Curriculum Committee Meeting Agenda	
April 28, 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 March 25, 2016 Minutes	Holmes
2. Iowa COD Competencies – Feedback	Krupp
3. Basic Science Course Directors – Update	Hoffman
4. Departmental Curriculum Review - Endodontics	Work Group – Dr. Restrepo-Kennedy
5. Office for Education Update a. Curriculum Mapping Update – AEFIS b. CANVAS c. Course & Faculty Evaluations	Garcia/Krupp
6. Round Table Comments	Committee
7. Next Meeting: **May 27, 2016**	

Action Items			
Status	**Action to be taken**	**Responsible**	**Due Date**
Pending	ICCMS Implementation in the College	Kolker/Guzman-Armstrong	
Pending	• Patient Ingress & Treatment Planning • Address the Endo Boot Camp Concern • Prerequisite Basic Science Question	Garcia	

Curriculum Committee (2015-2016):

DC Holmes, Chair
Dan Caplan
Marsha Cunningham-Ford
Darren Hoffman
Terry J. Lindquist
Natalia Restrepo-Kennedy
Cheryl L. Straub-Morarend
Fabricio Teixeira
Paula L. Weistroffer
D1 – Kyle Nicholson
D2 – Brandon Turley
D3 – Josh Hindman
D4 – Brad Albertson

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

THE UNIVERSITY OF IOWA
COLLEGE OF DENTISTRY & DENTAL CLINICS

Curriculum Committee
Minutes – April 28, 2016

Members Presents: Drs. DC Holmes (Chair), Dan Caplan, Darren Hoffman, Terry Lindquist, Natalia Restrepo-Kennedy, Fabricio Teixeira, Paula Weistroffer, Lily Garcia, Tad Mabry, Galen Schneider, Prof. Marsha Cunningham-Ford, Dean Cathy Solow, Brad Albertson – D4, Ms. Michelle Krupp

Absent: Drs. Cheryl Straub-Morarend, Sherry Timmons, Kyle Nicholson – D1, Brandon Turley – D2, Josh Hindman – D3

Meeting called to order 12:06 p.m.

I. Approval of March 25, 2016 Minutes – approved as amended stating Prof. Marsha Cunningham-Ford present and one typographical error corrected.

II. Iowa COD Competencies - Feedback – Ms. Krupp/Drs. Garcia & Holmes

- Members gave suggestions and feedback on the new Iowa Competencies. The following points were discussed:
  - o CODA standards are mapped to all the competencies by Drs. Garcia, Holmes & Ms. Krupp. These alignments will be further addressed by the CODA Steering Committee.
  - o It was recommended that competency 5.17 be deleted (*Develop a catastrophe preparedness plan for the dental practice.)*
  - o Dr. Fabricio Teixeira recommended that 'prevent' be included in 6.15.
  - o In reference to competency 6.1 – there were some concerns regarding student's exposure and various (and not required) clinical experience with different patient populations (i.e. Special needs, women, geriatrics, etc.). Dr. Holmes emphasized that the competencies should not be edited based on what is currently happening but perhaps the curriculum may need to be revised if we think students should have these experiences.
  - o Dr. Hoffman suggested that 'integration of foundation knowledge' to Patient Care be added as well as 'communicating foundational knowledge to patients and colleagues' to Communication & Interpersonal Skills.

ACTION ITEM: If there are any further comments or suggestions, committee members should email them to Ms. Krupp.

III. Basic Science Course Directors – Update – Dr. Darren Hoffman

- The basic science faculty met last month with Drs. Garcia, Holmes and Ms. Krupp to discuss the educational updates including the new competencies. Dr. Hoffman reported that there is some concern that basic sciences/foundation knowledge is not explicitly stated in competencies.
- The basic science course directors currently manage their own evaluations since they fall under College of Medicine. One option for these courses is to utilize CODs new evaluation system through AEFIS. Faculty and primary admins would have to be trained. Dr. Hoffman suggested that some type of workflow be developed to encourage the basic science course directors to submit their course evaluations since they contribute to the COD curriculum; feedback is critical for continuous curriculum management and improvement (i.e., to Curriculum Committee, Office for Education, DEOs, etc.).

IV. Departmental Curriculum Review Endodontics – Work Group, Dr. Natalia Restrepo-Kennedy

- Dr. Restrepo-Kennedy presented the Endodontics department curriculum review report. She noted that the department was very well organized and responsive to clarifying further questions. See attachment for questions and answers for more details. The following points were briefly discussed:
  - Students expressed that they experience a smooth transition from pre-clinic/simulation into clinic due to the 'boot camp' structure. It is perceived to be a positive and valuable experience even though it is an intense, short timeframe.
  - It was recommended to increase case-based presentations without increasing student load.
  - CBCT and the difference between 'specialty' utilization of advanced technologies is important for a general dentist to understand the "why & when" needs to know and apply the understanding.
  - Students getting conflicting information with other disciplines in regards to pulpal diagnosis. It was recommended that ENDO develop a standardized protocol that other departments can teach and follow.

ACTION ITEM: Dr. Fabricio Teixeira develop pulpal diagnosis protocol for distribution. Dr. Restrepo-Kennedy will finish presenting the ENDO report at the next meeting.

V. Office for Education Update – Dr. Lily Garcia & Ms. Michelle Krupp

- Due to time constraints, a full update will be given next month. Ms. Krupp mentioned that the COD transition to Canvas is currently happening and will be complete by May 15th. Canvas training opportunities are available through UI ITS for faculty wanting to start learning and using Canvas. However, COD Course Director Workshops are planned to include fundamental Canvas training and other topics for faculty development (course outcomes, objectives, mapping, etc.); COD courses will be scheduled throughout the summer.

VI. Round Table Comments – Committee

- Due to time constraints, no round table comments were presented.

Next Meeting: May 27, 2016

Minutes recorded: Ms. Michelle M. Krupp

2016 Curriculum Review-Endodontics-DEO Fabricio Teixeira

Process:

The Curriculum Management working group received the Endodontic Departmental Curriculum Review document. Each member of the group reviewed the document and met to discuss comments and questions. A summarized and precise material for the pre-doc endodontic curriculum was evaluated. Different areas were suggested for revisions with an overall purpose to improve the endodontic curriculum and the most important, benefit the students. The review report was sent to DEO Fabricio Teixeira. The questions were as follow:

Questions and Answers by specific page and section:

Page 1 Section II

1. In the middle of the paragraph, in the second year the students "review endodontic diagnosis and learn basis of treatment planning." Should not this be the time of introduction of the topics? Please explain.

Answer: The basic information about endodontic diagnosis and treatment is provided didactically in several topics. The D2 students will have several lectures right before going (during the sophomore course) to the lab every single day. These topics include diagnosis and treatment planning for endodontic therapy. In summary the students receive the information but they practice diagnosis only when they enter in the clerkship.

Page 4 Section VI

2. On the section, Possible vertical integration enhancements are stated: "Increase the number of case-based learning presentations." How are you projecting to increase the case-based learning presentations in your curriculum? Will it mean integrate it with students only or faculty and students together? And will the students need to reduce clinical time due to the case presentations?

Answer: We plan to increase the case discussions (CBL presentations) without reducing the clinical time. We have learned that the small group seminar is very beneficial to their clinical practices. We plan to prepare more cases and increase the number of days for it, which is usually takes place from 1PM to 2PM. They will include students and one attending faculty member.

3. On the same section, "Possible vertical integration enhancements." What is meant by 3D imaging would improve the decision-making process beyond general dentistry?

Answer: That means the application of CBCT and newer technologies to improve the understanding of case difficulties issues related to planning the endo therapy, such as complex anatomy and problems encountered in the root canals system. The general dentist would benefits of a proper and correct treatment selection. We thank you for your answer, however, will technology be integrated to the D3 and D4 years? Since, they will be challenging cases will be more for resident's cases? Please explain

Page 5 Section IX

4. What is the issue concerning pulpal diagnosis as related to previous disciplines providing knowledge, where and what are they getting that you are concerned with?

Answer: We have observed that some students use improper methods for pulpal and periradicular diagnosis, such as Q-tips for cold testing. We have concern about the best evidence demonstrating the proper steps and methodology to enhance the accuracy of diagnosis. I believe this could be perfectly addressed it with proper/better communication among disciplines and departments.

Page 6 Section XI

5. About restorative endodontics and interdisciplinary areas, it has been mentioned the lack of efficient protocols to provide an immediate coronal seal. Might you please explain in detail how your department is facing this area with the increase in your patient's pool and a shortage of faculty members? Also, there is an endodontic audit on the patients' administration area. Do you have any information if this audit has been helping to address the lack of protocols for an immediate coronal seal?

Answer: In fact, these are issues that affect the outcome of the endodontic treatment as a whole. The best approach to avoid post-treatment contamination and its consequent failure is to provide an immediate coronal seal. The evidence shows that teeth need to be restored sooner and properly to increase their survivability. We are trying to improve our communication with our referring dentists and department in order to make it better. It should state that we are not having any shortage in our clinic. In fact we have too many patients! ...more than we can accommodate some times. We are not placing the final restoration but we need to enhance the coronal seal aspect of it. I will be more than happy to explain this problem to any member of the committee.

Page 6 Section XII

6. On your plans to improve horizontal integration in the sophomore laboratory course, what areas are you looking for improvement? Are you planning to modify the didactic component or different modalities of lab exercises? Also, are you thinking of extending the time that the sophomores have for the endodontic course? Please explain.

Answer: We don't plan modifications at this point. However, I am willing to discuss any possible changes that would benefit our students and faculty (the entire COD).

7. Is has been mentioned that the horizontal integration of the D3-year is a concern for the students when they go to family dentistry. Would you please be able to clarify why, and if there is a possible solution that can benefit the students?

Answer: I don't see this integration as a major problem for endodontics. The endo procedures performed at the clerkship are similar when they do them at FAMD. I need to understand these concerns from other disciplines stand point.

8. As it has mentioned "patient screening" needs to be addressed. How is the department going to approach in a vertical and horizontal integration the lack of treatment planning and accurate diagnosis? Is it due to the referral from private practices or from the dental college clerkship?

Answer: We have this problem all the time at our clinic. I cannot provide you the exact number of patients referred to us improperly but the big majority comes from outside referrals (e.g. community dental centers). Our in-house referrals do a much better job on it, in particular because they call for consultations and we are able to discuss the recommendations.
I can clearly attest that the issue comes from outside. It would be beneficial having the patients screened before coming to us. We refer on daily basis, for instance, patient to OMS for extraction where the "non-restorable" question could have been easily answered prior to endo appointment. That would free up some Chairs for patients that are waiting for their visit.

CONCLUSIONS:

We acknowledge the valuable answers Dr. Teixeira provided to us with the questions the curriculum management working group requested. At the end we got in communication

and finalized the report. All members agreed that the response adequately addressed the issues pointed out. The following are discussion that may benefit the endodontics curriculum in the future.

1. Incorporation of more days for case-based learning (CBL) presentations during the first hour of the clinic without reducing the time of the clinical patient would be very valuable for the students. However, CBL should be planned carefully and not add another load to students.

2. In an effort to enhance endodontic diagnosis a standardized protocol should be developed by endodontics and distributed college wide. This will ensure diagnostic test are completed in a standardized way.

THE UNIVERSITY OF IOWA
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& DENTAL CLINICS

Departmental Curriculum Review

Date: January 1, 2016

Department: Endodontics

I. Department Mission Statement:

Our mission

The Department of Endodontics' mission is to educate healthcare providers in the comprehension of diagnosis, prevention and treatment of pulpal and periradicular pathosis in a patient-centered environment. We are committed to an education at the highest level to students by striving to transfer evidence-based knowledge through an interdisciplinary coordinated curriculum and to the profession at large through relevant continuing education. This is accomplished through four interrelated components of excellence: education, research, patient care and service.

A calibrated and expert group of faculty teaches established standards of competency in patient care by training clinicians to not only address critical components of endodontic practice but also to assess the outcome of care while maintaining the highest moral and professional ethical standards. Students develop critical thinking and problem solving skills, which facilitates the management of complex clinical problems. Faculty and students conduct and evaluate basic and applied research that contributes to the professional knowledge base. The department promotes the concept of life-long learning and actively participates in the advancement and dissemination of knowledge through research and publication.

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

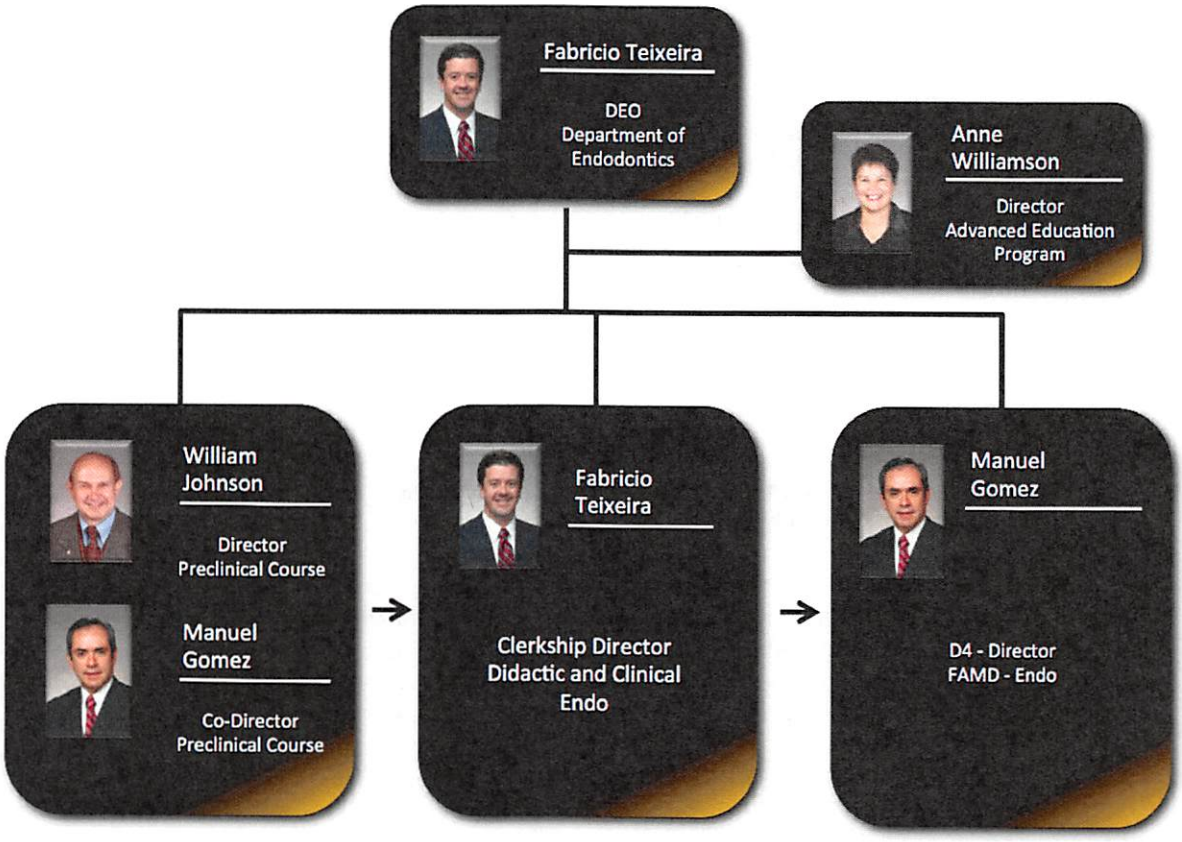
The department's curriculum provides the basic and clinical comprehension of endodontics as indicated in our mission statement. We initiate our education process during the second year, where students are introduced to the didactical and laboratory platforms of our preclinical course. The primary goal of the sophomore course is to teach students the biologic principles and technical aspects of nonsurgical root canal treatment. All the procedures of the root canal therapy are completed on a number of extracted teeth. The students will review endodontic diagnosis and learn the basis of endodontic treatment planning. Following successful completion of this course the third year students initiate the endodontic clerkship. They become familiar with our evaluation and proctor systems as well as all requirements for completion. Explanatory sessions are provided with this intent. The course is structured in two distinct divisions: didactic course (seminar series and small group discussions) and the clinical component. The students have to demonstrate diagnostic skills of pulpal and periapical status using simulations of clinical problems, prior to treating the first patient. Evaluation in the endodontic rotation is based on the clinical evaluation of cases completed and other exercises. Upon the completion of the junior clerkship, the students then move to our last year (D4 year) into family dentistry, in which endodontic patient care is continued and their performance evaluated. The department maintains the didactical

component through a series of seminars.

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

The department executive officer, Dr. Fabricio Teixeira, is accountable for the comprehensive curricular vision of the predoctoral program. Dr. Teixeira is currently serving as clerkship director and therefore is directly responsible for the overall structure of the didactic and clinical agendas. Realistically the entire faculty in the department teaches in all courses, which provides the necessary integration and the critical interface among active instructors. All member of our faculty serve either as a course director or in some similar capacity. They are required to support the director in all characteristics of the course. Please see the following diagram.

Department's Educational Operations



**The entire faculty (adjuncts and emeriti), fellow associates and supporting staff works in all didactic and clinical courses provided by the department with no exceptions. The importance of mutual interest and collaboration are part of successful horizontal and vertical integrations.

IV. Provide profiles for each course: *additional rows can be added as needed.*

Year	Course No.	Course Director/Co-Director	Format	Faculty:Student Ratio
D2	ENDO 8240 - Endodontic Preclinical Didactic	William Johnson/Manuel Gomez	*Lecture, seminar, PBL, CBL*	1:82 (didactic)
D2	ENDO 8241- Endodontic Preclinical Laboratory	William Johnson/Manuel Gomez	*Simulation lab and bench top lab*	1:10-11 (lab)
D3	ENDO 8360 – Clinical Endodontic Practice	Fabricio Teixeira	*Lecture, seminar, PBL, CBL, clinical*	1:4-5 (clinic)
D3	ENDO 8365 – Clinical Endodontic Seminar	Fabricio Teixeira	*Lecture, seminar, PBL, CBL*	1:82 (didactic)
D4	FAMD:8484, FAMD:8495	Manuel Gomez (Endo)	*Lecture, seminar, clinical*	1:2-5 (clinic)

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.

D2 ENDO:8240 / ENDO:8241 The primary goal of this course is to teach students the biologic principles and technical aspects of nonsurgical root canal treatment. All the faculty members of the department, under the leadership of the course director Dr. W. Johnson, focus on the theories of endodontic diagnosis, treatment planning and therapy. Basically, the students are introduced to a didactic course; problem based learning sessions and a laboratory platform. It integrates to the past and current knowledge provided during the D1 and D2 years. It is expected that all students will have a good understanding on human gross anatomy, dental anatomy, histology, oral radiology, anesthesia and pain control. Moreover, according to the current curriculum the horizontal integration takes place as this course in embed into several other concomitant courses such as basic pharmacology, dental microbiology, oral pathology, operative dentistry I and II. In our D2-year course, root canal treatment will be completed on a number of extracted teeth. The student will review endodontic diagnosis and learn the basis of endodontic treatment planning.

D3 ENDO:8365 / FAMD 8484 / FAMD 8495: Our clerkship director, Dr. F. Teixeira, and all the endo faculty concentrate their effort into two important components of the clerkship: didactic (seminars series, small group discussions and evaluations – pre-test, seminar quizzes, Midterm OSCE and a final examination) and the clinical course. The students will apply everything that was taught in the D-2 year course after successfully completing the sophomore lab. The D-3 students will horizontally integrate during the clerkship in self-contained comprehensive care, which involves endodontics, prosthodontics, periodontics and operative procedures. In the D4-year, the students will combine their acquired knowledge into a broader clinical practice. We expect that they will be able to provide a comprehensive care and to establish a suitable treatment planning based on their decision-making discernments, which was stressed during the super-blocks. They might integrate all the knowledge beyond general practice.

No changes in the endo curriculum is been implemented at this point because we would like to

assess the COD curriculum and mapping as a whole.

VI. Describe how *vertical* integration is achieved? 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.

D2 – D3 vertical integration All the members of the department and the directors constantly discuss the necessary improvements based on students' evaluations and our fitting awareness. We essentially try to exclude recurring and less resourceful subjects with the goal of making the learning process more effectual between the sophomore laboratory course and the introduction of endodontic practice.

D3 – D4 vertical integration Fundamentally the family dentistry participation of the department of endodontics is a continuation and a very well integrated part of the clerkship. The entire faculty provides permanent consultation and supervision of the D4 students as they were working at our endodontic clinic. Dr. Gomez is directly responsible for the student and faculty orientations. A good understanding on the steps necessary for case selection, diagnosis, treatment and knowledge on outcomes are expected from the D4 students.

Possible vertical integration enhancements

- The major challenge that our department faces is the faculty calibration and understanding of critical aspects of our specialty. We need to be able to maintain the education to a general dentistry level. It is not expected that D4-year students to treat inappropriate cases and the students must rely on a well-calibrated faculty.
- Improve communication between the general dentists (FAMD group leaders) and endodontists (FTE and adjunct faculty).
- Increase the number of case-based learning presentations
- Emphasize and review the important concepts to achieve proper pulpal and periradicular diagnosis.
- Integrate new technologies, such as 3D imaging that would improve the decision-making process beyond general dentistry.

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

Although the department has well-designed and solid programs, we have issues related to communication among our peers, which was observed by the current DEO and confirmed by all faculty members. Therefore, we have implemented regular faculty meetings in order to initiate a new culture that comprises curriculum assessment and the needs for educational enhancement. At the present moment, we have executed proposals as following:

- Monthly faculty meetings to discuss issues related to teaching, courses, research and services provided by all the members.
- Prior to any course, we plan to discuss new materials, techniques and advancements built on evidence-based endodontic practice in order to maintain our education current.
- We maintain sessions on faculty calibration prior to the sophomore and clerkship courses. All the instructors go through a full-day group session, where scenarios are presented and the program expectations are intensively discussed. The course director expects a unified learning experience for the students.
- Our calibration/standardization sessions involve: etiology-prognosis and treatment plan, case difficult assessment, grading system, assessment of competency and student evaluations; and proctor sessions.
- During the clerkship semester two faculty meetings are held in order to assess student development and address important issues. All the faculty members have the opportunity to present their private input for every single student and discuss their problems encountered at that moment. The course director will then individually meet and address the pertinent issues related to the specific student.

Annual retreats and in-service programs contain content related to predoctoral education. Within the past five years, these have included presentations on the following topics:

- Dental Wellness Plan implementation and one year review by the Associate Dean of Patient care
- Calibration exercises during standardization sessions
- Accreditation standards update

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

Yes. The courses provided by our department have been discussed, evaluated and integrated. The entire data collect by the directors is presented the following year with a proposal for a more efficient learning experience and outcomes adopted.

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

Although the department is going through several changes, we do not see any issues that would impact the educational components of our curriculum. We are recruiting new faculty members and they will be introduced to the current system.
The major issues encountered during our courses are related to previous disciplines provided and student knowledge level prior to entering the clerkship, such as radiology, pulpal diagnosis and treatment planning. It is a constant problem and we need better horizontal and vertical integrations.

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

As we mentioned before, the large mainstream of changes in our curriculum takes place based on students' evaluations and recommendations. They are extremely eloquent and important to all directors of the department. Therefore, it becomes quite difficult to list these changes by the overall didactic components, such as seminars have changed over the years. Also the type of patients has changed and the necessary changes are constantly implement in order to fulfill the requirements.

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 designed to educate the students the basic understanding of endodontic practice in order for them to correctly deliver appropriate treatment of uncomplicated teeth. The student should be able to: evaluate the patients including taking a medical and dental history, examining the soft and hard tissues, performing appropriate diagnostic tests, and conducting a radiographic exam; make an accurate clinical diagnosis of the status of the pulpal and periapical tissues; provide preventive endodontic treatment and vital pulp therapy, when indicated; formulate an emergency and definitive treatment plan for the patient; identify medical conditions which may modify endodontic treatment utilizing patient health history and appropriate clinical laboratory tests; determine which teeth should be referred for specialty treatment; perform non-surgical root canal therapy; demonstrate acceptable intraoral radiologic knowledge and techniques; adequately evaluate treatment with regards to recommended future restorations and long term prognosis; explain and emphasize the importance of recall appointments following endodontic treatment; define the criteria to determine success/failure; appoint the patient for continuation of treatment; recognize conditions arising during treatment which require referral; determine the outcome of treatment at the recall appointment; recognize a clinical situation requiring the use of prescribed medications; correctly write prescriptions for prophylactic and therapeutic dosages of antibiotics as indicated for a particular case; and identify the clinical situation requiring incision and drainage procedures.

The issues facing the endodontic specialty:

- Lack of understanding the endodontic outcomes, in particular when compared to alternative treatments such as dental implants. This is not a new problem but brings constant concerns to endodontists.
- Regenerative endodontic procedures are still lacking the standardization protocols and professional understanding.
- Implications of new imaging technology on misinterpretation of periapical disease and tooth survivability.
- Restorative endodontics and interdisciplinary issues – we still lack efficient protocols to provide immediate coronal seal and protect our treatments.

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.

- We need to discuss possible changes on the sophomore laboratory course. Although students have reported to the DEO that the intense calendar is a positive for the following year, we need to check on possible alternatives.
- Horizontal Integration of the D3-year courses is always a concern for the students going to family dentistry.
- Patient screening is a "MUST" point for discussion. We are facing an increased number of patients to perform root canal therapy without any appropriate integrated treatment planning. This may affect the education and development of the students as general dentists.

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 are facing a lot of new challenges in endodontics, which we plan to manage accordingly over time, such as the privation of space, lack of time and shortage of faculty members. The increased numbers of patients and, in consequence, the number of daily emergencies has brought concerns to all members of the department. Since we have more to do with fewer faculty members, we believe that education has been affected. I don't believe this is a new issue that schools face, but it is critical to acknowledge the importance of distribution of personal. We strive for perfection and that might be a problem too.