Curriculum Committee Meeting Agenda	
December 6, 2016	12:00 – 12:50 pm; Deans Conference Room (N304 DSB)
Dr. DC Holmes, Chair	Recorder: Ms. Michelle Krupp

Lunch served.

Agenda Items	Responsible Individual
1. Approval of November 1, 2016 Minutes	Holmes
2. Office for Education – Update • Anecdotal Feedback* - Protocol • AEFIS-Curriculum Mapping • Accreditation Progress – Δ Std Rx	Garcia/Krupp
3. Department Curriculum Review: OPRM	Straub-Morarend
4. WG on Practice Management Curriculum	Garcia
5. Round Table Comments	Committee
6. Next Meeting: **January 4, 2016**	

Action Items			
Status	**Action to be taken**	**Responsible**	**Due Date**
Pending	Department Curriculum Review: OPRM, Family Dentistry	Pending	
Pending	ICCMS Implementation in the College	Kolker/Guzman-Armstrong	
Pending	Patient Ingress & Treatment Planning	Straub-Morarend	
Pending	Biochemistry & Pharmacology WG	Hellstein/Krupp/Hoffman	
Pending	Prerequisite Basic Science Question; INDBE	Garcia	

Curriculum Committee (2016-2017):

DC Holmes, Chair
Maged M.E. Abdelaal
Marsha Cunningham-Ford
Darren Hoffman
Brian Howe
Terry J. Lindquist
Leonardo Marchini
Natalia Restrepo-Kennedy
Cheryl L. Straub-Morarend
Fabricio Teixeira
Paula L. Weistroffer
D1 – TBD
D2 – Amanda Phan
D3 – Stacey Howes
D4 – Briana Lage

Ex Officio:

Lily T. Garcia, Associate Dean for Education
Ms. Michelle Krupp, Director, Education Development
Tad Mabry, Chair, Clerkship Directors
Galen B. Schneider, Executive Associate Dean
Catherine M. Solow, Associate Dean for Students
Sherry R. Timmons, Chair, CAPP Committee
Tara Sears, D2, ADCFP Fellow

THE UNIVERSITY OF IOWA
COLLEGE OF DENTISTRY & DENTAL CLINICS

Curriculum Committee
Minutes – December 6, 2016

Members Present: Drs. DC Holmes, Maged Abdelaal, Darren Hoffman, Brian Howe, Terry Lindquist, Leonardo Marchini, Natalia Restrepo-Kennedy, Cheryl L. Straub-Morarend, Paula Weistroffer, Lily T. Garcia, Tad Mabry, Prof. Marsha Cunningham-Ford, Stacey L. Howes (D2), Briana T. Lage (D4) and Ms. Michelle Krupp

Absent: Drs. Fabricio Teixeira, Galen Schneider, Sherry R. Timmons, Amanda Phan (D2) and Dean Cathy Solow

Guest: Ms. Tara Sears, ADCFP Fellow

Meeting called to order 12:06 p.m.

I. Approval of November 1, 2016 Minutes – approved.

II. **Office for Education Update** – Dr. Garcia & Ms. Krupp
- Dr. Garcia requested input from committee members regarding process on anecdotal feedback from students; in this scenario, input conveyed through Dean Solow. The feedback can be specific when conveyed during meetings with students.
    - For a course director, feedback would be welcomed from the department chair or student course liaison.
    - The message may be best conveyed through the DEO to the faculty member vs. from administration.
    - No faculty member should feel attacked as feedback is needed to improve and address concerns.
    - The committee was in consensus to convey any feedback to the DEO; this is a nice opportunity for the DEO to have more insight on department activities.
- The Office for Education is pleased to announce that the AEFIS curriculum mapping program is in the pilot phase. Six faculty will participate in the training and everyone will follow suit to go live in the fall.
- The CODA Steering Committee starts weekly meetings January 20, 2017. Dr. Garcia requested DEOs to designate faculty who will help review information for specific standards and who may be asked to assist during the site visit. Efforts are being made to include faculty throughout this process for unified understanding and messaging. Any questions on accreditation can be sent via email to Dr. Garcia.

III. **Department Curriculum Review: OPRM** – Dr. Cheryl Straub-Morarend (see attachment)
- The OPRM report was completed spring 2016 by Dr. Hellstein and since been revised. In a brief summary, competency domains were used as the main categories in the review.
- The OPRM department structure is highly engaged in the University of Iowa, COD, and beyond, i.e. OPRM is involved with the curriculum from D1-D4 year, involved in consultations and in the Kirkwood dental assistant program.
- This department documents has strength in development of predoctoral cognitive skills, research and immense skills. OPRM has put much effort into a vertical and horizontal integration process. Case-based learning ties in with what students are learning in real life situations.

- Dr. Hellstein thinks Axium is not an ideal health record system and would like to find an alternative eHR.
- The self-identified areas needing further improvement *(see report for more information)* included a concern with lack of knowledge retention by dental students, resulting in increased need for routine consultations. Possible solutions: conduct a review on the 1st day of rotation in a clerkship and increase communications throughout clerkships. Information is available for access on the OPRM webpage. They want to improve development of available information and explore having students perform biopsy on their patient is the dream situation.
- Timing and placement of courses in the curriculum needs to be reviewed, in particular for teaching general pathology. A decision tree chart helps guide students in a diagnosis/treatment decision. The decision tree needs to be available through AxiUm links and the webpage for all to access. The chart would help with retention of learning as well. If everyone saw the whole scheme of things on the decision tree it could help unify and see the big picture. Each department can develop a decision algorithm to help the students grasp concepts.
- The similar paperwork among departments exists so the question arose *Is teaching Axium treatment planning module in 3rd year an option to discuss?*
- If a D4 expresses interest in OPRM, the student should be able to have more time spent in the department learning.
- The gap remains regarding the need to have all D2s trained such that the new D3 in a clerkship has the ability to take a radiographic image. In previous years, it was stated that more hours were made available in the D2 year to address this clinical skill set. Progression in the clerkship is restrained due to this gap. Some suggested the need to train in the D1 year. The preliminary solution of "shadowing" was appreciated yet groups have expressed continued concerns.
- The Patient Ingress & Treatment Planning Work Group has been convened to review how patients enter the system and filter through the clerkships and departments.
- There needs to be a list of criteria for when a consult is required. Some faculty are not comfortable beyond the differential diagnosis so that is when a consult is requested vs. sending the patient for an appointment in OPRM.

ACTION ITEM: Office for Education will review process for conveying results of department curriculum reviews; perhaps have 6-month to one-year responses to initial proposed changes for follow-up.

IV. **WG on Practice Management Curriculum** – Dr. Lily Garcia
- On Hold.

V. **Round Table Comments** – Committee
- Dr. Weistroffer – wanted follow-up on the reviews for departments. Suggested reporting back to the committee after having implemented proposed changes as an agenda item.
- Dr. Lindquist – expressed concern with the category of "Team Teacher" in ICON/Canvas. Some faculty/resident categories allow access and possibility for unilateral changes to a course such as access to grades. For this reason and best practices, course director permission should be required before primary administrators or administration add faculty to a course.
- Stacey Howes suggested more use of the decision tree in student learning.
- Dr. Brian Howe – expressed his satisfaction in the review process.

Next Meeting: January 4, 2017

Minutes recorded: Ms. Lauren Moniot

Date:

Department:

I. Department Mission Statement: *development a statement if none exists; also.*

Department of Oral Pathology, Radiology and Medicine

Mission

The OPRM Department's mission is integrated with the missions of the College of Dentistry and The University of Iowa involving three areas:

Education of health care students in the areas of diagnosis and treatment planning, surgical and clinical oral and maxillofacial pathology, oral and maxillofacial radiology, pharmacology and therapeutics.

Research investigations in the areas of oral and maxillofacial pathology, oral and maxillofacial radiology, pharmacology and therapeutics to increase understanding of oral and paraoral disease, its recognition, its prevention and treatment. This Department conducts research utilizing and promoting evidence-based dentistry, promotion of systematic review procedures, case studies and critical reviews. These are meant to improve methods for teaching subject related decision making and learning skills to students in the specific academic areas encompassed by this Department. And also importantly relate latest information and recommendations to our valued alumni as they continue their lifetime learning endeavors.

Outreach services to the college, university, state, alumni, and national dental organizations and their constituents, and other health care professions continue as evidence by efforts in pharmacy, radiology, clinical pathology, surgical pathology and sterilizer monitoring.

The primary mission of the Department is to teach predoctoral dental students to be qualified general practitioners with competence in the areas of diagnosis and treatment planning, oral and maxillofacial pathology, oral and maxillofacial radiology, pharmacology and therapeutics. These areas continue to be extremely important in the general practice of dentistry as we strive to be physicians of the mouth. We strive to battle the supposedly reality of dentists being overtrained for what they do and undertrained for what they should do. The components of this department are largely those portions needed for our graduates truly being a **Doctor of Dentistry**! Recognition of mucosal diseases including oral cancer and systemic diseases with oral components will continue complicating the delivery of dental, oral and maxillofacial therapy. Our educational programs emphasize teaching cognitive skills in decision making, problem solving, critical thinking, and the need for lifelong learning.

II. Describe how the department curriculum addresses the *Collegiate Characteristics of a College of Dentistry Graduate*

Critical thinking/Judgment:

- A didactic pathology course (OPRM 8235) with case-based learning as its core is presented in the second year. This course addresses critical thinking/judgment in patient diagnosis and treatment planning. Similarly didactic courses in radiology (OPRM 8120/8245) in both the first and second-years also build onto the foundation of recognizing and then applying judgment on knowing normal from abnormal. Clinical experiences in the D3 year include radiology, pathology and pharmacologic assessment in a patient care setting and provides for the application of critical thinking skills and clinical judgment in diagnosis, treatment planning. The endpoint emphasizes the importance of the diagnostic evaluation to create the foundation for future therapeutic outcomes. The didactic pathology course (OPRM 8355) in third year is a case-based learning course based on thinking of the patient as a whole and considering all systemic aspects of the patient diagnostic experience. During case presentations, (DENT8360) D3 students demonstrate incorporation of evidence-based dentistry concepts to a specific patient experience.
- The application of the scientific method is consistently and thoroughly addressed throughout coursework especially as applied to clinical radiographic conferences and clinical pathologic conferences. The student is expected to become a problem solver through addressing actual real-world clinical cases. They also must do this in various modalities to include verbal and written communication and application of knowledge from reading assignments prior to seminars.

Professionalism:

- Ethical and professional behavior is a foundation in all departmental courses in both classroom and clinical settings. However, the third year radiology and oral diagnosis clinics provide the basis for weighing patient needs with patient expectations as compared with clinical reality, fiscal ability and collegiate availability.
- Students are to become competent in communicating verbally and orally with patients, healthcare providers and family members so as to properly prepare for the overall health care status and well-being of the patient while directing them for management of their oral healthcare concerns.

Communication and Interpersonal Skills

Social Responsibility:

- The D3 clinical experiences provide students opportunities to provide care to patients from diverse cultural and socioeconomic backgrounds.
- The D3 oral diagnosis course emphasizes the recognition of the diagnostic and treatment planning appointment as an exercise in communicating with the patient so as to increase their dental IQ, educate them to the validity of the treatment plan and prepare them psychologically for the journey to better oral health.
- The third year student learns and then hones their individual skills as a communicator and promoter of dental healthcare needs. They learn how to alter their communication styles as needed for different educational and socioeconomic populations they are likely to encounter in their clinics now and into the future.
- The dental students learn how to properly refer patients both within the dental healthcare system as well as the medical healthcare system. They also learn to recognize the level of their own skill set as well as those available for referral.

Health Promotion:

- D1, D2 and D3 radiology courses teach the important didactic areas of benefit versus risk as related to use of radiation for diagnostic purposes. Utilizing the As Low As Reasonably Achievable (ALARA) concept the students become competent to properly order the correct radiologic exam as applied to an individual patient at a specific point in time.

• D2 and D3 pathology courses teach the methods of recognizing health promotion as related to patient care. This is especially as related to systemic disease and risk factors both to the dental cavities from those systemic diseases as well as dental procedures which carry systemic disease risk. Tobacco cessation, caries risk assessment, psychological barriers to dental health and socioeconomic barriers are a few of the examples of health promotion in the clinic.

• The D3 pharmacology course teaches the risks of polypharmacy in the dental setting as well as risks of opioid overuse versus the need for proper analgesic control. The student learns to recognize potentially unreported disease processes through review of medications being utilized by their patient.

Practice Management and Informatics

• Utilization of the Axium odontogram and proper coding of the treatment plan with proper sequencing is taught and applied to individual patients. No matter what what other rotations have been completed prior to this portion of the clerkship process is the oral diagnosis clinic and radiology interpretation room where these competencies are fulfilled.
• Treatment planning of DWP patients help them evaluate and manage the current model of oral health care delivery in Iowa specifically and the nation as a whole.
• Infection control issues, OSHA and HIPAA regulations are constantly monitored and emphasized.
• The importance of informed consent to include a signed treatment plan is well as proper submission of tissue specimens and ordering of radiographic imaging and finally proper prescribing and electronically prescribing proper pharmacotherapy is applied in the third year departmental course studies.
• Proper use of the electronic dental record is an integral portion of the oral diagnosis and oral radiology components of the departmental D3 coursework.

Patient Care: Assessment, Diagnosis and Treatment Planning

• This domain is the ultimate mission of the OPRM departmental curriculum. The curriculum begins with foundational knowledge in the D1 and D2 years. This continues in the D3 year with additional didactic teaching, technical application and clinical delivery with assessment, diagnosis and treatment planning both radiographically and clinically.
• The oral diagnosis clinic itself is literally assigned these tasks of properly, effectively, ethically and accurately providing for patient assessment, diagnosis and treatment planning. No other clerkship rotation systematically addresses all aspects of planned dental treatments for the patient and goes through the process of explaining the end goal to the patient.

6.1 Manage the oral health care of the infant, child, adolescent, and adult as well as the unique needs of women, geriatric and special needs patients.
6.2 Prevent, identify, and manage trauma, oral diseases and other disorders.
6.3 Select, obtain, and interpret patient/medical data, including a thorough intra/extra oral examination, and use these findings to accurately assess and manage all patients.
6.4 Select, obtain, and interpret diagnostic images for the individual patient.
6.5 Recognize the manifestations of systemic disease and how the disease and its management may affect the delivery of dental care.
6.6 Formulate a comprehensive diagnosis, treatment, and/or referral plan for the management of patients.

- The above collegiate competencies define our clerkship with possibly the addendum that extrapolation to the infant, child and adolescent is implied. However, during their "shadowing experience" with clinical faculty they are potentially also exposed to those age groups.

Patient Care: Establishment and Maintenance of Oral Health

- Sterilizer monitoring, risk management, infection control are all emphasized as core departmental principles. The student is instructed on how to be both safe as well as efficient in delivery of oral healthcare in a clearly clean, efficient and professional setting.
- During the assessment process in oral diagnosis the student is trained on assessing for possible anxiety for future dental procedures and to properly refer the patient to the proper clinic care level e.g. clerkship, family practice, graduate care clinics, faculty practice DSP and also treatment plan for sedation as necessary for oral surgical procedures.
- As the clinic section primarily responsible for diagnosis and management of temporomandibular disorders the students generally have the opportunity to examine specific patients or shadow faculty in the assessment of chronic pain patients. A didactic lecture is also presented specifically on this topic of temporomandibular disorders and chronic head neck pain diagnosis and referral.
- Caries risk assessment is an integral portion of the oral diagnosis appointment. This assessment is begun in the clinic with the specific caries risk assessment form but also integrated in radiology during the radiographic interpretation process.
- Occlusal disharmonies are recognized and properly referred for restorative, orthodontic or surgical assessment and therapy.
- Restorative needs of the patient to include replacement of teeth for the partially or completely edentulous patient, is a routine component of the oral diagnosis process. This includes proper treatment planning and informed consent.
- Diagnosis of periapical disease is taught both radiographically and clinically. The student is taught the principles of proper use of the electric pulp tester, "Endo ice", tooth sleuth and percussion for the proper diagnosis of early and late pulpal disease.
- Through use of radiographic and clinical exam the student is able to diagnosis and treatment plan for oral surgical treatment needs.
- Through proper assessment of the medical history, evaluation of pharmacotherapeutic and use of these sphygmomanometer the student assesses and prepares for risks related to possible management of medical or dental emergencies.
- While planning for the current treatment plan the student is also assessing the outcome of past comprehensive dental care (or lack thereof) endeavors. With that knowledge they are better able to communicate with the patient the goals of the current proposed treatment plan.
- The student is expected to diagnose and identify oral mucosal and osseous diseases and through shadowing experiences learn management procedures associated with various oral mucosal and osseous diseases within the OPRM department.

Function in a Disciplined/Collegial/Professional Setting:

- Students are expected to demonstrate respect to peers, patients, staff and faculty members throughout the D1-D4 years. Students assist each other during D3 and D4 clinical sessions with certain aspects of patient care and collaborate in patient management. An interdisciplinary approach is used in treatment planning and delivery of care.

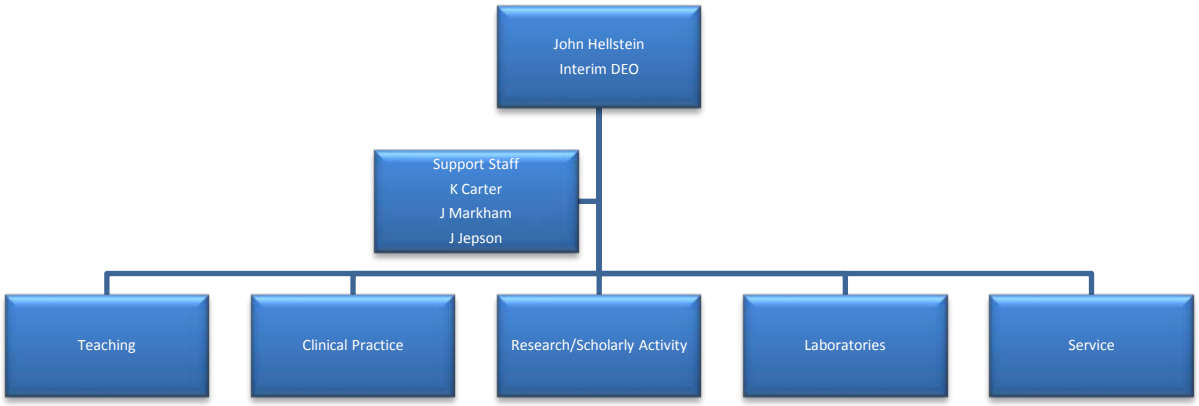
Technical Competence:

- The first and second-year didactic departmental courses provide a knowledge and understanding core for diagnostic assessment, diagnosis, risk assessment, prognosis, treatment planning and therapy. The third and fourth year OPRM curriculum applies these concepts to the

treatment planning process and proper use of radiation for diagnostic purposes as well as provision of a comprehensive head and neck exam. These are all then integrated into comprehensive patient care plan.

III. Include department organizational structure and how it fulfills the department's mission and *predoctoral accreditation standards.* Attach appendix

OPRM Organizational Structure and Obligations

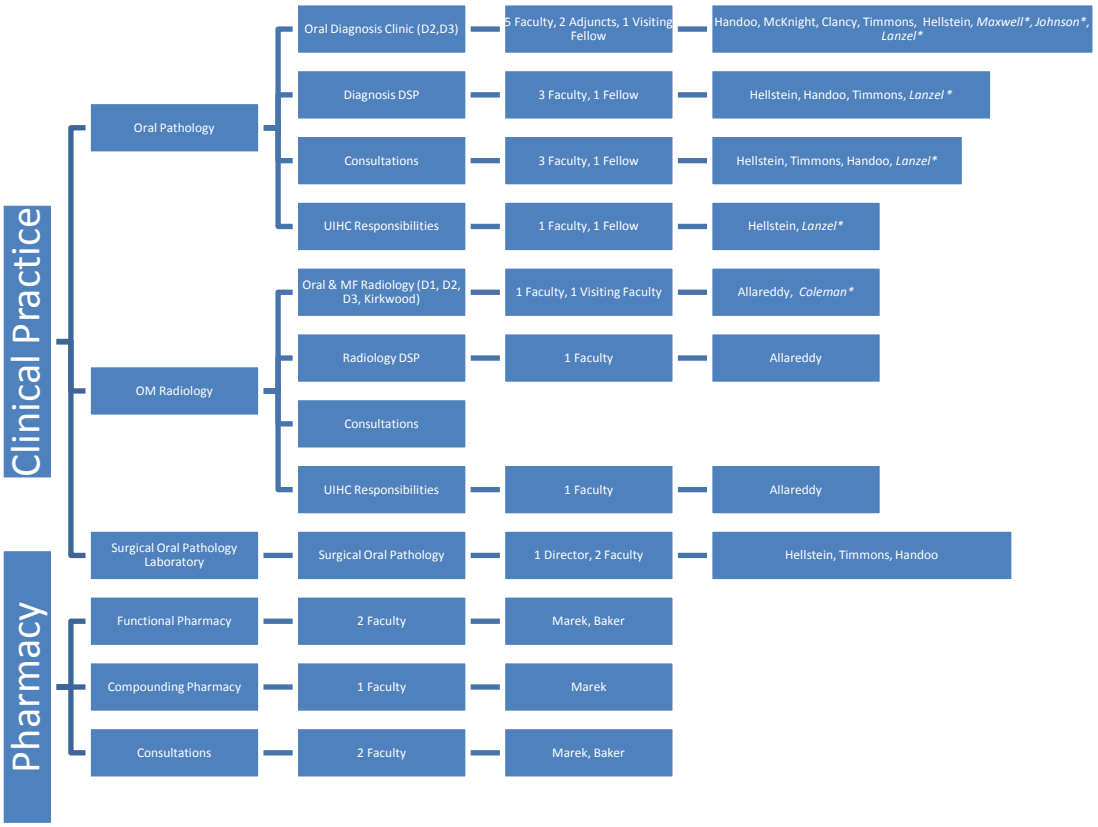


As seen in our mission statement our departmental organization is necessarily complicated, extensive, knowledgeable and essential to collegiate and organizational goals.

We take our primary mission of undergraduate teaching seriously while still excelling as nationally recognized graduate teaching programs in both oral and maxillofacial radiology and oral and maxillofacial pathology.

Our expertise in the areas of dentistry related to diagnostic procedures as well as application of physiologic, pathologic, pharmacologic and radiologic factors which often directly relate to the provision of dental care is something that leads to consultations with us on a day-to-day/hour-hour basis.

OPRM Departmental Staffing



Oral and maxillofacial pathology is the specialty of dentistry and pathology which deals with the nature, identification, and management of diseases affecting the oral and maxillofacial regions. It is a science that investigates the causes, processes and effects of these diseases.
The practice of oral and maxillofacial pathology includes research, diagnosis of diseases using clinical, radiographic, microscopic, biochemical or other examinations, and management of patients.

An Oral and Maxillofacial Radiologist (OMR) is a dentist specialized in the acquisition and interpretation of radiographic imaging studies performed for diagnosis of treatment guidance for conditions affecting the maxillofacial region.
Oral diagnosis is that portion of the department which serves the mission to instruct our students on proper assessment, diagnosis and treatment planning of patients as an individual as related to their individual needs and concerns.

The dental pharmacy is essential to the clinical application of patient care to the college and is served by two full-time pharmacists, one of which is a clinical pharmacologist. They deal with of pharmacotherapeutic needs of the patient and teach the undergraduate students and faculty on proper management of patient medication management. They also assess for possible risks and side effects of medications as related to the assessment and diagnostic process.

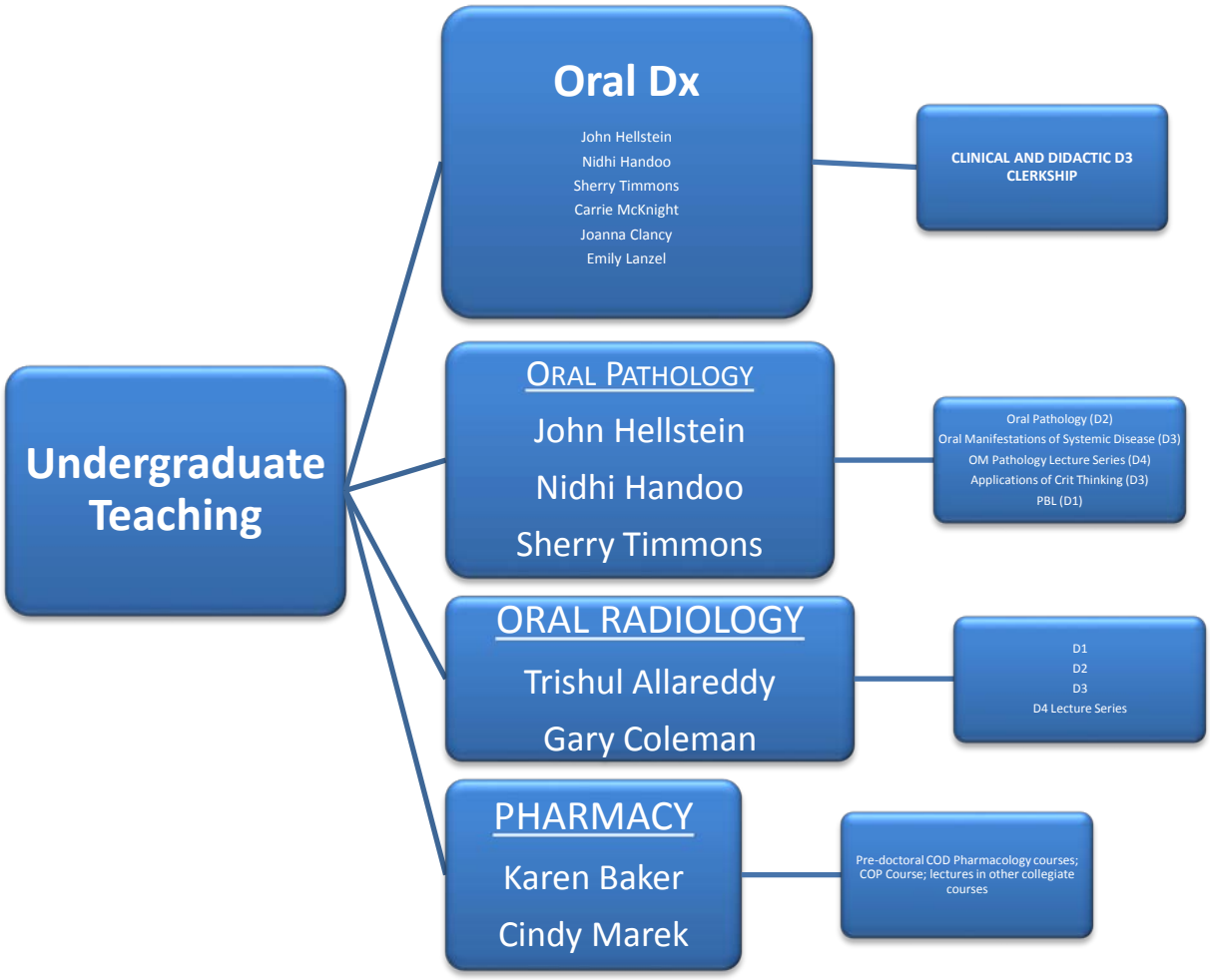
Curricular planning is an ongoing process which takes into consideration all levels of the undergraduate departmental coursework these include:

l) Our overall goal of graduating a general dentist who is competent in the diagnosis of oral mucosal disease is well as viewing the patient as a total patient with systemic interactions both afferent and efferent to their oral healthcare status,

recognition of indications for referral and integration of treatment planning with comprehensive dental care
2) Primary learning resource and foundation for key concepts of patient evaluation, treatment planning and therapy
3) Inclusion of contemporary, up-to-date concepts
4) Incorporation of evidence based dentistry
5) Vertical integration within the D1-04 diagnostic, radiologic and pharmacologic curriculum
6) Horizontal integration with other disciplines
7) Patient pool factors
8) Enhancement of teaching and learning effectiveness often through case based teaching, methods that increase classroom interaction and foster critical thinking; improvements in clinical evaluation techniques and calibration

Ideas for curriculum improvement are discussed during departmental meetings; details for major projects are developed by faculty in small groups; and are then presented to faculty members for feedback at departmental meetings. Plans for improving horizontal integration with other departments occur through small group faculty meetings. Annual teaching in-services provide a venue to present completed projects and implementation plans. This is an ongoing process. Individual divisions within the department which include oral diagnosis, oral and maxillofacial pathology, oral and maxillofacial radiology and dental pharmacy all coordinate aspects of their teaching so as to create a unified package of diagnostic up-to-date curricular programs.

OPRM Undergraduate Teaching Template



IV. Provide profiles for each course: *additional rows can be added as needed.*					
Year	Course #	Instructor	Format	Faculty: student ratio	Course Title
D1	OPRM:8120	Allareddy	Lecture	1:80	Fundamentals of Oral Radiology
D2	OPRM:8235	Timmons	Lecture	3:80	Oral Pathology
D2	OPRM:8245	Allareddy	Lecture	1:80	Intro. to Clinical Oral Radiology

D3	OPRM:8355	Hellstein	Case-based lecture	1:80	Systemic Disease Manifestations
D3	DENT:8368	Baker	Lecture	1:80	Applied Dental Pharmacology
D3	OPRM:8361	Allareddy	Clinical	2:10 8 clerkships	Clinical Oral Radiology
D3	OPRM:8365	Timmons	Critical thinking/case based learning	4:10 8 clerkships	Clinical Oral Pathology
D3	OPRM: 8360	Handoo	Clinical	7:10 8 clerkships	Clinical Oral Diagnosis
D3	DENT:8370	Handoo	Critical thinking/evidence-based dentistry	7:10 8 clerkships	Application of Critical Thinking
D4	FAMD:8494	Parker Hellstein Baker Allareddy	Lecture/case-based	3:80 8 lectures X 2	Topics in Family Dentistry

V. Describe how *horizontal* curriculum integration is achieved with other departments, courses, and/or learning activities. Note current achievements and highlight areas, topics, or disciplines that need further improvement.

OPRM 8120 integrated into other didactic fundamental knowledge based curriculum primarily taught by medical school or pharmacy school resources. This basic foundation is related directly to physiology and anatomy issues. This is also an introduction for concurrent lessons and dental anatomy.

Horizontal integration is seen on radiographic interpretation in all of the following departmental courses: OPRM:8235, OPRM:8245, OPRM:8355, DENT:8368, OPRM:8361, OPRM:8365, OPRM: 8360, DENT:8370. Departmental faculty meet and discuss interpretations on a routine basis so as to provide a calibrated use of terminology is well as calibrating interpretation. The division of radiology courses is generally to provide the gold standard use and application of the radiographic interpretation with input into proper ordering of those images according to ALARA principles. The other departmental courses in oral diagnosis and oral pathology strive to apply actual treatment planning and diagnostic attributes related to the imaging process. These courses as applied to radiographic images is generally to enable the student to critically assess in case-based process what the radiographic images imply to overall patient management and treatment planning.

Critical thinking course DENT:8370 is a course where Dr. Handoo works closely with other instructors involved with this course to include Dr. Marshall. In addition, all instructors participating on the clinic floor are generally present during the seminar where treatment plans and critical thinking exercises are performed. This creates a continual calibration of instructors.

Meetings occur with clerkship directors as well as with clinical administration so as to attempt to facilitate patient flow as well as maintain coordination and calibration between clerkships.

Clerkship needs are regularly discussed during clerkship meetings and these thoughts are brought back to all faculty members and discussed for implementation, calibration and outcome.

Interdisciplinary consults are routinely made during the treatment planning process. Prosthodontics, special care, periodontics, endodontics and operative clinics are routinely interacted with on the clinic floor. Our faculty are generally in the operatory during this time of consultation so as to better realize the thoughts and treatment rationales of these other departments.

Departmental faculty participate in the D3 quality assurance and ethics course. They bring back the ideas and concepts for other departmental faculty members to develop, enhance and implement.

VI. Describe how *vertical* integration across D1 through D4 courses, including with other departments and/or learning activities. Note current achievements and highlight areas, topics, or disciplines that need further improvement.

OPRM 8120 is vertically integrated along with both divisional courses as well as other OPRM courses culminating in instruction in the D4 year in family dentistry FAMD 8494.

Vertical integration is also seen on radiographic interpretation in all of the following departmental courses: OPRM:8235, OPRM:8245, OPRM:8355, DENT:8368, OPRM:8361, OPRM:8365, OPRM: 8360, DENT:8370. Departmental faculty meet and discuss on a routine basis so as to provide a calibrated use of terminology is well as calibrating interpretation. The division of radiology courses is generally to provide the gold standard use and application of the radiographic interpretation with input into proper ordering of those images according to ALARA principles. The other departmental courses in oral diagnosis and oral pathology strive to apply actual treatment planning and diagnostic attributes related to the imaging process. These courses as applied to radiographic images is generally to enable the student to critically assess in case-based process what the radiographic images imply to overall patient management and treatment planning. In the vertical integration it is the goal to build on the students knowledge and foundation and to also maintain the perishable aspects of radiographic interpretation so that calibration does not drift as they matriculate through other clerkships, departments and patient experiences.

The oral diagnosis clinic routinely interacts with minor operative (D2) Dr. Handoo in particular maintains knowledge of the needs and availability of the minor operative clinic.

The oral diagnosis clinic routinely plans for, routes and treatment plans for the preventative clinic (D1) students to gain experience in preventive periodontal maintenance procedures. And similar with the minor operative interactions Dr. Handoo also routinely contacts in interacts with clinic clerks as well as faculty members to facilitate these patient appointments.

The oral diagnosis clinic has three experiences for each student from the DENT: 8270 critical thinking course where the D2 students participate in the oral diagnosis clinic during the head neck exam as well as treatment planning process.

The oral radiology section also participates with the DENT: 8270 students where they a total of six experiences during their coursework. During this time frame they work with radiology staff learning the technical aspects of obtaining the proper radiographic image. They also learn the proper ordering of radiographic exams is well as input into the electronic dental record.

Departmental courses OPRM:8235 and OPRM:8355 build on case-based and didactic concepts of oral and maxillofacial pathology and mucosal disease in general. In the D2 course students gain a basic knowledge of disease nomenclature and methods of diagnosis. In the D3 course these concepts are reinforced along with consideration of other systemic diseases that the patient has which also concern the therapeutic process.

OPRM: 8355 also feeds into FAMD: 8494 where the systemic and diagnostic nomenclature knowledge learned in the previous two courses are reinforced in a case-based seminar and lecture. A total of eight different seminar/lectures are presented by departmental faculty and these faculty members were closely with both Dr. Murrell and Dr. Parker on considerations of content and focus.

Dr. Marek and Professor Baker continually work with students on aspects of pharmacologic concern. This is most appropriately considered vertical integration. Their prime concern is that of patient safety and satisfaction. The students learn and are continually reinforced with concepts related to such things as joint prophylaxis, subacute bacterial endocarditis prophylaxis, drug interactions and sedation effects. Pharmacy faculty also reinforce the effects of medications especially as related to the oral cavity such as but not limited to the xerostomia and increase caries risk. Also in the other direction they relate medications being taken for other systemic conditions and their effect directly on the oral cavity. Dr. Marek and Professor Baker also interact on a daily basis with faculty members so as to maintain calibration of faculty across the college departments.

Collaborate with Periodontology and Preventive Dentistry to assure that all collegiate predoctoral clinic patients receive a baseline clinical periodontal examination and periodontal diagnosis, consistent with AAP Parameters of Care.
• Continue development and enhancement of case based examples during lectures and seminars in order to stimulate interactive learning and demonstrate application of concepts.
• Incorporate more video examples in lectures in order to better demonstrate therapies.
• Update lecture materials with most recent high level evidence.
• Continued development and refinement of critical learning projects for students to participate in if there are patient no-shows or cancellations. We currently have nine learning opportunities.
• Review concepts of head neck anatomy, oral mucosal anatomy, oral pharyngeal anatomy examination through further development of the head neck exam seminar on day one of the clerkship and facilitate this knowledge and calibration throughout the clerkship itself. All faculty have participated in the orientation course itself and routinely review it on approximately a biannual basis.
• Meet with D4 group leaders to discuss the best ways to demonstrate summative assessment of competency in comprehensive treatment planning.
• Invite D4 group leaders to our Teaching In-service or do a separate presentation for them on diagnosis and treatment planning calibration.

VII. Describe efforts in faculty development to calibrate teaching styles, techniques, outcomes assessment methods and a unified grade scale.

Faculty members meet at the end of each clerkship to discuss each student and their overall level of competency and knowledge base. All successful students in the clerkship have successfully completed their competency challenges however, the goal of this meeting is to calibrate and appropriately grade their overall performance during the clerkship.

Dr. Allareddy, Ms. Stanley and Dr. Coleman discuss the overall progress of each and every student at the end of each clerkship. During this process they calibrate both within the clerkship as well as across clerkships.

Departmental faculty members meet on a routine basis to discuss issues within the clerkship programs as well as the didactic courses. Faculty meetings occur 2 to 3 times a year during the coursework and a more formal meeting is held just before "early OD".

Dr. Timmons and other faculty are attempting to integrate a TILE-like teaching style into OPRM: 8235. Other faculty members are also awaiting feedback of this endeavor and are looking to perhaps embrace this style as well.

Faculty members within the department are providers of the most number of continuing education courses nationwide as well as internationally. They are also lifetime learners and attend updates within their field of expertise.

Dr. Handoo continues to work, modify and incorporate aspects of the dental wellness plan into the oral diagnosis clinic. She works with clinic administration especially in this endeavor. Other faculty members in the oral diagnosis clinic are also active participants in this arena.

The oral diagnosis clinic faculty routinely work with and meet with admissions clinic faculty to best facilitate ordering of diagnostic images as well as inflow of patients into the oral diagnosis clinic and family dentistry clinic.

Dr. Handoo and other faculty continue to be leaders in critical thinking. She and other faculty members collaborate not only on the D3 course but actively participate in the D1 and D2 levels as well. The critical thinking concepts are built on an enhanced at all three levels.

Outcomes that included

Better integration with family dentistry on patient care decisions and patient assignment within clinics.

Continued refinement of working to break down the clerkship silos so as to create a more patient care centered environment in the D3 year. This continues to be a monumental challenge.

Continue stressing of the head neck exam. Students understand the difference between a dental exam, an oral exam and a head & neck exam. The standard of care and competency and the oral diagnosis clinic is that of a head & neck exam. (This is generally not the routine standard in many other of the student clinics.)

Improved calibration of the subjective grading method between clerkships and within clerkship groups.

Continued this improvement on caries risk management is well as caries detection radiographically and clinically.

VIII. Does the curriculum mapping system appropriately reflect what you teach in the discipline specific predoctoral curriculum? List the information gap(s).

**Verify all courses have been mapped in the Collegiate "Course Mapping"*

The OPRM department is generally underappreciated in the number of services given to other courses as well as the immense number of consultations provided around the building on a daily and hourly basis.

All departmental faculty members participate in numerous lectures that they facilitate within other courses throughout the four years of coursework. In addition, numerous consultations, collaborations and coordinations occur.

IX.	What major issues face the department that may require change(s) to the predoctoral curriculum?

We do not see any specific issues that require changes to the pre-doctoral core curriculum although delays in faculty searches and placement of permanent faculty members continues to be challenging to the department.

We also continue to lament the perishable nature of the knowledge, mentoring and foundation principles performed by faculty members to the students. Large numbers of students fail to continue to look for abnormalities of the oral mucosa. This conclusion is based on the fact that the students and faculty who do consult us often as some very routine diagnostic questions (such as candidosis, aphthous and herpes) it seems apparent that although we do numerous consultations that they have generally failed to adequately retained some foundational knowledge. This becomes even more distressful considering the more rare and uncommon diseases or medications issues undoubtedly encountered on a daily basis in the clinics. The must better continue throughout all the clinics to realize the necessity of doing a proper head neck exam **at every appointment**, reviewing medications **at every appointment** and asking for any changes in health history **at every appointment** is not being consistently performed and with little curiosity and follow through to chase down findings during those processes if they do occur.

Unfortunately, I have no direct way to solve the above problem except to continue to encourage aspects of lifetime learning and always making the visit that of a patient centered event rather than a procedure centered event.

X.	Describe curriculum changes that are a result from student feedback.

Our critical thinking format continues to evolve with feedback. Dr. Hahn do and Dr. Timmons meet with every clerkship group and adapt as needed. Each group is somewhat different. And though a specific example is not given here modification and tweaking of methods both by clerkship group as well as by individual occur on a constant basis.

Likewise, Dr. Allareddy has made numerous changes this year as opposed to the previous regime in radiology. He also relies on feedback from Dr. Coleman as well as Ms. Stanley.

XI.	Is the scope of the discipline-specific treatment procedures taught appropriate for a new graduate, general dentist? Include references for inclusion/modification/deletion relative to the current state of private practice, i.e. insurance data, etc.

Our curriculum is based on the premise that the students need to be able to graduate with a basic level of knowledge so as to ensure the health and care of their patients for a lifetime. Once again in the areas that our department teaches they are generally undertrained for what they should do and overtrained for what they often take to their practices. The students must realize that our areas of teaching is indeed a lifetime learning and experiential learning process for which they need to be constantly on high alert for review and updating.

Radiology continues to be concerned with digitization is well as the evolving cone beam CT use throughout dentistry. In general, though the graduating student is generally knowledgeable about cone beam CT's the overall interpretation and annotation of findings needs to be similar to the medical model where the ordering provider examines the images for concerns necessary for immediate treatment but the radiology specialist interprets the entire dataset and creates a valid report of the entire image dataset.

XII. Include comments to indicate department efforts toward a prospective analysis of the predoctoral curriculum and list other changes under consideration that may require collegiate support.

OPRM continues to be concerned with the fact that students need to incorporate examinations and patient care throughout the four years of the curriculum. However, as an example oral pathology is taught concurrently with general pathology. Thus, basic background knowledge is often not present at the time we are teaching the oral pathology course. This results in either needing to quickly covers some general pathology issues during the oral pathology components or more worrisome not realizing the lack of foundational knowledge and concepts "going over the head" of the students.

Another example for instance, Professor Baker performs a lecture for the D1 students before the students take pharmacology as a whole. I give a head neck exam lecture before they have taken an anatomy course. These are examples of them needing some very very minimum instructions prior to going to the D1 clinic where they perform exams on each other and eventually patients. You will note that I did not say family members as once in the chair that population is that of a patient.

It is hoped that the mapping process can fix the foundational order of some of the courses related to anatomy, pathology and therapeutics. But, in the short-term for the students to participate in clinical endeavors in the D1 and early D2 scenarios I believe that some kind of anatomy, physiology, pathology and pharmacology "boot camp" of a week or two would at least get them enough of the knowledge base of where to look something up and get them started in patient care.

XIII. What resources directly related to curriculum management would facilitate your ability to fulfill the teaching mission? *(Time, space, faculty development, course support, etc.)*

We continue to face staffing challenges due to retirement issues. We are acquiring a new radiologist in July which will be of great relief. However, we would like a dentist with a proven treatment planning resume to be acquired for the replacement of Dr. Spieker. We are also short one staff member in pathology.

Faculty development is one portion of the process in acquiring and replacing faculty members. Current space allotments and equipment are generally adequate.

However, I do not believe that Axium supports what I would consider to be the current standard of a medical electronic health care record. I believe that the dental electronic health care record is adequate related to dental specific odontograms etc. However, the lack of placing medication review, allergy review, systemic health issues etc. into each and every individual appointment note is a notable deficiency and not conducive to overall

patient management. I also believe that this results in a de-emphasis on each appointment being a patient centered encounter.

Time is always our enemy. With the love of our specialties and us being the unfortunate witnesses of missed/late diagnoses or therapeutic near misses on a much too often timeframe we lament the perishable nature of student knowledge retention and curiosity.

Working Group Summary

2016 Curriculum Review- Department of Oral Pathology, Radiology, and Medicine
DEO John Hellstein, DDS, MS

Process:

A Departmental Curriculum Review report for the Department of Oral Pathology, Radiology, and Medicine was received by the Peer Curriculum Review working group. Members of the working group included Dr. Cheryl Straub-Morarend, Dr. Brian Howe, and Ms. Briana Lage (D4 student). The working group reviewed the report and submitted questions to the DEO Dr. John Hellstein. The working group leader, Dr. Straub-Morarend, collated all comments, questions, and responses to create a summary document.

Questions per Section:

II.

What content is taught in regards to treatment planning and how does that relate to what is taught in other departments?

Identifying patient's chief complaint, patient modifiers, problems list, diagnosis list, treatment objectives, treatment procedures and outlining a patient-centered treatment plan, phasing and sequencing, recalling and integrating previously learned information to current situation, explaining their reasoning, developing communication skills and developing a framework for treatment protocol.

Who teaches the didactic treatment planning content?

D1 - Nidhi Handoo, BDS, MS
D2 - Carrie McKnight, DDS
D3 - OD Clerkship (all OD faculty)

IV.

Which courses teach treatment planning?

D1 –Foundation of Critical Thinking I
D2 –Foundation of Critical Thinking II
D3 –Applications of Critical Thinking

VI.

Please define the role of the Oral Diagnosis Clinic in relation to other clinics in the school.

In the Clerkship system, the Oral Diagnosis Clinic plays a pivotal role in directing the patient flow as per their treatment requirements and protocol. In the Oral Diagnosis Clinic, a comprehensive examination which includes but not limited to, detailed medical/dental/psychosocial/family history taking, hard/soft tissue, extraoral/intraoral clinical examination, radiographic interpretation and request for consults are carried out. This then leads to identification of patient modifiers, problem/diagnosis list and establishing treatment objectives/goals thereby affording formulation of a treatment plan. This plan identifies the

disciplines (and level of care – undergraduate/resident/faculty care), sequencing and phasing which would be involved in specific patient care. This allows for easier patient flow in the clerkship system. The Oral Diagnosis Clinic also plays a role in identifying complex patient care which would be beyond the skill level of D3 student and transfers those patients to either Family Dentistry, Special Care Clinics, Resident practice or Faculty practice.

XII.

Please share timing of OPRM courses as they relate to basic science pathology courses and list which semester (Fall or Spring) the OPRM courses are taught.

Which general pathology course is taught concurrently with oral pathology (Human or Systemic)?

D2 oral pathology is taught concurrently with human pathology in the fall and early spring semester. Systemic pathology is taught in the fall of the D3 year. An eight week update of common oral entities is also presented in the D4 year. Clinical oral pathology and clinical oral diagnosis is incorporated into the clerkship program in the D3 year.

XIII.

How can Axium be improved as an EHR?

There are numerous problems with Axium.

Most egregious is the inability to or automatically incorporate the medical problem list, medications and allergies into the day-to-day note entries. A minimum would be the ability to cut-and-paste this information into the day-to-day patient visit record. This is simply the standard of care in the US. Though there is a method to update/say you reviewed each of these there is no way (without an IT request) to know who actually reviewed it or see the historical review and updates. While I realize that this is designed as a student based dental record electronic system. It is not what I would call an electronic HEALTH record. Axium is simply not a patient health centered software program. Any medical malpractice lawyer would confirm that if it wasn't entered/notated on the day of service dictation/entry it didn't happen.

Strengths:

The OPRM Department’s mission is integrated with the mission of the College of Dentistry and the University of Iowa in the key areas of education, research investigation, and service.

- The OPRM predoctoral, graduate, and continuing education programs emphasize the development of cognitive skills in decision making, problem solving, critical thinking, and lifelong learning.
- Research investigations centered on oral and paraoral disease serve to educate health care professionals and enrich curriculum.
- The OPRM department provides an immense service to the College of Dentistry through consultations and support on a day-to-day/hour-hour basis. This department serves the community continuously through providing the most number of continuing education courses, sterilization monitoring, pharmacy services as well as biopsy services.

OPRM education programs support the College of Dentistry's Collegiate Competencies of Critical Thinking, Professionalism, Communication & Interpersonal Skills, Health Promotion, Practice Management & Informatics, Patient Care Assessment, Diagnosis & Treatment Planning, Patient Care Establishment and Maintenance of Oral Health with emphasis centered on management of patients globally with systemic interactions both afferent and efferent to their oral healthcare status.

Vertical integration of D 1-D 4 diagnostic, radiology, oral pathology, and pharmacology curricula.

Horizontal curricular integration with other disciplines in the College of Dentistry through ongoing communication and coordination of programs.

Case based learning is a strong asset in OPRM as it provides a wealth of real life examples for students, residents, and health professionals.

Team based collaborative approach with departmental faculty engaged in departmental meetings, planning for curricular improvement/integration with other departments, calibration, annual teaching inservice programs lead to a unified package of diagnostic up-to-date curricular programs.

Recommendations

Self-Identified areas for Further Improvement:

- Collaborate with Periodontology and Preventive Dentistry to assure that all collegiate predoctoral clinic patients receive a baseline clinical periodontal examination and Periodontal diagnosis, consistent with AAP Parameters of Care.
- Continue development and enhancement of case based examples during lectures and seminars in order to stimulate interactive learning and demonstrate application of concepts.
- Incorporate more video examples in lectures in order to better demonstrate therapies.
- Update lecture materials with most recent high level evidence.
- Continued development and refinement of critical learning projects for students to participate in if there are patient no-shows or cancellations.
- Review concepts of head neck anatomy, oral mucosal anatomy, oral pharyngeal anatomy examination through further development of the head neck exam seminar on day one of the clerkship and facilitate this knowledge and calibration throughout the clerkship itself.
- Meet with D 4 group leaders to discuss the best ways to demonstrate summative assessment of competency in comprehensive treatment planning.
- Invite D 4 group leaders to our Teaching In-service or do a separate presentation for them on diagnosis and treatment planning calibration.
- Better integration with family dentistry on patient care decisions and patient assignment within clinics.
- Continued refinement of working to break down the clerkship silos so as to create a more patient care centered environment in the D 3 year. This continues to be a monumental challenge.
- Continue stressing the head neck exam.
- Improved calibration of the subjective grading method between clerkships and within clerkship groups.
- Continued improvement on caries risk management as well as caries detection radiographically and clinically.

Recommendations from the Working Group:

- Support should be provided to the OPRM department to develop resources accessible to all providers on the University of Iowa, College of Dentistry's Webpage to reduce consultations addressing routine diagnostic questions and encourage calibration of head and neck examinations on a collegiate basis (Flowcharts, Videos).

- Investigation of concerns raised regarding the perishable nature of information presented needs to be examined and integration of additional resources to improve student retention of information should be pursued with rigor.

- Staffing challenges in the OPRM department should be prioritized and addressed by the administration. Increased support would afford the addition of vertically and horizontally integrated treatment planning sessions in the D 1- D 2 years, growth of the D 3 treatment planning program, and the opportunity to consider expansion of the OPRM clinic to include a student biopsy program.

- The timing/order of courses needs to be examined to consider teaching general pathology first then oral pathology. The suggestion for a student anatomy, physiology, pathology, and pharmacology "boot camp" may be a first step to easing the transition for students to participate in clinical endeavors in the D 1 and early D 2 scenarios pending the length of sessions and depth of content.

- The use of the Collegiate Process for Patient Care sheet in OD should be calibrated and the integration shared with other departments. Specifically, calibrating the language of learning and applying the Oral Pathology Decision Tree is of up-most importance.

- Calibration amongst departments with the flow of treatment planning should be pursued. Most dentists utilize radiographs during the collection of clinical findings. Limiting use of radiographs during examinations to the end of the appointment in OD limits the time students can connect the radiographic and clinical findings. Use of the Axium Treatment Planning Module would afford a more ideal transition from the D 3 - D 4 year.

- Consideration should be given to developing opportunities for fourth year students interested in additional Oral Pathology experience.