s manager will designate a responsible party.

3. Disposal of Full Sharps Containers: When sharps reach the "Full Line", the lid of the container should be pulled closed until it securely locks. The container should be removed from the bracket and set on the floor next to the garbage for pick-up by the Custodial Staff.

4. Restocking Empty Containers: The individuals responsible for ordering supplies in each clinical area will monitor the empty sharps containers and reorder sharps containers as necessary. The Compliance Officer/Health and Safety Officer should be notified when new containers are needed and will apply the required notification stickers on containers. Some labelled sharps containers are kept in the storage closets in the Central Clinics on floors 8 and 9. Some labelled sharps containers including those labelled for “Etch Gel Only” are stored in the dirty dispensing areas on floors 8 and 9. Grad and specialty clinics are responsible for notifying the Compliance Officer when they need new sharps containers.
APPENDIX K

HAZARDOUS CHEMICAL WASTE MANAGEMENT AND DISPOSAL PROTOCOL

The School of Dentistry handles and disposes of all hazardous materials as directed by the University of Minnesota’s Department of Environmental Health & Safety, division of Hazardous Waste Management found here. Hazardous waste should never be poured down the drain or discarded in the trash. Policies are enforced by the School of Dentistry’s Compliance Officer, clinic supervisors, and lab supervisors. Faculty and staff provide observational oversight assistance.

The Faculty and Dental Assisting staff work with the Compliance Officer and alert her any time hazardous materials are found in the clinics and throughout the school or when expired dental materials disposal is needed. When alerted of material, the Compliance Officer will remove the material from the location and will store it in the Hazardous Waste room in Dental Engineering. Materials are stored in the appropriate secondary containers. A Hazardous Waste Management Team comes in weekly to package the material and transport off site for disposal.

**Amalgam Scraps**
Amalgam scraps are collected in each cubical and in the laboratories in airtight containers. Whenever a collection container is full, the staff will contact the SOD Compliance Officer to request a pick-up and the Compliance Officer will pick up the scrap amalgam containers, replace them with new labelled containers, and take the full containers to the Hazardous Waste Room in Dental Engineering where they will be processed and removed by the Hazardous Waste Management Team.

**Other Materials**
Additionally, the Faculty and Dental Assisting Staff work with the Compliance Officer and will alert her any time hazardous material, teeth, or “unknown” materials are found in the clinics and throughout the school or when expired dental materials disposal is needed. When alerted of material, the Compliance Officer will remove the material from the location and will store it in the Dental Engineering work space. Once these materials are brought to the Dental Engineering work area where they are processed and removed by the University’s Hazardous Chemical Waste Management division to pick up the material. For more information on the disposal of teeth, see Appendix I above.

**Unknown Chemicals**
If unknown chemicals are found or chemical labels are unreadable, complete the online Unknown Chemical Identification Request Form. The Department of Environmental Health and Safety will pick up the unknown chemical and identify it.

**Research Materials**
Research personnel use the Chematix Online Hazardous Waste Pickup Request to dispose of hazardous chemicals in the research labs. Chemical waste must be kept closed, stored in secondary containment, and labeled as hazardous waste preferably with a yellow hazardous waste label. Yellow labels are provided free by DEHS upon request. The label must accurately describe the waste, identify the hazard(s) associated with the waste, and include the dates over which the waste was collected. For more information, see Hazardous Waste Disposal Procedures.
APPENDIX L

TUBERCULOSIS INFECTION CONTROL POLICIES AND GUIDELINES

Tuberculosis (TB) has remained a major public health problem for much of the world’s population for centuries. It is one of the top 10 causes of death worldwide with the total mortality estimated at 1.6 million annually. Recent data suggest that the rate of TB infection has been declining steadily in the US. In 2017, the annual national TB rate (2.8/100,000 population) showed a 42% decrease from the rate in 2005 (4.8) and a 73% decrease from the rate in 1991 (10.4). Incidence rates among health care personnel were similar to those in the general population.

While most counties in Minnesota report very low numbers of TB cases, the rate of TB in Minnesota (3.2/100,000 in 2017) is higher than the national average. This is due to high rates of TB infections in Hennepin, Ramsey, and Olmsted Counties (5.7, 7.0, and 7.8, respectively in 2017). The Moos Tower dental clinics are not equipped to treat active TB patients. However, because we cater to a challenged population and the rate of TB infection in the Twin Cities is more than twice the national average, providers of dental care as well as staff and faculty who interact with the public in other capacities, must adhere to CDC guidelines at a minimum.

FEATURES OF MTB INFECTION AND CLINICAL MANIFESTATIONS OF TB

Mycobacterium tuberculosis (Mtb) is an aerobic, acid-fast bacillus which is primarily transmitted through the air in small "microdroplet" particles less than 5 microns in size. These microdroplet nuclei are produced by a person with untreated TB during breathing, coughing, sneezing, speaking, or forced exhalation. When susceptible people have prolonged contact with the air contaminated by an infectious individual, the droplet nuclei can enter the alveoli. Within weeks of exposure, the tubercle bacilli can spread through the lymphatics to regional lymph nodes and hematogenously to more distant tissues and organ sites. Only 5-10% of immunocompetent persons infected with Mtb develop active TB, and this percentage can be reduced when preventive therapy is given. Unfortunately, persons with a variety of compromising conditions are at greater risk of developing clinically active disease following microbial infection. The risk of clinical TB is greater within the first year following establishment of Mtb infection.

INFECTION CONTROL

Evidence from a systemic review conducted by a National Tuberculosis Controllers Association-Centers for Disease Control and Prevention (NTCA-CDC) work group was presented to the Advisory Council on the Elimination of Tuberculosis (ACET) and the Healthcare Infection Control Practices Advisory Committee (HICPAC). Experts from the advisory committees supported the need to reduce TB testing for health care personnel while encouraging treatment of health care personnel with latent TB infection (LTBI).

The updated guidelines are as follows:

1. TB screening with an individual risk assessment and symptom evaluation at baseline
2. TB testing with an interferon-gamma release assay (IGRA) or a tuberculin skin test (TST) for persons without documented prior TB disease or LTBI
3. No routine serial TB testing at any interval after baseline in the absence of a known exposure or ongoing transmission
4. Encouragement of treatment for all health care personnel with untreated LTBI
5. Annual symptom screening for health care personnel with untreated LTBI
6. Annual TB education of all health care personnel

Minnesota regulations also require screening of health care workers including baseline TB testing before they begin work. More information on these regulations can be found here.

TB transmission is controlled through a hierarchy of measures, including administrative controls, environmental controls, personal respiratory protection, and education. The main administrative goals of a TB infection-control program are early detection of a person with active TB disease and prompt isolation from susceptible persons to reduce the risk of transmission. Although DHCP are not responsible for diagnosis and treatment of TB, they should be familiar with the signs and symptoms to help with detection.

A community risk assessment should be conducted periodically when reviewing TB infection-control policies. The policies should include provisions for detection and referral of patients who might have undiagnosed active TB; management of patients with active TB who require urgent dental care; and DHCP education, counseling, and tuberculin skin test (TST) screening.

While taking patients’ initial medical histories and at periodic updates, dental DHCP should routinely ask all patients whether they have a history of TB disease or symptoms indicative of TB.

Patients with a medical history or symptoms indicative of undiagnosed active TB should be referred promptly for medical evaluation to determine possible infectiousness. Such patients should not remain in the dental-care facility any longer than required to evaluate their condition and arrange a referral. While in the dental health-care facility, the patient should be isolated from other patients and DHCP and wear a surgical mask.

Elective dental treatment must be deferred until a physician confirms that a patient does not have infectious TB, or if the patient is diagnosed with active TB disease, until their physician confirms that the patient is being treated and is no longer infectious (i.e., negative check x-ray or three (3) negative sputum AFB cultures).

If urgent dental care is required for a patient who has, or is suspected of having, active TB disease, the care must be provided in a facility (e.g., hospital) that provides airborne infection isolation (i.e., using such engineering controls as TB isolation rooms, negatively pressured relative to the corridors, with air either exhausted to the outside or HEPA-filtered if recirculation is necessary). Patients can be referred to HCMC. Standard surgical face masks do not protect against TB transmission; DHCP should use respiratory protection (e.g., fit-tested, disposable N-95 respirators).

Any DHCP with a persistent cough (i.e., lasting > 3 weeks), especially in the presence of other signs or symptoms compatible with active TB (e.g., weight loss, night sweats, fatigue, bloody sputum, anorexia, or fever), should be evaluated promptly. The DHCP should not return to the workplace until a diagnosis of TB has been excluded or the DHCP is on therapy and a physician has determined that the DHCP is noninfectious (CDC. MMWR 52(RR-17):1-66, 2003).
APPENDIX M

DENTAL UNIT WATERLINE MAINTENANCE
The U of M School of Dentistry currently uses long-acting DentaPure Iodine tubes inserted in units to reduce microbial growth in dental waterlines. When used according to the manufacturer’s instructions for use, the cartridges provide safe dental unit water for 365 days by preventing the development of biofilm in the system.

BACKGROUND

- The CDC recommends that water used for nonsurgical dental procedures measures less than or equal to 500 colony forming units of heterotrophic bacteria per milliliter which is the standard set by the Environmental Protection Agency for drinking water.
- The dental school uses Twin Cities municipal water to fill the water bottles connected to the dental units.
- Sterile saline or sterile water is used when performing surgical procedures in the Oral Surgery Clinic.
- The Compliance Officer, in conjunction with the University’s Department of Environmental Safety, conducts quarterly testing of water samples from all clinics in the school to monitor the system. Baseline samples of the tap water used in the system have documented that our municipal water is within EPA guidelines.
- The DentaPure Iodine Cartridges are replaced annually or when necessary due to malfunction.
- Always follow manufacturer’s instructions for use when using dental supplies, instruments or equipment.

Chair-side Procedures for Water Bottles and DentaPure Cartridges

1. Run the tap water for 30 seconds before filling water bottles.
2. Turn on master switch and wait a few seconds for the system to pressurize.
3. Flush water lines (hand pieces and air/water syringes) for at least 30 seconds before patients arrive.
4. After patient treatment, empty water bottle and leave it in the drying slot at the end of the day.
5. Do not purge the lines (i.e. run dry) at the end of the day. Leave water in the lines.
APPENDIX N

EXPOSURE CONTROL PLAN

For the University of Minnesota School of Dentistry

This Exposure Control Plan is located in the Health & Safety Office and on the School of Dentistry’s website.

Employee Rights: Employees are entitled to a clean and sanitary workplace and have the right to be provided with appropriate protective equipment and measures to eliminate or minimize occupational exposure to bloodborne pathogens.

Employer Responsibilities: The University of Minnesota School of Dentistry will:
1. Accept responsibility for leadership of the exposure control program and infection control in the School of Dentistry.
2. Determine which employees have occupational exposure.
3. Ensure that the provisions of this exposure control plan are followed by all employees who have occupational exposure.
4. Ensure that new employees are trained upon hiring or when new duties are assigned.
5. Provide free of charge when appropriate:
   - Gloves
   - Masks
   - Eye protection
   - Face shields
   - Gowns or lab coats
   - Ventilation devices
   - Any equipment designed to remove or isolate the hazard of bloodborne pathogens from the employee
   - Hepatitis B vaccination
   - Medical evaluation and follow-up treatment following an exposure incident
   - Training

Employee Responsibilities: The employees of the School of Dentistry will:
1. Comply with the provisions of this exposure control plan.
2. Utilize personal protective equipment designed to protect them from occupational exposure to bloodborne pathogens as described in this plan.
3. Follow established work practice controls.
4. Report all occupational exposures.

Important Definitions To Know

Contaminated - the presence or the reasonably anticipated presence of blood or other potentially infectious materials on an item or surface (OPIM).

Contaminated Laundry - laundry which has been soiled with blood or OPIM or which may contain sharps.

Contaminated Sharps - any contaminated object that can penetrate the skin including, but not limited to, needles, scalpels, broken glass, broken capillary tubes, and exposed ends of dental wire.
Decontamination - the use of physical or chemical means to remove, inactivate, or destroy bloodborne pathogens on a surface or item to the point where they are no longer capable of transmitting infectious particles and the surface or item is rendered safe for handling, use, or disposal.

Disinfect - to inactivate virtually all recognized pathogenic microorganisms, but not necessarily all microbial forms, on inanimate objects.

Engineering Controls - controls that isolate or remove the bloodborne pathogens hazard from the workplace.

HBV - hepatitis B virus.

HIV - human immunodeficiency virus

Licensed Healthcare Professional - a person who is qualified by education, training, or licensure to perform a professional service within their scope of practice and independently report that professional service.

Occupational Exposure - reasonably anticipated skin, eye, mucous membrane, or parenteral contact with blood or other potentially infectious materials that may result from the performance of an employee's duties.

Other Potentially Infectious Materials (OPIM) - semen, vaginal secretions, cerebrospinal fluid, synovial fluid, pleural fluid, pericardial fluid, peritoneal fluid, amniotic fluid, saliva in dental procedures, any bodily fluid that is visibly contaminated with blood, all bodily fluids in situations where it is difficult or impossible to differentiate between bodily fluid, and any unfixed tissue or organ (other than intact skin) from a human (living or dead).

Personal Protective Equipment - specialized clothing or equipment worn by an employee for protection against a hazard. General work clothes not intended to function as protection against a hazard are not considered to be personal protective equipment.

Regulated Waste - liquid or semi-liquid blood or OPIM; 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 OPIM and are capable of releasing these materials during handling; contaminated sharps; and pathological and microbiological wastes containing blood or other potentially infectious materials.

Standard Operating Procedures - written policy, procedure, directive, standard of practice, protocol, system of practice, or element of an infection control program which addresses the performance of work activities so as to reduce the risk of exposure to blood and other potentially infectious materials.

Source Individual - any individual, living or dead, whose blood or other potentially infectious materials may be a source of occupational exposure to the employee.

Sterilize - the use of a physical or chemical procedure to destroy all microbial life including highly resistant bacterial endospores.

Universal / Standard Precautions - all human blood and certain human body fluids are treated as if known to be infectious for HIV, HBV, and other bloodborne pathogens.

Work Practice Controls - controls that reduce the likelihood of exposure by altering the manner in which a task is performed.
Occupational Exposure in Dentistry

Occupational exposure means contact with blood or OPIM.

Universal/Standard precautions, careful patient assessment, the use of adequate personal protective equipment, sterilization and/or chemical disinfection of instruments, environmental surface and equipment disinfection, and aseptic technique will be conscientiously utilized to prevent or minimize the occupational exposure of employees to blood and other potentially infectious materials.

Communicating Hazards to Employees

1. A BIOHAZARD warning label must be placed on containers and bags containing regulated waste and any other containers used to store, transport, or ship blood or other potentially infectious materials.
2. These BIOHAZARD labels must be fluorescent orange or orange-red with lettering or symbols in a contrasting color.
3. Red bags or red containers may be substituted for BIOHAZARD labels.

Exposure Determination

1. All clinic employees have occupational exposure including:
   • Dentists, Dental Therapists, Dental Hygienists, Dental Assistants
   • Instructors
   • Clinical Researchers
   • Clinical Staff

Category A consists of occupations that require procedures or other occupation-related tasks that involve exposure or reasonably anticipated exposure to blood or other potentially infectious material or that involve a likelihood for spills or splashes of blood or other potentially infectious material. This includes procedures or tasks conducted in non-routine situations as a condition of employment.

Category B consists of occupations that do not require tasks that involve exposure to blood or other potentially infectious material on a routine or non-routine basis as a condition of employment. Employees in occupations in this category do not perform or assist in emergency medical care or first aid and are not reasonably anticipated to be exposed in any other way.

   • An exposure determination shall be made without regard to the use of personal protective clothing and equipment.
   • An employer shall determine and document a rationale for an exposure determination.
   • An employer shall maintain a list of all job classifications which are determined to be Category A.

Employee Training

Employees will receive initial training as close as possible to their first day of work at no cost to the employee and during working hours. Retraining will take place when changes in procedures or tasks occur that will affect occupational exposure. Annual update training will take place one year from the initial training date or sooner. Training will include the following areas:

   • An explanation of the Bloodborne Pathogens Standard, its contents and how it relates to the employee's position within the dental school.
   • A general explanation of the epidemiology and symptoms of bloodborne diseases like HBV, HCV, and HIV.
- An explanation of the modes of transmission of bloodborne pathogens such as HBV, HCV, and HIV.
- A general explanation that a number of other occupational diseases other than HBV and HIV exist, such as hepatitis C, herpes simplex virus infections, and staphylococcal infections.
- An explanation of this exposure control plan, where it is located and how the employee can obtain a copy of it.
- An explanation of the appropriate methods for recognizing tasks and other activities that may involve exposure to blood, saliva or unfixed tissue.
- An explanation of the use and limitations of methods that will prevent or reduce exposure including appropriate engineering controls, work practices, and personal protective equipment.
- Information on the types, proper use, location, removal, handling, decontamination and disposal of personal protective equipment.
- An explanation of the basis for selection of personal protective equipment based upon the task being performed and the degree of exposure anticipated.
- Information on the hepatitis B vaccine, including information on its efficacy, safety, method of administration, the benefits of being vaccinated, and that the vaccine and vaccination will be offered free of charge.
- Information on the appropriate actions to take and persons to contact in an emergency involving blood or other potentially infectious materials outside the normal scope of work.
- An explanation of the procedures to follow if an exposure incident occurs, including the method of reporting the incident and the medical follow-up that will be made available.
- An explanation of the signs and biohazard labels and/or color coding used in the office.

The person(s) conducting training sessions will be knowledgeable in the Bloodborne Pathogens Standard, the subject matter covered by the training program and how it relates to the dental clinic and research environment. There will be an opportunity for interactive questions and answers with the person conducting the training session.

**Preventing Occupational Exposure**

The primary means of eliminating or minimizing employee exposure is through the use of engineering controls and work practice controls.

### 1. Engineering controls

Act on the source of the hazard and eliminate or reduce employee exposure without reliance on the employee to take self-protective action. This is achieved through the use of equipment designed for this purpose. This School of Dentistry utilizes the following engineering controls:

- Needle recapping devices and techniques
- Disposable sharps container
- Tongs/forceps
- Emergency eye wash
- Utility gloves

The chart of engineering controls below describes when and how these items are used.

The engineering controls will be inspected and maintained according to the following schedule:

- The needle recapping device, utility gloves and tongs/forceps will be visually inspected before each use.
- The disposable sharps container(s) will be visually inspected daily and not allowed to overfill.
- The emergency eyewash station will be tested weekly to ensure proper functioning.

The Compliance Officer will evaluate the effectiveness of existing engineering controls and review the feasibility of instituting more advanced engineering controls.
2. **Work practice controls** also reduce the likelihood of exposure to blood or other potentially infectious materials through changes in the way in which a task is performed. The protection they provide is based upon the behavior of the employee. The following work practice controls are employed by the School of Dentistry:

- Contaminated equipment will be labeled prior to servicing or shipping.
- Hands will be washed after removal of gloves and other personal protective equipment.
- Hands will be washed after contact with blood or saliva.
- Antiseptic handwash will be used every time hands are washed.
- All personal protective equipment will be removed when leaving the work area to go to a "clean area" or a non-patient treatment area.
- Glasses will be decontaminated prior to leaving the work area or prior to leaving the lab.
- Broken glass will be picked up by using a brush and dust pan and discarded into a sharps container. Broken glass will not be picked up by hand and/or vacuum.
- No two-handed needle recapping is allowed, but the one-handed scoop technique or use of a needle recapping device is acceptable.
- Needles will not be broken or sheared.
- Eating, drinking, chewing gum, and smoking are prohibited in the work area.
- Application of cosmetics or lip balm is prohibited in the work area.
- The handling of contact lenses is prohibited in the work area.
- The storage of food or drink is prohibited in the work area.
- Biopsy specimens will be placed in a container that is labeled with a biohazard label. Care will be taken not to contaminate the outside of the container by handling it with a contaminated gloved hand.

---

### ENGINEERING CONTROLS Schedule

<table>
<thead>
<tr>
<th>ENGINEERING CONTROLS</th>
<th>WHEN IS IT USED?</th>
<th>HOW IS IT USED?</th>
</tr>
</thead>
<tbody>
<tr>
<td>Sharps Container</td>
<td>To discard needles, scalpels, broken glass, dental wire</td>
<td>Simply drop item into container. Do not allow to overflow.</td>
</tr>
<tr>
<td>Utility Gloves</td>
<td>To handle contaminated instruments during processing</td>
<td>Worn when handling contaminated sharps, removed and autoclaved.</td>
</tr>
<tr>
<td>Tongs/Forceps</td>
<td>To pick up broken glass and contaminated objects.</td>
<td>Pressure on the tongs/forceps holds the item between the jaws so it can be transported. Sweep material into dust pan with brush. Disinfect equipment when items are contaminated.</td>
</tr>
</tbody>
</table>

---

Dust pan and Brush
All reusable equipment will be sterilized if possible. 
If it is not feasible to sterilize some reusable equipment, it will be decontaminated. 
When reusable equipment is heavily soiled, it will be precleaned to remove the heavy contamination prior to decontamination or sterilization. 
All tasks and procedures will be performed in such a manner as to minimize splashing, spraying, spattering or generation of droplets of blood or saliva. 
Personal protective equipment will be utilized during every situation or procedure where exposure to blood or saliva is reasonably anticipated. 
While working in the lab, students and employees will refrain from touching anything not needed for the procedure. 
Employees should keep gloved hands away from eyes, nose, mouth, or hair. 
Hair should be kept away from the face. 
Nails must be clean and short. 
Paper work should never be touched by a contaminated, gloved hand. 
University of Minnesota School of Dentistry policies and procedures outlined within this manual will be followed. 
Single and disposable use items, such as needles, are not to be reused.

3. Personal Protective Equipment
Where occupational exposure remains after institution of engineering controls and work practice controls, personal protective equipment will be provided as protection against occupational exposure.

The following personal protective equipment is supplied by the University of Minnesota School of Dentistry in the proper size and material for all employees:

Gloves, Face shields, Masks, Protective clinic gowns, Glasses with side shields, Pocket masks for CPR, Goggles, and Emergency ventilation devices

- The type and amount of personal protective equipment chosen to protect against contact with blood or saliva is based upon the type of exposure and quantity of these substances which can be reasonably anticipated to be encountered during the performance of a dental procedure.
- The University of Minnesota School of Dentistry is responsible for providing, laundering, repairing, replacing and disposing of personal protective equipment.
- Personal protective equipment that is penetrated by blood will be removed immediately or as soon as feasible.
- All personal protective equipment will be removed prior to leaving the work area.
- A new pair of gloves is to be used with each procedure. Gloves are not to be washed or decontaminated for re-use.
- Any shared personal protective equipment must be decontaminated between employee uses.
- Personal protective equipment will be considered "appropriate" only if it does not permit blood or saliva to pass through to or reach the employee's work clothes, street clothes, undergarments, skin, eyes, mouth, or other mucous membranes under normal conditions of use and for the duration of time the protective equipment will be used.
- The chart below describes where personal protective equipment is located, when it is to be worn, when it is to be changed, how it is to be decontaminated or disposed of, and where it is to be stored after
removal.

- To minimize the need for emergency mouth-to-mouth resuscitation, pocket masks, resuscitation bags or other ventilation devices will be provided in strategic locations where the need for resuscitation is likely.

## PERSONAL PROTECTIVE EQUIPMENT

### Schedule

<table>
<thead>
<tr>
<th>PERSONAL PROTECTIVE EQUIPMENT</th>
<th>LOCATION</th>
<th>TO BE WORN WHEN...</th>
<th>TO BE CHANGED WHEN...</th>
<th>DECONTAMINATE OR DISPOSE OF IN THIS MANNER</th>
<th>AFTER REMOVAL IT IS TO BE STORED</th>
</tr>
</thead>
<tbody>
<tr>
<td>Gloves</td>
<td>Lab / Clinic</td>
<td>Contacting blood, saliva or contaminated items</td>
<td>After each laboratory procedure</td>
<td>Dispose of in unregulated trash can</td>
<td>---------</td>
</tr>
<tr>
<td>Masks</td>
<td>Lab / Clinic</td>
<td>Anticipating splashing and splattering</td>
<td>Moist or visibly contaminated</td>
<td>Dispose of in unregulated trash can</td>
<td>---------</td>
</tr>
<tr>
<td>Glasses with side shields or goggles</td>
<td>Lab / Clinic</td>
<td>Anticipating splashing and splattering</td>
<td>-----------</td>
<td>Decontaminated with surface disinfectant</td>
<td>Dispensary with staff member</td>
</tr>
<tr>
<td>Gowna – disposable</td>
<td>Lab / Clinic</td>
<td>Anticipating splashing and splattering</td>
<td>Visibly contaminated</td>
<td>Dispose of in unregulated trash can</td>
<td>-----------</td>
</tr>
<tr>
<td>Gowna – cloth</td>
<td>Lab / Clinic</td>
<td>Anticipating splashing and splattering</td>
<td>Visibly contaminated</td>
<td>Dispose of in “dirty” dispensary laundry hamper</td>
<td>On cubical hook or disposed at “dirty” dispensary</td>
</tr>
<tr>
<td>Pocket mask for CPR</td>
<td>Lab / Clinic</td>
<td>Administering CPR</td>
<td>After each use</td>
<td>Dispose of in unregulated trash can</td>
<td>---------</td>
</tr>
</tbody>
</table>

### Cleaning and Disinfection

a. The University of Minnesota’s Facilities Management department will ensure that the School of Dentistry is maintained in a clean and sanitary condition.
b. An appropriate schedule for cleaning and disinfecting the various surfaces, equipment and rooms in the school has been determined. Refer to the Cleaning and Disinfection schedule on the next page.
c. All sterilants and disinfectants are used according to manufacturer's directions. All disinfectants are EPA registered tuberculocidal hospital disinfectants.
d. Contaminated reusable instruments are ultrasonically cleaned, rinsed, and sterilized in the autoclave or processed in the washer-disinfector.
e. Contaminated instruments which could penetrate the skin are considered reusable sharps. When such instruments are stored or processed in containers, employees will not reach into the container by hand to remove these instruments. They will be removed from the container with tongs or forceps.
CLEANING AND DISINFECTION
Schedule

<table>
<thead>
<tr>
<th>WORKSITE LOCATION</th>
<th>PROCEDURES PERFORMED</th>
<th>TYPES OF CONTAMINATION</th>
<th>SURFACE(S) OR ITEM(S) TO BE CLEANED</th>
<th>DISINFECTANT USED</th>
<th>DISINFECTION PROCEDURES</th>
</tr>
</thead>
<tbody>
<tr>
<td>ALL laboratory/clinic areas</td>
<td>Research procedures</td>
<td>Blood and saliva</td>
<td>Environmental surfaces</td>
<td>OPTIM1 Saniwipe AF3</td>
<td>wipe-discard-wipe</td>
</tr>
<tr>
<td></td>
<td>Research procedures</td>
<td>Blood and saliva</td>
<td>Non-autoclavable equipment</td>
<td>OPTIM1 Saniwipe AF3</td>
<td>wipe-discard-wipe</td>
</tr>
<tr>
<td></td>
<td>Research procedures</td>
<td>Blood and saliva</td>
<td>Reusable instruments</td>
<td>Saniwipe AF3</td>
<td>wipe-discard-wipe</td>
</tr>
<tr>
<td></td>
<td>Intra oral procedures</td>
<td>Blood and saliva</td>
<td>Environmental surfaces</td>
<td>Saniwipe AF3</td>
<td>wipe-discard-wipe</td>
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<td>Blood and saliva</td>
<td>Reusable instruments</td>
<td>Saniwipe AF3</td>
<td>wipe-discard-wipe</td>
</tr>
</tbody>
</table>

Regulated Waste

a. Regulated waste will be properly contained and disposed of so it will not become a means of transmission of disease to employees.

b. Contaminated disposable sharps will be discarded into a sharps container immediately or as soon as feasible after use. In the SOD sharps containers will be:

- closable (closed prior to removal or replacement)
- puncture resistant
- leak-proof on sides and bottom
- labeled with a biohazard label or be red in color
- maintained upright during use
- replaced routinely, and disposed of according to the U of M waste management policy
- located in each laboratory, patient care area, dispensary and clinical support labs

c. Other non-sharps regulated waste will be discarded into appropriate containers. In the SOD containers will be:

- closable (closed prior to removal or replacement)
- constructed to contain all contents and prevent leakage of fluids during handling, storage, transport or shipping
- labeled with a biohazard label or be red in color
- disposed of according to University Policy

d. Whenever the outside of a primary container holding regulated waste becomes contaminated, it should be placed into a secondary container that meets the requirements of the first container.

e. Laundry: Clinic gowns used in the School of Dentistry must be turned in at the reprocessing “dirty”
dispensary. Gowns are placed in appropriate bins (containers), and are picked up by the laundry service. Disposable gowns are to be discarded with regular waste.

**Hepatitis B Vaccination**

Hepatitis B vaccination is available to all employees in the School of Dentistry who have occupational exposure. The vaccination series will begin after the required training is given and within 10 working days of an employee's first day at work. The vaccination is available at no cost to the employee and is administered at Boynton Health Service or through the Health Partners Occupational and Environmental Medicine Program.

The hepatitis B vaccination will not be given if the employee:
- has previously received the vaccination series
- is found to be immune through antibody testing
- should not receive the vaccine due to medical contraindications
- declines vaccination

Employees who refuse to be vaccinated must sign the Hepatitis B Vaccine Declination form (See Appendix E.). If an employee initially declines Hepatitis B vaccination but at a later date decides to accept vaccination, it will be made available at no cost.

While current U.S. Public Health Service guidelines recommend Hepatitis B vaccine booster doses only for immunocompromised persons and hemodialysis patients, if recommendations change in the future, the University of Minnesota School of Dentistry will provide boosters at no cost.

**Recordkeeping**

The University of Minnesota School of Dentistry Compliance Office will maintain the following records.

1. **Medical Records:**
   - Employee's name and Employee ID number.
   - Copy of employee's Hepatitis B vaccination status, dates of all Hepatitis B vaccinations.
   - Signed Declinations. Employee medical records must be kept for the duration of employment plus 30 years.

2. **Training Records:**
   - Dates of the training sessions.
   - Contents or a summary of the training sessions.
   - Names and qualifications of persons conducting the training.
   - Names and job titles of all persons attending the training sessions.

   Training records must be kept for 3 years from the date on which the training occurred.

The Compliance Office keeps the following records:

- Copy of Exposure Incident Records, Hepatitis B Vaccine Declination
- Training records or access to electronic verification of training
- Copy or electronic records of CPR documents
APPENDIX O

MANDATORY COMPLIANCE

The provisions contained in this infection control manual shall be adhered to by all faculty, staff, and students.
To attest that you have read and agree to abide by the policies and procedures outlined in the clinic manual, please e-mail this form to the compliance office at hardi006@umn.edu.

Name:

Position (Faculty, Staff, or Student):

E-Mail:

Date:

Thank You!
Medical Policies

Standards for Medical Evaluation

All individuals treated in the U of MN Dental Clinics must be registered as patients and must complete and sign a Dental and Medical Information Questionnaire (Form SD810 Rev 4/2016). This activity will occur at the initial admission appointment for each patient and must be completed prior to any other clinical activity. The questionnaire must be reviewed in an oral interview with the patient. Measurement and recording of vital signs and proper review of systems (ROS) follows the oral interview.

Review the medical status at each patient visit. Update the medical history form accordingly and date the revision upon discovery of changes in medical status or new medical problems. Any significant medical problems should be reviewed with faculty with the appropriate dental management outline listed in the patient chart. Review of physical status along with vital signs should be updated accordingly.

U of M Dental Clinics policy on head and neck soft tissue examination

An evaluation of the head and neck soft tissues (extra-and intra-orally) will occur at the initial appointment for each patient and will be updated periodically at recall appointments. Any significant soft tissue problems are reviewed with faculty and appropriate medical consults are obtained when indicated.

Policy on removed hard and soft tissues

Consistent with proper care for all our patients and regulations concerning the use of human subjects in research, the Tissue Policy of the School of Dentistry requires all human tissue, hard and soft, removed from patients to be examined grossly and/or microscopically. The primary care practitioner (student, graduate student or faculty) must examine all tissue for unusual deviation(s) from normal. When any reasonable doubt exists, (be it clinical, or radiographic or macroscopic) that the tissue is abnormal, the clinician should submit the tissue to the Division of Oral Pathology for pathologic examination.

Adherence to the above policies is essential to assist in the diagnosis of unsuspected systemic disease processes, to confirm the clinical diagnosis with a written pathologic report, and to promote quality assurance of optimal health for our patients and educational role modeling for our students. See Oral Pathology Clinic Consults in the Oral Pathology section below.
Hepatitis B Vaccination Policy

All students, staff, and faculty members with direct patient care contact are required to present evidence of having received vaccination against Hepatitis B or evidence of immunity. The first two doses of the three-dose series must be acquired before participation in patient care activities will be permitted. Students can receive Immunizations at Boynton Health Service. For more information, see section L of this manual.

TMD, Orofacial Pain and Dental Sleep Medicine Clinic

The Division of TMD and Orofacial Pain provides clinical and consultative services for referred temporomandibular disorders (TMD) and orofacial pain conditions. Common TMD and orofacial pain symptoms include TMJ noise, jaw pain, limited mouth opening, headaches, tooth pain, and ear pain.

Patient Scheduling

The TMD, Orofacial Pain and Dental Sleep Medicine consultation schedule is Monday-Friday, from 9.00 am to 12.00 pm and from 1.00 pm to 4.00 pm.

Consults are available through the TMD, Orofacial Pain and Dental Sleep Medicine Clinic located on the sixth floor during regular clinic hours. If your patient requires a consultation, bring them to the clinic or call the clinic’s scheduling desk (6-0140). The faculty encourages you to make use of the consultation services.

Clinic Treatment

If your patient requires an evaluation, the patient will be scheduled for a full evaluation in the TMD, Orofacial Pain and Dental Sleep Medicine Clinic after the consultation. A full evaluation can be scheduled without a consultation.

Treatment is provided by the faculty and residents of the TMD, Orofacial Pain and Dental Sleep Medicine Clinic. The dental student is not responsible for this care. Any required coordination of dental care with TMD or Orofacial Pain treatment will be discussed with the dental student.

Clinical Requirements

At the present time there are no TMD or Oral Medicine requirements for the undergraduate dental student. Senior students may sign up for TMJ continuing education courses (“TMJ Minitresidency”) as an elective. This CE course is available one time per year. Information about this course is available in the dental CE department. Enrollment is limited. The faculty also encourages the students to rotate through the TMJ, Orofacial Pain and Dental Sleep Medicine Clinic. To arrange rotation times, please contact Dr. Eric Schiffman at 4-3130.

Oral Pathology

The Division of Oral Pathology provides consultation services.

Obtain an Oral Pathology Consult

The following procedure should be followed if you need an oral pathology consult:
1. Please upload a clinical photo/s of the lesion/s on MiPACS.
2. Please email using AXIUM to ORAL PATHOLOGY CONSULT a brief clinical write up about the case. Your attending clinic faculty/group leader should also be copied on this email.
3. The email should include a brief clinical history including clinical features, site, duration, symptoms and any other relevant medical history. If applicable, the student should also indicate whether a prior biopsy has been performed.
4. Please also provide a differential diagnosis and next step/s in management in their opinion.
5. Dr. Kaimal, Dr. Koutlas, or Dr. Gopalakrishnan will try to get back within 48 hours of receiving the email. In most cases, they will also add a note in axium. But there might be some times where the student will have to enter a general note which will be approved by oral pathology faculty.
6. If the patient needs to be seen by an oral pathologist for management, Oral Pathology will coordinate with the student.
7. If a biopsy is recommended, the student should facilitate scheduling an appointment for the patient with oral surgery or Grad Perio. Once a biopsy is performed, Oral Pathology will follow up with the patient.

**Fees for Oral Pathology services**
Consultation fees in Oral Pathology may be assessed, as will other professional, laboratory-related services.

Fees and methods of payment should be discussed with patient only following familiarization with reimbursement processes. Oral Pathology services are broadly covered by both medical and dental insurance carriers. Special contracts for pathology services may impact patient's access to reimbursement.
Facilities and Equipment

This section of your manual contains helpful information about how to utilize the equipment and instruments available in the University of Minnesota dental clinics and laboratories. Included in this section are discussions of the instrument usage and special supplies fees, instruments and sterilization, equipment in the clinical labs, and the use of clinic kits.

As a practicing student dentist you are responsible for the cleanliness of the areas in which you work. This includes the clinical labs, operatories, and all dental equipment you use.

The School of Dentistry provides you, the student dentist, with instruments for a three-fold purpose: one, to ensure that you have all the instruments necessary to complete your patient's required dental care; two, to ensure that all instruments used in the University of Minnesota Dental Clinics are completely sterile; and three, to keep the cost to you at a minimum.

This system of supplying, sterilizing, and maintaining virtually all instruments and materials for students is one of the few, and is the largest system of its kind in the United States.

The School of Dentistry has an excellent sterilization facility. The facility has three thermal washer-disinfectors and three large steam autoclaves, each with a capacity for 108 large or 324 small instrument kits. Each day over 16,000 basic instruments plus numerous other instruments and materials are sterilized through the facility.

Equipment and Instruments

Amalgam/Composite and Restorative kits are available at the 8th/9th floor Dispensing Stations. The handpieces are in a separate container and will be checked out on a session basis. All instruments are checked out under the AxiUm system.

You have also been assigned your own Perio Kit. This kit only contains the hand instruments. The Perio handpiece and kit are available at the 8th/9th North Dispensing Station. This is the same kit you were assigned in the pre-clinic area.

You will find a listing of additional materials available at the Clean Dispensing Stations. The listing is available here.
Using Your Clinical Kits

**Before Clinic**

Each student’s assigned Perio kit is reserved and is readily available from the Clean Dispensing Station whenever a patient appointment is made through centralized appointing. Students may pick up their kits at Dispensing 15 minutes before clinic time begins.

Students can check out additional items and supplementary kits at the 8th/9th floor Dispensing Station.

Replacement instruments are always available at the Dispensing Stations. Students must return the item to be replaced and will be given a new one. Replacements for Perio instruments must be approved by a Perio faculty member prior to receiving a new instrument.

**Surgical Clinics**

**PERIODONTAL SURGERY**
A surgery and/or postoperative tray is distributed to each reserved operatory before clinic time begins. It is the student’s responsibility to return the instruments to the second Dispensing window for cleaning.

**ORAL SURGERY**
Students must request the instruments they will need, and Dental Assistants will pick up all instruments and will return them to the Dispensing window for cleaning and processing.

**Rotations**

**UCC**
Students scheduled in the UCC (Urgent Care Clinic) will triage their patient with an exam kit. After determining the type of treatment needed, the student will then get the appropriate instrument kit, along with handpieces, from the 7 North Dispensing window. Once the treatment is complete, the students must return the kits they checked out to the dirty/reprocessing cart on 7th floor.

**PEDIATRIC DENTISTRY**
Students scheduled into their Pediatric Dentistry rotation will pick up their Restorative Kit and Handpieces from the Pediatric Clean Dispensing window. When the student has completed treatment, they must return their kits to the cart for dirty instruments located on the East wall of the Periodontics clinic.

**After Excusing the Patient**

Students have total control of the contents and cleanliness of kits assigned in your name. *It is the individual's responsibility to remove gross debris and replace all used instruments in the kit before* they return the kit to the dispensary. The cassette and hand instruments are color coded to assist you in placing them in the correct cassette. The clinic hours include a 15-minute period for the clean-up of instruments and the operatory.

Please follow this procedure to prepare the kit for return to the dispensary after dismissing your patient.
1. Place all used burs in the **red metal dish** inside of the handpiece kit *(the dispensing staff will clean ONLY these items and will place burs back in the bur caddies.)*
2. Using a one-hand method, wipe all debris from the instruments that were used during the appointment
3. Neatly replace all items back inside of the kit. Remember handpieces, air/water and high volume suction tip.
4. Follow infection control protocol to disinfect the cubicle.
5. Return all the items that were checked out to the Dirty Dispensary Station. Wait at the Dispensing window until staff has the opportunity to evaluate the returned items and remove the items from your axiUm account.
6. Once a student has treated their last patient of the day, the student’s used gown is to be deposited in the hamper located outside of the dirty dispensary. **STUDENTS MUST NOT LEAVE THE CLINICAL AREA WITH A GOWN ON.**

Cleanliness of instruments is essential in infection control and will be monitored by the clinical faculty. Using dirty instruments is unacceptable and will result in disciplinary action.

You will be using non-assigned, "generic" kits for Restorative, Amalgam/Composite, Cavity Preparation, Exam, Removable Prosthodontics, Oral Surgery and Endodontics. The dispensing staff will check in these kits after you have used them in clinic. You will be checked in on a first come, first served basis. Please remain at the window until all instrumentation is checked in. It is your responsibility to clean gross debris, cement, wax, alginate, and impression material from your kit and instruments. The kit is issued to you in a sterile, clean, and dry condition; you must clean the kit BEFORE you turn it into the dispensing station.

There are a limited number of alginate rim lock trays, springbows, surveyors and cameras. These must be returned as soon as you are finished with them.

### Equipment Repair and Maintenance

Maintenance personnel are available 7:45 a.m. to 4:30 p.m. Students should follow the steps below should they experience equipment difficulties:

- If you are having a mechanical problem, turn on the white light in your cubicle in order to alert the clinic supervisor or a dental assistant. Do not move to another cubicle until you have contacted the Clinic Supervisor/Color Group Dental Assistant.
- If your mechanical problem warrants a service call, the Supervisor/Dental Assistant will call maintenance.
- If a lengthy repair is necessary, or if a service person is not currently available, the Supervisor/Dental Assistant will make arrangements to move you to another cubicle.
- Minor defects you notice during clinic time should be reported to the Clinic Supervisor/Dental Assistant before you leave the clinic.
Instrument Usage and Special Supplies Fees

Instrument usage and special supplies fees help cover the costs associated with the School's program for providing all instruments and supplies for clinical work. These fees are assessed in addition to the UM tuition fee and are included on your tuition fee statement.

The Materials Management Office (Room 9-200) maintains a record of lost and/or broken instruments. This record will be reviewed at the time of a student’s final checkout to ensure they have turned in all assigned clinic instruments. If a student’s record shows unusual or excessive loss and/or breakage of instruments, an additional assessment will be made.

Gold for Cast Restorations

Only gold issued by the gold room may be used to make castings for patients. No other gold may be used.

Gold is issued after signed approval of wax patterns by an instructor. Operative wax pattern checks are optional after completion of the inlay practical.

One-third, or more of the fee must be paid prior to issuing gold for patients. Verification of account status may be required from Patient Accounting (7th floor). Instruct patients to bring at least one-third of the fee to the tooth preparation/impression appointment.

The gold dispensary is located in Room 9-525. Gold dispensary hours are posted on the door.

Weigh-in for castings occurs after cutting the sprue and before polishing the final restoration. Take both the completed casting and sprue/button to Room 9-525 for weigh in. A loss equal to 15 percent of the weight of the casting will be allowed (ex. if a crown weighs one and one-half dwt (36 grains), the allowance is 7.2 grains). Excess losses will be carried forward and charged at current gold costs sometime prior to clearance for graduation.

Face Masks, Safety Glasses, Gloves, Gowns and Over Garments

Due to our concern for personal health and safety while carrying out our professional responsibilities, the "Universal precautions" are utilized in all clinics. Adherence is mandatory for faculty, residents, students, and staff members.

Gloves, masks, and over garments are available in the clinics. The garments must be changed daily except when visibly soiled, in which case they should be changed immediately. Garments do not need to be changed after each patient or at the end of each clinic period. Staff, faculty, student and patient safety glasses are provided by the School and are available at the Clean Dispensing Station. Safety glasses must include solid side shields.

Blue clinic gowns are available from the Clean Dispensing Stations. Gowns worn in clinic MUST BE returned at the end of the day to the Dirty Dispensing Stations. Blue gowns should not be worn outside of designated patient treatment areas, in labs or taken to the locker room. Yellow, disposable gowns are to be worn in the labs. They are available in the lab and must be disposed of in the lab area.
Clinical Materials

Most of the materials students need is located at the clean dispensary. Materials are also available in the assisting mobile cart. Dental Assistants will assist with materials (amalgam, composite etc.) in this cart. Special materials are also available at the clinical Dispensing Stations.

Toothbrushes, dental floss and mouthwash are distributed to patients during a Dental Hygiene or Periodontal appointment. Additional oral hygiene patient aids are available at the Clean Dispensing Stations.

Clinical Laboratories

When students begin their clinical work they will be assigned their own laboratory kit and either a wall locker or lab drawer. The kit contains the basic laboratory instruments. Students will share benches with other students, but each individual has their own instruments. The slow speed hand-piece is located in the middle drawer and is shared by all students.

Students will also be issued Panadent articulators.

It is important that each student monitor their equipment and locks their bench and/or wall locker whenever they leave the laboratory to minimize losses. Students should be mindful of both instruments and laboratory work.

Instrument replacements can be obtained from the 9 South Dispensing Station. With the exception of lost or used-up items, all replacements must be on an exchange basis. This means students must turn in a broken or worn-out item to obtain a new one. A record of all replacements, clinical and laboratory, is kept by School of Dentistry personnel. An assessment is made at graduation check-out to determine whether the amount of replacements warrant an additional fee.

Items such as surveyors can be checked out from the North Dispensing Station. Students should be mindful of the deadlines for returning items and any penalties for late returns. If penalties are administered, they will be billed on the next semesters “Instrument Usage and Special Supplies Statement.”

Materials that are not part of the individual bench kits are available in each laboratory. Please use these items carefully to keep expenses as low as possible.

The laboratories are provided for the student’s convenience in carrying out their patients' dental treatment. It is not possible to provide materials, space, and equipment for students to do laboratory work or other procedures that are not required by patients in the UM clinics. Additionally, students are not to use clinic cubicles for doing laboratory procedures. Any student found doing laboratory work in a cubicle will be asked to relocate to the clinical laboratory by the staff.

Hours

Laboratory hours are between 6:30 a.m. and 9:00 p.m., Monday through Thursday evenings. The labs closed at 7:30 p.m. on Friday evenings. Labs are not open on weekends, holidays, and during semester breaks.
Prosthodontics Commercial Laboratory Protocol

This document outlines the new protocol for commercial laboratory prescriptions during fixed and removable treatment. The protocol will be initiated at the start of Fall Semester 2006. The following outline provides a guide and is subject to alteration by a supervising instructor (e.g., some items may have to be done in-house due to time restrictions).

The protocol is as follows:

**Fixed – Crowns (including implant-supported) and FPD**

**IN-HOUSE (STUDENT AND/OR SUPPORT TECHNICIAN)**
- Pouring of all irreversible hydrocolloid impressions
- Diagnostic cast preparation and fabrication of custom trays
- Final die trimming (margin exposure)
- Mounting of casts on to articulator
- Case-specific diagnostic wax-up (supervisor decision)
- Limited glazing and final polishing of custom-characterized crowns
- Preparation of custom abutments for implant-supported crowns

**ITEMS TO BE PRESCRIBED FROM A CONTRACTED COMMERCIAL LABORATORY:**
- Case-specific diagnostic wax-up (supervisor decision)
- Pouring of precision impressions
- Fabrication of master cases (including soft tissue implant casts) and initial die preparation (to be returned to school for final die trim and articulator mounting)
- All casting and porcelain applications
- Glazing and final finishing/polishing of specific prostheses (most posterior and non-custom shades)

**Removable – RPD, CD, Occlusal Guards**

**IN-HOUSE (STUDENT AND/OR SUPPORT TECHNICIAN)**
- Pouring of irreversible hydrocolloid impressions
- Diagnostic cast preparation
- Case-specific custom trays (supervisor decision)
- Fabrication of RPD framework cast
- Cast mountings and remounts onto articulators
- Setting Maxillary and Mandibular anterior prosthetic teeth for Complete Dentures and case-specific RPD applications (in the cubicle during the patient appointment)
- Custom tray, baseplate, and occlusion rim for altered cast application (Case-specific – supervisor decision)
- Festooning – (case-specific – limited to supervisor request)
- Fabrication prosthetics of self-curing resin, repairs – e.g. emergency provisional prosthesis (case-specific – supervisor decision)
- Final resin finishing/polishing

**ITEMS TO BE PRESCRIBED FROM A CONTRACTED COMMERCIAL LABORATORY:**
- Fabrication of CD master casts
- Custom trays (supervisor decisions)
• Stabilized baseplates and occlusion rims for Complete Denture
• Setting of posterior prosthetic teeth for CD and selected RPD
• Festooning – most final festooning of CD and RPD
• Custom tray, baseplate, and occlusion rim for altered cast application (supervisor decision)
• Resin flasking, boilout, packing, processing, recovery, and initial resin trimming
• Fabrication of resin-based prostheses – e.g. provisional RPD, occlusal guards, selected repairs (supervisor decision)

Lab Kit
The items that make up each student’s lab kit are as follows:

1 Kit Box

Removable Tray Contents:
Brush, DE Plate Brush, DE Sable #3 Handle #6 (for 25 Blade) Instrument, DE Carver, ½ Hollenbeck Instrument, DE Carver, PKT #1 Instrument, DE Carver, PKT #2 Instrument, DE Carver, Roach Instrument, DE Carver, Walls #1 Instrument, DE Carver, Hollenback 1/2 DE Spatulas, #7 Was DE Spatulas, Plaster mixing Tweezers, AA Tweezers, K Locking

Bottom of Kit box:
#E –cutter (acrylic Bur)
Wheel 4 Discs and Rubber Wheels Die saw Handle and Blade Knife, #7R Knife, #12 Occlusal Plane Plate 500 cc vacumixer (trap and cap) Plaster mixing bowl

Cleaning the Clinic Kit

All items in the clinic kit must be free of all debris -- wax, cement, impression material and any other foreign material. Use a one-hand method to drag instrument tips across a wet gauze square to clean all items completely and carefully before taking the kit to the dispensing window.

1. Remove cement from the tips of instruments.
2. Reattach the scissors, hemostat and air/water tip in the lid of the cassette.
3. Place the following items in the red empty container in the handpiece kit if they were used in a dental procedure: burs, stones, Endodontic files. This separation will allow these items to be cleaned ultrasonically in the Dispensing Station by the staff.
4. Reassemble the kit, placing all instruments within the perimeter of the cassette.
5. Check the kit for completeness.
6. Take the clinic kit to the South Dispensing Station.
7. Place instruments in the correct cassette. The color-coded rings in the cassette should be the same color.
8. All instruments are washed and sterilized in the Central Sterilization Room.
POLICY FOR THE USE AND CONTROL OF IONIZING RADIATION
FOR DIAGNOSTIC IMAGING AT THE SCHOOL OF DENTISTRY,
UNIVERSITY OF MINNESOTA

The radiation use policy has been in effect since November 1981. This revised version incorporates the requirements of the Minnesota Department of Health Ionizing Radiation Rules Chapter 4732 and the Regulatory Guide for Dental X-Ray Facilities.

Due to continuing concern about the use and potential harmful effects associated with exposure to ionizing radiation, the following policy has been developed with an overall objective to implement those procedures which will assure the safe and effective use of ionizing radiation-producing equipment and to minimize as much as possible any potential risks to patients, students, faculty and staff. Control and use of radioactive materials for research purposes, i.e. radioactive isotopes and radiopharmaceuticals, is specifically excluded from the scope of this policy. Responsibility for monitoring the use of such materials continues to lie with the Radiation Protection Division of the Department of Environmental Health and Safety, University of Minnesota.

I. ADMINISTRATIVE

1. This radiation policy must comply with all provisions of the Minnesota Department of Health Ionizing Radiation Rules Chapter 4732, Minnesota Dental Practice Act, and the Radiation Protection Division of the Department of Environmental Health and Safety of the University of Minnesota. This policy also complies with University administrative policies concerning the use of ionizing radiation and radiation safety.

2. Dr. Mansur Ahmad, the Director of the Oral and Maxillofacial Radiology Program shall serve as the Radiation Protection Representative/Officer (RPR) of the School of Dentistry.

3. The RPR has the full and complete responsibility and authority to establish school-wide guidelines and policies on radiographic practices and, in cooperation with the University Radiation Protection Program, has responsibility for developing procedures to coordinate, monitor, and control the use of ionizing radiation-producing and image-processing equipment.

4. Radiographs/copies/digital radiographic files will be made available to private practitioners, patients, or other appropriate professionals when so requested by patients in writing.

5. All intra-oral radiographs obtained in all clinics shall be exposed with digital sensors or double-film packets. Double-film packets will assist in making radiographic records available in case of misplaced charts, misplaced radiographs, or films separated from charts. The duplicate films must be sent to and filed in the Oral and Maxillofacial Radiology clinic. All digital images should be stored in the PACS system.

6. Individuals who may make exposures:
   a. Licensed practitioners of healing arts (dentists, physicians, etc.)
   b. Licensed dental hygienists, dental therapists, and radiologic technologists (ARRT) under general supervision
c. Registered dental assistants and students of dentistry, dental hygiene, and dental therapy under indirect supervision

7. If the RPR determines that an individual operator lacks required skills, they will be asked to submit to and successfully complete a review of their proficiency in radiographic technique and knowledge of principles of radiation hygiene and protection. If the individual fails the review, they shall not be allowed to expose patients.

8. New employees, who will operate X-ray and processing equipment, will review radiation safety protocols of the School of Dentistry. This program will include material concerning information on the effects of radiation exposure to the human body and the embryo/fetus, radiation hazards, safety practices, quality assurance and radiation rules and regulations. All individuals must sign attendance records.

9. All departments shall inform the RPR before the acquisition of any X-ray machine. The RPR will make arrangements to ensure registration of the machine with the University Radiation Protection Division of the Department of Environmental Health as required by the University Regulations. A radiation-protection survey must be made by the Radiation Protection Division before this machine can be used.

10. The RPR shall implement and monitor a school-wide radiographic quality assurance program.

II. PHYSICAL FACILITIES AND EQUIPMENT

1. All radiographic facilities and equipment shall be designed or upgraded to maintain radiation exposures well within permissible limits to individuals in adjoining areas. All rooms containing X-ray machines shall be provided with appropriate primary and secondary barriers to ensure radiation protection.

2. Portable X-ray machines present difficult radiation protection problems. Such equipment shall be used only if the patient cannot be transferred to a permanent radiographic facility. Only the patient shall be exposed to the primary beam of radiation. All other personnel shall stand behind an appropriate barrier to ensure radiation safety during exposure. In addition, if the primary beam is directed at the wall(s) of adjoining room(s) or hallway and these wall(s) do not provide adequate shielding for radiation protection, one of the following provisions shall be complied with:
   a. All individuals (faculty, staff, students, patients) shall be cleared from these areas during exposure.
   b. A portable lead shield or a portable partition draped with 1/2 millimeter lead equivalent vinyl sheet lead shall be placed in the path of the primary beam.
   c. It is recommended that all facilities using portable X-ray equipment should give a serious consideration to purchasing a protective barrier described in b. above.
   d. This policy shall also apply to portable X-ray machines used for animal studies and preclinical laboratory exercises.

3. The darkroom shall be light-tight. The safelight filters must be compatible with the films being processed.

4. A Quality Assurance (Q.A.) program must be implemented and followed to ensure that high quality films are produced consistently at minimum cost and minimum exposure to patient and operator. The following Equipment Performance tests and procedures shall be performed according to the frequency specified. Any corrective actions must be documented.
   a. DAILY
      1. Sensitometry and densitometry - manual and automatic processing. Test films must be
kept on file.

2. Temperature check

b. WEEKLY - Processor cleaning and total chemistry change for high volume areas. This may be
done every two weeks for low volume processors. Calibration of the cone beam CT unit will be
done every week according to the manufacturer’s recommendation.

c. SEMIANNUALLY - Darkroom fog
d. ANNUAL
   1. Screen-film contact
   2. Screen-film-cassette speed match
e. BIANNUAL
   1. SID accuracy
   2. X-ray and light field alignment
   3. X-ray and bucky alignment
   4. Collimator dial accuracy
   5. Reproducibility
   6. mR/mAs
   7. Linearity
   8. Timer accuracy and reproducibility
   9. Half-value layer
   10. kVp accuracy
   11. Phototimer reproducibility
   12. Filtration-intraoral units
   13. Radiation exposure at end of cone (intraoral units)

5. The Radiation Protection Division (RPD) at the University of Minnesota has the following provisions
related to X-ray machines and facilities that must be complied with:
   a. All purchase requests and orders for X-ray machines require the approval of the RPD.
   b. If a radiation-producing machine is to be sold, traded, transferred, or disposed of, RPD must be
      notified and approval received.
   c. Any change in the use, design, or location of an X-ray machine must be approved by the RPD.
      Such changes may require amendment of registration form, along with a new radiation
      protection survey of the machine.
   d. All plans for new and remodeled facilities must be reviewed by the RPD during the preliminary
      planning stages, and requirements specified by the RPD must be followed. A radiation survey of
      all new and remodeled facilities must be made before use.

6. A radiation safety checklist should be posted by each X-ray unit and include the following:
   a. The correct kVp, mA and exposure time
   b. Direction to evaluate stability of the PID (position indicating device; cone) and tubehead before
      making exposures
   c. Direction to use required leaded apron and thyroid shield
   d. A description of the required operator position during exposure

7. A description of the film processing techniques should be posted in each processing area and include the
following:
   a. The correct time and temperature
   b. Appropriate lighting conditions
   c. Film feed instructions
   d. Washing, rinsing and drying conditions
   e. Replenishing regimen
   f. Film loading

8. In case of film based imaging, student's access to radiographic film should be controlled. Correct
number of film packets should be provided and only when a prescription for specific radiographs has been
signed by a licensed dentist.
9. Digital sensors will be secured by the clinic staff and will be issued to students only when a prescription for specific radiographs has been signed by a licensed dentist.

10. Radiographic viewing should be accomplished under ideal conditions with equipment such as dim background lighting, masked viewboxes of adequate and uniform intensity, opaque film mounts, and magnifying glasses. All viewboxes must be kept clean and be of the same intensity and the same color. For viewing digital radiographs, the monitors should preferably be housed in a dimly lit area. For diagnostic purposes, the images preferably should be viewed on a computer screen instead of a print.

III. CRITERIA FOR EXPOSURE

1. All radiographs shall be prescribed in writing on the Radiographic Request form or in axiUm and signed/digitally signed by a licensed dentist. Prior to the procedure being done, the request must include a clearly stated reason for the examination entered in the Progress Notes sheet or in axiUm.

2. Radiographs for all patients shall be ordered only after clinical examination to determine the need and desirability of specific radiographs. Radiographs ordered merely on the basis of routine or for screening purposes shall not be permitted.

3. Radiographs shall be limited to the minimum number needed for a complete diagnostic work-up of the patient's dental need. The limits on exposure in each case will be determined by the professional judgment of a faculty dentist.

4. There can be no set frequency for radiographic examinations. The procedure to be employed and the frequency of the examination shall be determined by the professional judgment of the dentist ordering the radiographs.

5. If prior radiographs are available from a private dentist or another institution, they must be evaluated before new radiographs are prescribed. Only those additional views needed to complete diagnosis and treatment planning shall be exposed. This requirement does not preclude making a new complete intraoral survey if it is appropriate to the diagnosis.

6. Radiographs should not be used merely to document clinically apparent lesions.

7. Radiographs obtained for administrative purposes only, including those for insurance claims or legal proceedings, should not be made. However, diagnostic radiographs already made may be used for administrative purposes.

8. Demonstrations or training on X-ray equipment must be performed with proper protection of the observers and operator(s). Phantoms (mannequins), not humans, must be used for demonstration.

9. Deliberate exposure of an individual to radiographic procedure for training or demonstration purposes shall not be permitted, unless there is a diagnostic need for the exposure.

10. Individuals exposed for other than diagnostic reasons shall have the approval of the Human Use Subcommittee and All-University Radiation Protection Committee of the University of Minnesota.

11. Students should be assisted with all patients requiring three or more retake radiographs on a complete
12. Patients should not be subjected to retakes to satisfy technical perfection. A minimally acceptable complete mouth radiographic survey should demonstrate, at least one time, each tooth in entirety and each interproximal space without overlapping and with clarity and accuracy.

13. Discretionary radiographic examination of patients who are known to be pregnant should be delayed until after delivery. Specific emergency radiographs may be obtained as needed.

14. No individual under 18 years of age shall be allowed to receive any occupational radiation dose except for training purposes.

IV. EXPOSURE PROCEDURE

1. For film based radiography, only American National Standards Institute Speed Group E film or faster (i.e. Kodak Insight), shall be used for all intra-oral radiographic procedures.

2. For introral radiography, rectangular collimation should be achieved, either by using a rectangular tube or a rectangular collimation.

3. No operator shall be permitted to hold patients or films/sensors during exposure. If assistance is required for children or handicapped patients, an adult member of the patient's family may assist. The hands and body of the assisting person should be positioned in a manner to prevent primary beam exposure, and a protective lead apron and gloves of 0.5 mm lead equivalence should be provided for the assistant.

4. Only the patient shall be in the operatory during radiation exposure. All other individuals shall be required to leave the area.

5. During each exposure, the operator shall stand behind the barrier provided for each operatory.

6. Leaded rubber aprons and thyroid shields shall be used for all intra-oral procedures as an additional precaution to minimize scatter radiation exposure to the body of the patient.

7. Leaded rubber aprons should be used for all extra-oral procedures, when feasible.

8. The patient should be observed through a lead-glass window, if possible, during each exposure.

9. The patient record must accompany each patient before exposures can be made. The operator must review the history of previous patient exposure and status in regard to any infectious disease.

10. If a malfunction is detected in an X-ray machine, it should be corrected immediately or the machine shall be "closed down" until the necessary corrections have been made and the equipment recalibrated. All repairs/adjustments must be documented.

11. Mechanical support of the tube head and cone shall maintain the exposure position without drift or vibration. These shall not be hand held during exposure.

12. Intraoral film/sensor holding devices must be used except when endodontic procedures do not permit doing so. In those cases where the patient must hold the extraoral film cassette, the patient must wear 0.5 mm
lead equivalent gloves on the hand that holds the cassette. In addition, any portion of the body, other than the area of interest must be covered by 0.5 mm lead equivalent material.

13. All intraoral film/sensor holding devices must be sterilized according to SOD Infection Control Policy.

14. Extra-oral exposures should employ screen-film combinations of the highest speed consistent with their diagnostic objectives. Direct exposure X-ray film (without intensifying screens in a cassette) shall not be permitted for extraoral radiography.

15. Intra-oral fluoroscopy shall not be used for intra-oral radiographic examinations.

16. The target to skin distance for intra-oral radiographs shall not be less than 7.1 inches, and preferably should be a minimum of 12 inches or longer. The target to skin distance for extra-oral radiography shall not be less than 11.8 inches.

17. The exposure control switch shall be of "dead-man" type, i.e., it requires continuous pressure by the operator to complete the circuit. This switch must be positioned behind a protective barrier.

18. All intra-oral X-ray machines shall be equipped with open-ended, shielded cones limiting the beam diameter to 2.76 inches at the patient's face. When using rectangular collimation, the longer side of the rectangular beam at the patient's face should not exceed 2 inches.

19. Extra-oral X-ray machines shall be collimated so that the beam size does not exceed the area of interest and/or the film cassette size.

20. The half-value layer (HVL, beam quality) for a given kVp should not be less than the values prescribed by the Minnesota Department of Health.

21. X-ray machines designed to use kilovoltage of less than 50 shall not be used for diagnostic purposes.

V. INSTRUCTIONAL/TEACHING SUPPORT

1. Students must be closely supervised by teaching staff during all radiographic procedures conducted on patients.

VI. RADIATION MONITORING

1. Film badges shall be worn during working hours by all occupationally exposed personnel who regularly use X-ray equipment and all other individuals who are likely to be exposed to ionizing radiation regularly.

2. The film badge device shall not be stored in the radiation area to avoid exposure.

3. The film badge shall not be worn by the individual when they are exposed as a patient for any medical/dental reasons.

4. The personnel film badge must be obtained through the RPR. To obtain a badge, get a request card from the RPR. After the request card is returned, the RPR will make arrangements with the University Radiation Protection Division to obtain an appropriate film badge.
5. The RPR will keep on file the records of quarterly, yearly, and total cumulative exposure received by all individuals and makes these available for inspection by each employee quarterly. The RPR will review the reports on each individual for each change period. If the radiation dose is in excess of five percent of the maximum permissible dose limit for that period, or if an unusual dose is reported, the RPR will make a complete investigation of the circumstances involved in the dose received by the individual. The findings and conclusions will be made a part of the personnel monitoring record of the individual and a copy will be forwarded to the University Radiation Protection Division to be filed with the permanent radiation exposure history of the individual.

6. Records of individual exposure and the personnel monitoring records shall be preserved for the lifetime or 30 years after the termination of employment with the facility, whichever is less.

7. The records of individual exposure shall be furnished to an employee who is terminating employment. The report must be furnished within 30 days from the time of receipt of final dosimetry record.

8. If a film badge is lost or damaged, contact the RPR immediately so that arrangements can be made to replace it.

9. Pregnant workers may “declare” pregnancy in writing to the RPR who shall contact the Radiation Protection Division to arrange for the completion of specific training.

10. Operators who are pregnant shall not be exposed to more than 0.5 mSv (50 mrem) per month during pregnancy. Film badge dosimeters on these individuals shall be processed on a monthly basis.

**VII. RECORDS**

1. A record of radiation exposure history of every patient of the dental school will be maintained. All radiographic procedures shall be recorded on the inside cover of the patient's chart or in axiUm. The record must include the date of radiographic image exposure, number and type of radiographs, including number of retakes, name of operator, name of the person requesting radiographs and name of clinic where radiographs are stored.

2. All film based intraoral radiographs exposed at the Dental School shall be mounted in University of Minnesota film mounts and labeled with the patient's name, date exposed, and chart number. No loose, unmounted radiographs shall be permitted in the radiograph pocket of the patient's chart. Digital radiographs will be stored in MiPACS.

3. All duplicate radiographs will be kept on file in the Oral and Maxillofacial Radiology clinic.

4. All film based radiographs shall be kept in the patient's chart. If an academic unit wishes to retain film-based radiograph for its records, a copy may be obtained by written order to the Oral and Maxillofacial Radiology Clinic.

5. Interpretation of radiographs should be documented in the patient's record.

**VIII. SATELLITE RADIOGRAPHIC AREAS**

1. The RPR in cooperation with the University Radiation Protection Division has the complete overall
responsibility and authority for controlling use of ionizing radiation for diagnostic purposes and ensuring use of
good radiologic practices in other clinical disciplines.

2. The following supplies will be available at appropriate places in or near each satellite area.
   a. "Radiographic Request" forms
   b. Film dispensing forms
   c. Lead aprons
   d. Thyroid shields
   e. Film mounts
   f. XCP or other film-holders

3. The operator shall comply with all radiation protection practices outlined in the school-wide policy.

4. All radiographs to be exposed in satellite radiographic facilities shall be prescribed in writing by a
   licensed dentist on the faculty and appropriately entered in the Progress Notes sheet.

5. In order to facilitate an accurate account of patient exposures, all radiographic films shall be dispensed
to the students at designated areas to prevent unauthorized use. No automatic film dispensers shall be permitted
in areas available for student activity.

6. Films/sensors shall be dispensed to the students only when a prescription for specific radiographs has
   been signed by a licensed dentist.

7. All film badge distribution and collection shall be handled by the RPR. The badges must be returned and
   the new ones picked up in the Oral and Maxillofacial Radiology Clinic within 4 days of each change period. The
   change periods are: the first working day in January, April, July, and October.

8. The Radiation Protection Division of the University has stipulated that a charge of $50.00 be assessed
   for a lost or unreturned film badge.

IX. DARKROOM MAINTENANCE POLICY

1. The following processor maintenance protocol shall be followed:
   a. Every cleaning cycle. To be done late afternoon on Friday or before a holiday.
      1. Unplug processor.
      2. Drain chemicals and water completely. Save used fixer in supplied plastic bottle for
         silver recovery and lawful disposal.
      3. Remove transport system. Wash them well with soapy water and rinse thoroughly. Let
         them air dry over the weekend. Chemical cleaning solutions may be used as needed.
      4. Wash out tanks with water and remove any chemical buildups. Wipe out tanks with a
         clean, lint-free cloth.
      5. Fill tanks with new chemicals in the morning on Monday or after a holiday.
      6. Fill water.
      7. Replace transport system.
      8. Plug in processor.
      9. Run cleaner films through. Run at least two new unexposed periapical films through
         each chute.
      10. If films come out clean and clear, the processor is ready for use. Proceed with Quality
          Control tests.
11. If there are marks or residue on the films or if periapical films are dark or fogged, call the Oral Radiology Clinic supervisor at 625-1126. Do not use processor until its use has been cleared by the Oral Radiology supervisor.

12. Check water temperature to be sure it is set to manufacturer’s recommended temperature.


b. Daily
   1. Turn processor on. Change water daily
   2. Check chemical level. If too low, add more.
   3. Run cleaner films through as outlined in "a" above.
   4. Check temperature setting. If adequate, proceed with Q.C. film. Record temperature on log sheet.
   5. Expose and process a step wedge film and compare with standard. The step wedge film must be within one step of standard. If not, do trouble shooting. Repeat Q.C. tests until satisfactory results obtained.
   6. Turn processor and water off at the end of the day.
   7. Lift lid off slightly to allow air to circulate.

2. Film processing shall be monitored in each darkroom on a regular basis to assure film quality. Test records will be maintained by the RPR. Test films must be labeled and saved for 30 days.

3. Instructions for processing shall be posted in each darkroom.

4. All old films, lead foil film backings and used fixer must be saved for proper disposal by the Dental Engineering Department.

5. The darkrooms shall be evaluated for white light leakage and adequacy of safelights by the RPR every six months. All deficiencies must be corrected immediately.

IX. REGIONAL DENTAL BOARDS PATIENTS

1. A request for radiographs on all board examination patients shall be signed by a licensed dentist. Reason for radiographic examination must be recorded. Patients must fill out and sign Health History/Consent form.

2. All the regulations regarding radiation safety contained within this policy would apply when appropriate.