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KALAMAZOO VALLEY COMMUNITY COLLEGE  
Dental Hygiene Department

DHY Mission Statement

To provide KVCC Dental Hygiene Program students with evidence-based education and clinical experiences to build their ethical standards and problem-solving skills thus preparing them to become professional hygienists in an evolving health care environment requiring adaption to changing technology, sensitivity to multi-cultural populations, and delivery of patient-centered treatment.

DHY Program Goals

1. To provide a broad-based education for dental hygiene students that will enable them to practice effectively in a variety of settings and/or extend their education.

2. To provide theoretical course work and practical experience in the dental hygiene process of care.

3. To provide dental hygiene students with the theory and practice of patient education, technologies, modalities, and strategies that will enable them to motivate clients to obtain, maintain, and enhance their oral health.

4. To continually evaluate and procure updated modalities for the dental hygiene clinic to ensure the availability of state of the art equipment and technologies for practicum experiences.

5. To provide professional development for the dental hygiene faculty to improve their quality of instruction and for oral health care professionals to improve job performance and career advancement.

6. To provide dental hygiene students with theory and practical experiences with and for a diverse client population.
Program Competencies

1. Systematically collect, analyze and record data on the general, oral and psychological health status of a variety of clients using methods consistent with medicolegal principles.

2. Use critical decision making skills to reach conclusions about the client’s dental hygiene needs based on all available assessment data.

3. Collaborate with the client, and/or other health professions, to formulate a comprehensive dental hygiene care plan that is client centered and based on current scientific evidence.

4. Provide care to all clients using an individualized approach that is humane, empathetic, and caring.

5. Provide screening, referral, and educational services that allow clients to access the resources of the health care system.

6. Provide community oral health services in a variety of settings.

7. Provide specialized treatment that includes preventive and therapeutic services designed to achieve and maintain oral health. Assist in achieving oral health goals formulated in collaboration with the client.

8. Provide dental hygiene care to promote client health and wellness using critical thinking and problem solving in the provision of evidenced based practice.

9. Evaluate the effectiveness of the implemented clinical, preventive, and educational services and modify as needed.

10. Evaluate and utilize methods to ensure the health and safety of the client and dental hygienist in the delivery of dental hygiene services.

11. Respect the goals, values, beliefs and preferences of the patient while promoting optimal oral and general health.

12. Assume responsibility for dental hygiene actions and care based on accepted scientific theories and research as well as the accepted standard of care.
STANDARDS OF PRACTICE

**Standard 1: Assessment**
Dental hygiene students at KVCC are expected to systematically collect, analyze and document the oral and general health status and client/patient needs. The dental hygiene student will conduct a thorough, individualized assessment of assigned clients/patients with or at risk for oral disease or complications. Our assessment process requires ongoing collection of data and interpretation of relevant data. Data will be documented in our computer software program currently supplemented by a paper file for documentation necessary for teaching and learning of the dental hygiene process of care.

**Standard 2: Dental Hygiene Diagnosis**
Dental hygiene students at KVCC are expected to utilize their data collection to identify existing or potential oral health problem(s) that they are educationally qualified and will be licensed to treat. The dental hygiene student creates a dental hygiene diagnosis by analyzing the collected data and utilizing critical decision making skills in order to reach conclusions about the client/patients dental hygiene treatment needs and the client’s self-care needs.

**Standard 3: Planning**
Dental hygiene students at KVCC are expected to recommend goals and establish expected outcomes based on patient needs, expectations, values, and current scientific evidence. The dental hygiene treatment plan is based on the assessment findings, the dental hygiene diagnosis, and the client/patient’s input/commitment.

**Standard 4: Implementation**
Dental hygiene students at KVCC are expected to implement the delivery of dental hygiene services based on the dental hygiene care plan in a manner that minimizes risk, optimizes oral health, being proactive with current technological advancements.

**Standard 5: Evaluation**
Dental hygiene students at KVCC are expected to evaluate the outcomes of their dental hygiene care. The evaluation process includes the use of measureable assessment criteria to determine whether goals are met or need to be altered. The dental hygiene student is expected to use critical thinking skills to determine when additional diagnostics, treatment, referral, education and continuing care are needed. In addition, the dental hygiene student will document the changes in treatment or client self-care appropriately communicates this to the client/patient.

**Standard 6: Documentation**
Dental hygiene students at KVCC are expected to complete and accurately record all collected data, treatment planned and provided, recommendations, and other information relevant to patient care and treatment. The dental hygiene student is expected to follow ethical and legal responsibilities of record keeping, be compliant with HIPAA regulations, and protect the confidentiality of patient information. In addition, the dental hygiene student will document client/patient failed appointments and other inappropriate behaviors that may constitute a violation to their responsibilities as identified in our Client Bill of Rights and Responsibilities.

These Standards were adapted from the **Standards for Clinical Dental Hygiene Practice, ADHA**
STANDARDS OF PRACTICE

Standard 1: Assessment
- Patient History
- Comprehensive clinical evaluation
- Risk assessment

Standard 2: Dental Hygiene Diagnosis
- Data assessment
- Dental hygiene care addressing patient needs
- Dental hygiene diagnosis as a part of overall dental treatment plan

Standard 3: Planning
- Dental hygiene intervention
- Coordinate resources to facilitate comprehensive quality care
- Collaboration with other health care providers including dentists
- Presentation and documentation of treatment plan to patient
- Concise and understandable explanation of planned treatment, intervention, anticipated outcomes, options, and patient commitment
- Informed consent and/or informed refusal

Standard 4: Implementation
- Dental hygiene care plan implementation with patient/caregiver
- Modifications as needed and obtaining consent
- Use of appropriate communication skills for a variety of patients
- Maintenance care confirmation and scheduling

Standard 5: Evaluation
- Assessment criteria to evaluation outcomes
- Communication to other health care providers involved regarding outcomes
- Collaboration to determine need for additional diagnostics, treatment, referral, education, and continuing care based on treatment outcomes and self-care behaviors

Standard 6: Documentation
- Documentation of all components of the dental hygiene process of care
- Objective documentation of interactions between patient and KVCC student(s), clinicians, and staff
- Accurate and legible recording
- Ethical and legal responsibilities met during record keeping
- Compliance with HIPAA
- Respects and protects confidentiality of patient information
Quality Assurance System

Begins with interview by the receptionists during appointment scheduling

- Data entry into computer
- Critical medical history questions
- Critical interpretation of patient wants/needs
- Finding needs of outside agency when referred
- Communicating appointment times, length of appointment including it may take multiple appointments, and a range of possible fee for service
- Forwarding information to assigned dental hygiene student via computer notes
- Forwarding information to DDS for prescription needs prior to appointments
- Clients 13 years of age or younger will be scheduled for an appointment with a hygiene student
- Clients 14 years of age or older will be scheduled a screening appointment to determine appropriate clinic level.
- Existing clients that have not been here for 2 years or more will be scheduled a screening appointment

Screening Appointment, The client will be:

- Seen by 2 students and the DDS
- Review of medical history
- Cursory screening for obvious lesions and pathologies
- Classifying the client for appropriate clinic level looking at the following assessments: calculus deposits, PSR, BOP grade, number of teeth, complexity of dental chart, and treatment considerations
- Radiographs will be prescribed by the DDS if needed.

During patient care: DHY student completes the Oral Exam using the items below, followed by a thorough evaluation by the clinical instructor. Agreed upon treatment is written and authorized by the clinical instructor.

Use of data collection materials

- Consistent computer software program
- Supplemental paper forms e.g. nutritional assessment, tobacco cessation, caries risk factors

Use of the Dental Hygiene Care Plan

- Use of client care worksheet(s)
- Presumptive diagnosis page
- Intervention page
- Patient informed consent/refusal
- Agreed upon goals
- Agreed upon DHY services documented (treatment plan)
- Generation of assessment form data

Use of the Treatment Plan

- DHY services provided and evaluated by the clinical instructor
- Narrative section for documentation
- Computer note section for documentation
- Generation of assessment form data
- Patient satisfaction survey encouraged
Use of Clinical Instructor

- Will provide student evaluation for entire appointment
- Will review client’s paper & electronic chart for completeness at end of clinic day
- Clients going through screening process will have minimum 4-5 individuals assessing/evaluating their oral health

Use of TalEval Grading System

- Instructors input evaluation information after student/client conduct
- Helps with student growth in clinic
- Helps with faculty calibration

Use of client surveys

- Feedback for our overall program/clinical improvement
RDH/DDS/Role

Dental Hygiene Clinical Instructor Job Description

The primary responsibilities of the dental hygiene clinical instructor are in the areas of instruction and remediation of the dental hygiene care process including clinical skills and evaluation of clinical procedures. In addition to these responsibilities, clinical instructors will find themselves performing as role models for students and public relations personnel with patients. On occasion, an instructor will find a need to give direct patient care such as removing a difficult area of calculus as part of a teaching-learning situation.

The periodontal debridement and detoxification procedures are to be evaluated by the dental hygiene clinical instructors. These instructors have been selected because of their knowledge and skills with a wide variety of periodontal instruments. Clinical instruction is more than just locating missed calculus. As a dental hygiene clinical instructor, one of the primary responsibilities is to remediate students' having difficulties with instrumentation skills. A valuable dental hygiene clinical instructor identifies technique problems and clearly facilitates the development of effective instrumentation.

Supervising Dentist Job Description

The supervising dentist's primary responsibilities are also in the areas of instruction and remediation, especially for the assessment of oral abnormalities, radiographic interpretations, local anesthesia and nitrous oxide administration. The supervising dentist needs to be available to our dental hygiene faculty, students, and patients for consultations, supervision, and to make referrals as needed. As indicated by a patient's medical or dental history, the supervising dentist will need to prescribe medications, (i.e., antibiotic premedications and antimicrobials for dental hygiene therapy). In addition to these responsibilities, supervising dentists will find themselves performing as role models for students and public relations personnel with patients.

The supervising dentists will be evaluating clinical procedures with a few exceptions. The periodontal scaling (including ultrasonic scaling) and root planing procedures are to be evaluated by the dental hygiene clinical instructor. Generally, the supervising dentist is not well enough acquainted with the periodontal instrumentation techniques to remediate a student having instrumentation problems. The dental hygiene clinical instructors have been selected because of these skills and better utilization of the supervising dentist is for diagnostic procedures. Whenever possible, the dentist should be the clinical instructor for oral examination procedures, including chartings, and radiographic interpretations. Be aware, unless unusual circumstances exist, (too timely of a wait for the dental hygiene clinical instructor), the periodontal scaling and root planing must be evaluated by the dental hygiene clinical instructor or the student jeopardizes receiving credit for the procedures. Note, clinical instruction is much more than just locating missed calculus. The clinical instructor must be able to remediate students' difficulties in instrumentation skills with all of the instruments in the students' armamentarium. This is not expected of our supervising dentists. Obvious exception to this is when the supervising dentist is also a dental hygienist or periodontist.

As described in our emergency care procedure, the supervising dentist will be the Emergency Director during emergency situations in our clinic.

Faculty Responsibilities

It is important as faculty members of the dental hygiene department that we consistently enforce the rules and have knowledge of the general information. If a student is not abiding by the appropriate regulations and behaving in a professional manner, it is our role to correct the situation. Your professional judgment is important. Adjustments may be made simply by communicating the information to the student and documenting it on their clinic evaluation form. However, if the inappropriate behavior does not cease, you have the authority to dismiss the student from a classroom, lab, or clinical setting. Likewise, you have the authority to warn clients and dismiss them as well from our clinic if inappropriate conduct is deemed. Dismissal would be the solution of choice for any form of substance abuse. The department chair should be notified of any situation that has the potential for dismissal or following a dismissal situation.
PROGRAM RELATED INFORMATION

Communication:
The dental hygiene department is committed to having several mechanisms to provide the student the opportunity to give feedback related to courses, faculty, staff, and the entire dental hygiene program. You are encouraged to discuss concerns or give input to lead instructors of your courses in a timely fashion to allow for resolutions or necessary changes. Course related feedback is best if given directly to the lead instructor. Program and clinical related feedback could be discussed in your clinical small group sessions, with your lead instructor or the department chair.

Student Responsibilities:
Any information about a specific client is confidential. You may share this information only with an instructor or classmate(s) in an appropriate setting.

You will represent yourself as a KVCC dental hygiene student only when performing in that capacity. Acting in any unethical manner may result in failure of the course.

Attitude involves behaviors, including professional, social and personal, that reflect how you interact with others. In addition to competence in basic dental hygiene skills, what makes you professional as a dental hygienist is how you interact with people. Behaviors which are disruptive, disrespectful, or otherwise deemed inappropriate in the classroom, lab, or clinic will result in point reductions, dismissal from the classroom, lab, or clinic, and may result in course failure.

Academic dishonesty will be treated seriously. At a minimum it will result in loss of credit for the assignment. The obvious maximum penalty is 0.0 for the course. Cheating is defined as using notes or markings, signals, or wandering eyes to obtain answers from a private source not permitted during exam time or from another person in class. Submitting papers which are not the student's original work (plagiarism), also constitutes cheating.

The stringency of this policy regarding student responsibilities is understandable when read in the context of an educational program preparing individuals for a health career where the safety and well-being of the public are largely dependent upon the knowledge and ethical behavior of the student-practitioner. Cheating precludes the instructional faculty's ability to declare prospective graduates to be competent, reliable, and ethical.

Laboratory and Clinical Competence
You are expected to master the procedures outlined in your clinical courses to either laboratory or clinical competence. Laboratory competence means you will become proficient in performing the procedure during laboratory simulations. Clinical competence means you will become proficient in performing the procedure on clients. A fellow student may be a client. There are only a few procedures that you may solely demonstrate laboratory competence prior to graduation. For these few procedures, students/graduates may need to consult with a dentist or dental hygienist for assistance when first performing these procedures intra- orally.

The procedures listed below are required to laboratory competency only. However, enrichment credit (points) may be earned for demonstrating these procedures to clinical competence. This may be accomplished in our clinic or a private dental office. If completed in a dental office, the dentist must sign an affiliation agreement with us prior to your performing the procedure intra- orally. The dentist will be your supervisor.

- Suture removal
- Placement of temporary sedative dressing
- Removal of temporary sedative dressing
- Laboratory competence solely required for graduation. You may need to consult with a dentist or dental hygienist for assistance when first performing these procedures intra- orally.

All other procedures in your clinical courses are required to clinical competence.
Program Progression:
You progress through the dental hygiene program in a sequential pattern. First semester course work must be successfully complete before progressing to the second semester. A 2.0 grade is required in all science, health career, and dental hygiene courses. You have only one opportunity to re-enter the first semester of the dental hygiene program should you stop out, withdraw, or fail. To re-enter the first semester courses, you will need to be readmitted to the dental hygiene program by completing the application packet required of potential candidates. You will be required to retake the dental hygiene courses listed in the first semester.

If you stop out, withdraw, or fail later semesters, you will need to be reinstated to the dental hygiene program by contacting the Program Director and filling out appropriate paperwork. Should you stop-out, withdraw, or fail more than one time, you will not be reinstated.

Program Completion and Graduation Information:
You are responsible for obtaining a petition for graduation. Forms may be obtained on-line @kvcc.edu and must be filed with the Vice President for Student and Instructional Services. This petition must be filed one semester prior to program completion.

You will be asked to evaluate the dental hygiene program as a student, and later as graduates. Your thoughtful feedback is essential for the dental hygiene program to evaluate and modify the dental hygiene curriculum.

National Board and Regional Board Examinations and Licensure:
When you are in your last semester of dental hygiene course work, you will receive information regarding the applications for testing and licensure. You may submit the licensure application prior to completion of your program to the Board of Dentistry. Fees must accompany the application along with a copy of your CPR certification.

In addition, prior to completion, you should request an official transcript be sent to the State of Michigan if you desire a license in Michigan. When completing this request, mark the box on the form where it states "after degree is posted". Not marking the appropriate box will generate sending an official transcript without your degree status delaying the licensure process.

Job References and Recommendations
Information regarding employment opportunities, resume writing, etc., are available through Student Success Center. As you begin your final semester, you should contact them for assistance with job placement. Occasionally, they have information regarding job openings for dental assisting while you are a student. Some employers need part-time assistants and work around student schedules.

Employer Survey:
An employer Survey is provided to your employer for completion. This information is critical for the dental hygiene department to evaluate and modify curriculum. Names of employees are not requested. You will be asked to give permission for this survey. The survey is conducted through KVCC's Research Department. Results are summarized by them and given to the appropriate administrators and department chair.

Informal Student Appeal Process:
As described in the KVCC Student Handbook, this informal process does not take the place of the formal Student Appeal Process. It is an attempt to resolve concerns for all involved in a constructive and timely manner. The informal process is as follows:

1. Discuss your concerns with the instructor or staff member directly. If you are uncomfortable with this or feel that the problem is not resolved, see the lead instructor or the dental hygiene department chair.

2. If the problem is not resolved with the lead instructor, discuss it with the dental hygiene department chair.

3. If the problem is not resolved to your satisfaction, you will be referred to the Dean of Health and Public Services.
4. If the problem is not resolved to your satisfaction with the Dean, you may initiate the formal Student Appeal Process with the Vice President for Student and Instructional Support Services. This process is described in the KVCC Student Handbook.

Accreditation Compliance:

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

A copy of the appropriate accreditation standards and/or the Commission’s policy and procedure for submission of complaints may be obtained by contacting the Commission at 211 East Chicago Avenue, Chicago, IL 60611-2678 or by calling 1-800-621-8099 extension

Health Status:

As a student at KVCC, you are not an employee of any of the affiliated agencies where you are assigned as a student clinician, nor are you an employee of KVCC. Therefore, you are responsible for any injury or illness you may incur. It is recommended that you have your own health insurance.

Transportation/Housing:

You are expected to maintain reliable transportation throughout the dental hygiene program. You are responsible to arrange your own transportation to and from all agency sites.

Should the college be closed due to inclement weather, scheduled off-campus community clinic rotations will not meet. In the event of such a cancellation, it may be necessary for you to make up that clinical assignment at a later date. Notification of College closure may be obtained by calling KVCC’s Inclement Weather number, 269-488-4750 or through radio, TV coverage, text message, or www.kvcc.edu after 6:00 a.m.

Housing is not available through KVCC. Information regarding housing is available at the Student Services Information desk.

Liability Insurance:

Student liability insurance is provided by the College.

Financial Aid:

A wide range of financial aid programs are available to qualified students. Information about programs such as work-study, loans, scholarships, and grants can be obtained from the Financial Aid Office. There are scholarships available specifically for dental hygiene.

American Dental Hygiene Association – Student Club:

The KVCC ADHA-Student Club is an organization sponsored through the KVCC Student Services Department. This organization has by-laws and is governed by student officers comprised of representatives from each class in the dental hygiene program. The officers are the organizing body of the association and receive input and approval from all members. A dental hygiene faculty member advises the organization.

The purpose of the organization is to have a formal organized student body that enables:

1. student support
2. community dental health projects
3. money making projects
4. social gatherings
5. sponsorship of educational speakers
6. attendance and participation in state and regional dental hygiene seminars and conventions.
Locker Room:
You will be assigned a locker for storing your clinic attire, books, coat, etc. The lockers accommodate one or two students. They have assigned padlocks for security reasons. We strongly recommend locking your belongings in your locker and not leaving items out in the locker room.

Dental Hygiene Clinic:
The dental hygiene clinic is located in room 1280/90. We have guidelines that need to be followed when you are in the clinic area for common courtesy and the safety and well-being of everyone.

In addition to the clinic attire and protocol described in the Infection and Hazard Control Protocol, you will need to:

1. shower daily and use deodorant
2. keep your hair neat and clean (long hair must be tied back away from your face)
3. keep your nails so they are not visible when looking at the palm side of your hand
4. do not wear obvious nail polish color
5. wear your name tag (and radiation badge – EFE students)
6. remove earrings-other than posts on the lower ear lobes
7. finger rings are not recommended when providing direct patient care
8. adhere to the no food or drink policy
9. prepare your operatory at least fifteen minutes prior to your appointment time
10. remain in the clinical area while waiting for clients. The receptionist via the computer scheduling program will notify you of your client’s arrival
11. avoid congregating near the receptionist’s desk which inhibits traffic flow
12. request help from the clinicians, or receptionist with equipment malfunctions
13. call the receptionist if you cannot attend your assigned clinic time. (Should an absence or tardiness occur, you are responsible for making up the time during another clinic session.)

Clinical Attire does not include:
1. earrings anywhere except the lower ear lobe
2. tongue jewelry
3. visible tattoos (must be covered)

Non-compliance to clinical attire or protocol will not be tolerated. You will be given the opportunity to correct the violation resulting in point reduction for the day. If not corrected, dismissal from the clinical setting will occur until violation is corrected.
CLIENT BILL OF RIGHTS AND RESPONSIBILITIES

As a comprehensive dental hygiene care client, you have the right to:

1. Have care provided by a student dental hygienist under the supervision of an attending instructor every time you receive dental hygiene treatment.

2. Receive treatment without discrimination as to race, color, religion, sex, national origin, disability, sexual orientation, source of payment, or a history of communicable disease. A decision to isolate or exclude a client shall be made only in accordance with Board Policy BP-075. (Available upon request.)


4. Request complete and current information about your oral health condition.

5. Informed consent regarding all dental hygiene treatment planned for you, including recommended treatment, alternate treatment, options to refuse treatment and the risks of no treatment.


7. Expect all people involved in your care to use appropriate infection controls.

8. Emergency care in a timely manner.

9. Discuss issues involving your account.

10. Obtain a copy of your dental hygiene record for which the clinic can charge a reasonable fee.

11. To know students are taught to lab competency on the following procedures: suture removal, placement and removal of temporary sedative dressings.

Client responsibilities:

1. Give honest and complete answers to appropriate questions.

2. Be considerate of, cooperative with, and respectful to your assigned dental hygiene student, attending instructors, and staff. Inappropriate behaviors such as rudeness, harassment of any kind, misconduct, and lack of cooperation will not be tolerated.

3. Be prompt for appointments and stay for the entire appointment time. We expect 24-hour notice of cancellation.

4. Clients who “no show” an appointment 3 times may be dismissed as a client.

5. Pay for services.

6. Follow through on mutually agreed treatment, referrals, and home care instructions.

I have read and understand my rights and responsibilities as a client at Kalamazoo Valley Community College Dental Hygiene Department.

___________________________________________________  
Print Name                                                     Date

___________________________________________________  
Signature                                                     Date
CONFIDENTIALITY AGREEMENT

I, ______ (KVCC Student)_______, understand that I will have access to medical/dental information of patients of various medical providers. I also understand the necessity for the professional and ethical handling of medical information of these patients.

Therefore, I agree not to divulge or release the name, medical/dental history, medical/dental condition, medical/dental treatment, or other information of any patient without the expressed written consent of the patient or the authorized patient representative.

Failure of any student to abide with this Confidentiality Agreement may result in dismissal from the Dental Hygiene Program and I further understand that any breach of this Statement may subject me to legal prosecution under applicable state and federal laws.

_________________________________________
(print name)

_________________________________________
(Signature)

_________________________________________
(Date)
SAFETY PROCEDURES

You will find complete campus safety and security services on our website, www.kvcc.edu/safety/writtenplans. It is recommended that you review this information as it includes general safety instructions that supplement the more specific dental hygiene protocols included in the “Infection/Hazard Control” section of this manual.

Cabinet Member Operational Policy (CMOP) 4010

CMOP 4010
Communicable Diseases

The Institution is committed to ensuring uniform standards for the prevention and control of communicable diseases, for providing communicable disease education, for reporting hazardous communicable diseases to the extent required by law and for providing reasonable accommodation for persons who are unable to participate in the regular education program as a consequence of a communicable disease. The Office of Human Resources and the Office of the Vice President for Academic Services shall coordinate the promulgation of the procedures that cover communicable diseases and ensure they are incorporated into employee handbooks, student handbooks and other communications, as appropriate.

Adopted by Cabinet: October 30, 2001

As part of your educational process, you are provided with an occupational exposure training program regarding OSHA/MIOSHA Bloodborne Pathogens Standard.

INFECTION CONTROL

1. The most current CDC Guidelines and Universal/Standard precautions shall be the basis of infection control procedures practiced and taught in our dental hygiene courses. These precautions and procedures shall be taught to our students before their entry into the clinical environment. Appropriate procedures and precautions shall be followed by our students, faculty, and staff at all times in our courses, labs, clinics, clinical assignments and programs whether on-campus or at off-campus clinical locations.

2. The inclusion of infection control procedures and Universal/Standard Precautions in a course shall be documented in the course syllabus and/or class assignment schedule. Failure of any student to learn and follow such guidelines and precautions may result in that student’s dismissal from the program.

3. We acknowledge that any patient treated in one of our clinics or clinical rotations may be infective with a communicable disease. We shall, therefore, follow and require students, faculty, and staff to follow Universal/Standard Precautions when treating all patients.

4. When a patient in one of our clinics or clinical assignments has been diagnosed as having a communicable disease, we shall treat that patient to the best of our ability in the normal routine of our clinic or clinical assignment. Such treatment shall require that protective guidelines, Universal/Standard Precautions, and Board policies concerning communicable diseases be strictly followed.

5. Health professions’ faculty and staff members, including full-time and part-time faculty and staff members, shall render care to all patients in accordance with the ethical standards of the professions and applicable Board policies.

6. Students in our program shall treat all patients in our clinics or clinical assignments in accordance with the ethical standards of the profession and applicable Board policies. A student refusing to treat any patient may be excluded from the program.

7. Health care faculty, staff, and students shall maintain strict confidentiality of patient information.

8. These guidelines shall be explained to our dental hygiene students in the normal course of the discussion of ethics and professional responsibilities within the pre-clinical course work.
INFECTION / HAZARD CONTROL
Students and Instructors

It is the responsibility of all healthcare providers to practice and enforce infection control procedures to ensure a safe environment for both the client and the healthcare provider. The objective is to prevent transmission of HIV, HBV, and other blood borne pathogens. Every client should be considered potentially infective and the strictest infection control procedures will be practiced, monitored and evaluated.

I. Role of the Client

A. Assessment and Protection
   1. Complete a comprehensive medical/dental history at the initial appointment and updated each recare visit (including general physical evaluation and two BP recordings)
   2. Complete a thorough extraoral and intraoral examination including examination of the teeth and periodontium
   3. Clients will rinse with an antimicrobial prior to intraoral procedures
   4. Protective eyewear will be worn for all intraoral procedures except radiographic exposure (provided for them)

II. Personal Standards / Student & Instructor

A. Hair
   1. Kept out of the field of operation by
      a. A shorter length or
      b. Tied or held back with some kind of restraint
   2. Wash contaminated hair daily
   3. Facial hair covered with a mask or shield
   4. Jewelry removed from arms, hands, and face/ears (post earrings on the lower lobes are permissible)

B. Hands
   1. Nails must be clean and short
   2. A 15 second thorough hand washing when first entering the clinic (Use cool water – prevent chaffing)
   3. Rinse and dry hands - fingertips to wrists
   4. Spray hands with antimicrobial & rub systematically until dry
   5. Don gloves
   6. Spray antimicrobial between clients is to be used between patients
   7. Wash hands before leaving clinical area

C. Clothing
   1. Students’ clinic attire
      a. Clean scrub pants and scrub top, color and style choices are designated
      b. Clean, white shoes and socks (shoes only used for clinic and kept in your locker)
      c. Impermeable gown (provided for you)
2. Students' lab attire  
   a. Clean scrubs identified above  
   b. Lab coat covering from neck line to waist or longer, long sleeved (any color) (lab coat is optional, mainly for warmth)

3. Instructors' clinic attire  
   a. RDH - Clean scrubs; DDS – clean scrubs or washable street clothes  
   b. Impermeable gowns (provided for you)

4. Instructors' lab attire  
   a. Clean scrubs  
   b. Lab coat covering from neckline to waist or longer, long sleeved (optional primarily for warmth)

III. Personal Protection (PPE)/ Students & Instructors

A. Immunizations for HBV, Tetanus, Rubeola, Rubella, and Mumps.
B. A current PPD current each year
C. Examination gloves  
   1. Worn for all intraoral procedures and when working with contaminated objects in the laboratory such as study impressions  
      a. Cover the sleeve of the gown or lab coat  
      b. Change if discolored, torn, or sticky  
      c. Changed for long appointment procedures (longer than 60 minutes)  
      d. Remove by pulling first glove inside out and into the second glove as it is pulled off inside out (dispose immediately)
   2. Must not be washed or otherwise reused  
   3. Change between patients  
   4. Remove and wash hands before leaving the clinic or lab  
   5. Are not to be worn any area other than direct patient care e.g. receptionist area, waiting room, locker room, classroom

D. Heavy duty gloves  
   1. Worn for all cleaning and disinfection of instruments, dental units or equipment, and environmental surfaces.

E. Masks and/or Faceshields  
   1. Worn for all intraoral procedures  
      a. Change for each patient  
      b. Change if it becomes moist  
      c. Change @ every twenty minutes during procedures creating high levels of aerosols  
      d. Face shields may be worn over the mask
   2. Worn for all cleaning/disinfecting procedures

F. Eyewear  
   1. Worn for all intraoral and laboratory procedures  
      a. Cover the entire eye orbit  
      b. Have side extensions  
      c. Be cleaned and disinfected between clients
   2. Worn for all cleaning/disinfecting procedures.
   3. Faceshield may be worn in place of goggles or eyeglasses
G. Protective Clothing
   1. Worn for all intraoral procedures (described in II.C of this document)

H. Surface barriers
   1. Change between clients
   2. Cover equipment and objects being touched during the intraoral procedure
      a. Light handles
      b. Chair switches
      c. Hoses
      d. X-ray head and collimator
      e. Instrument trays
      f. Pens/pencils, erasers
      g. Charts
      h. Headrest
   3. Cover client’s chest region with a disposable bib (include a plastic cover for high moisture procedures)

I. Sharps Disposal
   1. Discard sharps (e.g. needles, irrigation tips, broken glass, etc.) in “sharps box” located in the dispensary area
   2. Anesthetic containers are disposed of in the “sharps box” also

J. Flush all water lines following the manufacturers’ recommendations (generally at the beginning and end of each day)
   1. Empty the antimicrobial bottles and rinse thoroughly – set upside down to dry
   2. Use automatic equipment process for power scaler and air polisher hoses
   3. Flush the water syringe for 1 minute with clear water or until antimicrobial isn’t noticeable

K. Evacuation tubing must be flushed with the commercial cleansing liquid at the end of each day.

IV. Environmental Surface Disinfection
   A. Utilize an appropriate disinfectant (approved tuberculocidal) for surface cleaning and disinfecting prior to appointment and following appointment
      1. Spray heavily, spread, and respay (leave wet for 10 minutes)
         a. Cabinets and drawer pulls
         b. Hose ends
         c. Couplings
         d. Saliva ejector tip (the end that holds the disposable ejector)
         e. Lamp switches
         f. Patient chair and control buttons
         g. Operator stool including up/down handle
         h. Ultrasonic scaler
         i. Prophy jet
         j. Air/water syringe handle
         k. Pens and pencils
         l. Hand piece and suction supports
         m. Suction supports are to be covered with an impermeable (use the headrest cover size)
         n. DO NOT use liquid disinfectant on the suction support mechanism
         o. Surounding countertops
   B. Disinfection of removable and orthodontic appliances
      1. Place in a zip-lock bag filled with disinfection solution (non-toxic)
2. Place in the ultrasonic cleaner for the manufacturer recommended time
3. Removal from solution in bag is done with gloved hands
   a. Discard solution and bag immediately
   b. Rinse and brush the appliance under running water
   c. Soak appliance in cup filled with an anti-microbial mouth rinse until returned to client
C. Disinfection of study model impressions (prior to pouring)
   1. Soak impression in disinfectant solution for manufacturer recommended time
   2. Rinse and use compressed air to dry
   3. With gloved hands, pour up with stone or plaster
   4. Removal of impression from cast is done with gloved hands
   5. Discard disposable tray and impression material immediately
   6. Trim model (wearing gloves, protective eyewear, lab coat, and mask)
   7. PPE must be removed before leaving the lab and hands washed

V. Instrument Sterilization
A. Students’ contaminated instruments
   1. Containment, decontamination, and packaging is in the dispensary area
   2. Must be handled with heavy duty household gloved hands
   3. Leave in steribox
   4. Soak in disinfecting solution until sterilization preparation can be done (not necessary if preparation is completed immediately following appointment
   5. If placed in holding tank, remove, rinse, and place in the ultrasonic cleaner
   6. If holding tank was not used, place cassette of instruments in the ultrasonic cleaner for 5 to 10 minutes (5 minutes for small load; 10 minutes for large load)
   7. Rinse and check for visible debris by rotating instruments while in their cassette
   8. If visible contamination is still present, remove with a scrub brush or end of another instrument & reuse the ultrasonic cleaner
   9. Re-inspect - if clean, proceed; if not, repeat steps 5-8 until visible clean
   10. Wrap, insert paper monitor, tape, and label the cassette or place loose instruments in paper wraps
   11. Place in storage bin for contaminated instruments next to the sterilizers
B. After sterilization
   1. Keep wrapped and store in locked mailbox
   2. Open after your client has arrived and dump on pre-set tray
   3. Cover with patient's clean bib
   4. Arrange them after you are gloved just prior to intraoral procedures
C. KVCC Clinic’s Contaminated Instruments (autoclavable)
   1. Containment, decontamination, and packaging is in the dispensary area
   2. Handled with heavy duty household gloved hands
   3. Keep in cassette for processes
4. Soak in disinfecting solution until sterilization preparation can be done (not necessary if preparation is completed immediately following appointment)

5. Place in appropriate steri container

6. Ultrasonic clean for 5-10 minutes as described above

7. Rinse and check for visible debris

8. Place instruments in an autoclave bag

9. Label, seal and date (KVCC’s)

10. Place in storage bin for contaminated instruments next to the sterilizers

11. Following sterilization, these are stored in designated drawer or cabinet

D. KVCC Clinic's Contaminated Instruments (Non-autoclavable)

1. Containment, decontamination, and packaging is in the dispensary area (the east side countertops only)

2. Handled with heavy duty household gloved hands

3. Place in appropriate cassette

4. Soak in disinfecting solution until sterilization preparation can be done (not necessary if preparation is completed immediately following appointment)

5. Ultrasonic clean for 5-10 minutes

6. Rinse and check for visible debris

7. Pat dry; place in room temperature sterilizing solution

8. Remove, rinse, dry the next day (duty of first dispensary person each day)

9. Wrap in see thru self-sealing bags; label “KVCC’s”, seal and date

10. Following sterilization procedure, store in designated drawer or cabinet

Note: Room temperature sterilizers take 6-10 hours of uninterrupted exposure for sterilization to occur. Less time or the addition of items during this time results in an incomplete sterilization process. Disinfection is not acceptable for items placed in the clients' oral cavity when sterilization is possible.

E. Monitoring

1. Autoclaves
   a. Weekly checks with an ampule containing microorganisms
   b. Daily check with heat sensitive tape

2. Room temperature liquid sterilizer
   a. Change as manufacturer recommends (every twenty-eight days currently)

F. Storage

1. Shelf-life
   a. Paper envelop 30 days
   b. Cloth wrap 30 days
   c. Nyclave (tape seal) 4 months
   d. Nyclave (heat seal) 6 months

Note: When preparing items for sterilization, it is necessary to date the storage bag. If instruments puncture through storage containers, they are contaminated and must be reprocessed.
VI. Occupational Exposures
   A. See Protocol for Occupational Exposures. (see Table of Contents for page number)

VII. Infectious Waste Disposal
   A. Discard disposable items in trash containers including:
      1. Prophy cups and brushes
      2. Saliva ejectors
      3. Gauze
      4. Bib
      5. Gloves
      6. Barrier wraps and covers
      7. Impression trays and alginate
      8. Any other disposable items placed intraorally
   B. Injection syringes and needles
      1. Discard sharps (e.g. needles, irrigation tips, broken glass, etc.) in "sharps box" located in dispensary area

VIII. Hazard Control in Clinic and Lab
   A. Appropriate attire as described in sections C-1-4.
   B. Mercury hygiene rules
      1. Work in a well-ventilated room
      2. Weak mask, eyewear, and gloves
      3. Store mercury in unbreakable, tightly sealed container
      4. Keep amalgam scrap in a tightly sealed container
      5. Handle amalgam without direct contact
      6. Use water stream and suction when removing or finishing amalgam restorations
      7. Avoid heating mercury, amalgam, or mercury containing solutions
      8. Do not eat or smoke in the dental hygiene operatories or lab
   C. Mercury spills
      1. Do not touch the spilled mercury
      2. Contact the Facility Services Office, X4204 and the Safety Coordinator at X4228 (Human Resources). After 5 pm, contact security X4575. They will arrange clean-up using proper equipment and procedures.
   D. Blood Spills
      1. Do not touch the spilled blood
      2. Contact the Facility Services Office, X4204 and the Safety Coordinator at X4228 (Human Resources). After 5 pm contact security X4575. They will arrange clean-up using proper equipment and procedures.
   E. Radiation Monitoring (EFE Dental Assisting Students only)
      1. Students are monitored using film badges
2. Badges are stored in a designated place in the clinic and are not to be removed from the clinic.

3. Radiographic equipment is evaluated every five years by the State of Michigan (Certification is displayed on the wall in the radiography area).

F. Bunsen Burners
   1. Butane and burners are stored in the fire cabinet in lab
   2. Keep hair tied back
   3. Avoid rapid movements around the burner and with hot objects
   4. Return burner and butane to fire cabinet for storage

G. Fire
   1. If in immediate area, use fire extinguisher located in the lab, clinic, or hallway outside reception area
   2. Contact the Campus Safety Coordinator X 4228 (Human Resources) After 5 pm, contact security X4575.

H. Fire Alarm
   1. Turn off equipment
   2. Leave the building according to Route diagram on the wall in the lab or clinic (leave by the north entrance - go into the parking lot)
   3. Remain outside until "all-clear" announcement is made

I. Protective Equipment
   1. Lead aprons must be used during exposure to radiation
      a. Keep in the radiography operatories
      b. Remain hanging when not in use
      c. Universal barriers (PPE) described in the Infection Control Protocol
      d. Flame resistant gloves for use when operating the autoclave
      e. Eyewash station located in the clinic (x-ray area and the trimming lab)
      f. Fire extinguisher located in the lab, clinic, and hallway outside of the client waiting room.
      g. Utility gloves for handling contaminated materials.

J. Emergency and First Aid Equipment
   1. Located in the clinic (labeled)
      a. First aid kit
      b. Portable oxygen tank
      c. Barrier for use during CPR
      d. Back board for use during CPR
      e. Blanket
      f. Phone; dial 4911 for campus assistance; dial 9911 for outside emergency personnel, (details for emergencies is described in the Emergency Protocol)
Guidelines for Providing Post Exposure Prophylaxis (PEP)

Healthcare workers should report occupational exposure to HIV immediately after it occurs. Either of the following exposures could put a healthcare worker at risk of HIV infection. (1) Puncture of the skin with a needle or lancet or other sharp object that is contaminated with blood or other bloody body fluids. (2) Contact of mucous membrane or non-intact skin with blood or other bloody body fluids.

Early rapid testing of the source client (the client involved in the incident) can help determine the need for PEP and may avert the need for anti-retroviral (ARV) drugs, which may have adverse side effects. If necessary, PEP should begin as soon as possible after exposure, ideally within 2 hours.

Staff who are at risk for occupational exposure to blood borne pathogens need to be educated about the principles of PEP management during job orientation and on an ongoing basis. Currently there is no single approved PEP regimen; however, dual or triple ARV drug therapy is recommended and believed to be more effective than a single agent.

Managing Occupational Exposure to HIV: a Sample Protocol

Immediate steps taken by the exposed healthcare worker:

Any healthcare worker accidentally exposed to blood or body fluids must take the following steps:
- Wash the wound and skin sites exposed to blood and body fluids with soap and water. Wash for at least 5 minutes using ample soap.
- For injuries that break the skin and where bleeding occurs, allow bleeding for a few seconds before washing with soap and water.
- Flush mucous membranes, such as eyes, exposed to blood and body fluids with water only.
- Topical use of antiseptic is optional.
- Do not apply caustic agents, such as bleach, onto the wound or inject antiseptics or disinfectants into the wound.
- Immediately inform the supervisor, or person in charge, of the exposure type and the action taken.

The supervisor should take the following actions:
- Assess the exposure to determine the risk of transmission.
- Perform HIV rapid testing on specimens from both the client and the healthcare worker who was exposed. If rapid testing is not available, send both samples to the closest designated laboratory for HIV testing.
- Immediately arrange for the healthcare worker to visit the nearest physician who manages this type of injury.
- Provide immediate support and information on post-exposure prophylaxis (PEP) to the healthcare worker.
- Record the exposure in the facility register or the appropriate form and forward the information to the individual or department assigned to manage such exposures.
- Maintain the confidentiality of all related records.

A National Post Prophylaxis Protocol should:
- Establish guidelines for PEP for the healthcare setting.-(Our PEP Protocol is established with Bronson Hospital although as a student, you may choose your own healthcare provider)
- Be used to educate staff and managers at designated intervals.
- Ensure that HIV counseling, testing, and ARV drugs are available for PEP.
- Ensure an HIV test is done when starting and after completing PEP.
- Ensure HIV antibody testing if illness compatible with an acute retroviral syndrome occurs.
As part of counseling, encourage exposed persons to use precautions to prevent secondary transmission during the follow-up period.

Evaluate exposed persons taking PEP within 72 hours after exposure and monitor for drug toxicity for at least 2 weeks. (Bronson Hospital wants the exposed healthcare worker & source client in ideally immediately)

Maintain a facility register of occupational exposures.

Educate healthcare workers to report all occupational accidents so that they are recorded on the facility register of occupational incidents.

KALAMAZOO VALLEY COMMUNITY COLLEGE
Dental Hygiene Department

DENTAL HYGIENE EMERGENCY PROTOCOL

The supervising dentist or laboratory instructor will be the Emergency Director until the outside paramedics are present. The dental hygiene clinical instructor will assist the supervising dentist. A minimum of one student will be assisting and recording vital information. The dental hygiene receptionist will be the direct link to the on-campus emergency line (4911) and/or the off-campus emergency line (9911). The Emergency Director and/or dental hygiene clinical instructor will determine whether 9911 is to be called prior to the arrival of the on-campus emergency team. Students not involved directly with the emergency will continue their clinical procedures as assigned. Additional assistance will be requested of dental hygiene students if needed.

Scenario - When an emergency situation occurs in the KVCC Clinic, the Student (A) assigned to the patient having the emergency will remain with the patient. He/she (A) will notify the nearest Student (B) that they have an emergency. The 2nd student (B) will immediately get the DDS supervisor or RDH Instructor, and proceed to get the Oxygen tank and emergency kit. If the RDH instructor was summoned first, Student B will get the DDS supervisor. After the DDS and RDH arrive, the student with the emergency situation (A) will inform the receptionist and apprise him/her of necessary 4911 or 9911 help or if not determined yet – bring the receptionist to emergency site for further direction. Student B will be dismissed when DDS or RDH indicates and should return to his/her operatory.

The oxygen tank and first aid kit are kept in the clinic area. Overhead signs point out their locations.

All students, faculty, and staff need to have current certification in basic life support. KVCC offers RCP 125, Basic Cardiac Life Support and RCP 126, Recertification, during the fall and winter/spring semesters or courses are available at the local hospitals and Red Cross. Current CPR certification is mandatory for all dental professionals in the State of Michigan. Emergency recordkeeping forms are kept with the emergency kit. A form must be completed for each emergency situation in our dental hygiene area. An incident report form must be completed for any injury or emergency. Forms are available in the clinic (bookcase) marked accordingly. After completion, the form is given to the receptionist or clinical instructor for appropriate follow-up.

Emergency Monitoring System:
Oxygen Tank: Checked daily by the dispensary personnel prior to clinical opening. (The tank must be changed when monitor gauge is at 400 ml.)

Emergency Kit: Checked each semester by the receptionist. Expired medications are sent automatically by the emergency kit manufacturer and immediately placed in the kit by the receptionist.

Emergency Recordkeeping Form: Checked each semester by the receptionist and stocked as needed.

Juice for Diabetic needs in the refrigerator: Checked daily by the dispensary personnel prior to clinical opening. (If none available, contact the receptionist for immediate replacement.

Fire Extinguisher: Checked by custodial personnel or designee.
EMERGENCY CARE FLOWCHART

Public Safety Radio Number 4575
In-House Emergency Number 4911
Off-Campus Emergency Number 9911

**STUDENT A**
Student A contacts Student B
- Stays with patient until DDS or RDH arrives.
- Retrieves receptionist.
- Administers oxygen.
- Assists with CPR.
- Assists with medication preparation.
- Records vital data.

**STUDENT B**
- First retrieves the Emergency Director.
- Brings emergency kit and oxygen.
- Retrieves RDH Instructor

**EMERGENCY DIRECTOR**
Dentist or Lab Instructor
- Evaluates patient’s condition.
- Positions patient.
- Establishes airway.
- Directs emergency proceedings.
- Assists patient with medication

**RECEPTIONIST**
- Calls for medical aid as directed.
- Accepts orders and requests from team members.
- Relieves others at CPR.
- Collects vital data from Student A.

**RDH INSTRUCTOR**
- Loosens tight clothing.
- Maintains airway.
- Initiates CPR – if 2 man: Student & RDH.
- Monitors vital signs and informs others on the team.

**NOTE:** All faculty, students, and staff should know the duties for each position so substitutions can be made when necessary.
Policy for the Control and Use of Ionizing Radiation

This policy has been developed to establish a consistent standard concerning the use of ionizing radiation within the Dental Hygiene Clinic. The primary goal of this policy is to assure the safe effective use of ionizing radiation and to minimize as much as possible any potential risk from adverse biological effects to clients, students, faculty, and staff.

General Safety Guidelines

1. Deliberate exposure of an individual to dental diagnostic radiographic procedures for training or demonstration purposes shall not be permitted unless there is a documented diagnostic need for the exposure by a member of the KVCC Dental Hygiene Faculty.

2. The student, faculty, or client shall not hold the film in place during the exposure. The use of film holding devices, bite tabs, or other methods are appropriate to position the film or sensor during exposure.

3. The operator must stand behind the leaded wall of the x-ray operatory in the dental hygiene clinic and directly observe the client during each exposure. The client will be the only person in the operatory during x-ray exposure.

4. The BID must never be hand held during the exposure. If equipment is not stable, report the problem to clinic receptionist and move to another operatory.

5. Only shielded open end BIDs will be used in order to minimize scattered radiation.

6. Only sensors or film with ANSI (ASA) speed group ratings of "F" or faster shall be used.

7. Each dental x-ray machine should contain filtration of 2.5 mm of aluminum equivalent with 70 kVp.

8. Leaded aprons with a thyroid collar will be used on all x-ray clients of KVCC as an additional precaution to prevent unnecessary scatter radiation exposure to the body of the client.

9. The DHY "Infection/Hazard Control Protocol" must be strictly adhered to in the radiography area.

10. Periodic radiation protection surveys and inspections will be made by a service person. All recommendations concerning collimation, filtration (HVL), beam alignment, roentgen output, radiation leakage, etc., will be implemented.

11. Prescribed exposure technique will be followed; appropriate exposure settings are on the control panels. After exposing one image, verify acceptable density, and exposure modifications may be made. For Petite Adults or clients with edentulous areas, decrease settings up to .06 seconds. For large adults, increase settings up to .06 seconds. Faculty members must authorize any increased exposure more than .06 seconds. Exposure variations must be noted in the client's chart.

12. Monitoring of Operator Exposure. Three room monitors are housed in various locations close to the operatories. Records of quarterly, yearly and total cumulative exposure received by these individuals and areas are recorded and kept on file.
Radiographic Selection Criteria

13. The Selection Criteria document that was developed by the Center for Devices and Radiological Health will serve as a guideline when assigning radiographs for the clients of KVCC's Dental Hygiene Clinic. This document, "Selection Criteria Guidelines", is attached and a chart is posted on the wall by the x-ray operatories.

14. The assignment of radiographs is made after completely reviewing the client's medical and dental health histories and completing a preliminary oral examination.

15. These guidelines must be subject to clinical judgment and may not apply to every client. If the instructor assigns radiographic exposures which contradict the "Selection Criteria Guidelines", the rationale must be recorded in the narrative within the client's folder and initialed by the assigning instructor.

16. Radiographs will be assigned to those individuals that fall within the guidelines that are pregnant or have undergone head and neck radiation therapy (this is also noted within the guidelines). A pregnant client may arbitrarily decline for psychological reasons.

17. Clients with moderate to severe attachment loss will require vertical bitewings.

18. A record of radiation history of every client of KVCC will be monitored and kept within the client's folder.

19. Retakes will be assigned after the radiographic series has been critiqued in accordance to the General Characteristics of a Quality Dental Radiograph guidelines.

20. A retake will only be assigned when an area of diagnostic interest cannot be ascertained on another radiographic image.

21. On all retakes assigned, students are encouraged to have an instructor observe them.

22. The maximum number of permissible retakes performed is:

   - 7 for an adult FMX or a retake of a retake
   - 4 for a child FMS or a retake of a retake
   - 3 for an adult BWX or a retake of a retake
   - 2 for a child BWX or a retake of a retake

   The 3rd retake of an individual image

   If more than the maximum retake allowance occurs, an instructor must be present when retaking the images and must identify on the evaluation form if the student's performance is satisfactory or needs remediation.

Quality Assurance Program

23. Quality Assurance Program is designed to produce radiographs of consistently high quality and minimal patient exposure.

   a. Projection Technique

      (1) Before dental hygiene students take FMXs on a clinic client, they have had 36 hours of laboratory instruction in taking FMXs on a mannequin and a module on radiation biology.

      (2) There will be direct supervision of all students during their first FMX of a client.
(3) All images are reviewed for errors by students and department faculty. Retakes will be taken by the client’s last appointment. Students who must retake the maximum or a retake of a retake will be directly supervised and instructed by faculty.

(4) The amount and type of radiographs taken for each client are recorded in the Treatment Progress Record of the client’s chart.

(5) Film/sensor holders and/or alignment devices will be used to aid students in the correct alignment of the x-ray BID, film/sensor and area of interest.

b. Evaluation of X-ray Machine Performance

(1) As images are evaluated in each clinic, extreme deviations with density will be noted. A test film will be taken on a mannequin and if the error is an x-ray machine performance problem instead of human error, the machine is "closed down" until the unit has been calibrated by the dental x-ray maintenance personnel.

(2) All x-ray machines are tested. The tests contain components required to carry out the following procedures.

   (a) Determination of operating peak kilovoltage (kVp) and half-value layer (HVL).
   (b) Determination of exposure timer accuracy.
   (c) Check of mA calibration, reciprocity failure test.
   (d) Verification of focal spot size.
   (e) Measure radiation output.

(3) Radiographic instructor shall assure KVCC x-ray procedures are in compliance with regulations of the Michigan State Department of Health and requirements of the Center for Devices and Radiological Health, FDA.
Guidelines for Prescribing Dental Radiographs

The recommendations in this chart are subject to clinical judgment and may not apply to every patient. They are to be used by dentists only after reviewing the patient’s health history and completing a clinical examination. Because every precaution should be taken to minimize radiation exposure, protective thyroid collars and aprons should be used whenever possible. This practice is strongly recommended for children, women of child-bearing age, and pregnant women.

<table>
<thead>
<tr>
<th>Type of Encounter</th>
<th>Patient Age and Dental Development Stage</th>
<th>Patient Age and Dental Development Stage</th>
<th>Patient Age and Dental Development Stage</th>
<th>Patient Age and Dental Development Stage</th>
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<tbody>
<tr>
<td></td>
<td>Child with Primary Dentition (prior to eruption of first permanent tooth)</td>
<td>Child with Transitional Dentition (after eruption of first permanent tooth)</td>
<td>Adolescent with Permanent Dentition (prior to eruption of third molars)</td>
<td>Adult, Dentate or Partially Edentulous</td>
</tr>
<tr>
<td>New patient* being evaluated for dental diseases and dental development</td>
<td>Individualized radiographic exam consisting of selected periapical/occlusal views and/or posterior bitewings if proximal surfaces cannot be visualized or probed. Patients without evidence of disease with open proximal contacts may not require a radiographic exam at this time.</td>
<td>Individualized radiographic exam consisting of posterior bitewings with panoramic exam or posterior bitewings and selected periapical images.</td>
<td>Individualized radiographic exam consisting of posterior bitewings with panoramic exam or posterior bitewings and selected periapical images. A full mouth intraoral radiographic exam is preferred when the patient has clinical evidence of generalized dental disease or a history of extensive dental treatment.</td>
<td>Individualized radiographic exam, based on clinical signs and symptoms.</td>
</tr>
<tr>
<td>Recall patient* with clinical caries or at increased risk for caries**</td>
<td>Posterior bitewing exam at 6-12 month intervals if proximal surfaces cannot be examined visually or with a probe</td>
<td>Posterior bitewing exam 6-18 month intervals</td>
<td>Posterior bitewing exam at 18-36 month intervals</td>
<td>Not applicable</td>
</tr>
<tr>
<td>Recall patient* with no clinical caries and not at increased risk for caries**</td>
<td>Posterior bitewing exam at 12-24 month intervals if proximal surfaces cannot be examined visually or with a probe</td>
<td>Posterior bitewing exam at 24-36 month intervals</td>
<td>Not applicable</td>
<td>Not applicable</td>
</tr>
<tr>
<td>Type of Encounter</td>
<td>Patient Age and Dental Development Stage</td>
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<td></td>
<td><strong>Adolescent with Permanent Dentition</strong> (prior to eruption of third molars)</td>
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<td></td>
<td><strong>Adult, Dentate or Partially Edentulous</strong></td>
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</tr>
<tr>
<td><strong>Recall patient</strong> with periodontal disease</td>
<td>Clinical judgment as to the need for and type of radiographic images for the evaluation of periodontal disease. Imaging may consist of, but is not limited to, selected bitewing and/or periapical images of areas where periodontal disease (other than nonspecific gingivitis) can be identified clinically.</td>
<td>Not applicable</td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>Patient</strong> for monitoring of growth and development</td>
<td>Clinical judgment as to need for and type of radiographic images for evaluation and/or monitoring of dentofacial growth and development</td>
<td>Clinical judgment as to need for and type of radiographic images for evaluation and/or monitoring of dentofacial growth and development. Panoramic or periapical exam to assess developing third molars</td>
<td>Usually not indicated</td>
<td></td>
</tr>
<tr>
<td><strong>Patient</strong> with other circumstances including, but not limited to, proposed or existing implants, pathology, restorative / endodontic needs, treated periodontal disease and caries remineralization</td>
<td>Clinical judgment as to need for and type of radiographic images for evaluation and/or monitoring in these circumstances.</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>
Clinical situations for which radiographs may be indicated include but are not limited to:

**Positive Historical Findings**
1. Previous periodontal or endodontic treatment
2. History of pain or trauma
3. Familial history of dental anomalies
4. Postoperative evaluation of healing
5. Remineralization monitoring
6. Presence of implants or evaluation for implant placement

**Positive Clinical Signs/Symptoms**
1. Clinical evidence of periodontal disease
2. Large or deep restorations
3. Deep carious lesions
4. Malposed or clinically impacted teeth
5. Swelling
6. Evidence of dental/facial trauma
7. Mobility of teeth
8. Sinus tract (“fistula”)
9. Clinically suspected sinus pathology
10. Growth abnormalities
11. Oral involvement in known or suspected systemic disease
12. Positive neurologic findings in the head and neck
13. Evidence of foreign objects
14. Pain and/or dysfunction of the temporomandibular joint
15. Facial asymmetry
16. Abutment teeth for fixed or removable partial prosthesis
17. Unexplained bleeding
18. Unexplained sensitivity of teeth
19. Unusual eruption, spacing or migration of teeth
20. Unusual tooth morphology, calcification or color
21. Unexplained absence of teeth
22. Clinical erosion

Factors increasing risk for caries may include but are not limited to:
1. High level of caries experience or demineralization
2. History of recurrent caries
3. High titers of cariogenic bacteria
4. Existing restoration(s) of poor quality
5. Poor oral hygiene
6. Inadequate fluoride exposure
7. Prolonged nursing (bottle or breast)
8. Frequent high sucrose content in diet
9. Poor family dental health
10. Developmental or acquired enamel defects
11. Developmental or acquired disability
12. Xerostomia
13. Genetic abnormality of teeth
14. Many multisurface restorations
15. Chemo/radiation therapy
16. Eating disorders
17. Drug/alcohol abuse
18. Irregular dental care.
Clinic Information for Client Assignments

Clients are assessed for calculus classification (CC), Peridontal Skill Level (PSL), and ease of charting the dental chart (DC); the clients are then assigned to the appropriate clinic.

CC

<table>
<thead>
<tr>
<th>Class</th>
<th>Description</th>
<th>Notes</th>
</tr>
</thead>
<tbody>
<tr>
<td>Class 0</td>
<td>Slight to no calculus</td>
<td>Primarily requires deplaquing &amp; little to no scaling.</td>
</tr>
<tr>
<td>Class I</td>
<td>Slight calculus</td>
<td>Supragingival calculus extending only slightly below the free gingival margins.</td>
</tr>
<tr>
<td>Class II</td>
<td>Moderate calculus</td>
<td>Moderate amount of supragingival and subgingival calculus; less than half the dentition.</td>
</tr>
<tr>
<td>Class III</td>
<td>Heavy calculus, mainly mandibular anteriors and maxillary molars</td>
<td>Supragingival and subgingival calculus is more than half of the dentition.</td>
</tr>
<tr>
<td>Class IV</td>
<td>Heavy calculus, mainly mandibular anteriors, maxillary molars, including other localized areas</td>
<td>Generalized supragingival and subgingival ledges around cervical 1/3 of crowns and bands on most root surfaces; more than half of the dentition.</td>
</tr>
</tbody>
</table>

Ease of calculus removal is assessed as well to determine which clinic the client would be assigned.

DHY 129 – CC 0, I, or II; ease of removal up to minimal challenging factors
DHY 139 – CC 0, I, II, III, or IV; ease of removal up to minimal challenging factors
DHY 249 – all CC’s and difficulty
DHY 259 – all CC’s and difficulty

PSL

A modified PSR is used along with the Grade of BOP to determine which clinic the client would be assigned.

DHY 129 – PSR codes 0, 1, 2, 3, or 4 with BOP localized/generalized grade 1 or 2 or localized grade 3 or 4
DHY 139 – PSR codes 0, 1, 2, 3, or 4 with all grades of BOP
DHY 249 – PSR codes 0, 1, 2, 3, or 4 with all grades of BOP
DHY 259 – PSR codes 0, 1, 2, 3, or 4 with all grades of BOP

DC

The DC is assessed to determine the ease or challenging factors associated with the charting of a client’s dental chart.

DHY 129 – with increasing numbers of challenging factors student will need instructor guidance
DHY 139 – with increasing numbers of challenging factors student will need instructor guidance
DHY 249 – all DC’s and difficulty
DHY 259 – all DC’s and difficulty
CRITERIA FOR SELECTING TEETH FOR SEALANT PLACEMENT

Following are the criteria for selecting teeth for sealing. Since no harm can occur from sealing, when in doubt, seal.

A sealant is **indicated** if:

- A deep occlusal fissure, fossa or lingual pit is present, especially if it catches the tine of the explorer.

A sealant is **contraindicated** if:

- Patient behavior does not permit use of adequate dry-field techniques throughout the procedure.
- There is an open occlusal carious lesion.
- Caries exist on other surfaces of the same tooth.
- A large occlusal restoration is already present.

A sealant is **probably** indicated if:

- The fossa selected for sealant placement is well isolated from another fossa with a restoration.
- The area selected is confined to a fully erupted fossa, even though the distal fossa is impossible to seal due to inadequate eruption.
- An intact occlusal surface is present where the contralateral tooth surface is carious or restored; this is because teeth on opposite sides of the mouth are usually equally prone to caries.
- There is an incipient lesion in the pit and fissure; this decision would be a matter of professional judgment.

OTHER CONSIDERATIONS IN TOOTH SELECTION

When oral health is more of a factor than cost-benefit, all teeth meeting the above criteria should be sealed and resealed as needed. Where cost benefit is critical and priorities must be established, such as occurs in many public health programs, ages 3 and 4 years are the most important times for sealing the eligible deciduous teeth; ages 6 to 7 years for the first permanent molars; and ages 11 to 13 years for the second permanent molars and premolars. Sealants appear to be equally retained on occlusal surfaces in primary, as well as permanent teeth. They should be used in fluoride areas, as well as in nonfluoride areas. Sealants should be placed on the teeth of adults if there is evidence of existing or impending caries susceptibility, as would occur following excessive intake of sugar or as a result of a drug- or radiation-induced xerostomia. In all cases it is the disease susceptibility of the tooth that should be addressed, not the age of the individual.

There are two good illustrations of this philosophy. After a 3-year study, Ripa et al concluded that the time the teeth had been in the mouth (some for 7 to 10 years) had no effect on the vulnerability of occlusal surfaces to caries attack. Also, Arthur and Swango have reported that there is a relatively high incidence of occlusal caries in young Navy recruits, who are usually in their late teens or early 20s.
### Table 1  CARDIAC CONDITIONS ASSOCIATED WITH THE HIGHEST RISK OF ADVERSE OUTCOME FROM ENDOCARDITIS FOR WHICH PROPHYLAXIS WITH DENTAL PROCEDURES IS REASONABLE

<table>
<thead>
<tr>
<th>Condition</th>
</tr>
</thead>
<tbody>
<tr>
<td>Prosthetic cardiac valve or prosthetic material used for cardiac valve repair</td>
</tr>
<tr>
<td>Previous infective endocarditis</td>
</tr>
<tr>
<td>Congenital heart disease (CHG)*</td>
</tr>
<tr>
<td>Unrepaired cyanotic CHD, including palliative shunts and conduits</td>
</tr>
<tr>
<td>Completely repaired congenital heart defect with prosthetic material or device, whether placed by surgery or by catheter intervention, during the first six months after procedure†</td>
</tr>
<tr>
<td>Repaired CHD with residual defects at the site or adjacent to the site of a prosthetic patch or prosthetic device (which inhibit endothelialization)</td>
</tr>
<tr>
<td>Cardiac transplantation recipients who develop cardiac valvulopathy</td>
</tr>
</tbody>
</table>

*Except for the conditions listed above, antibiotic prophylaxis is no longer recommended for any other form of CHD.
†Prophylaxis is reasonable because endothelialization of prosthetic material occurs within six months after the procedures.

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### Table 2  DENTAL PROCEDURES FOR WHICH ENDOCARDITIS PROPHYLAXIS IS REASONABLE FOR PATIENTS IN TABLE 1

<table>
<thead>
<tr>
<th>Procedure</th>
</tr>
</thead>
<tbody>
<tr>
<td>All dental procedures that involve manipulation of gingival tissue or the periapical region of teeth or perforation of the oral mucosa*</td>
</tr>
<tr>
<td>* The following procedures and events do not need prophylaxis: routine anesthetic injections through non-infected tissue, taking dental radiographs, placement of removable prosthodontic or orthodontic appliances, adjustment of orthodontic appliances, placement of orthodontic brackets, shedding of deciduous teeth, and bleeding from trauma to the lips or oral mucosa.</td>
</tr>
</tbody>
</table>

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### Table 3 REGIMENS FOR A DENTAL PROCEDURE

**Regimen: Single Dose 30 to 60 min Before Procedure**

<table>
<thead>
<tr>
<th>Situation</th>
<th>Agent</th>
<th>Adults</th>
<th>Children</th>
</tr>
</thead>
<tbody>
<tr>
<td>Oral</td>
<td>Amoxicillin</td>
<td>2 g</td>
<td>50 mg/kg</td>
</tr>
<tr>
<td>Unable to take oral medication</td>
<td>Ampicillin OR Cefazolin or ceftriaxone</td>
<td>2 g IM or IV</td>
<td>50 mg/kg IM or IV</td>
</tr>
<tr>
<td></td>
<td></td>
<td>1 g IM or IV</td>
<td>50 mg kb IM or IV</td>
</tr>
<tr>
<td>Allergic to penicillins or ampicillin – oral</td>
<td>Cephalexin**† OR Clindamycin OR Azithromycin or clarithromycin</td>
<td>2 g</td>
<td>50 mg/kg</td>
</tr>
<tr>
<td></td>
<td></td>
<td>600 mg</td>
<td>20 mg/kg</td>
</tr>
<tr>
<td></td>
<td></td>
<td>500 mg</td>
<td>15 mg/kg</td>
</tr>
<tr>
<td>Allergic to penicillin or ampicillin and unable to take oral medication</td>
<td>Cefazolin or ceftriaxone* OR Clindamycin</td>
<td>1 g IM or IV</td>
<td>50 mg/kg IM or IV</td>
</tr>
<tr>
<td></td>
<td></td>
<td>600 mg IM or IV</td>
<td>20 mg/kg IM or IV</td>
</tr>
</tbody>
</table>

IM indicates intramuscular; IV intravenous.

* Or other first- or second-generation oral cephalosporin in equivalent adult or pediatric dosage.

† Cephalosporins should not be used in an individual with a history of anaphylaxis, angioedema, or urticarial with penicillins or ampicillin.

<table>
<thead>
<tr>
<th>Recommendation 1</th>
</tr>
</thead>
<tbody>
<tr>
<td>The practitioner might consider discontinuing the practice of routinely prescribing prophylactic antibiotics for patients with hip and knee prosthetic joint implants undergoing dental procedures.</td>
</tr>
</tbody>
</table>

**Grade of Recommendation: Limited**

A Limited recommendation means the quality of the supporting evidence that exists is unconvincing, or that well-conducted studies show little clear advantage to one approach versus another. Practitioners should be cautious in deciding whether to follow a recommendation classified as Limited, and should exercise judgment and be alert to emerging publications that report evidence. Patient preference should have a substantial influencing role.

<table>
<thead>
<tr>
<th>Recommendation 2</th>
</tr>
</thead>
<tbody>
<tr>
<td>We are unable to recommend for or against the use of topical oral antimicrobials in patients with prosthetic joint implants or other orthopaedic implants undergoing dental procedures.</td>
</tr>
</tbody>
</table>

**Grade of Recommendation: Inconclusive**

An Inconclusive recommendation means that there is a lack of compelling evidence resulting in an unclear balance between potential benefits and potential harm. Practitioners should feel little constraint in deciding whether to follow a recommendation labeled as Inconclusive and should exercise judgment and be alert to future publications that clarify existing evidence for determining balance of benefits versus potential harm. Patient preference should have a substantial influencing role.

<table>
<thead>
<tr>
<th>Recommendation 3</th>
</tr>
</thead>
<tbody>
<tr>
<td>In the absence of reliable evidence linking poor oral health to prosthetic joint infection, it is the opinion of the work group that patients with prosthetic joint implants or other orthopaedic implants maintain appropriate oral hygiene.</td>
</tr>
</tbody>
</table>

**Grade of Recommendation: Consensus**

A Consensus recommendation means that expert opinion supports the guideline recommendation even though there is no available evidence that meets inclusion criteria. Practitioners should be flexible in deciding whether to follow a recommendation classified as Consensus, although they may set boundaries on alternatives. Patient preference should have a substantial influencing role.

CONFIDENTIALITY AGREEMENT

I, _____ (KVCC Student) _____, understand that I will have access to medical/dental information of patients of various medical providers. I also understand the necessity for the professional and ethical handling of medical information of these patients.

Therefore, I agree not to divulge or release the name, medical/dental history, medical/dental condition, medical/dental treatment, or other information of any patient without the expressed written consent of the patient or the authorized patient representative.

Failure of any student to abide with this Confidentiality Agreement may result in dismissal from the Dental Hygiene Program and I further understand that any breach of this Statement may subject me to legal prosecution under applicable state and federal laws.

______________________________
(print name)

______________________________
(Signature)

______________________________
(Date)

Note: This copy is to be signed and turned in to the DHY Program Director during the 1st semester as indicated in the DHY 119 Module 1 course material.