Consortium of Operative Dentistry Educators

(CODE)

REGIONAL REPORTS
FALL 2011

Web site: http://www.unmc.edu/code

TABLE OF CONTENTS

THE CODE 2011 REGIONAL REPORTS IN PDF FORMAT MAY BE FOUND ON THE WEBSITE:

HTTP://WWW.UNMC.EDU/CODE

PLEASE UPDATE YOUR SCHOOL'S DIRECTORY PAGE IN THE CODE NATIONAL DIRECTORY LOCATED ON THE CODE WEBSITE. TO ACCESS THE DIRECTORY, USE THE
"PLEASE HELP UPDATE" LINK
ON THE MAIN MENU OF THE WEBSITE.

THANK YOU FOR YOUR ASSISTANCE.

Consortium of Operative Dentistry Educators (CODE)

Forward - Larry D. Haisch, D.D.S.
National Director
Haisch LD (ed.) CODE Regional Annual Reports 2011.
http://www.unmc.edu/CODE

On February 24, 2011, CODE held a National/International meeting during the annual meeting of the Academy of Operative Dentistry in Chicago. Dr. Christopher D. Lynch of Cardiff University School of Dentistry, Cardiff, Wales, UK, presented the program, "Repair or Replacement of Composite Restorations? Current teaching in North American Dental Schools." CODE acknowledges Drs. Igor Blum, Kevin Frazier and Nairn Wilson for their assistance in making the presentation possible. Dr. Lynch's presentation is posted on the CODE website.

I had the privilege to attend the Region IV meeting at the University of Michigan School of Dentistry, Ann Arbor, Michigan. I also attended the Region II meeting at the University of Colorado School of Dentistry in Denver, Colorado.

Continue to familiarize your Deans and Department chairs with CODE's objectives and it's value to their school. Their support is crucial in providing the means for faculty to attend or host Regional meetings.

All are to spread the word about CODE and work to provide input to Licensure Boards on Restorative Dentistry. Also, encourage/invite members of the Licensure examining boards to attend the Fall Regional meetings. Invite our colleagues in the Armed and Public Health Services to our meetings - both Regional and National. Again in 2011, an open invitation to attend the meetings was e-mailed to CITA, CRDTS, NERB, SRTA, WREB and the American Association of Dental Examiners.

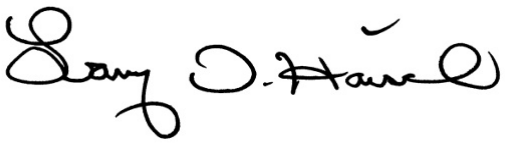
Support of CODE by payment from the schools for annual dues is excellent, although not without repeated follow-up efforts by the National office. The same can be said for the collection of the Fall Regional Reports.

Thank you to webmaster, Dr. William Johnson, for the timely website updates and enhancements. **NOTE:** Update your schools' directory via the active "Please help update" link in the main menu of the web site: (http://www.unmc.edu/code)

My appreciation to the Regional Directors and the meeting hosts (Drs. P. Brad Smith, George Gatseos, Michelle Brichacek, Christine Beninger, Mary Ellen McLean, Richard Lichtenthal, and Raquel Mazer), the Operative Section of ADEA and the general membership for helping to make CODE what it is and what it accomplishes.

Thank you to Drs. Edmond Hewlett of Region I and Scott Shaddy of Region II for their services as Regional CODE Directors - well done. Drs. Oanh Le and Christa Hopp are the new Regional Directors, respectively of Region I and II - welcome and thank you for accepting the positions.

Best wishes,



ORIGINS OF C.O.D.E
(Consortium of Operative Dental Educators)

Project ACORDE (A Consortium of Restorative Dentistry Education)

The date usually cited as the starting point for the development of Project ACORDE is 1966. That year, in Miami, the Operative Dentistry Section of AADS formed a committee charged to plan for the cooperative development of teaching dental materials.

In July of 1971, the Dental Health Center, San Francisco, invited faculty from 14 dental schools to explore the feasibility of reaching consensus of a series of operative dental procedures. The outcome of the meeting suggested that it was feasible to achieve broad-based agreement on basic procedures: task analyses could be developed in which consensus could be reached on essential details of methods and instrumentation. The Project ACORDE committee was charged with the responsibility for coordinating curriculum development efforts on a national level in November of that year. Prominent in this project development were Bill Ferguson, David Grainger and Bob Wolcott.

The Broad Goals and Functions of this committee were:

1. To gain agreement among all participating dental schools on the teaching of operative dentistry functions and gain acceptance by all schools.
2. To produce materials which can be universally accepted and utilized for teaching dental students and expanded function auxiliaries.

During 1974, a 15-module package entitled Restoration of Cavities with Amalgam and Tooth-colored Materials was presented.

The preparation package entitled Cavity Preparations for Amalgam and Tooth-colored Materials became available for distribution in March of 1976.

Project ACORDE was found to have produced three major benefits for dental education:

1. It opened new channels of communication among dental educators.
2. It suggested uniform standards of quality for the performance of restorative skills.
3. It produced numerous lesson materials which were useful both for teaching students and as models of developers of other lessons.

The benefit, most frequently cited by dental school faculty, was communication. The primary example of the communication begun by Project ACORDE, which has lasted well beyond the initial project, is CODE (Consortium of Operative Dentistry Educators). CODE has as its goal, the continuation of meetings for the purpose of information exchange among teachers of operative dentistry. Regional CODE meetings are held annually with minutes of each session recorded and sent to the national director for distribution. This system is a direct spin-off of Project ACORDE.

The first annual session of CODE was held in 1974/75.

The Early Years (1974-1977)

As founding father of the concept, Robert B. Wolcott of UCLA assumed the role of national coordinator and appointed Frank J. Miranda of the University of Oklahoma as national secretary. A common agenda to be provided to all six regions was established at this time. The first regional meetings were held in the winter of 1974. During the first three years of operation, each region devised a system of rotation so that a different school hosted the regional meeting each year, thus providing a greater degree of motivation and bringing schools closer together in a spirit of fellowship and unity. Each region submitted suggestions for future agendas, thereby insuring a continued discussion of interesting and relevant topics. A collection of tests or a test bank was started in early 1976. This bank consisted of submitted written examination questions on specified topics that were complied and redistributed to all schools.

The Transition Years (1977-1980)

The first indication that the future of CODE was in jeopardy came in 1977, the first year that a national report could not be complied and distributed. As the result of the efforts of a committee chaired by Dr. Wolcott, the original concept was renewed in 1980. Its leadership had been transformed from the structure of a national coordinator and secretary to a standing subcommittee under the auspices and direction of the Section of Operative Dentistry of the AADS.

The Reaffirmation Years (1997 - 1998)

During the 1997 meetings of both the Operative Dentistry Section Executive Council and the Business meeting of the Section, interest was expressed about reorganizing CODE and aligning it more closely with the Section. During the following year, fact finding and discussions occurred to formulate a reorganization plan. The plan was submitted for public comment at the 1998 meeting of the Operative Dentistry Section Executive Council and the Business meeting of the Section. At the conclusion of the business meeting the reorganization plan was approved and implemented.

Reaffirmation of CODE official title (2003)

CODE changed its name from *Conference of Operative Dentistry Educators* to *Consortium of Operative Dentistry Educators* due to a ratification vote at the Fall 2003 Regional CODE meetings.

The Future of CODE

The official sponsorship by the Section of Operative Dentistry of ADEA (formerly ADDS) and the revised administrative structure of CODE are both designed to insure its continuance as a viable group. The original concepts, ideas and hopes for CODE remain unchanged and undiminished. Its philosophy continues to be based on the concept of dental educators talking with each other, working together, cooperating and standardizing, when applicable, their teaching efforts and generally socializing in ways to foster communication. There is every reason to believe that organizations such as CODE, and those developed in other fields of dentistry, will continue to crumble the barriers of provincialism and provide the profession with a fellowship that is truly national in scope.

National Coordinators/Directors

1974 - 1982	Robert B. Walcott (UCLA)
1982 - 1986	Thomas A Garmen (Georgia)
1986 - 1989	Frank Miranda (Oklahoma)
1989 - 1998	Marc Gale (Florida)
1998 - to present	Larry Haisch (Nebraska)

ORGANIZATION OPERATION

The Section of Operative Dentistry of the American Dental Education Association has "oversight" responsibility for sustaining and managing CODE.

- The national director will be appointed by the executive council for a three-year term, renewable not to exceed two consecutive terms.
- The director will be selected from a list of one or more individuals nominated by the CODE Advisory Committee after input from the regions.
- The director will perform the functions and duties as set forth by the council.
- The director will be a voting member of the council who will be expected to attend regional CODE meetings and the annual meeting of the council and section.

A CODE Advisory Committee will assist the national director with his/her duties.

- A CODE Advisory Committee will consist of one member (regional director) from each of the six regions plus 1 or 2 at-large members.
- Each regional director is selected by their region. The at-large member(s) may be selected by the national director and/or the executive council.
- The terms are three years, renewable, not to exceed two consecutive terms.
- The national director serves as chair of the Advisory Committee.

The annual CODE Regional meetings will serve as the interim meeting of the section. Some section business may be conducted at each CODE Regional meeting as part of the National agenda.

Regional Directors:

- Will be a member of ADEA and the section of Operative Dentistry
- Will oversee the conduct and operation of CODE in their respective region while working in concert with the national director
- Will have communication media capabilities including e-mail with the capability of transmitting attachments
- Will attend the region's meeting
- Ensure that meeting dates, host person and school are identified for the following year
- Do follow-up assist on dues "nonpayment" by schools
- Ensure that reports of regional meetings are submitted **within 30 days** of meeting conclusion to the national director
- Ensure that individual school rosters (operative based) are current for the region
- Identify a contact person at each school
- Assist in determining the national agenda
- Other, as required

CODE ADVISORY COMMITTEE

(Revised 12-31-11)

Region		Regional Director	Phone/E-mail	Term (3 years)
I	Pacific	Dr. Oanh Le UCSF San Francisco, CA	650-558-9253 oanh.le@ucsf.edu	2012-2014
II	Midwest	Dr. Christa Hopp Southern Illinois University Alton, IL	618-474-7052 chopp@siue.edu	2012-2014
III	South Midwest	Dr. Scott Phillips Mississippi School of Dentistry Jackson, MS	601-984-6042 smphillips@sod.umsmed.edu	2010-2012
IV	Great Lakes	Dr. Paul E. Reifeis Indiana University Indianapolis, IN	317-278-1858 pereifei@iupui.edu	2010-2012
V	Northeast	Dr. Richard Lichtenthal Columbia University New York, NY	212-305-9898 rml1@columbia.edu	2011-2013
VI	South	Dr. R. Gary Holmes Georgia Health Sciences University August, GA	706-721-2881 rholmes@georgiahealth.edu	2011-2013
III	At-Large	Dr. Alan Ripps LSU New Orleans, LA	504-941-8261 aripps@lsuhsc.edu	2010-2012
I	At-Large	Dr. Edward DeSchepper Roseman University South Jordan UT	801-878-1417 edeschepper@roseman.edu	2010-2012
VI	At-Large	Dr. Kevin Frazier Georgia Health Sciences University August, GA	706-721-2881 kfrazier@georgiahealth.edu	2011-2013
II	National Director	Dr. Larry Haisch UNMC Lincoln, NE	402-472-1290 lhaisch@unmc.edu	2011-2013
II	Web Master	Dr. William Johnson UNMC Lincoln, NE	402-472-9406 wwjohnson@unmc.edu	No Term

Consortium of Operative Dental Educators (CODE)

2011-2012

Paid - Regions and Schools

X = Paid Members as of December 31, 2011 — 71 schools (10 Canada, 61 United States)

Region I (Pacific) - 14

- X Alberta - Canada
- X ATSU – (Mesa), Arizona
- X MWU – (Glendale), Arizona
- X British Columbia - Canada
- X Loma Linda
- X Nevada
- X Oregon
- X Pacific
- X Roseman-Utah (new)
- X UCLA
- X UCSF
- X USC
- Western University-CA (new)
- X Washington

Region II (Midwest) - 10

- X Colorado
- X Creighton
- X Iowa
- X Manitoba - Canada
- X Marquette
- X Minnesota
- X UMKC - Kansas
- X Nebraska
- X Saskatchewan - Canada
- X Southern Illinois

Region III (South Midwest) - 7

- X Baylor
- X Louisiana State
- X Mississippi
- X Oklahoma
- X Tennessee
- X UTHSC - San Antonio
- X UTHSC - Houston

Region IV (Great Lakes) - 10

- X Case Western
- X Detroit Mercy
- X Illinois
- X Indiana
- X Michigan
- X Ohio State
- X Pittsburgh
- X SUNY - Buffalo
- X West Virginia
- X Western Ontario - Canada

Region V (Northeast) - 18

- X Boston
- X Columbia
- X Connecticut
- Dalhousie - Canada
- X Harvard
- X Howard
- Laval - Canada
- X Maryland
- X McGill - Canada
- Montreal - Canada
- X New Jersey
- X NYU
- X Pennsylvania
- X SUNY - Stony Brook
- X Temple
- X Toronto - Canada
- X Tufts
- X US Naval Dental School

Region VI (South) - 12

- X Alabama
- X East Carolina University (New)
- X Florida
- X Georgia
- X Kentucky
- X Louisviille
- X Meharry
- X North Carolina
- X Nova Southeastern
- X Puerto Rico
- X South Carolina
- X Virginia

S:Staff\Code\Pd-Rgn&Sch

The National Agenda for 2011 was established after review of the suggestions contained in the reports of the 2010 Fall Regional meetings, National CODE Meeting and from the Regional CODE Directors. Previous National agendas are reviewed to avoid topic duplication. Inclusion of a previous topic may occur for discussion from the aspect of what has changed and the response/action taken and the outcome.

Thank you to the Regional CODE Directors and the membership for making recommendations to establish the National Agenda. Each Region is encouraged to also have a Regional Agenda.

Each school attending the Regional Meetings is requested to bring their responses to the National Agenda in written form AND electronic media. This information is vital to the publication of the Annual Fall Regional Report.

Continue to invite your colleagues, who are Dental Licensure Board examiners and your Military and Public Health Service colleagues who head/instruct dental education programs to your Regional meetings.

Each Region should select next year's meeting site, date or tentative date during your Fall Regional CODE meeting so this information may be published in the Annual Fall Regional Report and on the Web site.

The Regional meeting reports are to be submitted to the National Director in **publishable format** as an attachment to e-mail.

The required format and sequence will be:

1. **CODE Regional Meeting Report Form****
2. **CODE Regional Attendees Form****
3. **Summary of responses to the National Agenda.**
4. **Individual school responses to the National Agenda**
5. **The Regional Agenda summary and responses.**

* (Copies may be obtained from the Web site: **http://www.unmc.edu/code**).

NOTE: to locate the web site via a search engine, enter Academy of Operative Dentistry and then use the link CODE and ADEA.

Send a hard copy and an electronic copy of the report to the National Director.
Both electronic and hard copy versions are to be submitted **within thirty (30) days** of the conclusion of the meeting.

National CODE Meeting:
The meeting will be held **Thursday, February 27, 2012 from 4:15 p.m. to 6:00 p.m.** at the **Westin Michigan Avenue Hotel, room TBA**, in Chicago, Illinois. Suggestions as to how to make this meeting productive and efficient are requested.

National Directory of Operative Educators:
The CODE National Office maintains the National Directory of Operative Educators as a source for other professionals. It is imperative that the information be as current as possible.

To update your university's directory listing on the CODE website,

http://www.unmc.edu/code

,

click on the red link, "Please help update," found under the CODE menu on the left side of the screen. Make any necessary changes and click "submit form."

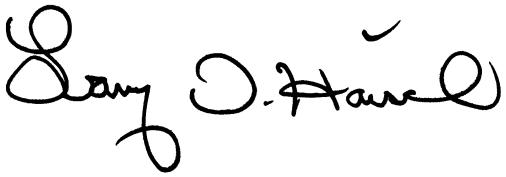
Please have each school in your Region update the following information for the National Directory of Operative Educators:

- School name and complete mailing address
- Individual names: (full time), phone #, fax #, e-mail address of faculty who teach operative dentistry.

(This could be individuals in a comprehensive care program, etc. if there is no defined operative section of department.)

Your help and cooperation in accomplishing the above tasks helps save time and effort in maintaining a complete web site and publishing the Annual Fall Regional Report in a timely fashion.

Thank you,



Larry D. Haisch, D.D.S.
National Director, C.O.D.E.
UNMC College of Dentistry
40th & Holdrege Streets
Lincoln, Ne 68583-0740

lhaisch@unmc.edu
Office: 402-472-1290
Fax: 402-472-5290

2011 NATIONAL CODE AGENDA

(Please cite the evidence where applicable. *If utilizing reports/forms/schedules from you regional schools, please submit these as **PDF files** for utilization in the Annual Fall Regional Reports manual*)

I. SURVEY ON THE DEMOGRAPHICS OF FULL-TIME FACULTY THAT TEACH OPERATIVE DENTISTRY IN YOUR SCHOOL

A. EDUCATION/TRAINING/SPECIALTY AFFILIATION

1. What percentage are General Dentists?
2. What percentage has formal ADA-recognized Specialty training such as Prosthodontics?
3. What percentage has a graduate degree or certificate in Operative Dentistry?
4. What percentage has a degree/certification in Advanced Education in General Dentistry?
5. What percentage has a degree/certification from a General Practice Residency?
6. What percentage has a graduate degree in Material Science?
7. What percentage has formal instruction in teaching and learning theory (e.g., Med, etc)?
8. What percentage has no formal post-graduate training?
9. What percentage served as a dentist in the armed forces prior to joining your faculty?
10. If other training or background is not included in the above, please describe.

B. CERTIFICATION IN OPERATIVE/RESTORATIVE DENTISTRY

1. What percentage is certified by the American Board of Operative Dentistry?
2. What percentage are fellows or masters in the Academy of General Dentistry?
3. What percentage is certified in Restorative by some other agency such as the Armed Forces?
4. If other certification relevant to Operative/Restorative, please describe.

C. EXPERIENCE IN TEACHING/PRACTICE

1. What is the range of teaching experiences for your Operative Faculty (indicate percentage)? Years: 1-5, 6-10, 11-15, 16-20, 21-25, 25+ (e.g., 1-5: 20%, 6-10: 20%, 16-20: 50%, 25+:10%)
2. What percentage of your Operative Faculty conducts a part-time practice in which they treat their own patients (intramural or extramural)?
3. How much time, on average, is spent per week in practice? List by hours or half days. (e.g., 50% spend 4 hrs; 30% spend 8 hrs; 20% spend 0 hrs)

D. TENURE STATUS/ACADEMIC RANK/EFFORT DISTRIBUTION

1. What percentage of your Operative Faculty are Tenured/Tenure-track and Non-tenured?
2. What is the percentage distribution by Academic Rank of your Operative teachers? Use: Instructor, Assistant Professor, Associate Professor, Professor (for tenured lines) Use: Clinical Instructor, Clinical Assistant, Clinical Associate, Clinical Professor (for non-tenured lines).

3. What is the typical distribution of time for your Operative faculty between Teaching (T), Research/Scholarly activity (R/S), Service (S), Patient Care (PC), Administration (A) – effort reporting: e.g., 50% T, 20% R/S, 5% S, 25% PC, 0% A (Answer = average of full-time faculty; exclude exceptions such as Chairs with minimal teaching or significant administration time)
4. Do you anticipate significant changes in the roles/duties of Operative/Restorative faculty in the next 5 years? If yes, give a concise description.
5. Does your Operative/Restorative faculty feel that they are valued members of the faculty with a similar standing and status as enjoyed by other dental faculty?

E. **DESIRABLE CHARACTERISTICS FOR OPERATIVE/RESTORATIVE FACULTY**

1. For the Chairmen/Section Directors - what personal traits or characteristics do you associate with an effective teacher of Operative/Restorative Dentistry (e.g., the "ideal faculty job description)?

II. DENTAL MATERIALS FOR OPERATIVE/RESTORATIVE DENTISTRY

A. How do you introduce new materials or products in your operative/restorative clinics?
B. Do you have any disclaimers, warnings, or other information documents that your patients have to read and sign relative to safety or risks for dental materials that may be used in their treatment? Yes/No. Examples might include: Amalgam (mercury), Resin (Bisphenol-A), non-precious casting metal (nickel). Describe the materials involved and the documentation used to satisfy informed consent goals.
C. Have you stopped using any dental materials or product categories in the past 5 years due to concerns described above? e.g., Latex Rubber dam.
D. Rank the following reasons for using any dental material in your clinic by priority from High to Low: Evidence for Effectiveness, Safety, Economics, Packaging, Ease of Use, Manufacturer Reputation, Other – Describe.

III. ETHICS/PROFESSIONAL CONDUCT AND OPERATIVE/RESTORATIVE DENTISTRY

A. Is there any ethics instruction or other ethical didactic content in your Operative/Restorative curriculum? Identify the courses by name (content), and year in your curriculum (Fr, So, Jr, Sr).
B. If yes, what type of ethics instruction takes place in your restorative courses? Lecture only, small group discussions, on-line instruction, reading assignments, papers, others?
C. Are your Operative/Restorative faculty involved with teaching in an ethics course(s) that is (are) directed by another department? If yes, describe how many are involved as a percentage or fraction of the total faculty in this (these) course(s) e.g., 50% or 3/7ths.
D. If a student commits what would be considered an ethics violation in an Operative/Restorative CLINICAL course, what types of punishment/sanctions could they face if found guilty? Briefly summarize the process from reporting to final outcome.

IV. CARIOLOGY

A. Which textbook is being used for Cariology?
B. In which department/section are the Cariology courses conducted?
C. What are the faculty qualifications for teaching Cariology?
D. Are full time faculty of Operative Dentistry provided the textbook(s)?
E. Are there concepts of Cariology which are not well supported by the Clinical faculty?
F. What are the concepts and why the lack of support?
G. What are the interpretations of textbook content as to Restorative intervention, caries removal, etc? (Are there criteria and situations when caries could intentionally be left – restored or sealed?)

V. CARIES RADIOGRAPHIC INTERPRETATION

A. Is there current clinical evidence that supports restorative intervention on interproximal caries that show in the outer ½ of the enamel when viewed on digital imagery?
B. If yes, reference and summarize the conclusions.
C. Do current teaching concepts support restorative intervention on only these interproximal lesions that extend beyond the outer ½ of the enamel when viewed on digital imagery?
D. What are the current teachings for intervention based on 1/3 extensions in enamel and dentin? e.g., outer, middle, inner third.
E. What is the evidence-based information that supports the current teaching concept?
F. Is there a discernible difference of radiographic evidence of actual clinical penetration of interproximal caries between conventionally exposed radiographs versus digital imagery? If so, which do you think represents a more accurate depiction of the clinical condition?

VI. COMMUNICATION IN OUR DIGITAL ERA

Students have critiqued faculty in course reviews as not being responsive if e-mails are not answered immediately or over the weekend prior to an examination early in the week.

A. How does the time required to implement and manage an electronic curriculum compare to before the use of online teaching resources?
    1. More time
    2. Same amount of time
    3. Less time

    List specifics as it relates to your answer
B. In your experience for individual student interactions do students prefer
    1. E-mail to communicate
    2. Office appointments
    3. Online tools with your electronic curriculum resources
C. When students are e-mailing faculty, when are they expecting a faculty response?
    1. Same day
    2. Within several days
    3. Within a week

D. When students ask a question about a specific course, lecture as it pertains to an upcoming examination, how do you manage your response?
    1. Answer that student only.
    2. Answer forwarded to entire class (keeping student anonymous) so that all students get the information.
    3. No response, student must meet with the faculty member.
    4. Faculty are not given any guidelines.
E. How are faculty directed to use e-mail as a communication with students?
    1. Respond only during school hours.
    2. Respond during school hours and evenings.
    3. Respond during school hours, evenings and weekends.
    4. Faculty are not given any guidelines.
F. What guidance are students given as it regards faculty responses to student e-mails that are sent off-school hours that the student requires an immediate response?
    1. E-mails are responded to only during school hours.
    2. E-mails are responded to whenever the faculty wants to.
    3. No guidance is given to students about expectations to respond

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Regional CODE Agenda

To be established by the respective Region and Regional Director. Please also report on responses to the Regional Agenda from all participants.

Suggestions for CODE

NOTE: To locate the web site via a search engine, enter Consortium of Operative Dentistry Educators or Academy of Operative Dentistry and then use the link, CODE.

CODE REGIONAL MEETING REPORT FORM

REGION _____

LOCATION AND DATE OF MEETING:

University: _____

Address: _____

Date: _____

CHAIRPERSON:

Name: _____ Phone #: _____

University: _____ Fax #: _____

Address: _____ E-mail: _____

List of Attendees: Please complete the CODE Regional Attendees Form (following page)

Suggested Agenda Items for Next Year:

LOCATION AND DATE OF NEXT REGIONAL MEETING:

Name: _____ Phone #: _____

University: _____ Fax #: _____

Address: _____ E-mail: _____

Date: _____

Please return all completed enclosures to
Dr. Larry D. Haisch, National Director, UNMC College of Dentistry;
40th and Holdrege Streets; Lincoln, NE 68583-0740.
Deadline for return: 30 Days post-meeting
Office: 402 472-1290 Fax: 402 472-5290 E-mail: lhaisch@unmc.edu
Also send the information on a disk and via e-mail with all attachments.
Please indicate the software program and version utilized for your reports.

CODE Region _____ Attendees Form

NAME	UNIVERSITY	PHONE #	FAX #	E-MAIL ADDRESS

Consortium of Operative Dentistry Educators

(CODE)

REGION I (PACIFIC) ANNUAL REPORT

Region I Director:
Dr. Edmond Hewlett
UCLA
Loa Angeles, CA

Region I Annual Meeting Host:
Dr. P. Brad Smith
Midwestern University
Glendale, AZ

Region I Annual Report Editor:
Dr. Edmond Hewlett

CHAPTER 1

CODE REGIONAL MEETING REPORT FORM

REGION I (Pacific)

LOCATION AND DATE OF MEETING:

University: Midwestern University

Address: Glendale, AZ 85308

Date: December 1 - 2, 2011

CHAIRPERSON:

Name:	Dr. P. Brad Smith	Phone #:	623-572-3812
University:	Midwestern University	Fax #:	623-572-3803
Address:	Glendale, AZ 85308	E-mail:	bsmith@midwestern.edu

List of Attendees: Please see reverse of this page for List of Attendees to Regional Meeting

Suggested Agenda Items for Next Year:

LOCATION AND DATE OF NEXT REGIONAL MEETING:

Name:		Phone #:	
University:		Fax #:	
Address:		E-mail:	
Date:	TBA		

Please return all completed enclosures to
Dr. Larry D. Haisch, National Director, UNMC College of Dentistry;
40th and Holdrege Streets; Lincoln, NE 68583-0740.
Office: 402 472-1290 Fax: 402 472-5290 E-mail: lhaisch@unmc.edu
Deadline for return: 30 Days post-meeting
Also send the information on a disk and via e-mail with all attachments.
Please indicate the software program and version utilized for your reports.

CODE Region __I__ Attendees Form

NAME	UNIVERSITY	PHONE #	FAX #	E-MAIL ADDRESS

2011 NATIONAL CODE AGENDA
REGION I
SUMMARY RESPONSES TO NATIONAL AGENDA

(Editor note: Questions condensed for printing purposes)

I. SURVEY ON THE DEMOGRAPHICS OF FULL-TIME FACULTY THAT TEACH OPERATIVE DENTISTRY IN YOUR SCHOOL

- **A. EDUCATION/TRAINING/SPECIALTY AFFILIATION**
- **B. CERTIFICATION IN OPERATIVE/RESTORATIVE DENTISTRY**
- **C. EXPERIENCE IN TEACHING/PRACTICE**
- **D. TENURE STATUS/ACADEMIC RANK/EFFORT DISTRIBUTION**
- **E. DESIRABLE CHARACTERISTICS FOR OPERATIVE/RESTORATIVE FACULTY**

II. DENTAL MATERIALS FOR OPERATIVE/RESTORATIVE DENTISTRY

III. ETHICS/PROFESSIONAL CONDUCT AND OPERATIVE/RESTORATIVE DENTISTRY

IV. CARIOLOGY

V. CARIES RADIOGRAPHIC INTERPRETATION

VI. COMMUNICATION IN OUR DIGITAL ERA

Students have critiqued faculty in course reviews as not being responsive if e-mails are not answered immediately or over the weekend prior to an examination early in the week.

2011 NATIONAL CODE AGENDA
REGION I RESPONSES
(Evidence cited where applicable)
December 1 - 2, 2011

Region I School Abbreviations

ALB	**University of Alberta**	**ROSE***	**Roseman University -Utah**
ATSU	**Arizona School of Dentistry**	**UOP**	**University of the Pacific**
MID*	**Midwestern University College**	**UCLA**	**University of California - LA**
UBC	**University of British Columbia**	**UCSF**	**University of California - SF**
LLU	**Loma Linda University**	**USC**	**University of Southern California**
UNLV	**University of Nevada**	**WUHS**	**Western University**
OHSU	**Oregon School of Dentistry**	**UWA**	**University of Washington**

***** (*Editor's Note: Responses from these two schools were submitted with the Region IV responses)*

Consortium of Operative Dentistry Educators

(CODE)

REGION II (MIDWEST) ANNUAL REPORT

Region II Director:
Dr. L. Scott Shaddy
Creighton University
Omaha, NE

Region II Annual Meeting Host:
Dr. George Gatseos
University of Colorado-Denver
Aurora, CO

Region II Annual Report Editor:
Dr. George Gatseos

CHAPTER 2

CODE REGIONAL MEETING REPORT FORM

REGION II (Midwest)

LOCATION AND DATE OF MEETING:

University: University of Colorado-Denver

Address: Aurora, Colorado

Date: September 22-23, 2011

CHAIRPERSON:

Name:	Dr. George Gatseos	Phone #:	303-724-7075
University:	University of Colorado-Denver	Fax #:	303-724-7079
Address:	Aurora, Colorado	E-mail:	george.gatseos@ucdenver.edu

List of Attendees: Please complete the CODE Regional Attendees Form (following page)

Suggested Agenda Items for Next Year:

No suggestions submitted

LOCATION AND DATE OF NEXT REGIONAL MEETING:

Name:	Dr. Toni Roucka	Phone #:	414-288-6088
University:	Marquette University	Fax #:	414-288-3586
Address:	Milwaukee, WI 53233	E-mail:	toni.roucka@mu.edu
Date:	September 20, 21, 2012		

Please return all completed enclosures to
Dr. Larry D. Haisch, National Director, UNMC College of Dentistry;
40th and Holdrege Streets; Lincoln, NE 68583-0740.
Deadline for return: 30 Days post-meeting
Office: 402 472-1290 Fax: 402 472-5290 E-mail: lhaisch@unmc.edu
Also send the information on a disk and via e-mail with all attachments.
Please indicate the software program and version utilized for your reports.

CODE Region __II___ Attendees Form

NAME	UNIVERSITY	PHONE #	FAX #	E-MAIL ADDRESS
Michelle Brichacek	Colorado	303-724-7080	303-724-7079	michelle.brichacek@ucdenver.e
Ana Elashvili	Colorado	720-255-7047	303-724-7079	ana.elasvili@ucdenver.edu
George Gatseos	Colorado	303-724-7075	303-724-7079	george.gatseos@ucdenver.edu
Craig Passon	Colorado	303-724-7073	303-724-7079	craig.passon@ucdenver.edu
Jim DeLapp	Colorado	303-724-7098	303-724-7079	james.delapp@ucdenver.edu
Karine Barizon	Colorado	303-724-5982	303-724-7079	karine.barizon@ucdenver.edu
Donald Nelson	Colorado	303-724-7078	303-724-7079	donald.nelson@ucdenver.edu
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Derek Williams	UMKC	816-235-6682	816-235-5524	williamsdere@umkc.edu
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Christa Hopp	SIU	618-474-7052	618-474-7141	chopp@siue.edu
Mark Belcher	SIU	618-474-7063	618-474-7141	mbelcher@siue.edu
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Larry Haisch	UNMC	402-472-1290	402- 472-5290	lhaisch@unmc.edu
Bill Johnson	UNMC	402- 472-9406	402- 472-5290	wwjohnson@unmc.edu
Deb Cobb	Iowa	319- 335-7207	319- 335-7267	deborah-cobb@uiowa.edu
Scott Shaddy	Creighton	402-280-5226	402-280-5094	shaddyr@creighton.edu
Toni Roucka	Marquette	414- 288-3586	414-288-3586	toni.roucka@mu.edu

2011 NATIONAL CODE AGENDA
REGION II
SUMMARY RESPONSES TO NATIONAL AGENDA

(Editor note: Questions condensed for printing purposes)

NO REGIONAL SUMMARY RESPONSES SUBMITTED

I. SURVEY ON THE DEMOGRAPHICS OF FULL-TIME FACULTY THAT TEACH OPERATIVE DENTISTRY IN YOUR SCHOOL

- **A. EDUCATION/TRAINING/SPECIALTY AFFILIATION**
- **B. CERTIFICATION IN OPERATIVE/RESTORATIVE DENTISTRY**
- **C. EXPERIENCE IN TEACHING/PRACTICE**
- **D. TENURE STATUS/ACADEMIC RANK/EFFORT DISTRIBUTION**
- **E. DESIRABLE CHARACTERISTICS FOR OPERATIVE/RESTORATIVE FACULTY**

II. DENTAL MATERIALS FOR OPERATIVE/RESTORATIVE DENTISTRY

III. ETHICS/PROFESSIONAL CONDUCT AND OPERATIVE/RESTORATIVE DENTISTRY

IV. CARIOLOGY

V. CARIES RADIOGRAPHIC INTERPRETATION

VI. COMMUNICATION IN OUR DIGITAL ERA

Students have critiqued faculty in course reviews as not being responsive if e-mails are not answered immediately or over the weekend prior to an examination early in the week.

2011 NATIONAL CODE AGENDA
REGION II RESPONSES
(Evidence cited where applicable)
September 22, 23, 2011

Region II School Abbreviations

COLO	**University of Colorado**	**MINN**	**University of Minnesota**
CREG	**Creighton University**	**UMKC**	**University of Missouri -KC**
IOWA	**University of Iowa**	**UNMC**	**University of Nebraska**
UMAN	**University of Manitoba**	**SASK**	**University of Saskatchewan**
MARQ	**Marquette University**	**SIU**	**Southern Illinois University**

I. SURVEY ON THE DEMOGRAPHICS OF FULL-TIME FACULTY THAT TEACH OPERATIVE DENTISTRY IN YOUR SCHOOL

A. EDUCATION/TRAINING/SPECIALTY AFFILIATION

What percentage are General Dentists (GD), have formal ADA-recognized Specialty training such as Prosthodontics (Pros), has a graduate degree or certificate in Operative Dentistry (OD), has a degree/certification in Advanced Education in General Dentistry (AEGD), has a degree/certification from a General Practice Residency (GPR), has a graduate degree in Material Science (MS), has formal instruction in teaching and learning theory(T/L) (e.g., Med, etc), has no formal post-graduate training (NoPGT), or served as a dentist in the armed forces (AF) prior to joining your faculty?

	GD	PROS	OD	AEGD	GPR	MS	T/L	NoPG	AF
COLO	80%	20%	20%	0%	20%	5%	10%	25%	10%
CREG	100%	0%	8%	8%	0%	0%	0%	92%	58%
IOWA	100%	0%	100%	0%	0%	13%	0%	0%	13%
UMAN	NRS	NRS	NRS	NRS	NRS	NRS	NRS	NRS	NRS
MARQ	37%	29%	0%	0%	0%	1%	0%	29%	21%
MINN	NRS	NRS	NRS	NRS	NRS	NRS	NRS	NRS	NRS
UMKC	86%	0%	14%	14%	0%	14%	14%	57%	14%
UNMC	100%	0%	67%	0%	0%	50%	17%	17%	33%
SASK	NRS	NRS	NRS	NRS	NRS	NRS	NRS	NRS	NRS
SIU	100%	0%	0%	33%	33%	1	0%	33%	33%

GD=General Dentists, PROS=Specialty training, OD=Operative Dentistry, AEGD=Advanced Education in General Dentistry, GPR=General Practice residency, MA=Material Science, T/L=Teaching and learning theory, NoPG=No post-graduate training, AF=Armed Forces, NRS=No response submitted

If other training or background is not included in the above, please describe.

COLO No response submitted

CREG No response submitted

IOWA No response submitted

UMAN No response submitted

MARQ 1 certified in TMD and Myofacial pain, 1 certified in Endo and Pros, I certified in Oral Medicine and Radiology, 1 certified in Biomedical Engineering, 1 Periodontist

MINN No response submitted

UMKC 14% Academy of Cosmetic Dentistry

UNMC No response submitted

SASK No response submitted

B. **CERTIFICATION IN OPERATIVE/RESTORATIVE DENTISTRY**
What percentage is certified by the American Board of Operative Dentistry, fellows or masters in the Academy of General Dentistry, is certified in Restorative by some other agency such as the Armed Forces?

	ABOD	AGD	Other
COLO	80%	20%	20%
CREG	100%	0%	8%
IOWA	25%	13%	0%
UMAN	NRS	NRS	NRS
MARQ	0%	0%	0%
MINN	NRS	NRS	NRS
UMKC	0%	14%	14%
UNMC	17%	17%	0%
SASK	NRS	NRS	NRS
SIU	0%	0%	0%

ABOD=American Board of Operative Dentistry,
AGD=Academy of General Dentistry
NRS=No response submitted

If other certification relevant to Operative/Restorative, please describe.

COLO No response submitted

CREG No response submitted

IOWA No response submitted

UMAN No response submitted

MARQ 0%

MINN No response submitted

UMKC No response submitted

UNMC No response submitted

SASK No response submitted

SIU No response submitted

C. EXPERIENCE IN TEACHING/PRACTICE

1. What is the range of teaching experiences for your Operative Faculty (indicate percentage)? Years: 1-5, 6-10, 11-15, 16-20, 21-25, 25+ (e.g., 1-5: 20%, 6-10: 20%, 16-20: 50%, 25+:10%) [single number=faculty members] (NRS=No response submitted)

	1 - 5	6 - 10	11 - 15	16 - 20	21 - 25	25+
COLO	25%	10%	10%	25%	20%	10%
CREG	24%	32%	0%	8%	0%	36%
IOWA	12%	0%	25%	38%	12%	13%
UMAN	NRS	NRS	NRS	NRS	NRS	NRS
MARQ	1	4	3			1
MINN	NRS	NRS	NRS	NRS	NRS	NRS
UMKC	1	2		1	1	2
UNMC	17%	17%	0%	17%	50%	17%
SASK	NRS	NRS	NRS	NRS	NRS	NRS
SIU		33%	33%		34%	

2. What percentage of your Operative Faculty conducts a part-time practice in which they treat their own patients (intramural or extramural)?

COLO 80%

CREG 67%

IOWA 100%

UMAN No response submitted

MARQ 77%

MINN No response submitted

UMKC 43%

UNMC 85%

SASK No response submitted

SIU 66%

3. How much time, on average, is spent per week in practice? List by hours or half days. (e.g., 50% spend 4 hrs; 30% spend 8 hrs; 20% spend 0 hrs)

COLO 2 half days

CREG 75% spend 8 hours; 25% spend 16 hours

IOWA 50% spend 8 hours, 50% spend 12 hours

UMAN No response submitted

MARQ 2 half days each

MINN No response submitted

UMKC 43% spend 8 hours

UNMC 17% spend 0 hours, 17% spend 4 hours, 49% spend 8 hours, 17% spend 10 hours

SASK No response submitted

SIU 66% spend 8 hours

D. **TENURE STATUS/ACADEMIC RANK/EFFORT DISTRIBUTION**

1. What percentage of your Operative Faculty are Tenured/Tenure-track and Non-tenured?

COLO 5% tenured/tenure-track; 95% non-tenured

CREG 75% tenured/tenure-track; 25% non-tenured

IOWA 50% tenured/tenure-track; 50% non-tenured

UMAN No response submitted

MARQ 33% tenured/tenure-track; 67% non-tenured

MINN No response submitted

UMKC 1 - tenured/tenure track; 6 non-tenured (Faculty members not %)

UNMC 83% tenured/tenure track; 17% non-tenured

SASK No response submitted

SIU 100% are tenured/tenure track and non-tenured

2. What is the percentage distribution by Academic Rank of your Operative teachers? Use: Instructor, Assistant Professor, Associate Professor, Professor (for tenured lines) Use: Clinical Instructor, Clinical Assistant, Clinical Associate, Clinical Professor (for non-tenured lines).

	Tenured				**Non-Tenured**			
	Inst	Asst Prof	Assoc Prof	Prof	Clin Inst	Clin Asst	Clin Assoc	Clin Prof
COLO	NRS	NRS	NRS	NRS	NRS	NRS	NRS	NRS
CREG		16%	52%	8%		24%		
IOWA			25%	25%		13%	38%	
UMAN	NRS	NRS	NRS	NRS	NRS	NRS	NRS	NRS
MARQ		22%				11%	67%	

MINN	NRS	NRS	NRS	NRS	NRS	NRS	NRS	NRS
UMKC				1		2	4	
UNMC			83%					17%
SASK	NRS	NRS	NRS	NRS	NRS	NRS	NRS	NRS
SIU		33%		33%		34%		

NRS = No Response Submitted

3. What is the typical distribution of time for your Operative faculty between Teaching (T), Research/Scholarly activity (R/S), Service (S), Patient Care (PC), Administration (A) – effort reporting: e.g., 50% T, 20% R/S, 5% S, 25% PC, 0% A (Answer = average of full-time faculty; exclude exceptions such as Chairs with minimal teaching or significant administration time) (NRS=No response submitted)

	T	**R/S**	**S**	**PC**	**A**
COLO	70%	0%	25%	5%	0%
CREG	35%	15%	5%	40%	5%
IOWA	40%	25%	25%	5%	
UMAN	NRS	NRS	NRS	NRS	NRS
MARQ	60%	10%		10%	20%
MINN	NRS	NRS	NRS	NRS	NRS
UMKC	20%	10%	20%	40%	10%
UNMC	50-70%	20%		20%	5%
SASK	NRS	NRS	NRS	NRS	NRS
SIU	50-80%	20%	10%	10-20%	10%

4. Do you anticipate significant changes in the roles/duties of Operative/Restorative faculty in the next 5 years? If yes, give a concise description.

COLO Hope to have more clinical research apps

CREG No

IOWA No

UMAN No response submitted

MARQ Yes, due to expansion plans

MINN No response submitted

UMKC No

UNMC No

SASK No response submitted

SIU No

5. Does your Operative/Restorative faculty feel that they are valued members of the faculty with a similar standing and status as enjoyed by other dental faculty?

COLO I hope so! Yes.

CREG Yes

IOWA Yes

UMAN No response submitted

MARQ Yes

MINN No response submitted

UMKC Yes

UNMC Yes

SASK No response submitted

SIU Yes

E. **DESIRABLE CHARACTERISTICS FOR OPERATIVE/RESTORATIVE FACULTY**

1. For the Chairmen/Section Directors - what personal traits or characteristics do you associate with an effective teacher of Operative/Restorative Dentistry (e.g., the "ideal faculty job description)?

COLO No response submitted

CREG No response submitted

IOWA Clinical excellence, teaching experience in pre-clinical and clinical restorative, facilitator, advanced training in Operative/Restorative Dentistry, history of published research and service.

UMAN No response submitted

MARQ Willingness to follow school protocols, commitment to responsibilities of the job, strong code of ethics, strong grasp of contemporary dentistry, flexibility, patience.

MINN No response submitted

UMKC No response submitted

UNMC Graduate training, open to new ideas, enthusiastic

SASK No response submitted

SIU Experience in private practice

II. DENTAL MATERIALS FOR OPERATIVE/RESTORATIVE DENTISTRY

A. How do you introduce new materials or products in your operative/restorative clinics?

COLO Material Committee

CREG EBD first, then In-Service training with faculty and staff

IOWA Dental Material's committee chooses the materials for the school. Dispensaries keep new materials for trial by faculty.

UMAN No response submitted

MARQ We take an evidence-based approach. We have a task force team in place to answer the clinical question that involves the new material by doing a literature search and consulting with our dental material's faculty.

MINN No response submitted

UMKC New products are introduced into the clinic on a trial basis after approval of the Restorative Department Head.

UNMC New materials are generally introduced in the preclinical courses, and then brought to the clinic as those students enter the clinical phase of their education, That means there may be a period where the new and the old materials are in the clinic.

SASK No response submitted

SIU Discuss with Clinical Dean.

B. Do you have any disclaimers, warnings, or other information documents that your patients have to read and sign relative to safety or risks for dental materials that may be used in their treatment? Yes/No. Examples might include: Amalgam (mercury), Resin (Bisphenol-A), non-precious casting metal (nickel). Describe the materials involved and the documentation used to satisfy informed consent goals.

COLO No

CREG No

IOWA No

UMAN No response submitted

MARQ No

MINN No response submitted

UMKC No

UNMC No, not at this time

SASK No response submitted

SIU Unsure, likely part of the consent for treatment form the patient signs.

C. Have you stopped using any dental materials or product categories in the past 5 years due to concerns described above? e.g., Latex Rubber dam

COLO Stopped using latex materials over 5 years ago

CREG Yes - latex gloves are no longer in the clinic. Nitrile gloves are used.

IOWA No

UMAN No response submitted

MARQ Yes, latex rubber dam

MINN No response submitted

UMKC All latex products that have an adequate substitute have been removed from direct patient care.

UNMC We have phased out latex gloves. We still have latex rubber dam material, but have non-latex "rubber" dam material available.

SASK No response submitted

SIU We have discontinued latex gloves, but not latex rubber dams.

.

D. Rank the following reasons for using any dental material in your clinic by priority from High to Low: Evidence for Effectiveness, Safety, Economics, Packaging, Ease of Use, Manufacturer Reputation, Other – Describe.

COLO Evidence for Effectiveness, safety, ease of use, packaging, manufacturer reputation

CREG Evidence for Effectiveness, economics, safety, packaging, ease of use, manufacturer reputation

IOWA Evidence for Effectiveness, economics, safety, ease of use, packaging, manufacturer reputation

UMAN No response submitted

MARQ Economics, evidence of effectiveness, ease of use, manufacturer reputation, safety. Relationship with manufacturer reps is important also.

MINN No response submitted

UMKC Safety, evidence of effectiveness, ease of use, packaging, economics, manufacturers' reputation

UNMC Evidence of effectiveness, safety, manufacturer reputation or service from the company, ease of use, economics, packaging

SASK No response submitted

SIU Evidence of effectiveness, safety, ease of use, economics, packaging, manufacturer reputation

III. ETHICS/PROFESSIONAL CONDUCT AND OPERATIVE/RESTORATIVE DENTISTRY

A. Is there any ethics instruction or other ethical didactic content in your Operative/Restorative curriculum? Identify the courses by name (content), and year in your curriculum (Fr, So, Jr, Sr).

COLO No

CREG Formal ethical didactic content takes place in the Senior Ethics course. Dental case discussions take place concerning restorative options and ethical choices. Informal ethical didactic content takes place in operative courses throughout all years. The amount and depth is dependent upon the course instructor.

IOWA Fr - Esthetic Overview; So - PBL cases; Jr - Standardized patients, ethical dilemmas; Sr - Practice Management

UMAN No response submitted

MARQ Some. Fr. - Preservation and Restoration of Tooth Structure, So - Clinical Restorative I

MINN No response submitted

UMKC No

UNMC Some ethical concerns appropriate to Operative Dentistry are briefly discussed in the Operative I (D-1) and Operative II (D-2) and Dental Materials and Techniques (D-1) classes.

SASK No response submitted

SIU So - Operative Dentistry I and II; Jr - Advanced Operative Dentistry. There is a stand-alone ethics course in Freshman year.

B. If yes, what type of ethics instruction takes place in your restorative courses? Lecture only, small group discussions, on-line instruction, reading assignments, papers, others?

COLO See response to previous question

CREG Small group discussions take place in the Senior Ethics course. In other courses, it is addressed during lecture.

IOWA Small group discussion, reading assignments, papers, standardized patients

UMAN No response submitted

MARQ Lecture

MINN No response submitted

UMKC See response to previous question

UNMC Lecture and to some extent with faculty-student interactions

SASK No response submitted

SIU See response to previous question

C. Are your Operative/Restorative faculty involved with teaching in an ethics course(s) that is (are) directed by another department? If yes, describe how many are involved as a percentage or fraction of the total faculty in this (these) course(s) e.g., 50% or 3/7ths.

COLO No

CREG Yes - approximately 16%

IOWA Yes - 3 out of 8 or 38%

UMAN No response submitted

MARQ Yes 1 of 24 or 2%

MINN No response submitted

UMKC No

UNMC We are not involved in the ethics course taught by our Academic Dean, who is not a dentist. The course is taught in the spring term of the D-3 year. Another course, in the same year, presents clinical situations and ethical dilemmas stemming from these situations are discussed. This course is taught be a psychologist.

SASK No response submitted

SIU Not at this time.

D. If a student commits what would be considered an ethics violation in an Operative/Restorative CLINICAL course, what types of punishment/sanctions could they face if found guilty? Briefly summarize the process from reporting to final outcome.

COLO The Dean's office has an honor Code policy for ALL classes. If violations are presented by faculty they are sent to the school's Student Performance Committee and the Academic Dean investigates the alleged violations. If sufficient evidence is presented sometimes, the SPC committee conducts a hearing and further course of action is then recommended and sent to the Dean.

CREG Report of an ethical violation goes through the Associate Dean for Clinical Affairs. If the matter is minor, he may collaborate with the appropriate Department Chair to determine what corrective actions may be needed: probation, suspension. If the matter is more severe in nature, the Associate Dean for Clinical Affairs will refer the matter to the Committee on Academic Misconduct Council. The committee will listen to the school's side of the story, and also the student's side of the story. The committee will discuss the matter, and recommend to the Dean of the School of Dentistry what corrective or punitive measures should be taken: probation, suspension, expulsion, extension past the end of the academic year.

IOWA Ethics violation is reported to the Course Director who handles the specific problem or if severs or repeated, it is sent to the Committee for Academic and Professional Performance (CAPP) where the sanctions are determined commensurate with the severity of the infraction/conduct.

UMAN No response submitted

MARQ The incident is reported to the course director who reports it to the Academic Dean (AD). The AD follows the protocol for academic dishonesty at MUSoD. The student's punishment is proportional to the crime but usually results In a 1 year suspension or dismissal.

MINN No response submitted

UMKC The incident would be referred to the Team Coordinator, Clinic Dean, and then to Academic Dean/Honors Council for final disposition.

UNMC There are two main courses of action:
1. After the faculty has determined there is a violation of the Academic Integrity, the student will automatically fail the course. The student may appeal.
2. Faculty, administration or student may file formal charges with the Dean. The Dean will send a copy of the charges and the name of the complaint along with the proposed disciplinary action. The student may appeal and have a hearing, If found to be guilty of the charges, the sanctions that may occur include: written reprimand, grade adjustment, disciplinary probation, suspension, expulsion. A full copy of our policies follows:

Policy on Violation of Academic Integrity

The faculty of the College of Dentistry has determined that violation of the Academic Integrity and Professional Guidelines such as cheating, academic misconduct, fabrication, fraud, inappropriate computer access, altering records and plagiarism shall automatically result in failure of the course.

The student may file a grade appeal for this but then it would be up to the faculty member to prove that the student had violated something. Such cases are pretty rare and the evidence for the violation pretty clear.
Alternatively the faculty member could file a disciplinary action against the student:
Section 19. Any administrative official, any faculty member, or any student of UNMC may file written charges against any student in the College of Dentistry for violations of conduct as defined by the academic unit in which the accused student is working. Charges must be filed in the Office of the Dean of the College of Dentistry as soon as reasonably possible after the alleged violation and should include the specific charge or charges, supporting evidence, and the proposed disciplinary action to be taken.
Section 22. On receipt of the written charges, the Dean's Office shall promptly send to the student the following:

(1) The specific charges of which he is accused and the name of the complainant.
(2) The proposed disciplinary action.
(3) His right to appeal and the appropriate appeal procedures.
(4) The name of witnesses likely to be called to testify against him should a hearing be held.
(5) His right to be represented by an advisor at all meetings or hearings relevant to the accusation.
(6) His right to refrain from commenting on the charges other than in the context of the appeal process since any statement he may make could be used against him.

This notification shall be sent by certified mail to the student's last place of residence as shown on the official records of the College of Dentistry.

THE APPEAL PROCESS

Section 23. If the student disagrees with the charge or charges or the proposed disciplinary action, the student is responsible to first discuss the matter with the complainant. If the student and the complainant reach an agreement satisfactory to both, the complainant shall so advise the Dean and the charge or charges shall be withdrawn or altered. If the student and the complainant do not reach an agreement satisfactory to both, the student may, within two weeks of the receipt of the written notice from the Dean's Office specifying the charges, submit an appeal in writing to the Chairman of the Joint Student-Faculty Hearing Board. A copy of the appeal shall also be sent to the Dean's Office so the Dean will be aware that an appeal is being made. If the student does not submit an appeal within the time prescribed (or an extension thereof granted by the Dean for good cause shown), the Dean shall proceed to institute the disciplinary action proposed.
Section 24. The written appeal submitted by the student to the Chairman of the Joint Student-Faculty Hearing Board should state the student's version of the facts pertinent to the alleged breach of discipline and the reason why the student believes the proposed disciplinary action is improper or unfair. The student should be as specific as possible. If the student wishes to appear personally before the Board, he or she should include a statement to that effect.
Section 25. Upon receiving the student's written appeal, the Chairman of the Joint Student-Faculty Hearing Board shall forward copies to the Board members and to any faculty member involved. The Chairman will request from such faculty member a written statement setting forth his or her version of the facts relating to alleged disciplinary breach. A copy of this statement shall be promptly furnished to the student.
Section 26. If the student does not wish to appear before the Board, the Board may rule on the case on the basis of the written evidence submitted. If either the accused student or the complainant has asked to appear, a formal hearing will be held at which the accused, the complainant and their advisors, if they elect to bring them, shall be entitled to hear all evidence against the accused. The accused and the complainant shall be also entitled to hear all evidence against the accused. The accused and the complainant shall also be entitled to hear and question witnesses and to testify and present evidence.
Section 27. At the conclusion of its investigation (or, if a hearing has been held at the request of the student, within ten working days after the hearing) the Board shall determine whether the

disciplinary charges against the student have been sustained by the weight of the evidence.
Section 28. If the Board finds a majority vote of its members, taken by secret ballot, that the disciplinary charges have not been sustained, the Board shall submit its report and conclusions to the Dean, the complainant and the student involved. In the case of a tied vote, the charges will be dismissed. Thereupon the charge against the student shall be dismissed by order of the Dean in accordance with the Board's report and the matter shall be concluded. If the charges are dismissed, a student who has been expelled or suspended shall be reinstated and shall be given reasonable opportunity to make up any academic work missed. In the event the report of the Student-Faculty Hearing Board contains conditions of subsequent conduct by the student, these shall be communicated to the student and the reinstatement or continued pursuit of academic work shall be subject to such conditions.
Section 29. If the Board finds that some or all of the charges against the student have been sustained by the weight of the evidence, the Board shall likewise submit its report and conclusions to the Dean, the complainant, and the student involved. The report shall be accompanied by the decision of the Board as to disciplinary action to be invoked against the student, and shall include notice to the student of the further right of appeal. The decision of the Board shall be final and the Dean shall proceed to implement the prescribed disciplinary action unless, within ten working days after receipt of its decision, the student submits an appeal in writing to the Dean setting forth any reasons the student may have for believing that the findings of the Board are in error or that the prescribed disciplinary action is unreasonable or unfair.
Section 30. After receiving such appeal the Dean or the Dean's designee shall make such review of the record and of the facts of the case as is deemed appropriate and may interview the student and such other persons as desired. The review shall include factual matters presented to the Board as well as matters of procedure and shall also include review of the disciplinary action prescribed by the Board. The Dean may be assisted by counsel for the University if desired. The Dean shall then either affirm or reverse the decision as he or she deems proper. The Dean may not impose more severe penalties than those prescribed by the Board, but may choose to institute less severe penalties. The conclusions of the Dean shall be communicated in writing to the student, to the faculty member instituting the charge, and to the Chairman of the Board. The conclusions of the Dean shall be final unless the student appeals therefrom as provided below.
Section 31. In the event the Dean of the College of Dentistry is a complaining or material witness to a course of conduct out of which an appeal to his office arises, he shall disqualify himself and appoint an associate dean to review the appeal.
Section 32. In the event the findings and conclusions of the Dean are not acceptable to the student, a further appeal in writing may be submitted to the Chancellor of the Medical Center within ten working days after the receipt by the student of the findings and conclusions of the Dean. The procedures to be followed and the action to be taken by the Chancellor shall conform to those prescribed in the appeal to the Dean. The Chancellor shall not be required to review the matter personally but may delegate such duty to a Vice Chancellor or such other person as the Chancellor may select. The findings of the Chancellor and the determination of the disciplinary action to be taken against the student shall be communicated in writing to the student and to the Dean and no further appeal may be taken therefrom.
The “Procedural Rules Relating to Student Discipline” are contained in the UNMC Student Handbook. These procedural rules will be applied to all aspects of misconduct under this code whether involving general violations of professional conduct or specific violations of academic integrity. Disciplinary sanctions that may be administered under these rules are:
A. Written Reprimand
B. Grade Adjustment
C. Disciplinary Probation
D. Suspension
E. Expulsion
Misconduct away from campus, in settings not related to the University’s educational mission, that brings students under the sanctions of local judiciary systems or the Department of Health

will not generally be brought into a duplicative UNMC disciplinary process. However, when the interest of the College of Dentistry or the University of Nebraska Medical Center are involved, the authority of the University of Nebraska will be asserted. The fact that a violation occurs off campus does not preclude the interest and involvement of the University of Nebraska Medical Center or the College of Dentistry.

SASK No response submitted

SIU Students are referred to the Student Conduct Committee.

IV. CARIOLOGY

A. Which textbook is being used for Cariology?

COLO Main text:
Young, et al. *Current Concepts in Cariology*, July 2010 Volume 54, Number 3 Dental Clinics of North America
Additional texts:
Kidd. *Essentials of Dental Caries*, 3rd edition, Oxford University Press,
Summit, et al. *Fundamentals of Operative Dentistry*, 3rd edition,
California Dental Association Journal, selected readings (TBA), http;//cda.org

CREG Summit, et al. *Fundamentals of Operative Dentistry*, 3rd edition,

IOWA *Dental Caries Management*, 3rd edition, Edwina Kidd
Dental Caries, the disease and its clinical diagnosis, Fejersksov and Kidd

UMAN No response submitted

MARQ *Dental Caries, the disease and its clinical diagnosis*, Fejersksov and Kidd

MINN No response submitted

UMKC No response submitted

UNMC No textbook is used; rather there are assigned readings in journals and from NIDCR information.

SASK No response submitted

SIU Sturdevant

B. In which department/section are the Cariology courses conducted?

COLO Restorative Department/Operative

CREG General Dentistry

IOWA Dental Public Health

UMAN No response submitted

MARQ Pedo, General Dental Sciences, and Oral Biology

MINN No response submitted

UMKC No response submitted

UNMC Department of Adult Restorative Dentistry - Operative Section

SASK No response submitted

SIU Lectures in Operative Dentistry I and II, and Preventive Dentistry

C. What are the faculty qualifications for teaching Cariology?

COLO Basic science and Restorative faculty, at present time Full Professor C/T with MSPH is a director and another director is an Assistant Professor C/T who has a certificate and MS in Operative

CREG General Dentistry appointment

IOWA PhD in biochemistry, MS in Dental Public Health

UMAN No response submitted

MARQ Operative, oral medicine or Pedo faculty.

MINN No response submitted

UMKC No response submitted

UNMC Our faculty member has a Master's degree in Operative Dentistry.

SASK No response submitted

SIU Dentists and Microbiologist

D. Are full time faculty of Operative Dentistry provided the textbook(s)?

COLO Yes. Vital Source and Print

CREG Yes

IOWA We can buy it or check it out

UMAN No response submitted

MARQ No

MINN No response submitted

UMKC No response submitted

UNMC No

SASK No response submitted

SIU Yes

E. Are there concepts of Cariology which are not well supported by the Clinical faculty?

COLO Yes somewhat. Calibration is difficult with part time and full time Clinical faculty. Students are taught when indicated Non-surgical treatment of carious lesions and receive credits as well in Operative Dentistry Clinic for that procedure.

CREG No

IOWA Yes, it is a challenge to integrate cariology and CAMBRA into the clinical practice but we are working in that direction.

UMAN No response submitted

MARQ No

MINN No response submitted

UMKC No response submitted

UNMC No, it is generally accepted, especially since it has become a clinical requirement. The clinical component includes caries risk assessment on at least 4 patients in the operative clinic.

SASK No response submitted

SIU No

F. What are the concepts and why the lack of support?

COLO Treatment of incipient lesions. The lack of support is when non-surgical treatment is not emphasized by attending faculty on the clinic floor. Also, patients with cavitated lesions must have caries control with surgical therapy.

CREG NA

IOWA CAMBRA, ICDAS, Implementation of CRA, preventive measures. Lack of support due to training, lack of reimbursement; it is an evolution.

UMAN No response submitted

MARQ See response to previous question

MINN No response submitted

UMKC No response submitted

UNMC Any lack of support would be due to a lack of time and chairs available for further caries risk assessment from both the student and the faculty perspectives.

SASK No response submitted

SIU NA

G. What are the interpretations of textbook content as to Restorative intervention, caries removal, etc? (Are there criteria and situations when caries could intentionally be left – restored or sealed?)

COLO Cavitated lesions with active caries are treated surgically; peripheral caries removal is taught ans step wise excavation when indicated.

CREG Complete removal of caries, a primary objective in the Operative Dentistry procedures. An exception may occur in a situation where a patient has deep caries in an asymptomatic tooth. In such a case, if there is slight caries or questionable dentin remaining over the chamber, calcium hydroxide and/or glass ionomer may be placed to stimulate remineralization on the questionable dentin, rather than exposing the pulp and promoting the patient to choose between RCT with FC or extraction. If however, a patient has deep caries and the tooth is symptomatic, no questionable dentin is left over the pulp chamber. If the dentin is deemed carious, and by so removing the pulp is exposed, then RCT with FC or extraction is the result.

IOWA We teach Stepwise caries removal in some cases with specific restoration intervention, caries removal. We teach Stepwise caries removal in some cases with specific diagnostic protocols: ex. Rampant caries.

UMAN No response submitted

MARQ Indirect pulp caps are okay to leave caries. Incipient lesions cen be remineralized.

MINN No response submitted

UMKC No response submitted

UNMC According to our cariology faculty, our students are taught not to intentionally leave caries in a cavity preparation.

SASK No response submitted

SIU Based on clinical situation

V. CARIES RADIOGRAPHIC INTERPRETATION

A. Is there current clinical evidence that supports restorative intervention on interproximal caries that show in the outer ½ of the enamel when viewed on digital imagery?

COLO No. If interproximal caries is outer ½ of the enamel by digital imagery, clinical evidence must support surgical intervention. A clinical examination of the questionable areas is preferred WITH the digital imagery. Also the Plaque Index and patients's home care also is evaluated in the equation for a treatment decision.

CREG Unknown

IOWA No

UMAN No response submitted

MARQ No, not if that is the only manifestation of the lesion

MINN No response submitted

UMKC No

UNMC No

SASK No response submitted

SIU No, there is a need for an evidence-based evaluation which is currently not available

B. If yes, reference and summarize the conclusions.

COLO See response to previous question

CREG Unknown

IOWA See response to previous question

UMAN No response submitted

MARQ See response to previous question

MINN No response submitted

UMKC See response to previous question

UNMC See response to previous question

SASK No response submitted

SIU See response to previous question

C. Do current teaching concepts support restorative intervention on only these interproximal lesions that extend beyond the outer ½ of the enamel when viewed on digital imagery?

COLO If lesion is only in enamel with digital imagery, no restorative intervention performed. With digital imagery of enamel and reaching to inner half of dentin, then restorative intervention is indicated. We also teach students to consider patient's caries risk, home care, and clinical cavitation findings. The restorative intervention is decided on a case-by-case basis.

CREG Unknown

IOWA No we wouldn't restore these.

UMAN No response submitted

MARQ Yes

MINN No response submitted

UMKC Clinical/Radiographic evidence is needed to support penetration into dentin.

UNMC In our situation, we find the caries extend beyond what would be expected on the digital radiograph. The decision would be influenced by the patient's age and caries activity.

SASK No response submitted

SIU We follow the same criteria as outlined by the board exams.

D. What are the current teachings for intervention based on 1/3 extensions in enamel and dentin? e.g., outer, middle, inner third.

COLO See responses to previous questions.

CREG We have traditionally taught to restore when it has reached the DEJ. With digital imagery, the radiographic representation tends to be inconsistent, and so we include other factors more often: surface texture of enamel, caries susceptibility, noticeable shadowing through a MR or other surface, clinical presence of enamel decalcification, transillumination

IOWA No surgical intervention if just in enamel, no surgical intervention in outer 1/3 of dentin. Surgical intervention in middle and inner third of dentin all based on caries risk of patient.

UMAN No response submitted

MARQ Outer third of enamel - remineralize. Middle or inner third of enamel - restore with amalgam or resin. Caries in dentin at all, restore with amalgam or resin. Fejersksov test supports this philosophy

MINN No response submitted

UMKC As stated above, clinical intervention is typically delayed until evidence is seen that the caries has penetrated into the dentin.

UNMC Our students are taught to consider restoring the lesion if the radiographic evidence is 2/3 of the way through the enamel. However, evidence of cavitation would be desired, either visually or with transillumination. Also, the patient's caries risk would be considered in the treatment decision.

SASK No response submitted

SIU We follow the same criteria as outlined by the board exams

E. What is the evidence-based information that supports the current teaching concept?

COLO Reference: Fejersksov et al. *Dental Caries. The Disease and its Clinical Management*. 2nd edition, 2008, Part V.

CREG Unknown

IOWA CAMBRA guidelines, Edwina Kidd, Pretty

UMAN No response submitted

MARQ There is a lot of information in the current literature about lesion remineralization.

MINN No response submitted

UMKC No response submitted

UNMC Int J CARS (2009);4:367-373, *Improving treatment decisions from radiographs: effect of a decision aid*. Philip Anthony Mileman, Wilbert B. Van den Hout

SASK No response submitted

SIU We are currently unaware of any.

F. Is there a discernible difference of radiographic evidence of actual clinical penetration of interproximal caries between conventionally exposed radiographs versus digital imagery? If so, which do you think represents a more accurate depiction of the clinical condition?

COLO "with sensitivities and specificities of digital radiographs being significantly lower than those of regular radiographs when assessing small proximal lesions. However, digital radiographs offer the potential of enhancement by applying a range of algorithms." (Pretty, 2006). Digital radiographs can be as diagnostic as traditional radiographs.

CREG Recently, a Fr. Group of students with a faculty mentor undertook a study to investigate this idea. Extracted teeth were exposed onto conventional film and digitally. The radiographs were distributed to the General Dentistry faculty to judge the effectiveness of the images, and the depth of proximal caries penetration. The teeth were then sectioned, and the actual penetration of caries was assessed. Neither film nor electronic imagery accurately represented the complete penetration of caries; however, the E-speed film more closely captured the depth of the caries.

IOWA Yes and conventional radiographs represent a more accurate depiction of the clinical condition.

UMAN No response submitted

MARQ Digital radiographs show lesions to be smaller than they actually are.

MINN No response submitted

UMKC No response submitted

UNMC There is a consensus among our operative faculty that digital images are not as accurate as film radiographs. This will vary, of course, as to what kind of digital system is used, perhaps software used to display the images and the monitors used to view the images.

SASK No response submitted

SIU Currently there is too much variation in the quality standard and therefore interpretation to judge which is more accurate. Variations is sensors, resolution, etc. introduce too many variables to compare.

VI. COMMUNICATION IN OUR DIGITAL ERA

Students have critiqued faculty in course reviews as not being responsive if e-mails are not answered immediately or over the weekend prior to an examination early in the week.

A. How does the time required to implement and manage an electronic curriculum compare to before the use of online teaching resources?
   1. More time
   2. Same amount of time
   3. Less time

   List specifics as it relates to your answer

COLO More time - takes more time. Also students expect availability 24 hours a day.

CREG More time - initially; same amount of time and less time - succeeding years

IOWA More time

UMAN No response submitted

MARQ Less time

MINN No response submitted

UMKC More time

UNMC More time

SASK No response submitted

SIU Less time

B. In your experience for individual student interactions do students prefer
   1. E-mail to communicate
   2. Office appointments
   3. Online tools with your electronic curriculum resources

COLO Students routinely communicate through e-mail, however, they also need and demand one-on-one office time

CREG All methods of e-mail; all methods of office appointments and all methods of online tools

IOWA E-mail to communicate

UMAN No response submitted

MARQ Office appointments

MINN No response submitted

UMKC E-mail to communicate

UNMC E-mail to communicate, office appointments for consultations

SASK No response submitted

SIU E-mail to communicate

C. When students are e-mailing faculty, when are they expecting a faculty response?
   1. Same day
   2. Within several days
   3. Within a week

COLO Same day or within several days

CREG Most of our students allow within several days

IOWA Same day

UMAN No response submitted

MARQ Within several days

MINN No response submitted

UMKC Same day

UNMC Within several days

SASK No response submitted

SIU Same day

D. When students ask a question about a specific course, lecture as it pertains to an upcoming examination, how do you manage your response?
   1. Answer that student only.
   2. Answer forwarded to entire class (keeping student anonymous) so that all students get the information.
   3. No response, student must meet with the faculty member.
   4. Faculty are not given any guidelines.

COLO Answer that student only and directly.

CREG Answer that student only if it will not pertain to the entire class. Answer forwarded to entire class if it will pertain to entire class. Faculty are given no guidelines.

IOWA Answer forwarded to entire class (keeping student anonymous) so that all students get the information.

UMAN No response submitted

MARQ Answer forwarded to entire class (keeping student anonymous) so that all students get the information

MINN No response submitted

UMKC Answer that student only

UNMC Faculty are not given any guidelines.

SASK No response submitted

SIU Answer forwarded to entire class (keeping student anonymous) so that all students get the information.

E. How are faculty directed to use e-mail as a communication with students?
   1. Respond only during school hours.
   2. Respond during school hours and evenings.
   3. Respond during school hours, evenings and weekends.
   4. Faculty are not given any guidelines.

COLO No response submitted.

CREG Faculty are not given any guidelines.

IOWA Faculty are not given any guidelines.

UMAN No response submitted

MARQ Faculty are not given any guidelines.

MINN No response submitted

UMKC Faculty are not given any guidelines

UNMC Faculty are not given any guidelines.

SASK No response submitted

SIU Faculty are not given any guidelines.

F. What guidance are students given as it regards faculty responses to student e-mails that are sent off-school hours that the student requires an immediate response?
   1. E-mails are responded to only during school hours.
   2. E-mails are responded to whenever the faculty wants to.
   3. No guidance is given to students about expectations to respond

COLO No responses submitted

CREG No guidance

IOWA No guidance is given to students about expectations to respond.

UMAN No response submitted

MARQ No guidance is given to students about expectations to respond

MINN No response submitted

UMKC No guidance is given to students about expectations to respond

UNMC No guidance is given to students about expectations to respond

SASK No response submitted

SIU No guidance is given to students about expectations to respond

Regional CODE Agenda
To be established by the respective Region and Regional Director. Please also report on responses to the Regional Agenda from all participants.

No Regional Agenda

Suggestions for CODE.

NOTE: to locate the web site via a search engine, enter Consortium of Operative Dentistry Educators or Academy of Operative Dentistry and then use the link CODE.

No responses submitted

Consortium of Operative Dentistry Educators

(CODE)

REGION III (SOUTH MIDWEST) ANNUAL REPORT

Region III Director:
Dr. Scott Phillips
Mississippi School of Dentistry
Jackson, MS

Region III Annual Meeting Host:
Dr. Christine Beninger
Baylor College of Dentistry
Dallas, TX

Region III Annual Report Editor:
Dr. Christine Beninger

CHAPTER 3

CODE REGIONAL MEETING REPORT FORM

REGION III (South Midwest)

LOCATION AND DATE OF MEETING:

University: Baylor School of Dentistry

Address: Dallas, TX 75246

Date: November 10-11, 2011

CHAIRPERSON:

Name:	Dr. Christine Beninger	Phone #:	214-828-8468
University:	Baylor School of Dentistry	Fax #:	214-874-4544
Address:	Dallas, TX 75246	E-mail:	cbeninger@bcd.tamhsc.edu

List of Attendees: Please complete the CODE Regional Attendees Form (following page)

Suggested Agenda Items for Next Year:

No suggestions submitted

LOCATION AND DATE OF NEXT REGIONAL MEETING:

Name:	Dr. Joseph Connor	Phone #:	210-567-3693
University:	University of Texas-San Antonio	Fax #:	210-567-6354
Address:	San Antonio, Texas 78229	E-mail:	connorj@uthscsa.edu
Date:	Fall of 2012		

Please return all completed enclosures to
Dr. Larry D. Haisch, National Director, UNMC College of Dentistry;
40th and Holdrege Streets; Lincoln, NE 68583-0740.
Deadline for return: 30 Days post-meeting
Office: 402 472-1290 Fax: 402 472-5290 E-mail: lhaisch@unmc.edu
Also send the information on a disk and via e-mail with all attachments.
Please indicate the software program and version utilized for your reports.

CODE Region ____III_____ Attendees Form

NAME	**UNIVERSITY**	**PHONE #**	**FAX #**	**E-MAIL ADDRESS**
Terry Fruits	Oklahoma	405-271-5735	405-271-3006	terry-fruits@ouhsc.edu
Stan Cobb	Baylor	214-828-8281	214-874-4544	scobb@bcd.tamhsc.edu
Chris Beninger	Baylor	214-828-8211	214-874-4544	cbeninger@bcd.tamhsc.edu
George Cramer	Baylor	214-828-8468	214-874-4544	gcramer@bcd.tamhsc.edu
Steve Karbowski	Baylor	214-828-8916	214-874-4544	skarbowski@bcd.tamhsc.edu
Gary Frey	Texas-Houston	713-500-4475	713-500-4108	gary.n.frey@uth.tamhsc.edu
Ryan Quock	Texas-Houston	713-500-4276	713-500-4108	ryan.quock@uth.tmc.edu
Joseph Connor	Texas-SA	210-567-3693	210-567-6354	connorj@uthscsa.edu
Juliana Barros	Texas-Houston	713-500-4564	713-500-4108	juliana.barros@uth.tmc.edu
R. Thomas Giacona	Louisiana	504-941-8472	504-941-8218	fgiaco@lsuhsc.edu
Alan Ripps	Louisiana	504-941-8261	504-941-8218	aripps@lsuhsc.edu
Janet Harrison	Tennessee	901-448-6692	901-448-1294	jharrison@uthsc.edu
Laura Darnell	Tennessee	901-448-6200	901-448-1294	ldarnel3@uthsc.edu
Scott Phillips	Mississippi	601-984-6030	601-984-6039	smphillips@.umc.edu
Steve Magee	Mississippi	601-984-6030	601-984-6039	smagee@umc.edu-
Alex Dale Ehrlich	Louisiana	504-941-8257	504-941-8218	aehrli@lsuhsc.edu

2011 NATIONAL CODE AGENDA
REGION III
SUMMARY RESPONSES TO NATIONAL AGENDA

(Editor note: Questions condensed for printing purposes)

NO REGIONAL SUMMARY RESPONSES SUBMITTED

I. SURVEY ON THE DEMOGRAPHICS OF FULL-TIME FACULTY THAT TEACH OPERATIVE DENTISTRY IN YOUR SCHOOL

- **A. EDUCATION/TRAINING/SPECIALTY AFFILIATION**
- **B. CERTIFICATION IN OPERATIVE/RESTORATIVE DENTISTRY**
- **C. EXPERIENCE IN TEACHING/PRACTICE**
- **D. TENURE STATUS/ACADEMIC RANK/EFFORT DISTRIBUTION**
- **E. DESIRABLE CHARACTERISTICS FOR OPERATIVE/RESTORATIVE FACULTY**

II. DENTAL MATERIALS FOR OPERATIVE/RESTORATIVE DENTISTRY

III. ETHICS/PROFESSIONAL CONDUCT AND OPERATIVE/RESTORATIVE DENTISTRY

IV. CARIOLOGY

V. CARIES RADIOGRAPHIC INTERPRETATION

VI. COMMUNICATION IN OUR DIGITAL ERA

Students have critiqued faculty in course reviews as not being responsive if e-mails are not answered immediately or over the weekend prior to an examination early in the week.

2011 REGIONAL CODE AGENDA
REGION III RESPONSES
(Evidence cited where applicable)
November 10-11, 2011

Region III School Abbreviations

BAY	Baylor University	**UOK**	University of Oklahoma
LSU	Louisiana State University	**TENN**	University of Tennessee
MISS	University of Mississippi	**UTHSA**	University of Texas-San Antonio
		UTH	University of Texas-Houston

2011 NATIONAL CODE AGENDA

(Please cite the evidence where applicable. If utilizing reports/forms/schedules from you regional schools, please submit these as PDF files for utilization in the Annual Fall Regional Reports manual)

I. SURVEY ON THE DEMOGRAPHICS OF FULL-TIME FACULTY THAT TEACH OPERATIVE DENTISTRY IN YOUR SCHOOL

A. EDUCATION/TRAINING/SPECIALTY AFFILIATION

What percentage are General Dentists (GD), have formal ADA-recognized Specialty training such as Prosthodontics (Pros), has a graduate degree or certificate in Operative Dentistry (OD), has a degree/certification in Advanced Education in General Dentistry (AEGD), has a degree/certification from a General Practice Residency (GPR), has a graduate degree in Material Science (MS), has formal instruction in teaching and learning theory(T/L) (e.g., Med, etc), has no formal post-graduate training (NoPGT), or served as a dentist in the armed forces (AF) prior to joining your faculty?

	GD	PROS	OD	AEGD	GPR	MS	T/L	NoPG	AF
BAY	100%	0%	5%	21%	21%	0%	5%	58%*	21%
LSU	100%	25%	0%	25%	25%	25%	25%	50%	50%
MISS	100%	0%	0%	40%	40%	0%	0%	20%	0%
UOK	100%	0%	0%	0%	0%	0%	60%	NRS	40%
TENN	96%	4%	4%	8%	8%	8%	8%	62%	4%
UTSA	100%	0%	0%	66%	0%	0%	33%	0%	66%
UTH	100%	0%	29%	0%	0%	0%	0%	43%	14%

GD=General Dentists, PROS=Specialty training, OD=Operative Dentistry, AEGD=Advanced Education in General Dentistry, GPR=General Practice residency, MA=Material Science, T/L=Teaching and learning theory, NoPG=No post-graduate training, AF=Armed Forces, NRS = No Response Submitted

If other training or background is not included in the above, please describe.

BAY However, out of this group, about 38% have had training in Oral Pathology or have a Masters degree in Public health or Health Administration which was not specifically addressed previously. One of the faculty members has had extensive experience in treatment of the medically compromised and psychiatric patients at a psychiatric hospital. Another faculty member was an NIH Clinical and Translational Research scholar receiving an MSCS in Clinical Science. One faculty member has had experience in organized dentistry having held offices at the local, state and national levels. Other full time faculty have had 20+ years of full time private practice experience.

LSU No response submitted

MISS 20% have 20 years of full-time private practice experience.

UOK No response submitted

TENN No response submitted

UTSA The reorganization of the Dental School has made it more difficult to answer the CODE questions than it would have been in years past. The Department of Restorative Dentistry at our school has been dissolved. The Departments of Restorative Dentistry, General Dentistry, and Prosthodontics have been combined and the new Department is called Comprehensive Dentistry. Jim Summitt is no longer a Chair. There is no Division of Restorative Dentistry. Dr. Overton, Dr. Troendle, and Dr. Connor are Restorative Course Directors and are reported as the only faculty involved in teaching Operative Dentistry on a full-time basis. Dr. Parma is Course Director of a freshman hand skill course that introduced direct restorations but is now an Assistant Group Leader in Comprehensive Dentistry. Dr. Barghi, a Prosthodontist, does a 4 day course on veneers and esthetic restoration that is also considered restorative dentistry at the school. We have a total of 10 different lectures in the various didactic courses and a mix of 18 full time/part time faculty in our preclinical lab course. Almost all clinical faculty teach operative dentistry in the Junior and Senior years.

UTH NA

B. **CERTIFICATION IN OPERATIVE/RESTORATIVE DENTISTRY**

What percentage is certified by the American Board of Operative Dentistry, fellows or masters in the Academy of General Dentistry, is certified in Restorative by some other agency such as the Armed Forces?

	ABOD	AGD	Other	ABOD=American Board of Operative Dentistry, AGD=Academy of General Dentistry NRS=No response submitted
BAY	5%	10%	11%	
LSU	0%	0%	0%	
MISS	0%	40%	0%	
UOK	0%	0%	0%	
TENN	4%	12%	0%	
UTSA	0%	0%	66%	
UTH	0%	14%	0%	

If other certification relevant to Operative/Restorative, please describe.

BAY None

LSU No response submitted

MISS Several are working on an Oral Medicine fellowship

UOK No response submitted

TENN No response submitted

UTSA 33%

UTH 14% MS in Operative Dentistry, plus Certificate in Operative Dentistry; 14% Certificate in Restorative Dentistry; 14% course work in the Graduate Program in Operative Dentistry

C. EXPERIENCE IN TEACHING/PRACTICE

1. What is the range of teaching experiences for your Operative Faculty (indicate percentage)? Years: 1-5, 6-10, 11-15, 16-20, 21-25, 25+ (e.g., 1-5: 20%, 6-10: 20%, 16-20: 50%, 25+:10%)

	1 - 5	6 - 10	11 - 15	16 - 20	21 - 25	25+
BAY	26%	16%	32%	5%		21%
LSU	25%			50%		25%
MISS		40%	40%			20%
UOK	20%		20%		20%	40%
TENN	20%	50%	30%			15%
UTSA			66%			33%
UTH	29%	29%	14%			29%

2. What percentage of your Operative Faculty conducts a part-time practice in which they treat their own patients (intramural or extramural)?

BAY About 37% of our full time faculty teaching operative procedures are in extramural practice. We have no intramural faculty practice at our dental school

LSU 25%

MISS 100% intramural

UOK 60%

TENN 30%

UTSA 1%

UTH 14%

3. How much time, on average, is spent per week in practice? List by hours or half days. (e.g., 50% spend 4 hrs; 30% spend 8 hrs; 20% spend 0 hrs)

BAY Of those full time faculty members conducting a part-time practice, 40% practice 4 hours (half-day) per week and 60% practice 9 hours (one full day) per week

LSU 4 hours

MISS 60% - 8-12 hours; 40% - 4-8 hours

UOK 40% spend 8 hours; 20% spend 4 hours; 40% spend 0 hours

TENN 20% 1 half-day; 30% 9 half-days; 50% 3 half-days

UTSA 4 hours per week

UTH 8 hours (two half-days)

D. **TENURE STATUS/ACADEMIC RANK/EFFORT DISTRIBUTION**

1. What percentage of your Operative Faculty are Tenured/Tenure-track and Non-tenured?

BAY 5% tenured/tenure track; 95% non-tenured

LSU 25%

MISS 80% tenured/tenure track; 20% non-tenured

UOK 60% tenured/tenure track; 40% non-tenured

TENN 30% tenured/tenure track; 70% non-tenured

UTSA All tenured

UTH 14% tenured/tenure track; 86% non-tenured

2. What is the percentage distribution by Academic Rank of your Operative teachers? Use: Instructor, Assistant Professor, Associate Professor, Professor (for tenured lines) Use: Clinical Instructor, Clinical Assistant, Clinical Associate, Clinical Professor (for non-tenured lines).

	Tenured				**Non-Tenured**			
	Inst	Asst Prof	Assoc Prof	Prof	Clin Inst	Clin Asst	Clin Assoc	Clin Prof
BAY				5%		42%	53%	
LSU		50%	25%	25%				
MISS		40%	40%	20%				
UOK				60%		20%	20%	
TENN		16%	12%	8%	4%	44%	16%	
UTSA			66%	33%				
UTH				14%		57%	29%	14%

3. What is the typical distribution of time for your Operative faculty between Teaching (T), Research/Scholarly activity (R/S), Service (S), Patient Care (PC), Administration (A) – effort reporting: e.g., 50% T, 20% R/S, 5% S, 25% PC, 0% A (Answer = average of full-time faculty; exclude exceptions such as Chairs with minimal teaching or significant administration time)

	T	R/S	S	PC	A
BAY	70%	25%	5%		
LSU	60%	5%		10%	35%
MISS	68%	5%	3%	20%	4%
UOK	60%	5%	10%	15%	10%
TENN	70%	15%	10%	5%	
UTSA	80%	10%	5%	5%	
UTH	80%	10%	10%		

4. Do you anticipate significant changes in the roles/duties of Operative/Restorative faculty in the next 5 years? If yes, give a concise description.

BAY No, not at this time

LSU Diminishing. Becoming less important, leaving teaching to faculty, less interested in Operative than in previous years.

MISS Probably will involve more duties in crossing over to the oral diagnosis/admissions area as some faculty are already doing this.

UOK There is some discussion currently about our future clinical patients care system at the school, but at this time nothing is firm.

TENN Our school is anticipating the installation of a group leader/comprehensive care/general practice type of model in the 3rd and 4th years. Most likely several of the Restorative faculty will move to that system and the rest will take over some part of the department roles in didactic and preclinical courses.

UTSA Yes, faculty will no longer be identified as Operative Dentistry instructors except for a few course directors.

UTH Yes. 1) adoption of new general practice model, and 2) anticipated reorganization of departments

5. Does your Operative/Restorative faculty feel that they are valued members of the faculty with a similar standing and status as enjoyed by other dental faculty?

BAY Yes, the Operative/Restorative faculty feel that they are valued members of the faculty.

LSU No. Operative is not viewed as a sub-speciality

MISS Yes. In general we feel this is the case

UOK Yes, however there are some inequities compared to "specialty" faculty

TENN Currently they do

UTSA Yes

UTH On a subjective level, there may be the following two distinctions: (1) specialists vs. generalists; (2) clinical vs. preclinical. Operative faculty at our school would most likely be categorized as generalists and preclinical.

E. **DESIRABLE CHARACTERISTICS FOR OPERATIVE/RESTORATIVE FACULTY**

1. For the Chairmen/Section Directors - what personal traits or characteristics do you associate with an effective teacher of Operative/Restorative Dentistry (e.g., the "ideal faculty job description)?

BAY The ideal faculty member should believe that he/she has a calling to teach. He/she should be very knowledgeable in the art and science of dentistry as well as be friendly, open, and easily approachable by the students. He/she should be patient as well as caring and nurturing. He/ she should be a good communicator and should have good rapport with students and patients.

LSU Need faculty with high interest in operative procedures, current trends, materials and philosophy in regard to this discipline.

MISS No response submitted

UOK Attempts to take the time to teach students instead of just checking or grading the students; willing to standardize their instruction to students by adapting to the fundamental techniques and materials that have been adopted by the department; attempts to keep current in regard to recent literature concerning operative materials and techniques in an effort to recommend improvements for our department curriculum; can be depended upon to fulfill all responsibilities expected by the department.

TENN A person who can bring knowledge and credibility to the role and can role model and demonstrate people and dental skills at chair side as well as one who has engaging speaking skills. They should also demonstrate an interest in research activities.

UTSA Subject matter expertise, leadership, and administrative skill are important attributes.

UTH There a variety of personal traits and/or characteristics associated with an effective teacher of Operative/Restorative Dentistry. These personal - and professional - traits include: teaching experience, credentials (MEd; EdD), passion and commitment for teaching; values students and their goals. Scholarship record, ability to learn "scholarship" as it applies to dental education. Advanced training, education: e.g. MS in Operative or Restorative, American Board, etc. Practice experience, practice ability (e.g. in Faculty Practice). Ability to apply this to teaching. Ability to adopt to the "academy"; ability to work in large organization and to be a team member. Ability to participate in organizations such as CODE, Academy of Operative Dentistry, CAMBRA group.

II. DENTAL MATERIALS FOR OPERATIVE/RESTORATIVE DENTISTRY

A. How do you introduce new materials or products in your operative/restorative clinics?

BAY Recommendations are made to the Formulary Committee by Department head. Committee members usually approve the request if there are not strong objections. Committee may request cost analysis and supporting evidence. Dispensary supervisor orders the requested items. Notice of materials made to faculty and students via e-mail, lectures, word of mouth etc.

LSU Present evidence to support changes from what we're using or to remove products that were approved but not show problems. This then goes to the head of clinical committee for approval.

MISS New materials are reviewed by Operative Dental faculty looking at the best evidence on the type of products, its use and performance. The product(s) may be introduced into the preclinical setting looking at student use and handling of the material. Some products are tried by faculty in their private practices. We do allow limited use of some new products based on a faculty request system that students must have permission from the faculty to use certain new products.

UOK We may introduce new materials in clinic by mainly one of two methods: (1) presentation to each class during a restorative seminar course session or a class orientation session; (2) information and pictures provided to students via e-mail messages.

TENN First new materials are tested in the biomaterials lab. Then faculty work with the materials in preclinical labs, and finally faculty use the materials in clinics individually with students. At that point we determine which materials are best and present the information to the clinic committee for approval for general use in the clinic.

UTSA Introduction varies widely. Some new devices such as implants and cone beams CTS have been presented with extensive training of faculty. Others such as the Valo curing Lights or the DT Light Post have just appeared in the clinic and the operative faculty have trained the students with no formal training for faculty.

UTH We request a new material through our Department committee and then that request of material will have to be approved by Clinical Affairs Committee. Then the new materials must be cleared with Associate Dean for Patient Care.

B. Do you have any disclaimers, warnings, or other information documents that your patients have to read and sign relative to safety or risks for dental materials that may be used in their treatment? Yes/No. Examples might include: Amalgam (mercury), Resin (Bisphenol-A), non-precious casting metal (nickel). Describe the materials involved and the documentation used to satisfy informed consent goals.

BAY No written disclaimers or warnings are used or given to patients. Patients are made aware of procedure and material risks when the treatment plan is being formed. This is done by the student or faculty member. When the patient agrees, the proposed treatment plan is entered into the electronic record and the patient consent form is signed. At each appointment, the patient is informed of the procedure to be performed, materials to be used and risks and alternatives available and any questions are answered. An entry is made in the record in the form of PARQ (Procedure, Alternatives, Risks, Questions). Material decisions are made on the basis of patient preference, medical and dental histories, and available materials.

LSU No

MISS No, patient signs a general informed consent for treatment. Some clinics have more specific informed consents based on procedures rather than materials.

UOK We only have one informed consent that is related only to a specific operative procedure, and that is for tooth whitening. We inform the patient of the variability and unpredictability of the whitening process, and any possible known side effects of the treatment. This is discussed with the patient and signed by the patient prior to initiating this treatment.

TENN No

UTSA No

UTH To our knowledge, no specific disclaimers

C. Have you stopped using any dental materials or product categories in the past 5 years due to concerns described above? e.g., Latex Rubber dam.

BAY Latex gloves. Non-latex rubber dams are available but latex dams are still used. Products containing eugenol are used less frequently.

LSU Limited use of Gluma products to only root surface desensitation. Minimizing use of IRM.

MISS A system-wide effort is made to limit a patient's exposure to latex. We are no longer using latex gloves or latex rubber dam materials.

UOK No

TENN Latex rubber dams have been removed. Eugenol products have been greatly reduced.

UTSA Latex gloves

UTH No

D. Rank the following reasons for using any dental material in your clinic by priority from High to Low: Evidence for Effectiveness, Safety, Economics, Packaging, Ease of Use, Manufacturer Reputation, Other – Describe.

BAY Evidence of effectiveness, safety, ease of use, packaging, economics, manufacturer reputation

LSU Safety, effectiveness, economics, ease of use, manufacturer reputation, packaging

MISS No response submitted

UOK Safety, effectiveness, packaging (unit dose), ease of use, economics, manufacturer reputation

TENN A high priority of which material includes effectiveness and unit dosing. Lower priorities include ease of use, manufacturer reputation, pricing.

UTSA We have an instruments and materials committee that recommends new materials for use in the clinic. We pay attention to all of the stated factors including how we can sterilize kits and make then available for students, example Palodent matrix system.

UTH All are considered in the process outlined in item II. A.

III. ETHICS/PROFESSIONAL CONDUCT AND OPERATIVE/RESTORATIVE DENTISTRY

A. Is there any ethics instruction or other ethical didactic content in your Operative/Restorative curriculum? Identify the courses by name (content), and year in your curriculum (Fr, So, Jr, Sr).

BAY Ethical considerations in dental treatment are addressed in all dental disciplines including the Operative/Restorative curriculum. Ethics is specifically taught as follows: D1- Introductory Ethics and Academic Integrity; D3/DH - Professional Ethics; D4- Professional Ethics and Dental Jurisprudence. Additionally, small group case discussions are held with the D3 and DH students covering ethical dilemmas pertaining to dental treatment.

LSU Not officially

MISS No, not in the Restorative/Operative curriculum, however, there is a separate Ethics course taught in the first year.

UOK Preclinical Operative Dentistry I - first year; Preclinical Operative Dentistry II - second year; all Operative clinic courses - second through fourth years.

TENN D1 operative (amalgam, biomaterials), D2 Operative (composite), D2 Intro to Clinic, D3 and D4 Clinic orientations.

UTSA Formal courses in ethics taught are in the sophomore and senior years. Ethics in the Operative Courses are emphasized in the decision making process by emphasizing risk assessment ant evidence-based dentistry.

UTH In addition to the stand alone Ethics course (Fr), ethics revisited in 1614 Operative Dentistry I (Fr) and 2614 Operative Dentistry II (So.) Ethics is reinforced at the beginning of each semester via the introductory lecture, as well as being a baseline course expectation.

B. If yes, what type of ethics instruction takes place in your restorative courses? Lecture only, small group discussions, on-line instruction, reading assignments, papers, others?

BAY As appropriate in preclinical and clinical Operative lectures, ethical considerations in dental treatment are addressed. Specifically, ethical aspects of treatment planning, educating the patient with respect to alternative treatments or no treatment and addressing the expected results and inherent risks, informed consent, ethical aspects of over treatment and under-treatment, and informing the patient of treatment error occurrences are discussed. Also during small group treatment planning sessions in the Comprehensive Care course, ethical considerations are addressed as appropriate.

LSU N/A

MISS N/A

UOK Ethics is taught in some form in every course we have, whether it is in a didactic course, or on the patient clinic floor.

TENN Lecture. Small group discussions

UTSA Lecture only, small group discussions, on-line instruction, reading assignments, papers, others? Lecture.

UTH Mainly lecture

C. Are your Operative/Restorative faculty involved with teaching in an ethics course(s) that is (are) directed by another department? If yes, describe how many are involved as a percentage or fraction of the total faculty in this (these) course(s) e.g., 50% or 3/7ths.

BAY Yes, the Ethics courses are directed by a faculty member in Restorative Sciences. In the D3/DH course, small group discussions of clinical case scenarios are lead by faculty; 67% are in the Restorative Sciences Department.

LSU No

MISS N0

UOK No

TENN Yes 1 of 3

UTSA In the past yes, not currently after the reorganization

UTH Although the course is not actually in another department, one faculty was instrumental in the formation and implementation of the Brewsters-Part of University QEP plan for SACS

D. If a student commits what would be considered an ethics violation in an Operative/Restorative CLINICAL course, what types of punishment/sanctions could they face if found guilty? Briefly summarize the process from reporting to final outcome.

BAY If a faculty member witnesses an ethical violation by a student., he/she will file an addendum which gives the details of the violation or dishonorable conduct observed. This addendum is signed by the accused student to acknowledge the filing of the addendum and receipt of a copy of the addendum form. This form is sent to the Associate Dean of Student Affairs for review. The Associate Dean will either handle the situation by case dismissal or by administering penalties if the student does not contest the charges. If the student contests the charges, the Associate Dean of Student Affairs will refer the case to the Student/Faculty Review Committee for review, judgement and sanctions as recommended by the Associate Dean. The penalties can range from the student researching, reflecting and writing a paper on the topic related to the specific infraction, or a loss of clinical privileges for a specified length of time, to dismissal depending on the nature of the offense. If a student witnesses an ethical breach by another student, he/she may refer the case directly to the Student Honor Council. The council will handle the situation is appropriate or refer the case to the Associate Dean of Student Affairs, who will handle the case as described above.

LSU Accusations are reported to the Student Affairs Committee. They set up a committee to initially listen to the charges and determine what action to follow. If involved students don't contest, then a decision for reprimand is presented. If no compromise occurs a formal hearing will take place. The committee would then pronounce a course of action. This is usually minimal and a warning if this offence repeats. The student can appeal the decision. If the Dean accepts this appeal then a committee will re-evaluate the information, All decisions are presented to the Dean who makes the final decision on its outcome.

MISS Faculty member(s) would report the incident(s) to the Associate Dean for Student Affairs in written form after initial oral notification. Associate Dean for Students (Advisor to Ethics Council) would discuss this with the involved faculty, and Academic Dean, and separately with the accused student. Severity and frequency of violations(s) would be discussed. Similar previous cases and resulting punitive measures would also be reviewed. Ethics Council would meet to review charges and evidence, then interview separately the accused student and faculty making the charge and meet to make a formal recommendation that would then go to the Dean for approval of the recommendation or modification of the recommendation. Punishments could include academic probation, suspension, a failing grade, repeat of the year, suspension with ethics course study and mentoring, psychological counseling, or dismissal. Ultimately the decision is made by the Dean.

UOK The basic protocol would be for the faculty who observed the ethical infraction to complete a "Deficiency in Professional Conduct" form, which is signed by the student and faculty member, it is then submitted to the Associate Dean of Academic Affairs. This form has the description of the infraction, and the suggested consequences for the student as recommended by the attending faculty member or department. The Dean's office then will determine the final consequences for the student. If it is deemed necessary to dismiss the student, the matter will be sent before the college's Promotion and Advancement Committee for discussion prior to recommending the student for dismissal.

TENN They receive a departure from the clinical faculty, who report it to the Department Chair, The Clinical Director, and the student's Group Coordinator. Any of these individuals may make a recommendation. Punishment could be anything from remediation of clinic work to writing a paper to clinical suspension to delayed graduation and even possibly dismissal from school. For the more serious outcomes, the upper administration must be in on the decision and a student appear must be allowed.

UTSA Penalties range from administrative action to dismissal. Ethics violations are handled at the lowest level consistent with the seriousness of the violation. The first level is the Group Leader followed by the Course Director, to the Dean of Clinics, to the Assistant Dean for Student Affairs, to the Dean.

UTH An incident form is to be filled out by the attending faculty, which is signed by both the student and faculty. This form is submitted to administration for record and possible action. Actions can include suspension from clinic for a specific time period (length depends on severity of violation).

IV. CARIOLOGY

A. Which textbook is being used for Cariology?

BAY *Dental Caries: The Disease and Its Clinical Management*, Fejerskov & Kidd; *Essentials of Dental Caries*, Kidd.

LSU *Dental Caries: The Disease and Its Clinical Management*, Fejerskov & Kidd

MISS None. Operative texts are the current edition of Sturdevant's *Art and Science of Operative Dentistry and Fundamentals of Operative Dentistry: A Contemporary Approach*.

UOK *Dental Caries: The Disease and Its Clinical Management*, Fejerskov & Kidd

TENN Sturdevant's *Art and Science of Operative Dentistry and Fundamentals of Operative Dentistry: A Contemporary Approach*

UTSA *Fundamentals of Operative Dentistry*, 3rd ed. Summitt et al. *Cariology*, Newbrun

UTH No formal course in Cariology, no formal textbook

B. In which department/section are the Cariology courses conducted?

BAY Primarily in the Department of Public Health Sciences, but also taught in various Operative Dentistry courses and in the Oral Diagnosis course.

LSU Dept Comprehensive Dentistry - Diagnosis Services

MISS Etiology of Caries is covered in the Primary Prevention course in the D1 year, in the Introductory Operative Dentistry course in the D1 year, and the D1 Methodology course.

UOK The course is out of the Community Dentistry Department

TENN Restorative, Perio, Oral Diagnosis

UTSA Comprehensive Dentistry

UTH Currently cariology is touched upon by various courses: 1551, Microbiology and Immunology (Diagnostic Sciences and Periodontics); 1934 Prevention of Oral Diseases (Restorative Dentistry & Biomaterials); 1614 Operative Dentistry I (Restorative Dentistry & Biomaterials); 2614 Operative Dentistry II ((Restorative Dentistry & Biomaterials)

C. What are the faculty qualifications for teaching Cariology?

BAY No formal qualifications are required.

LSU Willing to teach this course.

MISS There is not a formal course in Cariology. General dentists, radiologists and periodontists teach in the course where etiology and caries risk assessment are taught.

UOK There are no specific faculty qualifications to teach the course. All instructors have a minimum of a DDS or PhD degree.

TENN Any faculty member may teach these lectures (General Practitioner)

UTSA The individual who teaches Cariology has a PhD in Cariology

UTH 1551 is taught by basic science faculty (PhD in related fields); 1934 is taught be a DDS, MPH, PhD; 1614/2614 is taught by DDS faculty

D. Are full time faculty of Operative Dentistry provided the textbook(s)?

BAY No, but may be obtained on request.

LSU No

MISS All texts are available to all full time faculty

UOK No

TENN Just course directors

UTSA Yes, through Vitalsource

UTH If a request for text is made, typically Course Directors are provided textbooks

E. Are there concepts of Cariology which are not well supported by the Clinical faculty?

BAY Use of diagnostic adjuncts such as Fiber Optic Trans-illumination (FOTI), laser fluorescence, etc. rather than use of explorers. When to treat various carious lesions seems to gather controversy.

LSU No

MISS Cariology is not an active part of our clinical curriculum.

UOK Not that we are aware of. However, many of the faculty are not aware of what specifically is being taught in that course.

TENN Minimally invasive concepts are recognized and taught, but are not generally supported clinically.

UTSA Most faculty are calibrated in decision making for operative dentistry. A few faculty members will recommend restoration of stained pits and fissures.

UTH CAMBRA is to introduced this school year in the clinic - reception unknown. Concepts in minimally invasive dentistry and remineralization have been stressed by operative dentistry faculty - reception unknown. Discussion continues with regard to incomplete excavation of caries and diagnosis of secondary caries.

F. What are the concepts and why the lack of support?

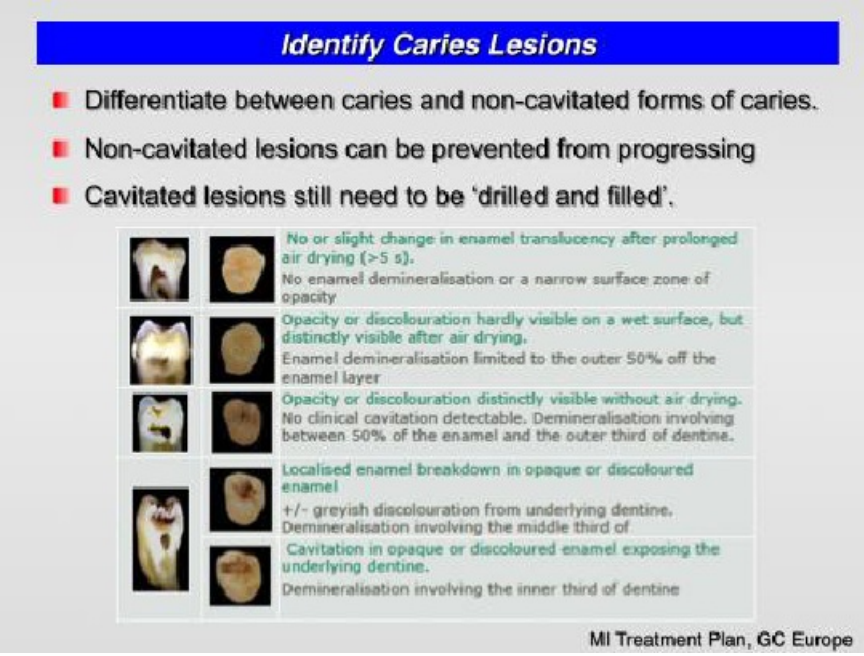
BAY Use of diagnostic adjuncts - not available. Partial caries removal - instructor discretion, lack of calibration. Sealants vs restoration - clinical experience. Do not really know what other departments are teaching

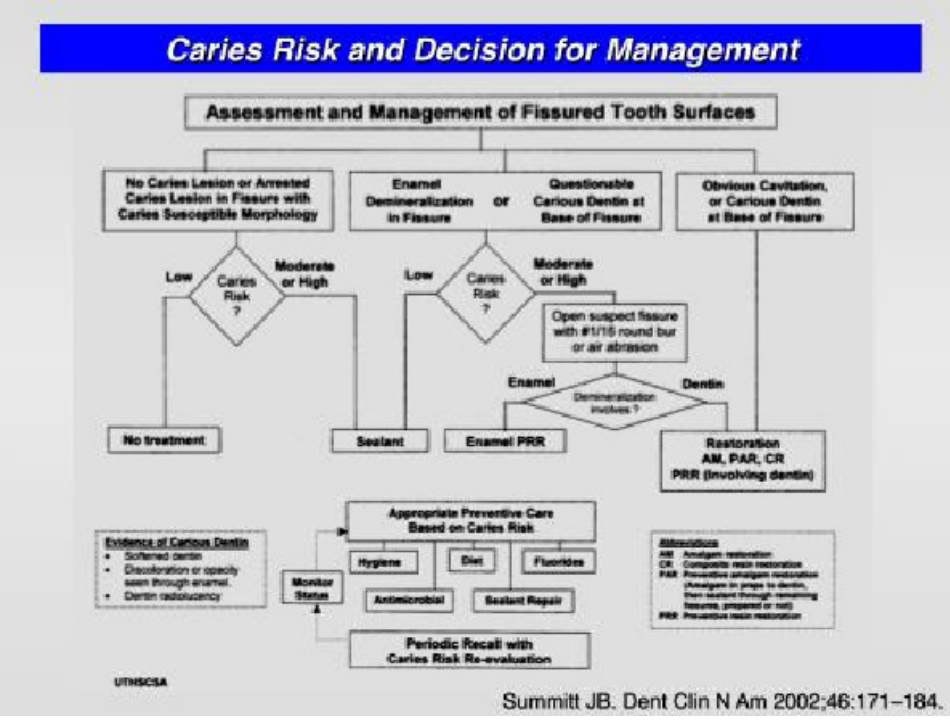
LSU Some opposition to CAMBRA. Lack of knowledge by older faculty.

MISS Conservative operative dentistry concepts are practiced in treatment planning and operative dental treatment by clinical faculty.

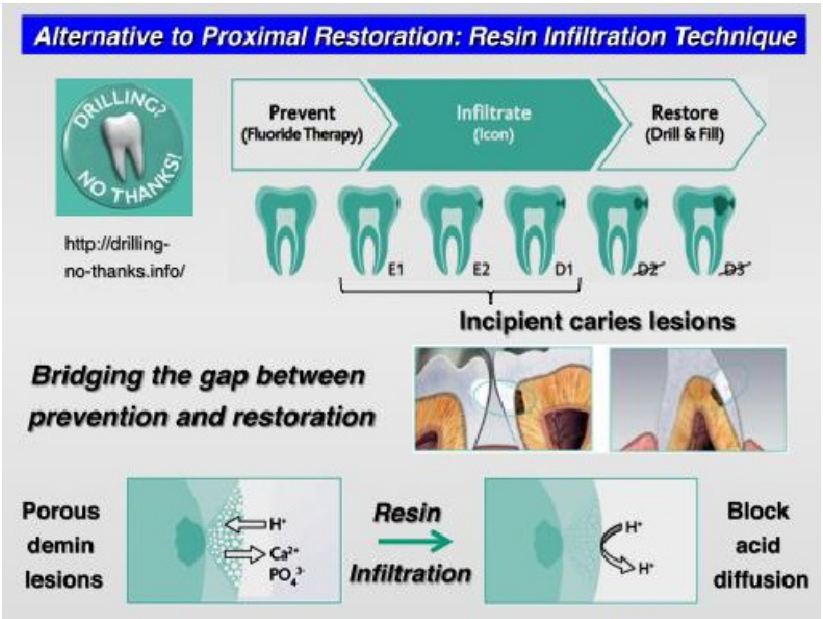
UOK N/A

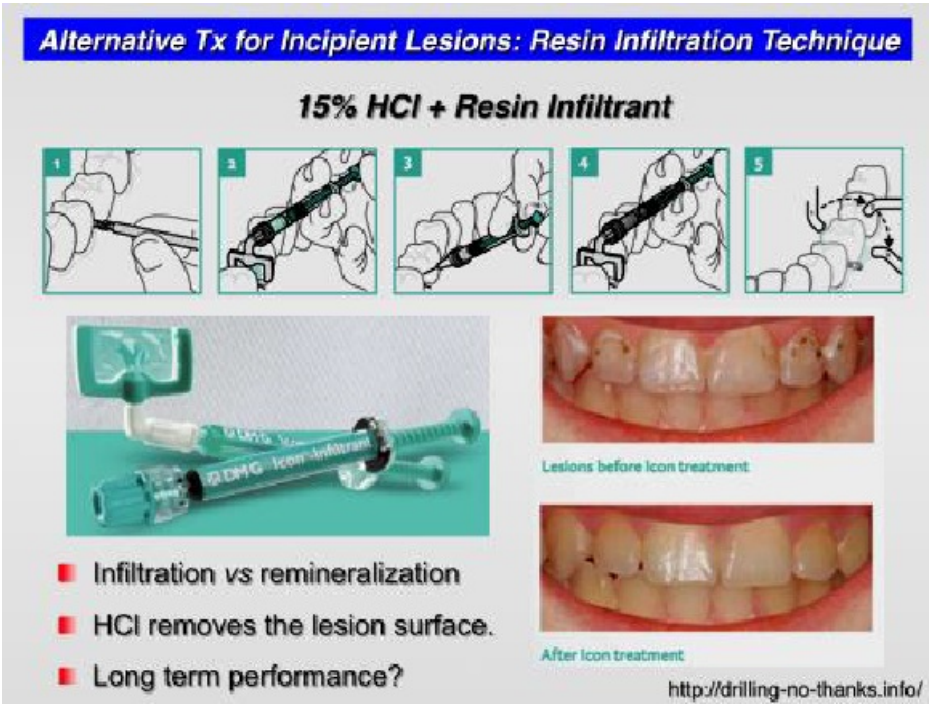
TENN For clinical faculty, they see a more extensive carious process relating to poorly (or minimally) restored composite restorations in the school populations and therefore tend to be less conservative in their treatment planning options.
Excerpt from preclinical lecture: "When the carious lesion is formed, we have to decide if surgical intervention is necessary. Not all dentists agree as to when surgical treatment is indicated. Some dentists favor restoration of early lesions, especially pits and fissures. Other dentists favor deferring surgical treatment until there is evidence of cavitation. The key decision for surgical intervention is "cavitation". Because non-cavitated lesions can still be prevented from progressing further, differentiation between caries and non-cavitated forms of caries is important. When the opacity or discoloration is hardly visible on a wet surface but distinctly visible after air drying, the demineralization is usually limited to the outer half of the enamel. When the opacity or discoloration is distinctly visible without air drying, the demineralization usually involves between the inner half of the enamel and the outer third of dentin. The demineralization involving the middle third of dentin is usually accompanied by localized enamel breakdown (cavitation) and possibly grayish discoloration from underlying dentin. Cavitation makes plaque control difficult or impossible and thus needs to be restored. In addition to the detection of carious lesions, each patient's level of caries risk is one of the main considerations for a specific treatment. This diagram is one example of a decision tree for assessment and management of fissured tooth surfaces.





Recently, a novel alternative treatment aimed at closing the gap between prevention and restoration has been introduced - A Resin Infiltration Technique. This approach used low-viscosity resin mixtures to penetrate and occlude the porous structures of incipient enamel lesions, and thus block further acid demineralization. The application process includes etching the lesion surface with 15% hydrochloric acid gel followed by the resin infiltrant. The manufacturer designed the application instrument for use with proximal incipient lesions as well as smooth surface lesions. Immediate results looks impressive. Note that the infiltration technique is used instead of remineralization. Questions remain about the use of HCl to remove the lesion surface, and the long-term clinical performance.





For clinical faculty, they see a more extensive carious process relating to poorly (or minimally) restored composite restoration in the school populations and therefore tend to be less conservative in their treatment planning options.

UTSA Private practitioners may be more aggressive in recommending teeth for restorations.

UTH See above. Lack of support may be due in part to lack of familiarity with best evidence, as well as human nature.

F. What are the interpretations of textbook content as to Restorative intervention, caries removal, etc? (Are there criteria and situations when caries could intentionally be left – restored or sealed?)

BAY (Regarding) the criteria and situations when caries could be intentionally be left, Overton, Summitt and Osborne suggests the following for intervention" "Each patient must be individually evaluated for improved oral hygiene, alteration of diet, and reduction of cariogenic bacteria before the decision is made to surgically remove a minimally deep caries lesion. In most cases, a restorative procedure should not be undertaken to treat a proximal caries lesion unless there is radiographic evidence of at least slight penetration of the lesion into the dentin toward the pulp," p 346.
Hilton and Summitt suggest the following for caries removal assuming certain conditions are met, pg 108: "With a deep caries lesion, the indirect pulp capping procedure is always preferred to a direct pulp capping procedure. The wet (soft, amorphous) carious dentin should be removed; as the pulp is approached, the dry, fibrous, demineralized dentin that gives some moderate resistance to gentle scraping with a spoon excavator should be allowed to remain. In the procedure, carious dentin is removed except for the last portion of firm, leathery carious dentin immediately overlying the pulp; this layer is left because its removal would likely expose the pulp." pg 109, 112. These statements speak for themselves. Following this, a well sealed restoration is essential. For support of other methods of caries removal, see *Clinical Threshold for Carious Tissue Removal*, Kidd AM, Dent Clin N Am 54(2010)541-549.
Decisions to leave caries is at the discretion of the supervising instructor.

LSU Yes, in teaching indirect pulp capping technique. Also depth of lesion and CRA values.

MISS Carious lesions are treated when the caries is determined radiographically or clinically to be at the DEJ or beyond. Caries is not intentionally left or sealed except when a pulp exposure is possible by removal of all caries and the tooth is asymptomatic or exhibits symptoms of a reversible pulpitis (indirect pulp cap).

UOK Restoration intervention is generally based on the following:

Smooth Surface lesions:

- all cavitated lesions are indication for restorative intervention
- Radiolucent lesion extending into the dentin or minimally to the DEJ (this may be less conservative than some textbooks)
- Clinical visual examination of the pits and fissures identifying areas of demineralization, or caries lesions appearing as dark translucent areas beneath enamel may also be indications for some form of restorative intervention
- Patient age and caries risk assessment may affect the decision to intervene earlier or later

Pit and Fissure Caries:

- Cavitated lesions are indications for restorative intervention
- Radiolucent lesions into the dentin indicates need for restorative intervention
- Clinical visual examination of the pits and fissures identifying areas of demineralization, or caries lesions appearing as dark translucent areas beneath enamel may also be indications for some form of restorative intervention
- Patient age and caries risk assessment may affect the decision to intervene earlier or later

Criteria and situations when caries could intentionally be left? In the actual Cariology course, the ART technique is presented. There is some information about this technique in that course's textbook. In the operative course, indirect pulp caps are taught.

TENN We require all caries removal clinically before the permanent final restoration is placed

UTSA Yes, we have a protocol for indirect pulp caps and teach sealant placement in accordance with findings of Dr. Metz-Fairhurtst.

UTH In general, removal of infected dentin and preservation of affected dentin is the standard. Most clinical faculty are comfortable leaving infected dentin for the sake of minimizing pulpal trauma (DEJ will be excavated and cleaned). Implementation of 2008 ADA guidelines to seal non-cavitated pit-and-fissure lesions has been reinforced in department calibration sessions, but may take time to be fully implemented by all clinicians.

V. CARIES RADIOGRAPHIC INTERPRETATION

A. Is there current clinical evidence that supports restorative intervention on interproximal caries that show in the outer ½ of the enamel when viewed on digital imagery?

BAY None were found except for abundant support for remineralization or resin impregnation. A study by Pitts and Rimmer suggests that lesions in enamel should not be restored since only 1-.5% of permanent teeth are likely to be cavitated when the proximal lesions are in the inner half of enamel. The study also showed cavitation rates of 41% for caries in the outer ½ of dentin and 100% for caries in the inner ½ of dentin. Pitts NB, Rimmer PA, *An in vivo comparison of radiographic and directly assessed clinical caries status of posterior approximal surfaces in primary and permanent teeth*, Caries Res 1992; 26:146-152

LSU No

MISS We do not have any clinical evidence that we teach as the need for restorative intervention with caries visible on digital imagery at this point. We instruct our students on how to detect caries radiographically at this point and look at the further patient information and determine than if restorative intervention should take place.

UOK Not aware of any such evidence.

TENN When looking at the literature, interproximal lesions in the outer ½ of the enamel should be treated with medical model by enhancing remineralization, controlling risk factors, and monitoring the progress of the lesion. Even when the radiolucency has been identified in the inner half of the enamel, at the DEJ, and slightly into dentin without cavitation, restorative intervention could be deferred in accordance to the concept of Minimum Intervention (Tyas et al., Int Dent J 2000;50:1-12)

UTSA We teach remineralization for this lesion

UTH Literature seems to support remineralization in outer enamel lesions.

B. If yes, reference and summarize the conclusions.

BAY No indication to restore.

LSU No response submitted

MISS None

UOK N/A

TENN While there is not literature reference to support restorative intervention of the lesions in the outer ½ of enamel, dependent on the patient's hygiene, diet and caries risk index, some patients may be treatment planned for the more minimal lesions particularly in the dental school patient population.

UTSA Pitts - "The use of bitewing radiographs in the management of dental caries: scientific and practical considerations," "Traditional lesion detection aids", "How the detection, assessment, diagnosis and monitoring of caries integrate with personalized caries management." The caries lesion should be recommended for preventive or operative care.

UTH N/A

C. Do current teaching concepts support restorative intervention on only these interproximal lesions that extend beyond the outer ½ of the enamel when viewed on digital imagery?

BAY Again, support seems to be for remineralization or resin impregnation, For these lesions, see previous response for reference.

LSU No

MISS We do not have set rules on the depth that caries has to be prior to restorative intervention being needed. Each case is taken individually with information from the patient's clinical findings, radiographic findings, and caries risk assessment to determine if restorative intervention is needed

UOK Not applicable yet at our school - not using digital radiography until next year.

TENN In theory, and in preclinical and didactic teaching settings - yes, however, in clinic settings the patient's health as a whole is taken into consideration. Several review articles have sited rate of cavitation to be 40% for lesions visible within the outer half of dentin (range: 10% to 79%) (Mount and Ngo, Quintessence Int 2000;31:535-546; Tyas et al. Int Dent J 2000;50:1-12; McComb, Dent Clin N Am 2005;49:847-865) Therefore, when the lesions extend beyond the outer ½ of the enamel, the implementation of restorative intervention depends on clinical evidence of cavitation, patient's caries risk, and the progress of the lesion if it has been previously monitored - the key here being the possibility of adequate monitoring.

UTSA No operative treatment is recommended until cavitation has occurred or there is evidence of caries invasion into dentin (once again, based on risk).

UTH Our operative teaching concepts increasingly lean toward the cariology literature, which supports remineralization or sealing for most/all enamel-only lesions.

D. What are the current teachings for intervention based on 1/3 extensions in enamel and dentin? e.g., outer, middle, inner third.

BAY Cavitation seems to be the current teaching on restoring caries that extend to the outer 1/3 of dentin and beyond. However, again, patient selection is involved in the determination. McComb D, *Conservative Management Strategies*, Dent Clin N Am 49(2005:847-865

LSU Varies with CRA

MISS We do not have any specific teaching points that address the exact point of caries penetration through the enamel and when restorative therapy should be done. If the caries has gone into the dentin we do teach that restorative intervention is necessary.

UOK At our school, the students are taught that restorative intervention is indicated for caries lesions extending to the dentinoenamel junction in most cases. We generally intervene with a restoration when a caries lesion is seen radiographically as a radiolucency that has reached the outer third of the dentin for smooth surface lesions. Exceptions are sometimes made for carious lesions in the inner third of the enamel for patients who have been assessed as high caries risks, or patients who are considered to be less likely to follow a regime of regular dental recall visits.

TENN Outer ½ of enamel: remineralization, control risk factors, monitor (ref 1-3)
Inner ½ of enamel and outer 1/3 of dentin: control risk factors, monitor, restoration
Middle 1/3 of dentin: restoration (ref 4, 6, 7)
Inner 1/3 of dentin: restoration (ref 4, 6, 7)
Refer to next section (E) for References.

UTSA Here most teeth that have radiographic evidence of caries invasion into dentin are recommended for restoration.

UTH Currently, the baseline threshold for operative intervention is a cavitated lesion into dentin (i.e., ICDAS criteria). In the absence of direct visual access, radiographic evidence of penetration into dentin is the standard minimal threshold for operative intervention.

E. What is the evidence-based information that supports the current teaching concept?

BAY See Pitts and Rimmer in previous response. Also reference *Present and Future Approaches for the Control of Caries*, Anusavice KJ, J of Dent Educ 2005;60(5):538-554 and *Restorative treatment thresholds for interproximal primary caries based on radiographic images*, Gordon VV et al. General Dentistry, 2009;57(6):654-663 and *Clinical Decision-Making for Coronal Caries Management in the Permanent Dentition*, Anusavice KJ, Dept of Biomaterials, University of Florida, NIDCR Grant No. DE06672.

LSU No response submitted

MISS N/A

UOK "Each patient must be individually evaluated for improved oral hygiene, alteration of diet, and reduction in cariogenic bacteria before th decision is made to surgically remove a minimally deep caries lesion. In most cases, a restorative procedure should not be undertaken to treat a proximal caries lesion unless there is radiographic evidence of at least slight penetration of the lesion into dentin toward the pulp." *Fundamentals of Operative Dentistry: A contemporary approach*. 3rd edition, Chapter 11, Overton, Summit, and Osborne, page 346.

TENN

1. Backer Dirks O, Houwink B, Kwant GX. *The results of 6 ½ years of artificial fluoridation of drinking water in the Netherlands. The Tiel-Clumborg Experiment*. Arch Oral Biol 1961; 5:284-300.
2. Nyvad B, Fejerskov O. *Active root surface caries converted into inactive caries as a response to oral hygiene.* Scand J Dent Res 1986;94:281-284.
3. Pitts NB. *Monitoring of caries progression in permanent and primary posterior approximal enamel by bitewing radiography*. Community Dent Oral Epidemiol 1983;11:228-235.
4. Summitt JB. *Conservative cavity preparations*. Dent Clin N Am 2002;46:171-184.
5. Pitts NB, Rimmer PA. *An in vivo comparison of radiographic and directly assessed clinical caries status of posterior approximal surfaces in primary and permanent teeth*. Caries Res 1992;26;146-152.
6. Akpata ES, Farid MR, al-Saif K, Roberts EA. *Cavitation at radiolucent areas on proximal surfaces of posterior teeth*. Caries Res 1996;30:313-316.
7. Foster LV. *Three year in vivo investigation to determine the progression of approximal primary carious lesions extending into dentine*. Br Dent J 1998;185:385-387.

Reference 1: Backer Dirks O, Houwink B, Kwant GX. *The results of 6 ½ years of artificial fluoridation of drinking water in the Netherlands. The Tiel-Clumborg Experiment*. Arch Oral Biol 1961; 5:284-300, **No abstract available**

Reference 2: Nyvad B, Fejerskov O. *Active root surface caries converted into inactive caries as a response to oral hygiene.* Scand J Dent Res 1986;94:281-284. **Abstract**: The clinical characteristics of 24 active root surface lesions on buccal surfaces were recorded through 18 months after implementation of meticulous tooth brushing with a fluoride toothpaste (F congruent to 0.1%). Within a period of 2-6 months all lesions had changed from soft, greasy and yellowish to leathery or hard, darkly discolored tissue, indicating a gradual transition from active into inactive stages of caries. The observations stress the dynamic nature of the root caries process. It is concluded that when dealing with root surface caries it is essential to distinguish between active and inactive lesions and that classical operative treatment to a great extent can be avoided.

Reference 3: Pitts NB. *Monitoring of caries progression in permanent and primary posterior approximal enamel by bitewing radiography*. Community Dent Oral Epidemiol 1983;11:228-235. **Abstract**: The work which has monitored caries progression in posterior approximal enamel surfaces by reference to the size of radiolucency seen on bitewing radiographs is reviewed. There are wide variations in the degree of standardization achieved, in the composition of the study groups and in the duration of the studies. There is a paucity of information relating to adults, the elderly, groups with low caries prevalence, and fluoridated communities. The results indicate that for the majority approximal caries progresses slowly, and large numbers of lesions remain unchanged for long periods. The available results are compared using the mathematical model of a negative exponential. The 'mean' time during which a lesion remains radiographically confined to the enamel is of the order of 3-4 years. Although in caries active individuals much shorter times are reported. Some clinical implications are suggested and the need for further research using comparable methods is stressed.

Reference 4: Summitt JB. *Conservative cavity preparations*. Dent Clin N Am 2002;46:171-184.

Reference 5: Pitts NB, Rimmer PA. *An in vivo comparison of radiographic and directly assessed clinical caries status of posterior approximal surfaces in primary and permanent teeth*. Caries Res 1992;26;146-152. **Abstract**: At general dental practices in Scotland 211 children between the ages of 5 and 15 years were examined by 1 observer. A comparison of the status of 1,468 permanent and 756 primary posterior approximal surfaces was made on the basis of their appearance on posterior bite-wing radiographs and the findings of a direct in vivo visual examination, made after temporary tooth separation had been achieved over 1 week using elastomeric separation. For permanent tooth surfaces, 0% of radiolucencies in the outer half of enamel, 10.5% in the inner half of enamel, 40.9% extending to the outer half of dentine, and 100% extending to the inner half of the dentine w4r found clinically to be cavitated. The analogous results for primary teeth were that 2.0, 2.9, 28.3, and 95.5% ,respectively, of radiolucencies appeared to be cavitated. Although further research with larger numbers of permanent teeth is indicated, these results may contribute to a re-evaluation of the optimal threshold for restorative intervention at approximal sites. Greater numbers of approximal radiolucencies and carious lesions (p less than 0.001) were found in those surfaces which initially has a normal anatomical contact when compared to those which did not.

Reference 6: Akpata ES, Farid MR, al-Saif K, Roberts EA. *Cavitation at radiolucent areas on proximal surfaces of posterior teeth*. Caries Res 1996;30:313-316. **Abstract**: To investigate the factors that influence the probability of clinical cavitation at radiolucent areas of proximal surfaces of posterior teeth, 108 molars and premolars with varying depths of proximal radiolucency were examined clinically, after cavity preparation on the carious contiguous tooth surfaces. The data obtained were subjected to logistic regression analysis with cavitation as the dependent variable, while age, tooth type and past experience (DMFT and DFS) were independent variables. When proximal radiolucency was confined to the outer half of the enamel, there was no cavitation, but when it extended to the amelodentinal junction and the outer and inner half of dentine, there was cavitation in 19.3, 79.1 and 100% of cases, respectively. Moreover, there was a statistically significant relationship between the probability of cavitation, depth of radiolucency, and age, suggesting that these should be among the main factors considered when restorative management of a radiolucent proximal surface of a posterior tooth is contemplated.

Reference 7: Foster LV. *Three year in vivo investigation to determine the progression of approximal primary carious lesions extending into dentine*. Br Dent J 1998;185:385-387. **Abstract**: OBJECTIVE: To investigate the proportion of a sample of approximal carious lesion s extending up to 1 mm into dentine which progressed over a 3-year period and to examine factors which influenced that progression. DESIGN: Prospective, single centre, clinical study. SETTING: Restorative Clinic at Bristol Dental School UK. SUBJECTS AND METHODS: Sixty-five adult patients were identified who each had an approximal carious lesion which extended up to 1 mm into the dentine and which were assessed at intervals of up to 356 months. All patients were given appropriate preventive advice. MAIN OUTCOME MEASURES: Progression of the lesions was determined by assessment of sequential bitewing radiographs. RESULTS: 29% of the lesions progressed with 8 months, 56% by 20 months, and 69% by 36 months. After 36 months, lesions which extended over 0.5 mm and up to I mm into the dentine were significantly more likely to have progressed (92%) compared with shallower lesion which extended up to only 0.5 mm into dentine (50%). CONCLUSIONS: The depth of an approximal dentin e lesion was the main clinical marker which related to its progression, It is recommended that operative intervention is considered for approximal lesions which extend deeper than 0.5 mm into dentine, while preventive treatment and re-assessment may be considered for shallower lesions.

UTSA No response submitted

UTH Dent Clin N Am 54 (2020) serves as a concise summary of the state of the art with regard to caries management. Additionally, ADA evidence-based guidelines for fluoride (2006) and sealants (2008), further complement reinforce concepts in remineralization and caries arrest.

F. Is there a discernible difference of radiographic evidence of actual clinical penetration of interproximal caries between conventionally exposed radiographs versus digital imagery? If so, which do you think represents a more accurate depiction of the clinical condition?

BAY There does seem to be a statistically significant difference. However many clinicians seem to prefer the detail in conventionally exposed radiographs. A study by Pontual, et al. found that the performance of certain digital imagery was similar to conventional film for approximal caries and that the increase in histological depth of enamel caries was not significantly correlated with radiographic measurements. *Comparison of digital systems and conventional dental film for the detection of approximal enamel caries*, Pontual AA, et. al. Dentomaxillofacial Radiology, 2010;39:431-436.

LSU The old manual developed x-rays, best.

MISS There have been no studies done at our school to assess the possible differences between conventional and digital radiographs. You will find differences in opinion between faculty members who like one over the other and think it is more accurate, but no concerns can be found. Our school has been totally digital imagery for several years now, so this is really not an issue that comes up at our school.

UOK In the literature that I was able to review, several studies would suggest that there is no difference in the overall radiographic evidence of actual clinical penetrations of interproximal caries (Citations 1-7). One study indicated that the direct digital radiograph system was more accurate in regard to the actual depth of the caries penetration than D-speed film (Citation 8). One study indicated that Phosphor plate systems were more accurate in recording caries lesions in the outer half of the enamel than Ektaspeed film (Citation 9), and one study indicated that the Phosphor plate system underestimated the depth of the caries lesions compared to Ektaspeed film (Citation 10).

1. Senal B, Kamburoglu K, Ucok O, Yuksel SP, Ozen T, Asever H. *Diagnostic accuracy of different imaging modalities in detection of proximal caries*. Dentomaxillofacial Radiology, 2010;39:501-511.
2. Alkert MT, Peker I, Bala O, Altunkaunak B. *In vitro comparison of four different dental X-ray films and direct digital radiography for proximal caries detection*. Operative Dentistry 2007;32(5):504-509.
3. Khan EA, Tyndall DA, Ludlow JB, Capian D. *Proximal caries detection: Sirona Sidexis versus Kodak Ektaspeed Plus.* General Dentistry 2005;53(1):43-48.
4. Nair MK, Nair UP. *An in-vitro evaluation for Kodak Insight and Ektaspeed Plus film with a CMOS detector for natural proximal caries: ROC analysis*. Caries Research, 2001;35(5):354-359.
5. Syriopoulos K, Sanderink GC, Velders XL, van der Stelt PF. *Radiographic detection of approximal caries: a comparison of dental films and digital imaging systems*. Dentomaxillofacial Radiology, 2000;29(5):312-318.
6. Tyndall DA, Ludlow JB, Platin E, Nair M. *A comparison of Kodak Ektaspeed Plus film and the Siemens Sidexis digital imaging system for caries detection using the receiver operating characteristic analysis*. Oral Surgery, Oral Medicine, Oral Pathology, Oral Radiology & Endodontics, 1998;85(1):113-118.
7. White SC, Yoon DC. *Comparative performance of digital and conventional images for detecting proximal surface caries*. Dentomaxillofacial Radiology,1997;26(1):32-38.
8. Bin-Shywaisch M, Dennison JB, Yamen P, Neiva G. *Estimation of clinical axial extension of Class II caries lesions with ultraspeed and digital radiographs: an in-vitro study*. Operative Dentistry, 2008;33(6):613-621.

9. Svanaes DB, Moystad A, Larheim TA. *Approximal caries depth assessment with storage phosphor versus film radiography. Evaluation of caries specific Oslo enhancement procedure*. Caries Research, 2000;34:448-453.
10. Versteeg KH, Sanderink GC, Velders XL, van Ginkal RC, van der Stelt PF. *In vivo study of approximal caries depth on storage phosphor plate images compared with dental x-ray film*. Oral Surgery, Oral Medicine, Oral Pathology, Oral Radiology & Endodontics,1997;84(2):210-213.

TENN It appears to some radiologists that D speed film is more discernible, though E speed is not. The best diagnostic digital depiction occurs on an unmagnified or enhanced view using loupes.

UTSA In so far as digital images depend on the resolution of the monitor and room lighting conditions and that the image may be altered by students, most faculty prefer conventional radiographs although this is not an option at our school.

UTH Anecdotally, many clinicians on our faculty report that conventionally exposed radiographs offer a "clear" view o interproximal caries. However, it has been reported in the literature that digital radiography may demonstrate greater sensitivity than the conventional radiograph. According to our head of Radiology, part of the problem may lie in viewing conditions. Digital radiographs viewed on the clinic floor in normal lighting are not as discernible as those viewed in a dark room by a calibrated interpreter.

VI. COMMUNICATION IN OUR DIGITAL ERA

Students have critiqued faculty in course reviews as not being responsive if e-mails are not answered immediately or over the weekend prior to an examination early in the week.

1. How does the time required to implement and manage an electronic curriculum compare to before the use of online teaching resources?
   1. More time
   2. Same amount of time
   3. Less time

   List specifics as it relates to your answer

BAY Our Operative courses currently utilize limited online resources. We would expect that, at least initially, more time would be needed to format and load the curriculum for use electronically. It would take time to prepare materials for electronic formats. Managing the electronic accounts thereafter may take less time.

LSU We aren't using an electronic curriculum yet. I expect more time in the beginning.

MISS More time

UOK Our courses have only limited online components. We currently show only course grades and copies of lecture materials online. Next semester we will begin administering our tests online also. At this time, we feel that what we are doing currently saves us some time. As far as answering questions, we answer them as soon as we possibly can. There are no guarantees of the promptness of our responses.

TENN More time - must duplicate efforts in uploading materials in 2 different formats

UTSA More time

UTH <u>More time</u>. Student expectation for media and availability "forces" faculty to have updated material at all times.

2. In your experience for individual student interactions do students prefer
   1. E-mail to communicate
   2. Office appointments
   3. Online tools with your electronic curriculum resources

BAY We have observed that students will either e-mail faculty or will drop by the office without an appointment in the hopes of having their questions answered.

LSU Office appointments, but we do get e-mails

MISS Office appointments - when the time is convenient for the student

UOK Students seem to prefer e-mails.

TENN E-mail to communicate for D1s and D2s, as they are in a different building for most instructors. D1s and D2s have an elected member of the class to handle discrepancies if there appears to be a problem with an exam or quiz question to reduce the number of times the faculty get asked the same question. The D3s and D4s prefer to come to the office or find us in clinic.

UTSA Office appointments

UTH Any and all the above, depending on the circumstance

3. When students are e-mailing faculty, when are they expecting a faculty response?
   1. Same day
   2. Within several days
   3. Within a week

BAY Students prefer a response on the same day

LSU Same day if not sooner

MISS Within several days

UOK As faculty, we have not been informed as to when the students expect a response to their e-mail messages; we generally try to response within what I feel is a reasonable time period.

TENN N/A. I tell students up front that I do not check e-mail at night or on weekends - this is left to individual course directors to handle as they wish.

UTSA Same day

UTH Within several days. Some do have unrealistic expectation that answers will be immediate

4. When students ask a question about a specific course, lecture as it pertains to an upcoming examination, how do you manage your response?
   1. Answer that student only.
   2. Answer forwarded to entire class (keeping student anonymous) so that all students get the information.
   3. No response, student must meet with the faculty member.
   4. Faculty are not given any guidelines.

BAY It depends on the nature of the question. Sometimes an answer to the specific student only is warranted. At other times, an e-mail to the class president for dissemination is appropriate. On occasion , some faculty will send an e-mail to the whole class .

LSU Faculty are not given any guidelines but I would respond to entire class

MISS Faculty are not given any guidelines

UOK If the question involves something that we feel that we omitted or did not make clear to the entire class, then we will send the response to the entire class. If it is a question that seems to be something that the individual student is having trouble comprehending, then we will communicate only with that individual only.

TENN Answered forwarded to entire class (keeping student anonymous) so that all students get the information - this is how I (and several others in the department) handle it, however, faculty, as a whole, are not given any guidelines.

UTSA Faculty are not given any guidelines

UTH Faculty are not given any guidelines. Faculty exercises discernment, depending on situation

5. How are faculty directed to use e-mail as a communication with students?
   1. Respond only during school hours.
   2. Respond during school hours and evenings.
   3. Respond during school hours, evenings and weekends.
   4. Faculty are not given any guidelines.

BAY The faculty are not given specific guidelines

LSU We are not given any guidelines for when to e-mail

MISS Faculty are not given any guidelines, however, unofficially they are encouraged to respond during regular hours if possible.

UOK Faculty have not been given any guidelines

TENN Faculty are not given any guidelines

UTSA Faculty are not given any guidelines

UTH Faculty are not given any guidelines

6. What guidance are students given as it regards faculty responses to student e-mails that are sent off-school hours that the student requires an immediate response?
   1. E-mails are responded to only during school hours.
   2. E-mails are responded to whenever the faculty wants to.
   3. No guidance is given to students about expectations to respond

BAY No specific guidance is given to students regarding faculty response times

LSU The topic has not been brought up with the students. Individual instructors may respond as they wish.

MISS E-mails are responded to only during school hours - in most cases.

UOK No guidance is given to students about expectations to respond

TENN No guidance is given to students about expectations to respond. Individual instructors usually make their preferences clear to students at the beginning of each course.

UTSA No guidance is given to students about expectations to respond

UTH No guidance is given to students about expectations to respond

Regional CODE Agenda

To be established by the respective Region and Regional Director. Please also report on responses to the Regional Agenda from all participants.

No Regional Agenda

Suggestions for CODE.

NOTE: to locate the web site via a search engine, enter Consortium of Operative Dentistry Educators or Academy of Operative Dentistry and then use the link CODE.

No suggestions submitted

Consortium of Operative Dentistry Educators

(CODE)

REGION IV (GREAT LAKES) ANNUAL REPORT

Region IV Director:
Dr. Paul Reifeis
Indiana University
Indianapolis, IN

Region III Annual Meeting Host:
Dr. Mary Ellen McClean
University of Michigan
Ann Arbor, MI

Region III Annual Report Editor:
Dr. Mary Ellen McClean

CHAPTER 4

CODE REGIONAL MEETING REPORT FORM

REGION IV (Great Lakes)

LOCATION AND DATE OF MEETING:

University: University of Michigan School of Dentistry

Address: Ann Arbor, MI

Date: October 20 - 21, 2011

CHAIRPERSON:

Name:	Dr. Mary Ellen McLean	Phone #:	734-615-8353
University:	University of Michigan School of Dentistry	Fax #:	
Address:	Ann Arbor, MI	E-mail:	memclean@umich.edu

List of Attendees: Please complete the CODE Regional Attendees Form (following page)

Suggested Agenda Items for Next Year:

What is considered scholarly activity at your institution? I would add the second or follow-up questions to be: What are the expected standards for Assistant, Associate, and full Professor clinical?

How are mage course taught/ Testing, grading, schedules for faculty?

LOCATION AND DATE OF NEXT REGIONAL MEETING:

Name:	Dr. Adriana Semprum	Phone #:	312-996-1811
University:	University of Illinois	Fax #:	
Address:	Chicago, Illinois	E-mail:	asemprum@uic.edu
Date:	**TBA**		

Please return all completed enclosures to
Dr. Larry D. Haisch, National Director, UNMC College of Dentistry;
40th and Holdrege Streets; Lincoln, NE 68583-0740.
Deadline for return: 30 Days post-meeting
Office: 402 472-1290 Fax: 402 472-5290 E-mail: lhaisch@unmc.edu
Also send the information on a disk and via e-mail with all attachments.
Please indicate the software program and version utilized for your reports.

CODE Region IV Attendees Form

NAME	**UNIVERSITY**	**PHONE #**	**FAX #**	**E-MAIL ADDRESS**
Ed DeSchepper	Roseman (Utah)	801-3002-2600		edeschep@roseman.edu
Paul Reifeis	Indiana	317-278-1858	317-274-2818	pereifei@uipui.edu
Marco Tauil	Detroit Mercy	313-494-6788	313-494-6781	tauilma@udmercy.edu
Carl Stone	Detroit Mercy	313-494-6681	313-494-6781	stonecr@udmercy.edu
Carlos Gonzalez	Michigan	734-763-3391		carlosgc@umich.edu
Adriana Semprum	Illinois	312-996-1811		asemprum@uic.edu
Camila Sabatini	SUNY-Buffalo	716-829-6343	716-829-2440	cs252@buffalo.edu
Mike Bagby	West Virginia	304-293-3370		mbagby@hsc.wvu.edu
Mary Ellen McLean	Michigan	734-615-8353		memclean@umich.edu
Gail Krishnan	Michigan	734-476-9251		kgail@umich.edu
Kevin Cook	Michigan	734-891-1277		ktcook@umich.edu
Janet Bolina	Ohio State	614-292-3316		bolina.1@osu.edu
Sean Noonan	Pittsburgh	410-746-9145		Sen24@pitt.edu
Preetha Kanijrath	Midwestern	630-515-7475		pkanji@midwestern.edu
Larry Haisch	Nebraska	402-472-1290	402-472-5290	lhaisch@unmc.edu
Hussein Assaf	Case Western	216-368-6759		hussein.assaf@case.edu

2011 NATIONAL CODE AGENDA
REGION IV
SUMMARY RESPONSES TO NATIONAL AGENDA

(Editor note: Questions condensed for printing purposes)

I. SURVEY ON THE DEMOGRAPHICS OF FULL-TIME FACULTY THAT TEACH OPERATIVE DENTISTRY IN YOUR SCHOOL

A. EDUCATION/TRAINING/SPECIALTY AFFILIATION
B. CERTIFICATION IN OPERATIVE/RESTORATIVE DENTISTRY
C. EXPERIENCE IN TEACHING/PRACTICE
D. TENURE STATUS/ACADEMIC RANK/EFFORT DISTRIBUTION
E. DESIRABLE CHARACTERISTICS FOR OPERATIVE/RESTORATIVE FACULTY

All of the schools classify at least one-half of their full time operative faculty as general dentists; nearly half state that all of them are generalists. Most schools have very few prosthodontists who teach operative, however, one school reports using 40% of these specialists. Four schools employ approximately 40% or more instructors who have a graduate degree in operative; range 0 to 60%. There are fewer who have an advanced education in general dentistry; range 0 to 20%. A vast majority of schools report 10% or fewer have completed a general practice residency or have a degree in material science. However, the schools reporting have a broad range of persons with formal training in teaching and learning: 0 to 63%. Faculty with no formal post graduate training of any kind range from nil to 57%. All schools have dentists who have served in the military up to 30%, and most have faculty with other degrees such as pharmacy and law.

The vast majority of schools have no one who is certified by the American Board of Operative Dentistry, however, one school reports 60%. Academy of General Dentistry fellows range from 0 to 30%. Four schools have faculty that are certified by other agencies. The teaching experiences of the faculties vary greatly. One school has 60% of its faculty with 1-5 years' experience while another has half its faculty with 25+ years' experience. Only one school has no faculty member who conducts a private practice but nearly half of the schools report over one-half of their members so practice. Of those who practice, they use generally one to two half days per week.

All schools report at least half of their faculty are non-tenured and of these most are Clinical Assistant or Associate Professors. The majority of faculty teach over one-half of their available time with the rest divided among patient care, research, service and administration activities. About one-half of the schools suggest that there are some changes coming in their roles and duties in the next five years. The majority of schools report faculty are valued at their institution.

When hiring a desirable operative faculty member, all schools mention experience in dentistry and preferably some advanced education in the field as helpful attributes. Other qualities are a caring attitude, willing to work with others and patience with students.

II. DENTAL MATERIALS FOR OPERATIVE/RESTORATIVE DENTISTRY

All schools report that materials and products are only introduced after an investigation process involving a committee. The committee reviews the product for use, functionality, cost, etc. and, if accepted by the committee, forwards the suggestion to the administrative persons for final decision and implementation. No school has any wide spread specific disclaimers or warnings associated with dental treatment. One school reports written informed consent for whitening products and two state that surgery procedures have written consents. The majority of schools state that they no longer use latex rubber products, gloves and dams, due to allergy considerations and the remaining schools answered this question in the negative. When choosing a product for clinic use, safety and effectiveness were cited as the two most important factors. The least important were generally stated to be manufacturer's reputation and packaging.

III. ETHICS/PROFESSIONAL CONDUCT AND OPERATIVE/RESTORATIVE DENTISTRY

The schools vary somewhat as to their curriculum inclusiveness of ethics in the restorative curriculum. Very few have a formal course associated in the operative/restorative area but most do include some sort of ethics review at some point in their operative curriculum. For those schools who do include some sort of ethics instruction in the operative curriculum, this instruction varies from using all types of communication with the student to only using single instruction methods such as lecture. When confronted with a violation of ethics rules, all the schools include suspension, repeating a course and expulsion from the school as possible sanctions. The processes from reporting to final outcome, however, vary somewhat. They do include investigation, witnesses, hearing, committee deliberation, and appeals process.

IV. CARIOLOGY

Several textbooks are used for cariology instruction. For the most part schools use Edwina Kidd's cariology text or Sturdevant's operative text. The schools reporting varied greatly as to which department teaches cariology. This is probably due to the variation in departmental and section structures. One school reported that they do not have departments. Most schools do not have specific requirements for faculty teaching of cariology. Most state that an interest in the material is the base criteria but several others noted that their faculty hold either Masters or PhDs in a closely related area of science. Half of the schools are provided or have access to the textbook used by the cariology faculty. The majority of schools indicate that some concepts taught by the cariology faculty are not well supported by the clinical faculty. Most of the unsupported concepts cited by the schools include the diagnosis of caries and what preventive and/or surgical treatment should be instituted and when. As to caries being left within a cavity preparation, most schools agree that there are situations in which such a decision in acceptable. However, the criteria vary and are generally vague enough that such a decision is always clinical in nature.

V. CARIES RADIOGRAPHIC INTERPRETATION

The schools are unanimous in stating that there is not sufficient evidence to intervene surgically when a radiograph indicates that caries activity is confined to the outer one-half of the enamel. They are also in agreement that current teaching concepts do not support restorative intervention on interproximal lesions that extend beyond the outer ½ of the enamel when viewed on digital imagery. All also indicate agreement that upon reaching the dentin radiographically, the lesion should be restored. Up to that point, it is a clinical decision based upon all factors relevant to the patient. Each school reports that the reason for the above views stems from the research evidence that lesions solely within enamel can remineralize and are often not cavitated. Of those schools that have digital radiography the majority opine that there is little if any difference between a digital scan and conventionally exposed film.

VI. COMMUNICATION IN OUR DIGITAL ERA

Students have critiqued faculty in course reviews as not being responsive if e-mails are not answered immediately or over the weekend prior to an examination early in the week.

All schools state that they spend as much or more time in preparing materials and managing an electronic curriculum as they do in preparing a conventional curriculum. Those that say it takes the same amount of time, do indicate that an electronic curriculum is top-heavy with work at first implementation. Students generally prefer email for communication with faculty but also like office appointments as a secondary method. The schools feel that these students are expecting instant gratification and wish a response within the same day. Most schools are not given any guidelines as to communications with students before an exam. However, answers that are helpful to the whole class are forwarded to all. The schools reported that the faculty are not given any guidelines as to using e-mail as a communication tool (time of day responses).

2011 NATIONAL CODE AGENDA
REGION IV RESPONSES
(Evidence cited where applicable)
October 20, 21, 2011

Region IV School Abbreviations

CWRU	**Case Western Reserve University**	**OSU**	**Ohio State University**
UDM	**University of Detroit Mercy**	**PITT**	**University of Pittsburgh**
UIC	**University of Illinois - Chicago**	**SUNY**	**State University of NY - Buffalo**
IND	**Indiana University**	**WVU**	**West Virginia University**
MICH	**University of Michigan**	**UWO**	**University of Western Ontario**

I. SURVEY ON THE DEMOGRAPHICS OF FULL-TIME FACULTY THAT TEACH OPERATIVE DENTISTRY IN YOUR SCHOOL

A. EDUCATION/TRAINING/SPECIALTY AFFILIATION

What percentage are General Dentists (GD), have formal ADA-recognized Specialty training such as Prosthodontics (Pros), has a graduate degree or certificate in Operative Dentistry (OD), has a degree/certification in Advanced Education in General Dentistry (AEGD), has a degree/certification from a General Practice Residency (GPR), has a graduate degree in Material Science (MS), has formal instruction in teaching and learning theory(T/L) (e.g., Med, etc), has no formal post-graduate training (NoPGT), or served as a dentist in the armed forces (AF) prior to joining your faculty?

	GD	PROS	OD	AEGD	GPR	MS	T/L	NoPG	AF
CWRU	67.7%	22.6%	0%	6.5%	0%	3.2%	9.7%	54.8%	10%
UDM	100%	0%	60%	0%	0%	0%	20%	40%	20%
UIC	85%	15%	45%	0%	0%	30%	15%	15%	30%
IND	100%	0%	43%	0%	0%	7%	0%	57%	21%
MICH	100%	6%	38%	19%	12%	0%	63%	100%	13%
OSU	71%	21%	7%	7%	7%	7%	7%	8/14	7%
PITT	90%	10%	0%	10%	30%	0%	20%	50%	30%
SUNY	53%	40%	7%	0%	20%	13%	1%	1%	13%
WVU	100%	0%	0%	0%	10%	10%	0%	60%	20%
UWO	NRS	NRS	NRS	NRS	NRS	NRS	NRS	NRS	NRS

If other training or background is not included in the above, please describe.

CWRU Implant Pros Fellowship, Periodontics

UDM 40% have an MBA, 20% have training in TMD

UIC 1 PhD in Dental Materials and 1 MS in Education

IND 1 Law degree

MICH PhD - 19. In addition all full-time faculty teaching operative have formal post-grad training.

OSU None, however, 2 of our faculty have Masters, 1 in Mathematics, and 1 in Applied Statistics.

PITT No response submitted

SUNY One faculty member has double training: Periodontics and Prosthodontics

WVU Masters in Histology

UWO No response submitted

B. **CERTIFICATION IN OPERATIVE/RESTORATIVE DENTISTRY**

What percentage is certified by the American Board of Operative Dentistry, fellows or masters in the Academy of General Dentistry, is certified in Restorative by some other agency such as the Armed Forces?

	ABOD	AGD	Other	**ABOD=American Board of Operative Dentistry, AGD=Academy of General Dentistry NRS=No response submitted**
CWRU	0%	0%	0%	
UDM	60%	0%	0%	
UIC	0%	15%	0%	
IND	15%	0%	0%	
MICH	0%	13%	13%	
OSU	1/14	0%	0%	
PITT	0%	20	10%	
SUNY	0%	<1	0%	
WVU	0%	30%	10%	
UWO	NRS	NRS	NRS	

If other certification relevant to Operative/Restorative, please describe.

CWRU No response submitted

UDM None

UIC No response submitted

IND No response submitted

MICH No response submitted

OSU None

PITT No response submitted

SUNY One faculty member has a certificate in Operative Dentistry

WVU No response submitted

UWO No response submitted

C. EXPERIENCE IN TEACHING/PRACTICE

1. What is the range of teaching experiences for your Operative Faculty (indicate percentage)? Years: 1-5, 6-10, 11-15, 16-20, 21-25, 25+ (e.g., 1-5: 20%, 6-10: 20%, 16-20: 50%, 25+:10%)

	1 - 5	6 - 10	11 - 15	16 - 20	21 - 25	25+
CWRU	40%	20%	10%	20%	5%	5%
UDM	60%	0%	0%	0%	20%	20%
UIC	15%	45%	0%	15%	30%	0%
IND	29%	14%	36%	14%	0%	7%
MICH	13%	6%	37%	0%	6%	37%
OSU	21%	7%	36%	7%	7%	21%
PITT	30%	20%	20%	10%	0%	20%
SUNY	Most of the faculty members who teach Operative Dentistry here have taught it for 16-20 or 21-25 years. A small percentage has taught it for 1-5 or 6-10 years.					
WVU	40%	20%	10%	10%	0%	20
UWO	NRS	NRS	NRS	NRS	NRS	NRS

2. What percentage of your Operative Faculty conducts a part-time practice in which they treat their own patients (intramural or extramural)?

CWRU No response

UDM 40%

UIC 45%

IND 79%

MICH 63%

OSU 71%

PITT 20%

SUNY 90%

WVU 90%

UWO No response submitted

3. How much time, on average, is spent per week in practice? List by hours or half days. (e.g., 50% spend 4 hrs; 30% spend 8 hrs; 20% spend 0 hrs)

CWRU No response submitted

UDM 40% spend 2 half-days

UIC 15% spend 8 hours, 30% spend 4 hours

IND All have 2 half-days per week

MICH 50% spend 8 hours; 13% spend 16 hours

OSU 29% spend no hours; 14% spend 4 hours, 57% spend 8 hours. All faculty in intramural practice

PITT 1 spends 6 hours, 1 spend 7 hours

SUNY On average, our FT faculty spend 1 -2 half days in their practice

WVU 90% spend 2 half-days; 10% spend no hours.

UWO No response submitted

D. **TENURE STATUS/ACADEMIC RANK/EFFORT DISTRIBUTION**

1. What percentage of your Operative Faculty are Tenured/Tenure-track (T/TT)and Non-tenured (NT)?

CWRU 20% T/TT; 80% NT

UDM 0% T/TT; 100% NT

UIC 30 T/TT; 70% NT

IND 21% T/TT; 79% NT

MICH 44% T/TT; 56% NT

OSU One faculty on tenure tract, but not tenured. 1 faculty is tenured

PITT 0% T/TT; 100% NT

SUNY 43% T/TT; 57% NT

WVU 40% T/TT; 60% NT

UWO No response submitted

2. What is the percentage distribution by Academic Rank of your Operative teachers? Use: Instructor, Assistant Professor, Associate Professor, Professor (for tenured lines) Use: Clinical Instructor, Clinical Assistant, Clinical Associate, Clinical Professor (for non-tenured lines).

	Inst	Asst Prof	Assoc Prof	Prof	Clin Inst	Clin Asst	Clin Assoc	Clin Prof
CWRU	NRS	NRS	NRS	NRS	NRS	NRS	NRS	NRS
UDM						60%	40%	
UIC		15%				85%		
IND				21%		17%	8%	

MICH			25%	19%		19%	25%	12%
OSU		7%		7%		29%	50%	7%
PITT	10%	80%	10%		We reserve the title "clinical" for our part-time faculty			
SUNY		20%	20%	20%		7%	44%	
WVU				30%	10%	50%	10%	
UWO	NRS	NRS	NRS	NRS	NRS	NRS	NRS	NRS

3. What is the typical distribution of time for your Operative faculty between Teaching (T), Research/Scholarly activity (R/S), Service (S), Patient Care (PC), Administration (A) – effort reporting: e.g., 50% T, 20% R/S, 5% S, 25% PC, 0% A (Answer = average of full-time faculty; exclude exceptions such as Chairs with minimal teaching or significant administration time)

	T	**R/S**	**S**	**PC**	**A**
CWRU	50%	20%	10%		20%
UDM	70%			10%	20%
UIC	60%	20%	10%	5%	10%
IND	60%	10%	20%	5%	5%
MICH	50%	20%	5%	20%	5%
OSU	50%T/TT* 80%CF*	30%T/TT 20%CF		20%T/TT	
PITT	5%	5%	5%	85%	
SUNY	40%	20%	10%	20%	10%
WVU	70%	2%	3%	20%	5%
UWO	NRS	NRS	NRS	NRS	NRS
	OSU * T/TT= tenure/tenure track; CF=clinical faculty				

4. Do you anticipate significant changes in the roles/duties of Operative/Restorative faculty in the next 5 years? If yes, give a concise description.

CWRU No response submitted

UDM No

UIC Yes, now all operative and restorative courses are taught under one umbrella course integrating basic sciences with all disciplines in Dentistry and professionalism. The role of the restorative faculty will change in how the material is taught to the students. The curriculum is now problem-based in a small group setting. The faculty will need to prepare ahead of time significant amount of reading material and recorded lectures to post in sites like Blackboard for the students to access and prepare for discussion in class.

IND Many at my school feel we are becoming less operative faculty and more just generic generalists. So we are probably heading for fewer specialist faculty being available, especially in the clinics. There is also a shift toward CAD/CAM restorations.

MICH A shift towards incorporation or more digital dentistry concepts and techniques will happen in the next 5 years.

OSU No

PITT No

SUNY It depends whether our department will gradually shift from a merely clinical to a more research-oriented department. Given that approximately 80% of the teaching curriculum is taught by our faculty, developing a leading role in research has not been an easy task. Perhaps allocating future resources into the hiring of more full time operative trained faculty may assist in the development of a strong research foundation in the department where more faculty members are actively involved in research and each can contribute within their area of expertise to help guide the department on decision making regarding materials and techniques that should be taught as a part of our curriculum.

WVU Less gold, more CAD/CAM

UWO No response submitted

5. Does your Operative/Restorative faculty feel that they are valued members of the faculty with a similar standing and status as enjoyed by other dental faculty?

CWRU Not always

UDM Yes

UIC Yes we do feel valued

IND We are valued of what we can do, but not necessarily respected

MICH Yes

OSU Yes

PITT Yes

SUNY They probably don't feel as valued as primary research based faculty

WVU By some but not by all. Less by residents

UWO No response submitted

E. **DESIRABLE CHARACTERISTICS FOR OPERATIVE/RESTORATIVE FACULTY**

1. For the Chairmen/Section Directors - what personal traits or characteristics do you associate with an effective teacher of Operative/Restorative Dentistry (e.g., the "ideal faculty job description)?

CWRU Knowledge, caring, integrity

UDM Good clinical skills, preferably with advanced education in Operative Dentistry

UIC An effective teacher should be knowledgeable of the discipline and the literature, have good hand skills to be able to demonstrate, be a team player and collaborator. Have creative ideas, be a good communicator and have some background in education. The desirable qualifications are:

1. DDS or DMD degree
2. Advanced training in Operative Dentistry or General Dentistry
3. Ability to teach in pre-clinic and clinic
4. Prior teaching experience, eligible for licensure exam in Illinois
5. Training or experience in research
6. Experience im private practice

IND Experience, desire to teach, ability to work with other faculty, advanced training in Operative Dentistry, good work ethic

MICH At least 2 years of experience in clinical dentistry; post graduate training in general dentistry - AEGD, GPR, etc; lifelong learner; excellent communication skills; patience, motivation

OSU We are hoping to have an ad for faculty that will include desired traits or characteristics. Currently any new hires must be able to establish a research focus and would preferably be trained in a post-grad operative program. Teaching experience desires.

PITT Experienced, enthusiastic, willing to follow policies and directives, friendly, enjoys working with students

SUNY An effective operative dentist should combine a thorough understanding of the demands of contemporary restorative materials along with criteria for preparation, case and material selection, good communication skills. With a non-threatening interaction, an effective teacher should be able to convey expectations clearly and be able to offer constructive feedback in a positive manner.

WVU General dentistry experience, an interest in conservative dentistry and able to do non-ideal dentistry

UWO No response submitted

II. DENTAL MATERIALS FOR OPERATIVE/RESTORATIVE DENTISTRY

1. How do you introduce new materials or products in your operative/restorative clinics?

CWRU The course directors present it to the chairman who presents it to a clinical committee

UDM Formulary Committee

UIC The Department of Restorative Dentistry has a Dental Materials Advisory Committee to review and evaluate restorative materials in the clinic. Members of the committee discuss the evidence behind the material and its functionality in the school (infection control issues, delivery system, and handling). In some occasions, the material is introduced in a trial period where students use it for a period of time and then students are surveyed (i.e. manipulation of composite) and evaluated by faculty or members of the committee. The restorative materials are continuously reviewed by the committee to assess outcomes and need of new materials.

IND Any changes to the pre-clinic or clinic list of approved materials must be submitted to the Instrument and Supply Committee. It is an interdisciplinary group that tries to keep materials and products uniform in both pre-clinical laboratories and the undergraduate clinics, and to make certain that we are not duplicating or wasting materials. The course director has much input as to what is taught and used in his/her pre-clinical lab. Any clinical changes must also be approved by the Director of Clinics (Assoc. Dean).

MICH New materials are introduced to the clinic after they go through a review process. Often new material requests are made by clinic faculty who wish to add a material to what is already available or replace an existing material. Other times, materials representatives may suggest that existing materials be replaced with new versions of the same materials. There is a committee comprised of faculty from each department including a dental materials expert, a student representative, the Dean for Patient Affairs, as well as staff from the clinic dispensing desk and purchasing. New material requests are brought before the committee. Various individuals may be tasked with compiling research, cost analysis data etc. Often samples of the materials are brought to the meetings or piloted by individuals or groups. Decisions are made based on clinical research, cost effectiveness, ease of use by dental students, packaging/ infection control/ unit dose availability etc. Decisions are then made whether to add it to the existing formulary or replace and phase out existing materials. Discipline coordinators are also consulted if it affects curriculum decisions

OSU Faculty can suggest new materials. There is discussion within the division and decisions initially made by the division chair. At that point the material request is brought to the Clinic Operations and Materials committee, which is advisory to the clinical dean. Ultimately, the clinical dean makes the decision. Some materials do not go the full route and are only used pre-clinically for experience; these are chosen by the course directors.

PITT First, preclinical during the 1st and/or 2nd year, then patient care during the 3rd and 4th year.

SUNY A group of experts within each of the disciplines (Operative, Fixed and Removable) meet and decide on materials and supplies to be used in our clinics. This decision is partially based on research and partially based on cost.

WVU Committee chooses and is advisor to the administration

UWO No response submitted

2. Do you have any disclaimers, warnings, or other information documents that your patients have to read and sign relative to safety or risks for dental materials that may be used in their treatment? Yes/No. Examples might include: Amalgam (mercury), Resin (Bisphenol-A), non-precious casting metal (nickel). Describe the materials involved and the documentation used to satisfy informed consent goals.

CWRU No

UDM No

UIC No

IND No. We have some documentation for informed consent regarding surgery.

MICH No

OSU Only our whitening products have patient forms that must be signed

PITT No, informed consent for surgical and endodontic procedures

SUNY No

WVU No

UWO No response submitted

3. Have you stopped using any dental materials or product categories in the past 5 years due to concerns described above? e.g., Latex Rubber dam.

CWRU We don't use latex per hospital's guidelines

UDM No

UIC No. Case by case evaluation when know allergy is reported

IND Latex gloves are no longer used throughout and soon will use latex-free dams exclusively

MICH Latex rubber dam is no longer used in the clinics due to increased incidence of latex allergies by patients and providers. However, it is still used for teaching purposes in the pre-clinic due to lower cost. Non-latex material is provided to any students who have latex sensitivity

OSU We stopped using latex products in our clinics I believe more than 5 years ago. We currently use latex-free gloves and rubber dam products.

PITT No, however, as an example, non-latex is available for rubber dam and gloves

SUNY No

WVU Latex products

UWO No response submitted

4. Rank the following reasons for using any dental material in your clinic by priority from High to Low: Evidence for Effectiveness, Safety, Economics, Packaging, Ease of Use, Manufacturer Reputation, Other – Describe.

CWRU Safety, effectiveness, packaging, economics, ease of use

UDM Evidence for effectiveness, packaging, ease of use, economics, manufacturer reputation

UIC Evidence for effectiveness, safety, packaging, ease of use, economics, manufacturer reputation

IND Safety, effectiveness, economics, ease of use, packaging, manufacturer reputation

MICH Evidence for effectiveness, safety, economics, ease of use, packaging (infection control/unit dose), manufacturer reputation, Other - equipment service, relationship with distributor

OSU Effectiveness is usually not an issue, so could be moved lower. Ease of use by novice dentists is critical for many of our products. Economy, packaging such as single-use/bulk, manufacturer reputation follow.

PITT Safety, evidence for effectiveness, economics, ease of use, manufacturer reputation, packaging

SUNY Evidence for effectiveness, safety, ease of use, economics, packaging, manufacturer reputation

WVU Safety, evidence for effectiveness, economics, ease of use, manufacturer reputation, packaging

UWO No response submitted

III. ETHICS/PROFESSIONAL CONDUCT AND OPERATIVE/RESTORATIVE DENTISTRY

1. Is there any ethics instruction or other ethical didactic content in your Operative/Restorative curriculum? Identify the courses by name (content), and year in your curriculum (Fr, So, Jr, Sr).

CWRU No

UDM No, there are ethics courses in all four years, but they are not taught by our department.

UIC Yes, we do have a professionalism and ethic module which is considered P/F during the freshmen year. With the new DMD curriculum, every course along the curriculum has an oral and behavioral science component all integrated as one course. The weight varies with each course. The International Dental Degree Program curriculum receives ethics as a separate course.

IND Ethics is included in Operative courses as faculty feel it is appropriate. Nothing formal within the department curriculum.

MICH Courses in the curriculum that specifically deal with ethics (not necessarily in the restorative curriculum however):

1) Introduction to the Profession	Dent 501A	Freshman year
2) Societal and Regulatory Issues Affecting Dentistry	Dent 739	Junior year
3) Practice Management	Dent 835	Senior year

OSU No. This topic is handled by a course outside the normal operative curriculum. The ethics course is offered in the first year by a hygienist who is affiliated with our radiology and clinic affairs office. We do have the students repeat the Dentist's Oath during the White Coat Ceremony as they start their dental career.

PITT Ethical treatment and professional conduct are discussed in most courses as regards to proper restorative treatment and treatment planning for a patient. There is no specific course taught by the department.

SUNY Ethics and Law in Practice Management is taught in the D2 year. Practice and Risk Management in the D4 year.

WVU Little if any

UWO No response submitted

2. If yes, what type of ethics instruction takes place in your restorative courses? Lecture only, small group discussions, on-line instruction, reading assignments, papers, others?

CWRU No response submitted

UDM N/A

UIC Ethics instructions vary from small group discussions to reading assignments, students' presentations, cases and scenarios. The D1 course involves small group activities around discussion and presentation of a case, self and peer evaluation. During the D3 course also meet in small group setting with a 20 minutes lecture. They take three online tests and students are encouraged to take the courses offered by the American College of Dentists on line. The Ozar Sokal text is used: "Dental ethics at chairside". The American College of Dentist Ethics Book, The ADA code of ethics, and the Illinois Dental Practice Act are all required reading.

IND Within a lecture only

MICH All of the above

OSU No focused topics in ethics within the operative courses

PITT N/A

SUNY Lecture mainly. Cases are also presented for discussion

WVU No response submitted

UWO No response submitted

3. Are your Operative/Restorative faculty involved with teaching in an ethics course(s) that is (are) directed by another department? If yes, describe how many are involved as a percentage or fraction of the total faculty in this (these) course(s) e.g., 50% or 3/7ths.

CWRU N/A

UDM No

UIC Few restorative faculty are involved in teaching ethics. Three of nine instructors were restorative faculty, but it varies each year. Conflict with other courses prevent more participation from restorative faculty.

IND No because we are fully engaged with other duties.

MICH No

OSU No

PITT Through the Behavioral Science area, a portion of the faculty, 50%, assist in a standardized patient exercise.

SUNY Restorative faculty is the only faculty involved in the teaching of ethics. Ethics courses are only offered by the Restorative Department.

WVU No

UWO No response submitted

4. If a student commits what would be considered an ethics violation in an Operative/Restorative CLINICAL course, what types of punishment/sanctions could they face if found guilty? Briefly summarize the process from reporting to final outcome.

CWRU An ethics violation can be dealt with at multiple levels:

1. by the course director directly
2. by the department chair
3. can be reported to the committee on student faculty relations

UDM Student can be reprimanded, made to repeat the year, or dismissal from school. The situation is reported to the Office of Academic Affairs who decides what to do.

UIC We have two processes, academic and clinical. Both processes begin the same way. Students, faculty, staff or patients report the alleged offense to the appropriate office (academic affairs or clinical affairs).
Once reported the associate dean for the division begins an investigation, collecting materials, interviewing witnesses, interviewing the accused, etc. Should the evidence determine that no offense was committed, or the evidence is of poor or questionable quality the allegations are dismissed. However, should the evidence suggest possible or probable offense(s) did occur the associate dean refers the matter to committee for review and hearing. Clinical issues are referred to the Compliance Committee and academic issues are referred to the Subcommittee on Student Promotions. Both committees are made up entirely of faculty members and chaired by the appropriate associate dean who is a non-voting participant. The committees hear the complaint and the evidence, listen to the personal statement of the accused, listen to any witnesses the accused may wish to bring forward, and ask questions. The accused may have an advocate to be

with her/him, but the advocate is only allowed to talk to the accused and may not address the committee at any time. The committee, in executive session, discusses the matter and makes a decision that includes the penalty. The associate dean communicates the decision to the accused. Once the accused has been formally notified, he/she either accepts the decision or within 5 working days formally seeks an appeal. Appeals, in order to be granted, must demonstrate one of three scenarios: 1) new factual information not considered in the original hearing; 2) allegation of procedural errors made in the original hearing; or, 3) allegation of bias by one or more of the original hearing committee members.
If the appeal is granted, three faculty not involved in any way with the case are convened to hear the appeal. The review panel may: 1) uphold the original decision; 2) modify the original decision (in either direction); or, 3) dismiss the case. The decision of the review panel is final. Possible outcomes include all possibilities from no action to dismissal.

IND Depending of course on the severity of the act, sanctions include, suspension from classes, clinics or the entire School of Dentistry. The initial complaint or report goes to a student committee (peer review) that reviews the evidence and makes recommendations to the faculty committee which then repeats the process. The faculty committee then recommends a sanction to the full Faculty Counsel which then votes. The Dean has the final decision.

MICH **Sanctions**: Unprofessional behavior in violation of standards outlined in the professional conduct policies and University conduct policies referenced and incorporated in the Honor System Policy can result in disciplinary action up to and including dismissal from the School of Dentistry, revocation of degree, or any other sanction deemed appropriate to address the violation.
Honor System procedures summarized: (actual Honor System document describes procedures in much more detail)
Review Committee: The Review Committee consists of 8 dental students, 3 dental hygiene students and 4 members of the School of Dentistry faculty. The Chairperson of the Review Committee must be a student member.
Executive Committee: The Executive Committee is the Executive Committee of the School of Dentistry and is comprised of six members of the governing faculty appointed by the Board of Regents. Eligible faculty include tenured professorial staff or associate and full professors of the clinical instructional staff. With the Executive Committee, the Dean is responsible for the ultimate disposition of all student issues related to academic performance and professional behavior.
Hearing Panel: A Hearing Panel will consist of at least five members of the Review Committee and include at least three student representatives and at least one faculty representative. The Chair of the Review Committee will appoint the members of the Hearing Panel and the Chair of each Hearing Panel.
Investigators: The Investigators are members of the Review Committee who are responsible for gathering evidence, identifying and interviewing witnesses and accused parties and presenting the allegations of misconduct before the Hearing Panel for a particular case.
Respondent: The Respondent is the student who is charged with violating the Code of Academic Integrity and Professional Conduct. The respondent has the following rights:

a. The right to request that the Review Committee Hearing be waived and that the matter be heard by the Executive Committee. When the matter is originally heard by the Executive Committee, the Dean will serve as the final appeal.
b. The right to have a different investigator assigned to the case.
c. The right to review all evidence considered by the Review Committee.
d. The right to appear before and present evidence and witnesses to the Hearing Panel.

Hearing Procedures
Investigators: The Chair will appoint two members of the Review Committee to serve as the Investigators. The Investigators cannot serve on the Hearing Panel reviewing the matter that they

have investigated.
Review of the Investigator's report: The Investigators will present to the Review Committee all information gathered during their investigation. The Review Committee will then determine if a charge should be referred to a hearing.

Hearing Process:

a. The respondent and the investigators must submit to the Review Committee, in writing, all documents that they would like the Hearing Panel to consider, a list of all witnesses that they would like to submit testimony before the Hearing Panel, and the name of an advisor and whether that advisor is an attorney who may accompany the respondent. The investigator will include a copy of the written statement that led to the investigation and the Investigator's report to the Review Committee.

b. The respondent will have an opportunity to appear before a Hearing Panel to present his/her case. The respondent may review all documents considered by the Hearing Panel and may question witnesses who appear before the Hearing Panel. The respondent may also present his/her own evidence and witnesses.

c. The respondent may be accompanied at the hearing by a personal advisor, who may be an attorney. The advisor may not participate directly in the proceedings, but may only advise the respondent.

d. The Hearing Panel will prepare a written report containing factual findings and recommended sanctions. The vote of the majority of the members of the Hearing Panel will determine whether the respondent is found responsible or not responsible for the alleged violation and will determine the panel's recommended sanctions. The chair of the Hearing Panel is permitted to vote.

Appeal Procedures:

The respondent may appeal the Review Committee Determination to the Executive Committee. The following are the only grounds for an appeal:

The respondent may ask for a hearing before the Executive Committee regarding the appeal.

a. The Executive Committee may request that the charging party, the Investigators, the Chair of the Hearing Panel or others be present at the appeal hearing to present information relevant to the appeal.

b. The student may be accompanied at the appeal hearing by a personal advisor, who may be an attorney. The advisor may not participate directly in the proceedings, but may only advise the student.

c. The decision of the Executive Committee is final.

d. When an appeal is filed, the Dean will determine if the sanctions imposed by the Review Committee's Determination will stay in effect during the appeal process. The decision of the Dean is final.

OSU The student would go before the Professionalism Committee. Depending on the severity, many sanctions, including expelling from the program, are possible,

PITT Violation notices may be written by faculty when a student violates an ethical or professional policy. A student, who receives three violation notices, may have clinical privileges suspended for varying length of times. A student may have one notice written for an egregious event and be immediately suspended from the clinic with additional punishment or remediation directed by the Dean for Clinical Affairs.

SUNY Ask Jane (??) Or head of Judicial Council (Gene Pantera/Fadi??)

WVU Suspension, additional community service, additional course work, papers

UWO No response submitted

IV. CARIOLOGY

1. Which textbook is being used for Cariology?

CWRU *Cariology* by Newbrun

UDM I don't think we use a textbook

UIC Sturdevants, *Art and Science of Operative Dentistry*, 5th edition

IND *Cariology* by Kidd

MICH *Dental Caries and Its Clinical Management*, Fejerskov and Kidd

OSU We use the current edition of the Sturdevant text

PITT *Dental Caries: The Disease and its Clinical Management*, 2nd edition, Fejerskov and Kidd, Blackwell, 2008

SUNY No specific textbook for Cariology is used at this time. The reading assignments and teaching materials presented to the students is mainly based in current evidence from the literature as well as the Summitt textbook

WVU *Dental Caries and Its Clinical Management*, Fejerskov and Kidd

UWO No response submitted

2. In which department/section are the Cariology courses conducted?

CWRU Department of Community Dentistry

UDM Restorative and Biomedical Sciences (nutrition and microbiology)

UIC We do not have a standalone Cariology course. Cariology is taught within the umbrella of a comprehensive care course. It is taught mainly by the Restorative Department shared with the Pediatric Department. The bulk of cariology is taught by Operative Faculty.

IND Preventive and Community Dentistry

MICH Most cariology is taught in the Cariology, Restorative Sciences and Endodontics Department. Some of it in the Orthodontics and Pediatric Dentistry Department. In addition to the operative dentistry and pediatric dentistry courses that include cariology aspects, there are two fully dedicated didactic courses in cariology (Cariology I and II) given during the first year that include laboratory and clinical experiences. Later on in the curriculum, fundamental concepts are reinforced in the dental school clinics and community dentistry sites. We have started efforts to train preceptors at the community dentistry sites to improve their level of "calibration" with dental school faculty. We have also started to explore the idea of integrating learning objectives into other courses already present in the curriculum. For example, behavioral management (e.g., in motivational interviewing), basic sciences and pharmacology (for saliva physiology and management of hyposalivation).

OSU Operative dentistry, the early clinic experience courses, and also microbiology and pediatric dentistry.

PITT The course director presently is in Dental Public Health, but the course is non-departmental. The previous course director was in Pediatric Dentistry and the course director before that was in Restorative.

SUNY The department of Oral Biology teaches Cariology from the microbiology stand point. The Restorative department teaches Cariology from the restorative standpoint. Aspects such as disease prevention and minimally invasive approach to caries management are covered by the restorative department early in the curriculum (D1) and later in greater depth in the D3 year.

WVU Managed by an operative faculty throughout the entire curriculum.

UWO No response submitted

3. What are the faculty qualifications for teaching Cariology?

CWRU Dr. Sena Narendran, BDS, MPH, Dr. Rick Jurevic, DDS, PhD

UDM None

UIC None

IND None. Presently, a researcher and MPH heads the course and does teach in undergraduate clinics.

MICH Since Cariology is being taught at multiple levels and we have faculty with a wide variety of backgrounds, most of the fundamental didactic concepts are being taught in the two Cariology courses mainly by two faculty who have a PhD in dental sciences focused in cariology (one of them has also a masters in Operative Dentistry). These faculty are supported in these two courses by a microbiologist, a Diplomate in the American Board of Oral and Maxillofacial Radiology who teaches radiology interpretation, and another Operative Dentistry faculty with a PhD and ample background in cariology and operative dentistry. Simultaneously, students are being trained in removing carious tissue, cavity preparation, restoration and placement of sealants in preclinical operative with a wide variety of restorative faculty.

OSU No specific requirements. The main faculty teaching are Dr. Bob Seghi (chair of restorative), Dr. Ann Griffen (in pediatric dentistry) and Dr. Stan Sharples who teaches caries risk assessment.

PITT An interest in the topic and the ability to understand the text and associated literature and prepare cogent lectures.

SUNY In the Oral Biology department, the faculty teaching Cariology hold PhD degrees in Microbiology. In the Restorative department, the faculty teaching Cariology have formal training in Operative Dentistry.

WVU An interest in Cariology.

UWO No response submitted

4. Are full time faculty of Operative Dentistry provided the textbook(s)?

CWRU Yes

UDM N/A

UIC No, we ask the to be donated by the company or buy them ourselves.

IND No, but have access to it in the library.

MICH They have electronic access to the textbook

OSU As needed if they teach in a preclinical course in Operative

PITT No

SUNY Yes, in electronic version

WVU It is available

UWO No response submitted

5. Are there concepts of Cariology which are not well supported by the Clinical faculty?

CWRU Not Cariology per se, but the different ways to address it (medical vs surgical)

UDM Not that I know of

UIC Yes, there are many concepts not supported by the clinical faculty

IND Yes, somewhat depending on who you talk to

MICH Yes. Some faculty, particularly part time faculty, have had some difficulty enforcing the non-surgical management of the disease in caries active patients, including early diagnosis and risk assessment. The probable reason for this challenge is their lack of training in that area. On the other hand, most faculty agree philosophically with the concepts being taught didactically. Most of the current disagreements are in diagnosis and restorative management of occlusal lesions and defective restorations for which we are need of better calibration.

OSU Yes

PITT (Opinion of Course Director). I believe that there is somewhat a lack of understanding of how to stage caries clinically and how to engage in conservative management of pre-cavitated lesions. In addition, I think the faculty do not appreciate that caries is a disease that must be "cured" and decay is a manifestation that, even when restored, does not change the patient's disease (caries) status. That requires substantial behavior change. Thus cutting and filling teeth is treating a symptom, not a disease. If the disease is not treated, the symptoms will return. Additionally, I think some faculty do not attempt to use lesion activity (active vs. arrested) as a diagnostic criteria, hence aggressive interventions are done on arrested lesions that do not require treatment.

SUNY Yes, there are always a few controversial concepts that are not well supported by some of the clinical faculty

WVU Caries diagnosis, excavation and caries control

UWO No response submitted

6. What are the concepts and why the lack of support?

CWRU No response submitted

UDM N/A

UIC Caries management by risk assessment; few faculty supports this philosophy in their practice so it is not a concept reinforced in clinic. Using the explorer judiciously and not interpreting a "explorer stick" as a carious lesion that needs restorative intervention. Remineralization of approximal lesions involving the inner ½ of the enamel: This practice is difficult to reinforce due to the need of "ideal lesions" for licensure exams. Placements of pit and fissure sealant in non-cavitated carious lesions: this procedure is not done due to lack of insurance compensation (cost), misconception of obsolete "watch" concept, fear of sealing active caries. Partial removal of caries and indication for indirect pulp capping. Use of liners under amalgam and composite restorations: due to poor knowledge of materials and pulp biology.

IND Criteria for restoring teeth, use of explorer, etc. Many of the advocates of "conservative dentistry" are researchers and have never practiced dentistry. Also we do not often have calibration sessions for part-time faculty.

MICH See previous answer

OSU [Stan] Caries Risk Assessments and subsequent treatment protocols are inconsistently done. Most older faculty never did caries risk assessments and were only taught to prescribe fluoride. They are not familiar with new research and new products.

PITT
1) Treating caries as a disease that requires specific interventions to cure. The reason it that this was not traditionally taught at Pitt (we didn't have a cariology course until about 8 years ago). Up until that time, caries was viewed as equivalent to "decay" and the treatment was a restoration. That is too simplistic of an approach, but it was what everyone was taught. As we know, most people practice as they were taught in dental school (change is hard).
2) The other concept is the need for conservative management of teeth with lesions, which includes not restoring arrested lesions (unless esthetics are an issue) and using non operative means to arrest manage lesions (e.g., sealants, fluoride).

SUNY Examples may be stepwise caries excavation, minimally invasive dentistry, caries risk assessment, and others. Part of it may be the lack of a designated "Cariology" person that will take a leading role on cariology research as well as attending national meetings to bring back to the department current evidence based concepts in the modern management of Caries as a disease.

WVU Faculty not willing to change

UWO No response submitted

7. What are the interpretations of textbook content as to Restorative intervention, caries removal, etc? (Are there criteria and situations when caries could intentionally be left – restored or sealed?)

CWRU Incipient caries confined to enamel

UDM Clinical Judgement

UIC Partial caries removal is an accepted procedure where infected soft dentin is removed and only affected dentin is left on areas with close proximity to the pulp and potential pulpal exposure. This is a predictable procedure if patient presents asymptomatic with no radiographic image under good isolation to prevent bacterial contamination. According to Sturdevant's textbook is a controversial practice, and there is no strong evidence to guide final decision.
There is also controversy regarding reentry of a treated tooth. Whether the practitioner should reentry to assess the "remineralized dentin" or assumed that remineralization has occurred. Sturdevant's does not state any recommendation but explains that the consensus is against reentering the tooth. Placement of pit and fissure sealants in non-cavitated carious lesions (NCCLs): Intentional sealing of active caries lesion is an acceptable treatment modality. Sealants have shown to cause regression of active carious lesions by reducing the number of viable bacteria. Sturdevant states that the placement of pit and fissure sealant is "better clinical service than a watchful waiting". In 2010, after an extensive scientific evidence review, the American Dental Association (ADA) adopted the treatment option of sealing NCCLs as an officially recommended course of action. A recent survey (September 2011, Vol. 142:9, pp. 1033-1040) demonstrated that the majority of US dentists (37.4% and 42.3% of general dentists and pediatric dentists, respectively), have not adopted the clinical recommendation on sealing NCCLs.

IND Yes, but it is a clinical judgement call as to whether to expose the pulp or leave carious tissue. Factors include patient symptoms and quality of tooth structure remaining.

MICH The general principle for deep lesions is to leave some carious tissue in areas near the pulp (clear risk of pulpal exposure) if the patient did not present symptoms of irreversible pulpitis and the surrounding areas are sound allowing an adequate sealing of the area. The area should be "sealed" with glass ionomer.

OSU [Stan] We need to improve our decision tree on what to do. Many schools are now teaching D1, D2, E1, and E2 type lesions. They then teach a different protocol for each situation. However, at least in the Cariology Section at ADEA, there is not 100% agreement on all of the protocols for each type lesion.
[RGR] We teach intervention when caries is at the DEJ or beyond. Clinical faculty determine whether to seal in caries or remove in the case of potential pulpal exposures. If a crown is anticipated at a future appointment, caries is removed and, if the pulp is exposed, endodontic therapy is performed.

PITT We try hard to teach current best evidence on how to prevent, manage, and restore caries and the associated lesions. We supplement the text with current research as available.
Some examples of things we teach include:
It is acceptable to leave caries in deep lesions where there is high risk of pulp exposure, as recent evidence suggest this can provide a better outcome (e.g., less pulp exposures, less need for endo, less pain, and no increased likelihood of need for retreatment).
Biofilms are normal part of human oral ecology and can never be eradicated, only changed to non-pathogenic from pathogenic communities through behavioral interventions.
Choose the most conservative approach to manage a lesion. In other words, one that conserves tooth structure and is consistent with the best long term outcomes (e.g., sealing incipient lesions). Restorations should be used as a last resort, as once a tooth has been cut, its is weakened, which leads to a higher likelihood of future problems (cusp fracture, endo, etc.).
How to diagnose caries at an early pre-cavitated stage so that interventions to prevent cavitation and arrest disease can be initiated.

SUNY No specific criteria can be provided by the Summitt or any other textbook that will encompass all the factors involved in the decision whether to attempt preventive therapies vs. proceeding with the restorative intervention. The interpretation from the readings however is that restorative intervention should be postponed as long as possible. "Between the initiation of caries and the involvement of dentin in the caries process, there is ample time for a preventive management strategy. This implies that the early lesion should be detected so that preventive treatment can arrest its progress and bring about remineralization. If this strategy is successful, operative intervention will not be required" (Summitt, Ch 4).

WVU Caries are left for several clinic situations.

UWO No response submitted

V. CARIES RADIOGRAPHIC INTERPRETATION

1. Is there current clinical evidence that supports restorative intervention on interproximal caries that show in the outer ½ of the enamel when viewed on digital imagery?

CWRU No

UDM Not that I know of

UIC Bin-Shuwaish et al suggests that both types of radiographic images tend to underestimate caries depth; however, a digital image may be slightly more accurate than the D-speed film. (*Estimation of clinical axial extension of Class II caries lesions with ultraspeed and digital radiographs: an in-vivo study*. Oper Dent. 2008 Nov-Dec;33(6):613-21.) There are also studies that suggest both conventional and digital radiography perform similarly in the detection of proximal carious lesions. (Senel et al, *Diagnostic accuracy of different imaging modalities in detection of proximal caries*. Dentomaxillofacial Radiology. 2010 Dec;39(8):501-11.)
There is no current clinical evidence, to our knowledge, that supports surgical intervention on interproximal carious lesions in the outer ½ of enamel when viewed on digital imagery. Therefore, after assessing patient risk factors, non-surgical or pharmacological management may be recommended for E1 and E2 carious lesions as was previously recommended for conventional radiographic presentations.

IND We feel that lesions in the outer ½ of the enamel do not need restoration. However, this is a judgment call based on the patient's caries activity.

MICH For the following questions, "digital imagery" is being interpreted as radiographic interpretation. Most available evidence suggests that most of those lesions in the outer half of enamel are non-cavitated. Therefore, we teach students to treat them non-surgically if the lesion is thought to be active or the patient at high risk (nothing if considered to be inactive).

OSU We don't use digital imagery at this time. However, there is significant research that shows these E1 lesions (outer ½ of the enamel) are reversible and should not be surgically restored but rather treated with products for remineralization.

PITT No

SUNY Current clinical evidence supports attempts to remineralize rather than restorative intervention on these types of lesions.

WVU No, but based on caries risk.

UWO No response submitted

2. If yes, reference and summarize the conclusions.

CWRU No response submitted

UDM N/A

UIC N/A

IND N/A

MICH No response submitted

OSU See answer to previous question

PITT N/A

SUNY A recent cross-sectional study from 2009, surveyed dental practices with a broad representation of practice types, treatment philosophies, and patient population. The following was reported: for a high caries risk patient, 66% of the clinicians would restore a proximal enamel lesion, while 24% would do so once the lesion had reached into the outer third of the dentin. For a low caries risk patient, 39% would restore an enamel lesion, and 54% would do so once the lesion had reached into the outer third of the dentin. (Gordan et al, 2009)

WVU No response submitted

UWO No response submitted

3. Do current teaching concepts support restorative intervention on only these interproximal lesions that extend beyond the outer ½ of the enamel when viewed on digital imagery?

CWRU No

UDM ??

UIC According to Siva Neto et al, radiographically, proximal carious lesions are visualized at the level of half the inner enamel, but only in the minority of cases (6.8%). This suggests that radiography is not the most indicated method to detect incipient carious lesions confined to enamel, being more effective for lesions that have already reached the DEJ. The literature suggests that the majority of lesions confined to enamel are non-cavitated. In the Machiulskiene et al. study, 76% of the lesions diagnosed either by clinical and/or radiographic exams were confined to enamel and classified as non cavitated lesions. Given that 65% of the proximal lesions in the study were confined to enamel, and, as the literature suggests, the majority of these lesions are non-cavitated, it would be reasonable to advocate non-surgical or pharmacological management of these lesions. In contrast, the literature shows that 24% of carious lesions into dentin or at the dentino-enamel junction are cavitated, therefore more likely needing surgical treatment. According to Bin-Shuwaish et al, lesions diagnosed radiographically to be deeper than 1 mm into dentin are cavitated warranting surgical intervention (Estimation of clinical axial extension of Class II caries lesions with ultraspeed and digital radiographs: an in-vivo study. Oper Dent. 2008 Nov-Dec;33(6):613-21.

IND We generally do not restore unless the lesion is through the enamel when viewed radiographically or if clinically cavitated.

MICH We think it does not.

OSU [Stan] Again there is significant research that shows until cavitation a tooth can be remineralized. Cavitation usually does not occur until the lesion is into the dentin. this means that the treatment of choice should be remineralization for all enamel lesions. This seems to be the prevailing teaching in the members of the ADEA Cariology section.

PITT Mostly determined on a case by case basis taking into consideration factors such as caries risk, rampant caries patients, age of patient, xerostomia due to meds, etc.

SUNY No, we teach conservative dentistry that attempts remineralization strategies rather than restorative interventions whenever possible, particularly in lesion of outer enamel.

WVU No, but based on caries risk.

UWO No response submitted

4. What are the current teachings for intervention based on 1/3 extensions in enamel and dentin? e.g., outer, middle, inner third.

CWRU Restore only if it extends to dentin. Students are exposed to more conservative methods such as resin infiltration.

UDM Definitely restore if lesion is into the dentin.

UIC In low risk patients, current teachings for non-cavitated carious extensions in enamel include non-surgical or pharmacological management. At UIC, this includes fluoride varnish, MI paste, and sealants (occlusal only) in combination with chlorhexidine, sucrose-free gum, and combined chlorhexidine-fluoride methods. Bader et al, *Systematic reviews of selected dental caries diagnostic and management methods*. J Dent Educ. 2001 Oct;65 (10):960-8. Rethman et al. *Non-fluoride caries-preventive agents Executive summary of evidence-based clinical recommendations*. The Journal of the American Dental Association September 1, 2011 vol. 142 no. 9 1065-1071.) In high risk patients, with carious lesions extending into the inner half of the enamel or DEJ, will receive a combination of non-surgical and surgical intervention.
In patients with radiographic extension into dentin, the current teaching at UIC is to surgically restore the carious lesion.

IND We will consider restoring when radiographic evidence shows the caries in the inner 1/3 of the enamel and even then it is a clinical judgment call by the faculty. If in dentin, we restore.

MICH For most situations, if in dentin, the lesion is likely to be cavitated therefore it should be restored in most instances. If in enamel, the lesion is likely not to be cavitated and could be managed non-surgically, if needed (depending on risk and activity). If at the DEJ, depending on the risk of the patient and activity of the lesion. If any of the cases presented above are accompanied with a clinically detected cavitation, the recommendation is restorative treatment.

OSU [RGR] I believe we still teach not to treat until at DEJ, but am not sure. Do we still have faculty who treat when progressed to inner 1/3?
[Stan] I do not think so. The NERB now requires the lesion to be through the enamel before it can be used as a board lesion. The WREB requires the same thing. Because of this, I am seeing fewer enamel lesions restored in the clinic.

PITT 1/3 extension in to enamel only, then no intervention. If caries extends to DEJ and beyond, then intervention required.

SUNY Restorative intervention of interproximal lesions is indicated only when the lesion extends through the entire thickness of enamel. Therefore, with CAMBRA, if the surface is non-cavitated, other treatment options should be considered before restoration is attempted.

WVU Restore if in dentin.

UWO No response submitted

5. What is the evidence-based information that supports the current teaching concept?

CWRU Enamel lesion without cavitation may still be arrested or reversed.

UDM There definitely is a trend toward conservative (i.e., non-surgical) treatment of lesion that have not penetrated to the enamel.

UIC The literature suggests that the majority of lesions confined to enamel are non-cavitated. In the Machiulskiene et al. study, 76% of the lesions diagnosed either by clinical and/or radiographic exams, were confined to enamel and classified as non cavitated lesions. Given that 65% of the proximal lesions in the study were confined to enamel, and as the literature suggests, the majority of these lesions are non-cavitated, it would be reasonable to advocate non-surgical or pharmacological management of these lesions. In contrast, the literature shows that 24% of carious lesions into dentin or at the dentino-enamel junction are cavitated, therefore these are more likely to need surgical treatment.

IND There is some evidence that enamel can remineralize. Therefore if lesion is contained solely within the enamel, we attempt preventive measures. Once again, it is a judgment call based on the patient's condition and ability to utilize preventive follow-up techniques at home.

MICH There are multiple published papers relating lesion size determined by radiographs and clinical cavitation. Kielbasa et al. (2006) presented a nice table summarizing several of those.

OSU [Stan} Good source of this is Dr. Down Young at University of Pacific dental school.

PITT 40% demineralization of enamel for caries to show radiographically.

SUNY "Currently, restoring proximal tooth surfaces is recommended only if a bitewing radiograph shows a solid enamel radiolucency extending from the surface through the enamel and penetrating into the dentin," (Young et al, 2009, Fontana et al, 2006, Batons et al., 2007, Pitts, 1992)

WVU No response submitted

UWO No response submitted

6. Is there a discernible difference of radiographic evidence of actual clinical penetration of interproximal caries between conventionally exposed radiographs versus digital imagery? If so, which do you think represents a more accurate depiction of the clinical condition?

CWRU No

UDM ??

UIC According to Cicero et al, both radiographic techniques conventional and digital show high agreement in lesion diagnostic with visual examination, but the digital system detected more carious lesions in enamel and dentin. In this study the digital radiology examination diagnosed 1.12 times more carious surfaces than the conventional radiology. Some other studies have shown that digital imaging had shown higher diagnostic exactness compared to visual inspection. As the lesion depth increases more agreement was found between clinical and digital technique. (*Clinical and radiographic diagnosis of approximal and occlusal dental caries in a low risk population* Med Oral Parol Oral Cir Buccal 2007;12:E252-7.)

IND No discernible difference

MICH We don't have digital radiography available for the students, yet, so it hasn't become a focus of our teaching. However, didactically we teach them that most evidence suggest similar levels of detection capabilities for both methods.

OSU We don't use digital imagery and cannot answer this.

PITT No discernible difference

SUNY Perhaps conventionally exposed radiographs were better initially. With the improvements made in digital imaging software, accuracy int eh detection of caries has not only been improved but also, a number of options for image manipulation have become available that can further assist in the process of caries diagnosis.
References:
Young DA, Kitsch VR, Whitehorse J. *A clinician's guide to CAMBRA: a simple approach*. Compend Contin Educ Dent. 2009;30(2):92-105.
Fontana M, Zero DT. *Assessing patients' caries risk*. J Am Dent Assoc. 2006;137(9):1231-1239.
Jensen L, Batons AW, Feather stone JD, et al. *Clinical protocols for caries management by risk assessment*. J Calif Dent Assoc. 2007;35(10):714-723.

Pitts NB, Rimmer PA. *An in vivo comparison of radiographic and directly assessed clinical caries status of posterior approximal surfaces in primary and permanent teeth*. Caries Res. 1992;26(2):146-152.

WVU Do not know

UWO No response submitted

VI. COMMUNICATION IN OUR DIGITAL ERA

Students have critiqued faculty in course reviews as not being responsive if e-mails are not answered immediately or over the weekend prior to an examination early in the week.

1. How does the time required to implement and manage an electronic curriculum compare to before the use of online teaching resources?
    1. More time
    2. Same amount of time
    3. Less time

    List specifics as it relates to your answer

CWRU Same amount of time

UDM Same amount of time

UIC More time

IND More time initially and then about the same amount

MICH Same amount of time

OSU More time. Besides the regular course requirements, there are no responsibilities for electronic materials. Not all faculty do this, as it is not a strict requirement.

PITT More time - curriculum Management Tool - use of Courseweb/Blackboard - syllabus preparation

SUNY Same amount of time. The time to implement an electronic curriculum may be more initially, but later it takes less time after it has been developed

WVU More time

UWO No response submitted

2. In your experience for individual student interactions do students prefer
    1. E-mail to communicate
    2. Office appointments
    3. Online tools with your electronic curriculum resources

CWRU E-mail to communicate

UDM E-mail to communicate and office appointments

UIC E-mail to communicate and office appointments

IND E-mail to communicate and office appointments

MICH E-mail to communicate

OSU E-mail to communicate and office appointments. Many students use e-mail for quick questions and concerns. Office appointment are still used for questions regarding the quality of technique assignments. Students strongly support the addition of video tutorials for technique procedures. Some (about 40%) use recorded lectures when available for study. Lecture recording is not required and is done by faculty only if they desire to do so.

PITT E-mail to communicate

SUNY Online tools with your electronic curriculum resources

WVU E-mail to communicate

UWO No response submitted

3. When students are e-mailing faculty, when are they expecting a faculty response?
   1. Same day
   2. Within several days
   3. Within a week

CWRU Same day assumption

UDM I don't know

UIC Same day

IND Same day probably

MICH Same day

OSU Although the easy answer is the same day. Most students appreciate that faculty can't/don't check e-main and respond that quickly. Moat are very comfortable with a response within a few days. If they are concerned, they usually track down the faculty for a face-to-face response.

PITT Same day

SUNY Same day or within several days

WVU Same day

UWO No response submitted

4. When students ask a question about a specific course, lecture as it pertains to an upcoming examination, how do you manage your response?
   1. Answer that student only.
   2. Answer forwarded to entire class (keeping student anonymous) so that all students get the information.
   3. No response, student must meet with the faculty member.
   4. Faculty are not given any guidelines.

CWRU Faculty are not given any guidelines

UDM Answer that student only and faculty are not given any guidelines

UIC Answer that student only/answer forwarded to entire class

IND Faculty are not given any guidelines

MICH Faculty are not given any guidelines

OSU Faculty are not given any guidelines. Most will answer the question directly. If it is one asked by multiple students, an e-mail to the class or discussion within the lecture addresses the issue. I do not believe many (any?) Faculty use discussion areas of the learning management system for class materials.

PITT Faculty are not given any guidelines

SUNY Answer that student only/answer forwarded to entire class

WVU Faculty are not given any guidelines

UWO No response submitted

5. How are faculty directed to use e-mail as a communication with students?
   1. Respond only during school hours.
   2. Respond during school hours and evenings.
   3. Respond during school hours, evenings and weekends.
   4. Faculty are not given any guidelines.

CWRU Faculty are not given any guidelines

UDM Faculty are not given any guidelines

UIC Faculty are not given any guidelines

IND Faculty are not given any guidelines

MICH Faculty are not given any guidelines

OSU There are no formal guidelines established

PITT Faculty are not given any guidelines

SUNY Faculty are not given any guidelines

WVU Faculty are not given any guidelines

UWO No response submitted

6. What guidance are students given as it regards faculty responses to student e-mails that are sent off-school hours that the student requires an immediate response?
   1. E-mails are responded to only during school hours.
   2. E-mails are responded to whenever the faculty wants to.
   3. No guidance is given to students about expectations to respond

CWRU No guidance is given to students about expectations to respond

UDM No guidance is given to students about expectations to respond

UIC No guidance is given to students about expectations to respond

IND No guidance is given to students about expectations to respond

MICH No guidance is given to students about expectations to respond

OSU There are no guidelines for the students

PITT E-mails are responded to whenever the faculty wants to

SUNY No guidance is given to students about expectations to respond

WVU No guidance is given to students about expectations to respond

UWO No response submitted

Regional CODE Agenda

To be established by the respective Region and Regional Director. Please also report on responses to the Regional Agenda from all participants.

NO REGIONAL AGENDA SUBMITTED

Suggestions for CODE

To locate the web site via a search engine, enter Consortium of Operative Dentistry Educators or Academy of Operative Dentistry and then use the link, CODE.

NO SUGGESTIONS SUBMITTED

Consortium of Operative Dentistry Educators

(CODE)

REGION V (NORTHEAST) ANNUAL REPORT

Region V Director:
Dr. Richard Lichtenthal
Columbia University
New York, NY

Region V Annual Meeting Host:
Dr. Richard Lichtenthal
Columbia University
New York, NY

Region V Annual Report Editor:
Dr. Richard Lichtenthal

CHAPTER 5

CODE REGIONAL MEETING REPORT FORM

REGION V (Northeast)

LOCATION AND DATE OF MEETING:

University: Columbia University

Address: New York, New York

Date: October 5-6, 2011

CHAIRPERSON:

Name:	Dr. Richard Lichtenthal	Phone #:	216--305-9898
University:	Columbia University	Fax #:	212-305-8493
Address:	New York, New York	E-mail:	rm1l@columbia.edu

List of Attendees: Please see reverse of this page for List of Attendees to Regional Meeting

Suggested Agenda Items for Next Year:

No items submitted

LOCATION AND DATE OF NEXT REGIONAL MEETING:

Name:		Phone #:	
University:		Fax #:	
Address:		E-mail:	
Date:	TBA		

Please return all completed enclosures to
Dr. Larry D. Haisch, National Director, UNMC College of Dentistry;
40th and Holdrege Streets; Lincoln, NE 68583-0740.
Office: 402 472-1290 Fax: 402 472-5290 E-mail: lhaisch@unmc.edu
Deadline for return: 30 Days post-meeting
Also send the information on a disk and via e-mail with all attachments.
Please indicate the software program and version utilized for your reports.

CODE Region _____V_____ Attendees Form

NAME	UNIVERSITY	PHONE #	FAX #	E-MAIL ADDRESS
Magrit Maggio	Penn	215-573-7847	215-573-4075	mmaggio@pobox.upenn.edu
Ying Gu	SUNY-SB	631-632-8930	631-632-6105	ying.gu@stonybrok.edu
Ann Nasti	SUNY-SB	631-632-8930	631-632-6105	anasti@sunysd.edu
Stanley Freeman	Columbia	212-305-9898	212-305-8493	spf2@columbia.edu
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Ken Boberick	Temple	215-707-7708	215-707-2802	kboberick@dental.temple.edu
Aadaarsh Gopalakrishna	Conn	860-679-3749	860-679-1330	gopalakrishna@uchc.edu
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2011 NATIONAL CODE AGENDA
REGION V
SUMMARY RESPONSES TO NATIONAL AGENDA

(Editor note: Questions condensed for printing purposes)

NO REGIONAL SUMMARY SUBMITTED

I. SURVEY ON THE DEMOGRAPHICS OF FULL-TIME FACULTY THAT TEACH OPERATIVE DENTISTRY IN YOUR SCHOOL

- **A. EDUCATION/TRAINING/SPECIALTY AFFILIATION**
- **B. CERTIFICATION IN OPERATIVE/RESTORATIVE DENTISTRY**
- **C. EXPERIENCE IN TEACHING/PRACTICE**
- **D. TENURE STATUS/ACADEMIC RANK/EFFORT DISTRIBUTION**
- **E. DESIRABLE CHARACTERISTICS FOR OPERATIVE/RESTORATIVE FACULTY**

II. DENTAL MATERIALS FOR OPERATIVE/RESTORATIVE DENTISTRY

III. ETHICS/PROFESSIONAL CONDUCT AND OPERATIVE/RESTORATIVE DENTISTRY

IV. CARIOLOGY

V. CARIES RADIOGRAPHIC INTERPRETATION

VI. COMMUNICATION IN OUR DIGITAL ERA

Students have critiqued faculty in course reviews as not being responsive if e-mails are not answered immediately or over the weekend prior to an examination early in the week.

2011 NATIONAL CODE AGENDA
REGION V RESPONSES
(Evidence cited where applicable)
October 5, 6, 2011

Region V School Abbreviations

BU	**Boston University**	**PENN**	**University of Pennsylvania**
CLMB	**Columbia University**	**SUNY**	**State University of NY - Stony Brook**
CONN	**University of Connecticut**	**TEMP**	**Temple University**
DAL	**Dalhousie University**	**TUFT**	**Tufts University**
HARV	**Harvard University**	**UMD**	**University of Maryland**
HOW	**Howard University**	**UMNJ**	**University of New Jersey**
LAV	**University of Laval**	**UMON**	**University of Montreal**
MCG	**McGill University**	**USN**	**US Naval Dental School**
NYU	**New York University**	**UTOR**	**University of Toronto**

I. SURVEY ON THE DEMOGRAPHICS OF FULL-TIME FACULTY THAT TEACH OPERATIVE DENTISTRY IN YOUR SCHOOL

A. EDUCATION/TRAINING/SPECIALTY AFFILIATION

What percentage are General Dentists (GD), have formal ADA-recognized Specialty training such as Prosthodontics (Pros), has a graduate degree or certificate in Operative Dentistry (OD), has a degree/certification in Advanced Education in General Dentistry (AEGD), has a degree/certification from a General Practice Residency (GPR), has a graduate degree in Material Science (MS), has formal instruction in teaching and learning theory(T/L) (e.g., Med, etc), has no formal post-graduate training (NoPGT), or served as a dentist in the armed forces (AF) prior to joining your faculty?

	GD	PROS	OD	AEGD	GPR	MS	T/L	NoPG	AF
BU	>90%	10%	0%	14%	2%	0%	14%	54%	6%
CLMB	100%	10%	20%	10%	20%	10%	20%	60%	50%
CONN	100%	0%	50%	25%	25%	0%	25%	25%	75%
DAL	NRS	NRS	NRS	NRS	NRS	NRS	NRS	NRS	NRS
HARV	NRS	NRS	NRS	NRS	NRS	NRS	NRS	NRS	NRS
HOW	NRS	NRS	NRS	NRS	NRS	NRS	NRS	NRS	NRS
UMD	NRS	NRS	NRS	NRS	NRS	NRS	NRS	NRS	NRS
LAV	NRS	NRS	NRS	NRS	NRS	NRS	NRS	NRS	NRS
MCG	100%	2 total	0%	0%	0%	0%	0%	NRS	N/A
UMON	NRS	NRS	NRS	NRS	NRS	NRS	NRS	NRS	NRS
UMNJ	NRS	NRS	NRS	NRS	NRS	NRS	NRS	NRS	NRS

NYU	NRS	NRS	NRS	NRS	NRS	NRS	NRS	NRS	NRS
PENN	100%	17%	34%	0%	17%	17%	0%	17%	0%
SUNY	100%	0%	none	25%	50%	0%	0%	25%	25%
TEMP	75%	25%	13%	8%	8%	8%	0%	29%	21%
UTOR	100%	0%	0%	0%	0%	100%	0%	0%	0%
TUFT	90%	0%	10%	2 faculty	2 faculty	2 faculty	10%	90%	5%
USN	NRS	NRS	NRS	NRS	NRS	NRS	NRS	NRS	NRS

If other training or background is not included in the above, please describe.

BU N/A

CLMB 1 PhD in Education

CONN 1 Certificate in Cariology

DAL No response submitted

HARV No response submitted

HOW No response submitted

UMD No response submitted

LAV No response submitted

MCG N/A

UMON No response submitted

UMNJ No response submitted

NYU No response submitted

PENN 17% Public Health

SUNY PhD, 1 faculty; PhD in progress, 1 faculty; MD 1 faculty.

TEMP N/A

UTOR N/A

TUFT 1 in IT

USN No response submitted

B. **CERTIFICATION IN OPERATIVE/RESTORATIVE DENTISTRY**

What percentage is certified by the American Board of Operative Dentistry, fellows or masters in the Academy of General Dentistry, is certified in Restorative by some other agency such as the Armed Forces?

	ABOD	AGD	Other	ABOD=American Board of Operative Dentistry AGD=Academy of General Dentistry NRS=No response submitted
BU		8%		
CLMB		10%	10%	
CONN		50%	50%	
DAL	NRS	NRS	NRS	
HARV	NRS	NRS	NRS	
HOW	NRS	NRS	NRS	
UMD	NRS	NRS	NRS	
LAV	NRS	NRS	NRS	
MCG	N/A	N/A	N/A	
UMON	NRS	NRS	NRS	
UMNJ	NRS	NRS	NRS	
NYU	NRS	NRS	NRS	
PENN		17%		
SUNY	N/A	N/A	N/A	
TEMP		13%	13%	
UTOR	NRS	NRS	NRS	
TUFT	N/A	N/A	N/A	
USN	NRS	NRS	NRS	

1. If other certification relevant to Operative/Restorative, please describe.

BU No response submitted

CLMB 10% MS in Operative Dentistry

CONN 50% MS in Operative Dentistry

DAL No response submitted

HARV No response submitted

HOW No response submitted

UMD No response submitted

LAV No response submitted

MCG No response submitted

UMON No response submitted

UMNJ No response submitted

NYU No response submitted

PENN No response submitted

SUNY No response submitted

TEMP No response submitted

UTOR Fellowship in Academy of Dental Materials

TUFT No response submitted

USN No response submitted

C. EXPERIENCE IN TEACHING/PRACTICE

1. What is the range of teaching experiences for your Operative Faculty (indicate percentage)? Years: 1-5, 6-10, 11-15, 16-20, 21-25, 25+ (e.g., 1-5: 20%, 6-10: 20%, 16-20: 50%, 25+:10%)

	1 - 5	6 - 10	11 - 15	16 - 20	21 - 25	25+
BU	16%	20%	18%	18%	16%	16%
CLMB	20%	20%	12.5%	12.5%		35%
CONN	25%				25%	50%
DAL	NRS	NRS	NRS	NRS	NRS	NRS
HARV	NRS	NRS	NRS	NRS	NRS	NRS
HOW	NRS	NRS	NRS	NRS	NRS	NRS
UMD	NRS	NRS	NRS	NRS	NRS	NRS
LAV	NRS	NRS	NRS	NRS	NRS	NRS
MCG	10-20%				80-90%	
UMON	NRS	NRS	NRS	NRS	NRS	NRS
UMNJ	NRS	NRS	NRS	NRS	NRS	NRS
NYU	NRS	NRS	NRS	NRS	NRS	NRS
PENN	50%		50%			
SUNY		25%	25%	50%		
TEMP	13%		25%		12%	29%
UTOR	16%	16%			16%	50%
TUFT	20%	50%		20%		10%
USN	NRS	NRS	NRS	NRS	NRS	NRS

2. What percentage of your Operative Faculty conducts a part-time practice in which they treat their

own patients (intramural or extramural)?

BU 60%

CLMB 90%

CONN 75%

DAL No response submitted

HARV No response submitted

HOW No response submitted

UMD No response submitted

LAV No response submitted

MCG 100%

UMON No response submitted

UMNJ No response submitted

NYU No response submitted

PENN 67%

SUNY 100%

TEMP 44%

UTOR 50%

TUFT No response submitted

USN No response submitted

3. How much time, on average, is spent per week in practice? List by hours or half days. (e.g., 50% spend 4 hrs; 30% spend 8 hrs; 20% spend 0 hrs)

BU 1-2 days per week

CLMB 1-2 days full or part-time; 3-4 days volunteers

CONN 75% 1 day per week

DAL No response submitted

HARV No response submitted

HOW No response submitted

UMD No response submitted

LAV No response submitted

MCG 100% spend 3-4 days

UMON No response submitted

UMNJ No response submitted

NYU No response submitted

PENN 75% spend 8 hours; 25% spend 6 hours

SUNY 75% spend 8 hours; 25% spend 4 hours

TEMP 8% 1-4 hours; 25% 5-10 hours; 8% 11-15 hours

UTOR 33% spend 2 half-days per week; 16%, spend 2 full days per week

TUFT 20% spend 4 hours; 70% spend 8 hours

USN No response submitted

D. **TENURE STATUS/ACADEMIC RANK/EFFORT DISTRIBUTION**

1. What percentage of your Operative Faculty are Tenured/Tenure-track (T/TT) and Non-tenured (NT)?

BU No tenure at our school

CLMB 100% non-tenured clinical track

CONN 100%

DAL No response submitted

HARV No response submitted

HOW No response submitted

UMD No response submitted

LAV No response submitted

MCG No response submitted

UMON No response submitted

UMNJ No response submitted

NYU No response submitted

PENN 100% no tenure track clinical faculty at our school

SUNY 25% T/TT; 75% NT

TEMP 43% T/TT; 57% NT

UTOR 66.6% T/TT, 33.3% NT

TUFT None tenured

USN No response submitted

2. What is the percentage distribution by Academic Rank of your Operative teachers? Use: Instructor, Assistant Professor, Associate Professor, Professor (for tenured lines) Use: Clinical Instructor, Clinical Assistant, Clinical Associate, Clinical Professor (for non-tenured lines).

	Inst	Asst Prof	Assoc Prof	Prof	Clin Inst	Clin Asst	Clin Assoc	Clin Prof
BU	NRS	NRS	NRS	NRS	NRS	NRS	NRS	NRS
CLMB		85%	14%	1%				
CONN		25%	50%	25%				
DAL	NRS	NRS	NRS	NRS	NRS	NRS	NRS	NRS
HARV	NRS	NRS	NRS	NRS	NRS	NRS	NRS	NRS
HOW	NRS	NRS	NRS	NRS	NRS	NRS	NRS	NRS
UMD	NRS	NRS	NRS	NRS	NRS	NRS	NRS	NRS
LAV	NRS	NRS	NRS	NRS	NRS	NRS	NRS	NRS
MCG	NRS	NRS	NRS	NRS	NRS	NRS	NRS	NRS
UMON	NRS	NRS	NRS	NRS	NRS	NRS	NRS	NRS
UMNJ	NRS	NRS	NRS	NRS	NRS	NRS	NRS	NRS
NYU	NRS	NRS	NRS	NRS	NRS	NRS	NRS	NRS
PENN	17%					50%	17%	
SUNY		25%				75%		
TEMP			80%	20%		85%	15%	
UTOR		33.3%	16.6%	50%				
TUFT		50%	30%	20%				
USN	NRS	NRS	NRS	NRS	NRS	NRS	NRS	NRS

3. What is the typical distribution of time for your Operative faculty between Teaching (T), Research/Scholarly activity (R/S), Service (S), Patient Care (PC), Administration (A) – effort reporting: e.g., 50% T, 20% R/S, 5% S, 25% PC, 0% A (Answer = average of full-time faculty; exclude exceptions such as Chairs with minimal teaching or significant administration time)

	T	**R/S**	**S**	**PC**	**A**
BU	NRS	NRS	NRS	NRS	NRS
CLMB	70%	10%		10%	10%
CONN	50%	30%		20%	
DAL	NRS	NRS	NRS	NRS	NRS
HARV	NRS	NRS	NRS	NRS	NRS
HOW	NRS	NRS	NRS	NRS	NRS
UMD	NRS	NRS	NRS	NRS	NRS
LAV	NRS	NRS	NRS	NRS	NRS

MCG	NRS	NRS	NRS	NRS	NRS
UMON	NRS	NRS	NRS	NRS	NRS
UMNJ	NRS	NRS	NRS	NRS	NRS
NYU	NRS	NRS	NRS	NRS	NRS
PENN	60%	20%	20%		
SUNY	40%	??	10%	20%	20%
TEMP	80%T/TT 95% NT	10%T/TT 2% NT	5%T/TT 2% NT		5%T/TT 1% NT
UTOR	40%	30%	5%	20%	5%
TUFT	85%	10%			5%
USN	NRS	NRS	NRS	NRS	NRS

4. Do you anticipate significant changes in the roles/duties of Operative/Restorative faculty in the next 5 years? If yes, give a concise description.

BU No response submitted

CLMB It has already started to change. Increase in all phases of General Dentistry - as clinical comprehensive care is expanded to the case-based preclinical comprehensive care courses, all disciplines will be taught by our staff (the same is true for specialty faculty from Periodontics, Rndodontics and Prosthodontics)

CONN No

DAL No response submitted

HARV No response submitted

HOW No response submitted

UMD No response submitted

LAV No response submitted

MCG No response submitted

UMON No response submitted

UMNJ No response submitted

NYU No response submitted

PENN No significant changes

SUNY Operative dentistry is the foundation and should retain its position in playing major role in curriculum

TEMP Clinics will be moving away from a departmental model of care to a comprehensive care group model with increased teaching responsibility for operative faculty

UTOR Not really

TUFT No

USN No response submitted

5. Does your Operative/Restorative faculty feel that they are valued members of the faculty with a similar standing and status as enjoyed by other dental faculty?

BU No response submitted

CLMB Yes. More than ever, perhaps more so

CONN No

DAL No response submitted

HARV No response submitted

HOW No response submitted

UMD No response submitted

LAV No response submitted

MCG No response submitted

UMON No response submitted

UMNJ No response submitted

NYU No response submitted

PENN Yes

SUNY The foundation knowledge is very important in student dental education, but with specialty forces, it is many times under estimated.

TEMP All faculty are equally valued with open invitation to serve on all department, school and university committees

UTOR Yes

TUFT Yes

USN No response submitted

E. **DESIRABLE CHARACTERISTICS FOR OPERATIVE/RESTORATIVE FACULTY**

1. For the Chairmen/Section Directors - what personal traits or characteristics do you associate with an effective teacher of Operative/Restorative Dentistry (e.g., the "ideal faculty job description)?

All summary:

1. profound understanding of operative dentistry concepts
2. experience in hands-on teaching
3. research/scholar activity in the field
4. presence in national and international meetings
5. leadership in organized dentistry
6. mentoring ability, team player, ability to build a strong team
7. track record in academics, operative dentistry community
8. Cariology background:

9. profound understanding of operative dentistry concepts
10. experience in hands-on teaching, demonstrations, clinical and pre-clinical instruction
11. lecture ability, development of specific areas
12. team player
13. scholarly activity, research training background knowing the basics of conducting research
14. priority in teaching
15. following calibration protocols
16. student mentorship
17. Good hands, good attitude with patients and willing to work cheap
18. Fluency in digital communicati0on age
19. Engaged in part time practice to hone skills and continue enrichment
20. Interest in preclinical, clinical and PG teaching
21. Interactive/hands-on teaching style

II. DENTAL MATERIALS FOR OPERATIVE/RESTORATIVE DENTISTRY

A. How do you introduce new materials or products in your operative/restorative clinics?

BU Material is evaluated by faculty/restorative director and if Dean of Clinics Agrees ($$), faculty and students are notified. Demos are given to faculty, usually by factory rep and the material is placed in the supply area

CLMB Faculty recommend new materials and or techniques to the Division Director. The Division Director reviews the evidence available with the recommending faculty Person. If there is agreement, the Division Director will bring it to the Materials/instrument Committee (representatives from each discipline) for approval. If there is disagreement, an ad hoc meeting of the Operative Faculty will discuss the Material/technique and decide. Much depends on the persuasiveness of the Division Director. In service demonstrations and are held to familiarize faculty and students with the new material (or product).technique. These products or materials are introduced in the preclinic as well.

CONN Memos sent to dental student, staff and faculty describing the change, the information on the product and how to use it. Then it is discussed in lectures to the third and fourth year dental students. If economically possible, the new products are also incorporated into the preclincial courses for students to have some familiarity withe ht product

DAL No response submitted

HARV No response submitted

HOW No response submitted

UMD No response submitted

LAV No response submitted

MCG New materials are introduced only by the Clinic Director, but any staff member can make a suggestion

UMON No response submitted

UMNJ No response submitted

NYU Generally, where possible, they are first introduced into the preclinic. Factors listed in section D below determine the introduction of new products

PENN Materials Committee reviews suggested materials, recommends changes

SUNY Yes, by lunch and learn presentations

TEMP All faculty can make written suggestions regarding the introduction of new materials. These are forwarded to the instruments and materials committee for review, debate and recommendation. The school-wide committee reviews utilization and cost

UTOR By the time students reach the operative clinic in the third year they should have been exposed to all the materials and products used for basic restorative dentistry. All attempts have been made to keep the materials the same in preclinic and in clinic. New materials are described in lecture and/or demonstrated in the clinical setting

TUFT Materials are available in the clinic and preclinic

USN No response submitted

B. Do you have any disclaimers, warnings, or other information documents that your patients have to read and sign relative to safety or risks for dental materials that may be used in their treatment? Yes/No. Examples might include: Amalgam (mercury), Resin (Bisphenol-A), non-precious casting metal (nickel). Describe the materials involved and the documentation used to satisfy informed consent goals.

BU No

CLMB No

CONN No

DAL No response submitted

HARV No response submitted

HOW No response submitted

UMD No response submitted

LAV No response submitted

MCG No signable disclaimers

UMON No response submitted

UMNJ No response submitted

NYU No

PENN Yes

SUNY No

TEMP Yes. Amalgam/mercury as per City of Philadelphia ordinance wavier form and ADA "dental filing facts"

UTOR No

TUFT No

USN No response submitted

C. Have you stopped using any dental materials or product categories in the past 5 years due to concerns described above? e.g., Latex Rubber dam.

BU No

CLMB Latex free gloves, latex free rubber dam is available

CONN Nothing regarding restorative materials. A sign is posted in the operatory regarding latex allergy. Latex and non-latex dam is available. All gloves are non-latex.

DAL No response submitted

HARV No response submitted

HOW No response submitted

UMD No response submitted

LAV No response submitted

MCG We have removed latex gloves, but still use regular rubber dam

UMON No response submitted

UMNJ No response submitted

NYU Latex

PENN No latex gloves, no latex rubber dam on clinical floor

SUNY Yes, latex-free

TEMP No. Latex and nitrile gloves and non-latex rubber dam are available

UTOR No

TUFT Not completely latex free. Use only nitrile gloves, but latex and non-latex rubber dam is available

USN No response submitted

D. Rank the following reasons for using any dental material in your clinic by priority from High to Low: Evidence for Effectiveness, Safety, Economics, Packaging, Ease of Use, Manufacturer Reputation, Other – Describe.

BU Chair believes that all criteria are of high value

CLMB Safety, evidence for effectiveness, ease of use, manufacturer support, packaging

CONN Safety, evidence for effectiveness, ease of use, manufacturer reputation, economics, packing

DAL No response submitted

HARV No response submitted

HOW No response submitted

UMD No response submitted

LAV No response submitted

MCG Safety, evidence for effectiveness, ease of use, economics, manufacturer reputation, packaging

UMON No response submitted

UMNJ No response submitted

NYU We believe that Evidence for effectiveness and safety are the same thing. Economics, packaging, manufacturer reputation

PENN Evidence for Effectiveness, safety, economics, packaging, ease of Use, manufacturer Reputation

SUNY Safety, evidence for effectiveness, ease of use, economics, packaging, manufacturer reputation

TEMP Safety, evidence for effectiveness, economics, ease of use, manufacturer support, packaging

UTOR Safety, evidence for effectiveness, ease of use, economics, manufacturer reputation, packaging

TUFT Safety, evidence for effectiveness, ease of use, economics, packaging, manufacturer reputation

USN No response submitted

III. ETHICS/PROFESSIONAL CONDUCT AND OPERATIVE/RESTORATIVE DENTISTRY

A. Is there any ethics instruction or other ethical didactic content in your Operative/Restorative curriculum? Identify the courses by name (content), and year in your curriculum (Fr, So, Jr, Sr).

BU Ethics is a significant component of all courses in the 4 year curriculum. As of this week, we are beginning an ethics program fro all students, faculty and staff. It will consist of a one hour seminar followed by a series of smaller group workshops

CLMB There is a formal ethics course in each of the four years. Each is a 1-2 hour seminar type presentation of 3 weeks to 6 weeks duration.

CONN Woven into lectures in years 1 - 4, but not a topic on its own.

DAL No response submitted

HARV No response submitted

HOW No response submitted

UMD No response submitted

LAV No response submitted

MCG Ethics is taught a little bit at a time in many different courses. No separate ethics course.

UMON No response submitted

UMNJ No response submitted

NYU No, ethics is a free standing course taught every year - D1, 2, 3, 4.

PENN Yes. Not specific Operative Dentistry ethics course, but addressed in procedures in 1st and 3rd years. Ethics courses addressed in Jr. Practice Management courses. Also have a selective course.

SUNY Yes, following the protocol and understanding of application of dental materials and their properties are considered being a part of professional conduct. Course are: Foundations in Dental Professional Development, Years 1 to 4; Professional Responsibility I and II, Years 2 and 4.

TEMP A separate ethics course is given. It is not part of the restorative department.

UTOR There is a separate ethics course in the curriculum which does not take place within operative dentistry. However, ethics is discussed as a part of operative dentistry during all four years.

TUFT No ethics course in Operative.

USN No response submitted

B. If yes, what type of ethics instruction takes place in your restorative courses? Lecture only, small group discussions, on-line instruction, reading assignments, papers, others?

BU See response to previous question

CLMB Ethics is formally a part of each section presented in Restorative Dentistry. Misuse and misrepresentations, over-treatment, etc. in all phases are part of the discussion.

CONN See response to previous question

DAL No response submitted

HARV No response submitted

HOW No response submitted

UMD No response submitted

LAV No response submitted

MCG Mainly group discussions in a class/lecture setting.

UMON No response submitted

UMNJ No response submitted

NYU N/A

PENN Lecture, group discussion, seminars.

SUNY Lecture, small group discussion, reading assignments.

TEMP N/A

UTOR Whenever it is applicable during lectures, seminars, treatment planning and clinical sessions.

TUFT N/A

USN No response submitted

C. Are your Operative/Restorative faculty involved with teaching in an ethics course(s) that is (are) directed by another department? If yes, describe how many are involved as a percentage or fraction of the total faculty in this (these) course(s) e.g., 50% or 3/7ths.

BU The persons most concerned with the teaching of ethics are the Chair of the Committee on Ethics and Professionalism, one general dentist and one lawyer.

CLMB Yes. Members of the Restorative Section participate in the Ethics seminars (25%).

CONN No

DAL No response submitted

HARV No response submitted

HOW No response submitted

UMD No response submitted

LAV No response submitted

MCG No

UMON No response submitted

UMNJ No response submitted

NYU No

PENN No

SUNY No

TEMP No

UTOR No

TUFT No

USN No response submitted

D. If a student commits what would be considered an ethics violation in an Operative/Restorative CLINICAL course, what types of punishment/sanctions could they face if found guilty? Briefly summarize the process from reporting to final outcome.

BU A faculty member would fill out a professionalism form which wold be read by the clinical director.

CLMB Incidents that are considered "ethical"violations are reported, in writing, to the Ethics committee (Faculty and student members). If it is found that a violation has been committed the committee, based on the severity of the violation, will determine an appropriate penalty, from writing a paper to suspension to dismissal. Penalties can be appealed, one time, with an independent appeals board. Final appeal can be done with the Dean, on "due process" grounds only.

CONN This is infrequent. A report can be submitted to the administration. Consequences could extend from reprimand to dismissal.

DAL No response submitted

HARV No response submitted

HOW No response submitted

UMD No response submitted

LAV No response submitted

MCG Discipline does not usually involve dismissal, but has occasionally involved short term suspension.

UMON No response submitted

UMNJ No response submitted

NYU All ethical violations are referred to the PRB (peer review board) which is comprised of 13 students (D1-D4) and 1 faculty advisor. An ethics policy is posted on line for students to review. An ethical violation is referred to the PRB through the Assistant Dean for Student Affairs and Admissions. The punishment can range from nothing to dismissal with other penalties including repeating a course, formal note of reprimand, delayed graduation, etc.

PENN Incident report filed by the faculty member to Academic Affairs. It then goes to a faculty-based ethical board to review and follow-up with student.

SUNY Report to academic standing, warning letter, probation , and dismiss.

TEMP All incident reports are sent to Academic Affairs. Levels of severity regarding the incident and student attitude are noted on the form. Those incidents that the faculty member designates for referral to the honor board are forwarded to the Honor Code Administrator. The problem is reviewed in consultation with the faculty member and if an appropriate sanction can be issued by the department, the case is referred back to the department. Sanctions for minor violations include: los of clinical privileges, lab or didactic remediation, paper, typodont exercises. Sanctions can be customized to fit the infraction and to make it educational and not punitive. For any case in which the appropriate sanction might be a loss of time (expulsion, suspension, probation) the case is heard by the Honor Board. The more serious infractions (treating a patient without faculty supervision, forgery, stealing, fraud) are always heard by the Honor Board. There is a well designed due process for the student to pursue: appeal, hearing by a smaller group, re-appeal, final decision by the Dean.

UTOR Ethics violations would be treated on a case by case basis. The restorative instructor would report the problem to the course coordinator. The restorative instructor would also consider the ethics violation during his/her grading. The course coordinator would interview the student. Minor infractions would be handles by the course coordinator in the form of a warning, a downgrade of the student grade, or remedial training. More serious infractions would involve the Clinic Director who might suspend the student from clinic temporarily, and/or the Dean who would be involved in a longer term suspension of the students or, ultimately, expulsion.

TUFT Student is reported to the Ethics committee.

USN No response submitted

IV. CARIOLOGY

A. Which textbook is being used for Cariology?

BU There is no text book per se, cariology is incorporated into several programs.

CLMB *Dental Caries: The Disease and Its Clinical Management*, Fejerskov and Kidd

CONN Clinical Cariology course; no textbook is used. The course director has his own syllabus.

DAL No response submitted

HARV No response submitted

HOW No response submitted

UMD No response submitted

LAV No response submitted

MCG Summit and Robbins

UMON No response submitted

UMNJ No response submitted

NYU *Dental Caries: The Disease and Its Clinical Management*, Fejerskov and Kidd

PENN Primary: *Dental Caries: The Disease and Its Clinical Management*, Fejerskov and Kidd
Secondary: Sturdevant/Roberson, Summit

SUNY *Dental Caries: The Disease and Its Clinical Management*, Fejerskov and Kidd

TEMP Sturdevant and selected articles (i.e., Milicich GW. Caries management in the dental practice, Compend Contin Ed Dent 2009; 30(2).

UTOR Textbook of Clinical Cariology, 2nd edition, Thylstrup and Fejerskov. Munksgaard

TUFT Sturdevant

USN No response submitted

B. In which department/section are the Cariology courses conducted?

BU Cariology is a component of GD1, the program that covers all the first year courses. It is emphasized in Operative Dentistry-1 and in the prep for APEX (extramural rotation) In the 3rd and 4th year, it is a significant part of treatment planning.

CLMB A separate course "Cariology" in the spring semester of second year, 19 sessions. Then carried through to case-based restorative preclinical comprehensive care.

CONN Operative section and Oral Medicine

DAL No response submitted

HARV No response submitted

HOW No response submitted

UMD No response submitted

LAV No response submitted

MCG Public Health Dentistry

UMON No response submitted

UMNJ No response submitted

NYU There is a separate Cariology sequence of 17 lectures that is contained in a total course called "Diagnosis and Treatment of Oral Disease." There are three other sequences in this course presented by Oral Medicine, Endodontics, and Periodontics. Cariology is also presented in the first and second year operative dentistry.

PENN Preventive and Restoration, Sciences 1st and 3rd. Basic Sciences, Community Oral Health.

SUNY Operative Dentistry and Oral Biology

TEMP In the restorative department cariology is taught in the freshman operative, sophomore treatment planning and junior restorative courses. Cariology is also taught in other departments including the basic sciences.

UTOR Preventive Dentistry, Operative Dentistry

TUFT Prevention, Operative

USN No response submitted

C. What are the faculty qualifications for teaching Cariology?

BU No extra qualifications - just the willingness to teach it

CLMB No particular requirements, but the course happens to be taught by faculty having a DDS, MPH; DDS, MSc; DDS, PhD, and DDS alone. Interest in,attendance at conferences regarding and knowledge of modern Cariology theory and practice is, however, suggested.

CONN Operative: specific post doctoral training in Cariology. Oral medicine: PhD in Microbiology.

DAL No response submitted

HARV No response submitted

HOW No response submitted

UMD No response submitted

LAV No response submitted

MCG PhD in Public Health

UMON No response submitted

UMNJ No response submitted

NYU No special qualifications. The Director and Associate Chair have attended numerous cariology programs along with the Chair who through association with leaders in the field such as Dr. John Featherstone and others, have become the in-school experts. In addition, the multiple faculty of the department have significant published research in the areas of cariology and salivary disease. They have participated in national guideline and systematic review development. The college has an active evidence-based dentistry program in which the general faculty participate that includes cariology reviews. Faculty have spent and continue to spend many hours of in-service training.

PENN Prevention and Restoration Sciences - experienced practitioner; Histology - basic scientist

SUNY PhD degrees and general dentistry DDS degrees

TEMP None

UTOR BDS, MSc., PhD.

TUFT Nutrition MS dietetic internship, PhD in Education, Policy and Administration.

USN No response submitted

D. Are full time faculty of Operative Dentistry provided the textbook(s)?

BU No

CLMB Textbooks are available in the Department library, the central library and on line.

CONN No

DAL No response submitted

HARV No response submitted

HOW No response submitted

UMD No response submitted

LAV No response submitted

MCG No response submitted

UMON No response submitted

UMNJ No response submitted

NYU No. We use Vital Book which is available and accessible to faculty.

PENN Yes. We purchase and are reimbursed.

SUNY No

TEMP Textbooks are on reserve in the library and department office

UTOR All FT faculty have access to the textbooks, manuals, lectures and references used.

TUFT Yes

USN No response submitted

E. Are there concepts of Cariology which are not well supported by the Clinical faculty?

BU Yes

CLMB Yes

CONN No

DAL No response submitted

HARV No response submitted

HOW No response submitted

UMD No response submitted

LAV No response submitted

MCG No response submitted

UMON No response submitted

UMNJ No response submitted

NYU Not really, although there is some pull back with older faculty regarding indirect vital pulp caps (or leaving decay as they refer to it), cessation of the use of explorers, in examinations and difficulty getting faculty to utilize certain remineralization protocols.

PENN Yes

SUNY Yes

TEMP Yes

UTOR All concepts are well supported by clinical faculty.

TUFT Yes. Indirect pulp cap;/NERB

USN No response submitted

F. What are the concepts and why the lack of support?

BU It is difficult for some people to accept ideas that were not presented to them when they were students.

CLMB Indirect pulp caps (Endo), sharp explorer occlusal caries examination.

CONN N/A

DAL No response submitted

HARV No response submitted

HOW No response submitted

UMD No response submitted

LAV No response submitted

MCG No response submitted

UMON No response submitted

UMNJ No response submitted

NYU Basically because they often have the concept that this is not the way I do it in my practice approach. We use the best scientific evidence to support any of our teaching decisions.

PENN Indirect pulp cap. Incomplete removal of affected dentin in the deepest areas of the pulpal/axial wall to avoid exposure in an otherwise healthy, asymptomatic, vital tooth. Remineralization vs. surgical intervention, not comfortable with procedure and lack of follow-up on clinic floor along with the belief that all patients are high risk on the clinic floor. Use of sharp explorer with rigorous vertical pressure for detection of pit and fissure caries. How they do it in practice.

SUNY Restore vs not to restore, invasiveness, and difference in opinion.

TEMP There is a learning curve for new ideas including ICDAS and ultraconservative cavity preparation. With increased education and familiarity the support is increasing.

UTOR N/A

TUFT Discrepancy between NERB requirements and indirect pulp cap.

USN No response submitted

G. What are the interpretations of textbook content as to Restorative intervention, caries removal, etc? (Are there criteria and situations when caries could intentionally be left – restored or sealed?)

BU No response submitted

CLMB There is often a lag time that exists between the textbook and current practice/concepts. Current evidence and practice overrule any textbook content that is outdated.

CONN Pulp exposure avoidance.

DAL No response submitted

HARV No response submitted

HOW No response submitted

UMD No response submitted

LAV No response submitted

MCG We focus on caries risk assessment and minimally invasive dentistry.

UMON No response submitted

UMNJ No response submitted

NYU We utilize the best evidence available which may not be in the textbooks. Are there criteria and situations when caries could intentionally be left – restored or sealed? Yes.

PENN This case scenario is only advocated in the Pedo Clinic. Complete caries removal is still the mode of treatment at this institution.

SUNY Traditional approach - removal of all caries. Controversies of how much to leave in caries in proximity to pulp tissue.

TEMP No surgical intervention is recommended if the lesion is in enamel only. Indirect pulp capping and stepwise excavation are taught in the freshman operative course. Junior restorative course introduces literature about cariostatic sealed restorations.

UTOR Our interpretations are based on published literature such as: 1) Cochran review 2008 where it stated that there is a 98% risk reduction for pulp exposures with partial caries removal with no evidence that partial caries removal was detrimental in terms of signs, pulpitis and restoration longevity. 2) Treatment of carious lesions by complete excavation or partial removal: A critical review (Thompson,V.et al 2008): Substantial evidence that complete caries removal is not needed for success provided restoration is well sealed. There is no clear cut situation where caries is intentionally left in a cavity; it will of course depend on each clinical situation. It is important to mention that this is indicated to minimize potential complications where complete excavation of deep carious dentin would injurea healthy and sound pulp. In these cases, all infected tissue and peripheral lesion(on surrounding walls) should be carefully removed.

TUFT Indirect pulp cap, asymptomatic tooth, no radiograph evidence of pathology.

USN No response submitted

V. CARIES RADIOGRAPHIC INTERPRETATION

A. Is there current clinical evidence that supports restorative intervention on interproximal caries that show in the outer ½ of the enamel when viewed on digital imagery?

BU We are not aware of it. All treatment is based on the patient's caries risk analysis.

CLMB Not without cavitation.

CONN No. We still use conventional film - no digital.

DAL No response submitted

HARV No response submitted

HOW No response submitted

UMD No response submitted

LAV No response submitted

MCG Lesions must be radiographically into dentin to be considered for treatment.

UMON No response submitted

UMNJ No response submitted

NYU Not that we are aware of unless cavitation is present.

PENN No

SUNY No clinical evidence

TEMP No surgical intervention is recommended if the lesion is in enamel only.

UTOR No

TUFT None

USN No response submitted

B. If yes, reference and summarize the conclusions.

BU No response submitted

CLMB No response submitted

CONN No response submitted

DAL No response submitted

HARV No response submitted

HOW No response submitted

UMD No response submitted

LAV No response submitted

MCG No response submitted

UMON No response submitted

UMNJ No response submitted

NYU No response submitted

PENN No response submitted

SUNY No response submitted

TEMP No response submitted

UTOR No response submitted

TUFT No response submitted

USN No response submitted

C. Do current teaching concepts support restorative intervention on only these interproximal lesions that extend beyond the outer ½ of the enamel when viewed on digital imagery?

BU Intervention is based on the caries risk of the patient. It is this assessment that determines a considerable amount of the actual treatment plan.

CLMB No, at or beyond the DEJ with cavitation.

CONN We do not consider restoring until the lesion is to the DEJ. Radiographically and then it is dependent on the caries risk status of the patient.

DAL No response submitted

HARV No response submitted

HOW No response submitted

UMD No response submitted

LAV No response submitted

MCG Surgically treat all lesions in dentin and treat all enamel lesions with fluoride.

UMON No response submitted

UMNJ No response submitted

NYU Not sure what this question is asking.

PENN No

SUNY Follow-up, OHI, fluoride treatment, observe

TEMP Conventional and digital radiographs are read the same - no intervention if only in enamel.

UTOR No

TUFT No

USN No response submitted

D. What are the current teachings for intervention based on 1/3 extensions in enamel and dentin? e.g., outer, middle, inner third.

BU Caries in the outer third of the enamel will not be surgically treated unless the caries risk is determined to be high. Mid-third caries is often treated at the discretion of the attending faculty. If caries penetrates the DEJ, it will be treated.

CLMB Intervention is indicated when a lesion is radiographically evident at the DEJ and/or the outer third of dentin and/or a cavitated surface.

CONN Generally we treat lesions extending into the dentin. Caries risk assessment is a factor. Somewhat dependent on patient reliability for follow-up and this is not the profile of our patient population.

DAL No response submitted

HARV No response submitted

HOW No response submitted

UMD No response submitted

LAV No response submitted

MCG See response to previous question

UMON No response submitted

UMNJ No response submitted

NYU The current teaching is surgical intervention is indicated when the radiograph clearly demonstrates demineralization to a D1 level (penetration into dentin) and/or there is evidence of cavitation prior to demineralization.

PENN No intervention in enamel, intervention when D1 and beyond.

SUNY Restore.

TEMP Lesions located only in enamel do not receive surgical intervention. Lesions extending into the dentin receive surgical intervention. Temple does not currently use any resin penetrating products for sealing smooth surface incipient defects.

UTOR Operative intervention should only be considered for proximal lesions that extend deeper than 0.5 mm into dentin.

TUFT No intervention in enamel. Intervene only at level of DEJ and D1, D2, assessing caries risk.

USN No response submitted

E. What is the evidence-based information that supports the current teaching concept?

BU Current thought on caries risk assessment

CLMB Current evidence indicates that most lesions visible in enamel or to the DEJ are not cavitated and can be remineralized. Non-cavitated lesions do not require surgical intervention.

CONN No response submitted

DAL No response submitted

HARV No response submitted

HOW No response submitted

UMD No response submitted

LAV No response submitted

MCG No response submitted

UMON No response submitted

UMNJ No response submitted

NYU Evidence is available that indicates that only about 10% of interproximal demineralizations clearly to the DEJ are cavitated. Cavitation is the point that surgical intervention is indicated.

PENN It should be noted that D1 lesions may very well have the chance to remineralize with intervention and close follow-up.

SUNY Based on caries risk.

TEMP Sturdevant text for freshman course, journal articles for third year classes (Metz-Fairhurst, GW Milicich, D Erickson).

UTOR There is wide literature supporting this teaching concept: Pitts NB, JADA 2011, Carnero LS et al, 2009, Tyas MJ et al 2000, Foster LV, Br Dent J 1998, Pitts N and Rimmer PA, Caries Res 1992, Stephens RG, Kogon SK, Reid JA 1987.

TUFT N/A

USN No response submitted

F. Is there a discernible difference of radiographic evidence of actual clinical penetration of interproximal caries between conventionally exposed radiographs versus digital imagery? If so, which do you think represents a more accurate depiction of the clinical condition?

BU No response submitted

CLMB Images are about the same. There are good and poor in both categories. Digital images can be enhanced.

CONN No basis for comparison, Here we have only conventional radiographs and digital is not available.

DAL No response submitted

HARV No response submitted

HOW No response submitted

UMD No response submitted

LAV No response submitted

MCG No response submitted

UMON No response submitted

UMNJ No response submitted

NYU We do not utilize digital radiography, hence we are unable to answer the question from a school perspective.

PENN No, however student ability to alter contrast needs to be carefully analyzed by faculty prior to surgical intervention.

SUNY Similar quality

TEMP Digital radiography will be introduced into the undergraduate clinics in October 2011, No data. To date, there is no published data indicating the interpretation of digital radiographs should be different than conventional film.

UTOR No response submitted

TUFT No, but believe that conventional radiographs are better.

USN No response submitted

VI. COMMUNICATION IN OUR DIGITAL ERA

Students have critiqued faculty in course reviews as not being responsive if e-mails are not answered immediately or over the weekend prior to an examination early in the week.

A. How does the time required to implement and manage an electronic curriculum compare to before the use of online teaching resources?
   1. More time
   2. Same amount of time
   3. Less time

   List specifics as it relates to your answer

BU More time

CLMB More time

CONN Same amount of time

DAL No response submitted

HARV No response submitted

HOW No response submitted

UMD No response submitted

LAV No response submitted

MCG More time

UMON No response submitted

UMNJ No response submitted

NYU More time. E-mails and Blackboard have provided increased access to students. It is easier to provide them with information and allows a great deal of teaching outside the classroom. However, is now a double edged sword as students dialogue more frequently with you. Hence electronic curriculum has meant more faculty time is spent during curriculum.

PENN More time

SUNY More time

TEMP More time

UTOR Less time

TUFT Same amount of time

USN No response submitted

B. In your experience for individual student interactions do students prefer
   1. E-mail to communicate
   2. Office appointments
   3. Online tools with your electronic curriculum resources

BU Office appointments

CLMB E-mail to communicate and office appointments

CONN E-mail to communicate

DAL No response submitted

HARV No response submitted

HOW No response submitted

UMD No response submitted

LAV No response submitted

MCG E-mail to communicate

UMON No response submitted

UMNJ No response submitted

NYU E-mail to communicate

PENN E-mail to communicate

SUNY E-mail to communicate and office appointments

TEMP E-mail to communicate and office appointments

UTOR E-mail to communicate and office appointments

TUFT E-mail to communicate

USN No response submitted

C. When students are e-mailing faculty, when are they expecting a faculty response?
   1. Same day
   2. Within several days
   3. Within a week

BU Within a week

CLMB Same day

CONN Same day

DAL No response submitted

HARV No response submitted

HOW No response submitted

UMD No response submitted

LAV No response submitted

MCG Same day

UMON No response submitted

UMNJ No response submitted

NYU Within several days

PENN Same day

SUNY Same day

TEMP Same day if weekday, within several days if on weekend.

UTOR Within several days

TUFT Same day

USN No response submitted

D. When students ask a question about a specific course, lecture as it pertains to an upcoming examination, how do you manage your response?
   1. Answer that student only.
   2. Answer forwarded to entire class (keeping student anonymous) so that all students get the information.
   3. No response, student must meet with the faculty member.
   4. Faculty are not given any guidelines.

BU Answer forwarded to entire class (keeping student anonymous) so that all students get the information.

CLMB Answer forwarded to entire class (keeping student anonymous) so that all students get the information.

CONN Answer forwarded to entire class (keeping student anonymous) so that all students get the information; faculty are not given any guidelines..

DAL No response submitted

HARV No response submitted

HOW No response submitted

UMD No response submitted

LAV No response submitted

MCG Answer forwarded to entire class (keeping student anonymous) so that all students get the information.

UMON No response submitted

UMNJ No response submitted

NYU Faculty are not given any guidelines.

PENN Answer forwarded to entire class (keeping student anonymous) so that all students get the information; faculty are not given any guidelines.

SUNY Faculty are not given any guidelines.

TEMP Answer forwarded to entire class (keeping student anonymous) so that all students get the information; faculty are not given any guidelines.

UTOR Answer forwarded to entire class (keeping student anonymous) so that all students get the information.

TUFT Answer forwarded to entire class (keeping student anonymous) so that all students get the information.

USN No response submitted

E. How are faculty directed to use e-mail as a communication with students?
   1. Respond only during school hours.
   2. Respond during school hours and evenings.
   3. Respond during school hours, evenings and weekends.
   4. Faculty are not given any guidelines.

BU Faculty are not given any guidelines.

CLMB Faculty are not given any guidelines.

CONN Faculty are not given any guidelines.

DAL No response submitted

HARV No response submitted

HOW No response submitted

UMD No response submitted

LAV No response submitted

MCG Faculty are not given any guidelines.

UMON No response submitted

UMNJ No response submitted

NYU Faculty are not given any guidelines.

PENN Faculty are not given any guidelines.

SUNY Faculty are not given any guidelines.

TEMP Faculty are not given any guidelines.

UTOR Faculty are not given any guidelines.

TUFT Faculty are not given any guidelines.

USN No response submitted

F. What guidance are students given as it regards faculty responses to student e-mails that are sent off-school hours that the student requires an immediate response?
   1. E-mails are responded to only during school hours.
   2. E-mails are responded to whenever the faculty wants to.
   3. No guidance is given to students about expectations to respond

BU	No guidance is given to students about expectations to respond
CLMB	No guidance is given to students about expectations to respond
CONN	No guidance is given to students about expectations to respond
DAL	No response submitted
HARV	No response submitted
HOW	No response submitted
UMD	No response submitted
LAV	No response submitted
MCG	No guidance is given to students about expectations to respond
UMON	No response submitted
UMNJ	No response submitted
NYU	No guidance is given to students about expectations to respond
PENN	No guidance is given to students about expectations to respond
SUNY	No guidance is given to students about expectations to respond
TEMP	No guidance is given to students about expectations to respond
UTOR	E-mails are responded to whenever the faculty want to.
TUFT	No guidance is given to students about expectations to respond
USN	No response submitted

Regional CODE Agenda

To be established by the respective Region and Regional Director. Please also report on responses to the Regional Agenda from all participants.

NO REGION AGENDA SUBMITTED

Suggestions for CODE

To locate the web site via a search engine, enter Consortium of Operative Dentistry Educators or Academy of Operative Dentistry and then use the link, CODE.

NO SUGGESTIONS FOR CODE SUBMITTED

Consortium of Operative Dentistry Educators

(CODE)

REGION VI (SOUTH) ANNUAL REPORT

Region VI Director:
Dr. R. Gary Holmes
Georgia Health Sciences university
August, GA

Region VI Annual Meeting Host:
Dr. Raquel Mazer
University of Alabama
Birmingham, AL

Region VI Annual Report Editor:
Dr. R. Gary Holmes

CHAPTER 6

CODE REGIONAL MEETING REPORT FORM

REGION VI (South)

LOCATION AND DATE OF MEETING:

University: University of Alabama

Address: Birmingham, Al

Date: October 26-28, 2011

CHAIRPERSON:

Name:	Dr. Raquel Mazer	Phone #:	205-934-1022
University:	University of Alabama	Fax #:	205-975-2883
Address:	Birmingham, Al	E-mail:	rmazer@uab.edu

List of Attendees: Please see reverse of this page for List of Attendees to Regional Meeting

Suggested Agenda Items for Next Year:

No suggestions submitted

LOCATION AND DATE OF NEXT REGIONAL MEETING:

Name:		Phone #:	
University:		Fax #:	
Address:		E-mail:	
Date:	TBA		

Please return all completed enclosures to
Dr. Larry D. Haisch, National Director, UNMC College of Dentistry;
40th and Holdrege Streets; Lincoln, NE 68583-0740.
Office: 402 472-1290 Fax: 402 472-5290 E-mail: lhaisch@unmc.edu
Deadline for return: 30 Days post-meeting
Also send the information on a disk and via e-mail with all attachments.
Please indicate the software program and version utilized for your reports.

CODE Region _____VI_____ Attendees Form

NAME	**UNIVERSITY**	**PHONE #**	**FAX #**	**E-MAIL ADDRESS**
Gary Crim	Louisville	502-852-1303	502-852-3364	gacrim01@louisvill.edu
R. Gary Holmes	MCG/GHSU	706-721-2881	706-721-8349	rholmes@georgiahealth.edu
Kevin Frazier	MCG/GHSU	706-721-2881	706-721-8349	kfrazier@georgiahealth.edu
David Gore	Kentucky	859-323-5996	859-257-1847	drgore2@email.uky.edu
Phyllis Filker	NOVA	954-262-1628	954-262-1782	filker@nova.edu
Amir Farhangpour	NOVA	954-262-1628	954-262-1782	farhangp@nova.edu
Roosevelt Smith	Meharry	615-327-6719	615-327-6026	rssmith@mmc.edu
Michael Yacko	Meharry	615-327-6719	615-231-6026	michael.yacko@med.va.gov
Mary Baechle	VCU	804-828-7927	804-828-3159	mbaechle@vcu.edu
Marc Ottenga	Florida	352-273-5854	352-846-1643	mottenga@dental.ufl.edu
W. Stephen Howard	Florida	352-273-5854	352-846-1643	wshoward@dental.ufl.edu
DeLuis Sensi	Florida	352-273-5854	352-846-1643	lsensi@dental.ufl.edu
Linc Conn	ECU	252-737-7025		connl@ecu.edu
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Raquel Mazer	Alabama	205-975-0899	205-975-2883	rmazer@uab.edu
Merrie Ramp	Alabama	205-975-2016	205-975-2883	mramp@uab.edu
Belinda Waldo	Alabama	205-975-1095	205-975-2883	bleindawalso@uab.edu
James Broome	Alabama	205-975-5483	205-975-2883	jbroome@uab.edu
Gregg Gilbert	Alabama	205-934-5423	205-975-2883	ghg@uab.edu
Michael Reddy	Alabama	205-934-4506	205-934-4506	mreaddy@uab.edu

2011 NATIONAL CODE AGENDA
REGION VI
SUMMARY RESPONSES TO NATIONAL AGENDA

(Editor note: Questions condensed for printing purposes)

I. SURVEY ON THE DEMOGRAPHICS OF FULL-TIME FACULTY THAT TEACH OPERATIVE DENTISTRY IN YOUR SCHOOL

Of the eleven schools reporting, six state that 100% of their Operative faculty are General Dentists. The lowest percentage reported was 63%. A few schools report training in Prosthodontics or Public Health. Other results regarding training in Operative Dentistry, AEGD, GPR, Material Science, and Education were reported at less than 50%. Half of the responding schools report that 40% or more of their Operative faculty have no formal post-graduate training. Most faculty are non-tenured. All have a time commitment that is 50% or greater teaching.

II. DENTAL MATERIALS FOR OPERATIVE/RESTORATIVE DENTISTRY

Most schools report a committee for initial selection, then implementation at the pre-doctoral lab level as well as faculty practice. Latex materials have been removed from the schools.

III. ETHICS/PROFESSIONAL CONDUCT AND OPERATIVE/RESTORATIVE DENTISTRY

Most schools report an Ethics program that does not utilize Operative faculty. Punishment for Ethics violations ranges from reprimand to dismissal.

IV. CARIOLOGY

Most schools report the use of a Cariology textbook. Cariology instruction is divided between Oral Biology and Restorative Dentistry departments. Faculty teaching Cariology have either a dental degree or a microbiology degree. Most schools do not provide a textbook to Operative faculty. All but one school teach leaving caries under specific clinical conditions.

V. CARIES RADIOGRAPHIC INTERPRETATION

Several literature references were provided regarding current concepts in caries management and when to intervene. Caries Risk Assessment is more prevalent in the decision on if and when to treat radiographic evidence of decay. Responses regarding conventional film vs. digital radiographs were varied.

VI. COMMUNICATION IN OUR DIGITAL ERA

Managing an electronic curriculum takes more time for all respondents. When email is used, students expect a same day response. Faculty and students have not been given guidelines on using email to communicate with each other.

2011 NATIONAL CODE AGENDA
REGION VI RESPONSES
(Evidence cited where applicable)
October 20-22, 2011

Region VI School Abbreviations

UAB	**University of Alabama**	**MMC**	**Meharry Medical College**
UFL	**University of Florida**	**UNC**	**University of North Carolina**
ECU	**Eastern Carolina University**	**NOVA**	**Nova Southeastern University**
GHSU**	**Georgia Health Sciences University****	**UPR**	**University of Puerto Rico**
UKY	**University of Kentucky**	**MUSC**	**Medical University of South Carolina**
ULSD	**University of Louisville**	**VCU**	**Virginia Commonwealth University**

** **Editors note**: Medical College of Georgia (MCG) changed to Georgia Health Sciences University (GHSU) in February of 2011

I. SURVEY ON THE DEMOGRAPHICS OF FULL-TIME FACULTY THAT TEACH OPERATIVE DENTISTRY IN YOUR SCHOOL

A. EDUCATION/TRAINING/SPECIALTY AFFILIATION

What percentage are General Dentists (GD), have formal ADA-recognized Specialty training such as Prosthodontics (Pros), has a graduate degree or certificate in Operative Dentistry (OD), has a degree/certification in Advanced Education in General Dentistry (AEGD), has a degree/certification from a General Practice Residency (GPR), has a graduate degree in Material Science (MS), has formal instruction in teaching and learning theory(T/L) (e.g., Med, etc), has no formal post-graduate training (NoPGT), or served as a dentist in the armed forces (AF) prior to joining your faculty?

	GD	PROS	OD	AEGD	GPR	MS	T/L	NoPG	AF
UAB	63%	35%	4%	9%	9%	13%	0%	9%	0%
UFL	100%	0%	27%	0%	9%	18%	0%	55%	0%
ECU	66%	33%	0%	33%	33%	10%	0%	0%	10%
GHSU	100%	0%	25%	25%	33%	8%	25%	25%	25%
UKY	72.7%	27.3%	0%	9.1%	27.3%	9.9%	18.2%	18.2%	36.4%
ULSD	100%	36%	36%	0%	21%	7%	0%	42%	7%
MMC	100%	14%	16%	16%	6%	1%	0%	0%	16%
UNC	NRS	NRS	NRS	NRS	NRS	NRS	NRS	NRS	NRS
NOVA	100%		6.6%	0%	0%	0%	0%	73.3%	3.3%
UPR	100%	7%	7%	0%	50%	7%	0%	50%	0%
MUSC	90%	10%	0%	40%	0%	0%	10%	50%	20%
VCU	86%	23%	27%	41%	18%	5%	18%	23%	23%

1. If other training or background is not included in the above, please describe.

UAB N/A

UFL None

ECU None

GHSU 1 Oral medicine Diplomat, 1 MS Oral Biology

UKY 9.9%

ULSD None

MMC None

UNC No response submitted

NOVA 3 Master in Public Health; 1 Prosthodontic fellow (also hold Master in Operative Dentistry); 1 Prosthodontic certificate; 1 PhD in Prosthodontics; 1 Master in Health Education; 1 Prosthodontic certificate/JD

UPR 29% MPH

MUSC None

VCU Clinical dentist in the Department of Veterans Affairs; 40 years of research in Dental Materials Graduate research in Microbiology; Faculty member at US Naval Postgraduate Dental Residency Program in Comprehensive Dentistry for 5 years; Co-investigator in a federally funded CRCPD since 1981; Masters in Public Health; FAGD FASDC (now known as the American Academy of Pediatric Dentistry)

B. **CERTIFICATION IN OPERATIVE/RESTORATIVE DENTISTRY**

What percentage is certified by the American Board of Operative Dentistry, fellows or masters in the Academy of General Dentistry, is certified in Restorative by some other agency such as the Armed Forces?

	ABOD	AGD	Other	**ABOD=American Board of Operative Dentistry, AGD=Academy of General Dentistry NRS=No response submitted**
UAB	0%	13%	N/A	
UFL	18%	9%	0%	
ECU	0%	33%	10%	
GHSU	8%	25%	17%	
UKY	0%	9.9%	9.9%	
ULSD	0%	0%	0%	
MMC	N/A	N/A	2%	
UNC	NRS	NRS	NRS	
NOVA	0%	0%	0%	
UPR	0%	0%	0%	
MUSC	0%	10%	20%	
VCU	0%	32%	14%	

1. If other certification relevant to Operative/Restorative, please describe.

UAB No response submitted

UFL No response submitted

ECU No response submitted

GHSU No response submitted

UKY No response submitted

ULSD No response submitted

MMC No response submitted

UNC No response submitted

NOVA No response submitted

UPR No response submitted

MUSC No response submitted

VCU Diplomate, American Board of General Dentistry; Fellow in Academy of Dental Materials; Diplomate, Federal Services Board of General Dentistry; MS degree in Restorative Dentistry; Certified by DOCS

C. EXPERIENCE IN TEACHING/PRACTICE

1. What is the range of teaching experiences for your Operative Faculty (indicate percentage)? Years: 1-5, 6-10, 11-15, 16-20, 21-25, 25+ (e.g., 1-5: 20%, 6-10: 20%, 16-20: 50%, 25+:10%)

	1 - 5	**6 - 10**	**11 - 15**	**16 - 20**	**21 - 25**	**25+**
UAB	25%	20%	30%	10%	10%	5%
UFL	9%	27%		36%	5%	19%
ECU	0%	33%	33%	13%	10%	0%
GHSU	25%	33%	0%	8%	0%	33%
UKY	40%	30%		20%		10%
ULSD	29%	29%	14%	14%	7%	7%
MMC	NRS	NRS	NRS	NRS	NRS	NRS
UNC	NRS	NRS	NRS	NRS	NRS	NRS
NOVA	67%	3%	14%	13%		3%
UPR	7%	29&	7%	14%	14%	7%
MUSC	60%	10%	0%	0%	10%	20%
VCU	33%	19%	5%	5%	19%	19%

2. What percentage of your Operative Faculty conducts a part-time practice in which they treat their own patients (intramural or extramural)?

UAB 75%

UFL 45%

ECU When our facility is complete: 100%

GHSU 92%

UKY 54.5%

ULSD 43%

MMC 8%

UNC No response submitted

NOVA 26.6%

UPR 7% intramural; 50% extramural

MUSC 100%

VCU 57%

3. How much time, on average, is spent per week in practice? List by hours or half days. (e.g., 50% spend 4 hrs; 30% spend 8 hrs; 20% spend 0 hrs)

UAB 25% spend 0 hours; 20% spend 4 hours; 35% spend 8 hours; 10% spend 12 hours; 10% spend 20 hours

UFL 9% spend 4 hours; 36% spend 8 hours; 55% spend 0 hours

ECU 60% spend 4 hours; 40% spend 8 hours

GHSU 92% spend 8 hours

UKY 54.5% spend 9 hours

ULSD For those that practice, 100% spend 8 hours

MMC 30% spend 8 hours

UNC No response submitted

NOVA 38% spend 4 hours; 62% spend 8 hours

UPR 43% spend 0 hours; 14% spend 4 hours; 43% spend 8 hours

MUSC 20%

VCU 14% soend 1 half day; 43% spend 2 half days; 43% spend 0 half days.

D. **TENURE STATUS/ACADEMIC RANK/EFFORT DISTRIBUTION**

1. What percentage of your Operative Faculty are Tenured/Tenure-track and Non-tenured?

UAB 5% are Tenured; 5% are Tenure track; 90% are non-tenured

UFL 36% Tenured/Tenure track; 63% are non-tenured

ECU 10/20% Tenure/Tenure track; 20% non-tenured

GHSU 25% Tenure; 8% Tenure track; 67% non-tenured

UKY 45.5% are tenure/Tenure track

ULSD 36% are tenure/Tenure track; 64% are non-tenured

MMC 2 are Tenured; 0 are Tenure track; 25 are non-tenured

UNC No response submitted

NOVA We do not offer tenure

UPR 78% are Tenure/Tenure track; 22% are non-tenured

MUSC Only the Division Director and Department Chair are Tenured. All are tenure track.

VCU 14% are Tenure/Tenure track; 86% are non-tenured

2. What is the percentage distribution by Academic Rank of your Operative teachers? Use: Instructor, Assistant Professor, Associate Professor, Professor (for tenured lines) Use: Clinical Instructor, Clinical Assistant, Clinical Associate, Clinical Professor (for non-tenured lines).

	Inst	Asst Prof	Assoc Prof	Prof	Clin Inst	Clin Asst	Clin Assoc	Clin Prof
UAB	0%	0%	10%	0%	15%	35%	40%	0%
UFL	0%	54.5%	45.5%	0%	0%	4	2	0%
ECU	0%	10%	20%	0%	0%	40%	30%	0%
GHSU	0%	0%	0%	33%	8%	25%	33%	
UKY	0%	0%	0%	0%	NRS	NRS	NRS	NRS
ULSD	0%	28%	28%	44%	0%	50%	7%	7%
MMC	1	6	3	3	NRS	NRS	NRS	NRS
UNC	NRS	NRS	NRS	NRS	NRS	NRS	NRS	NRS
NOVA	0%	87%*	13%*	0%	NRS	NRS	NRS	NRS
UPR	NRS	NRS	NRS	NRS	N/A	N/A	N/A	N/A
MUSC	44%	33%	11%	11%	NRS	NRS	NRS	NRS
VCU	0%	0%	13.5%	0%	4.5%	54.5%	23%	4.5%

* **NOVA**: Since we do not offer tenure track, our Asst and Assoc prof lines are not titled clinical tracks

3. What is the typical distribution of time for your Operative faculty between Teaching (T), Research/Scholarly activity (R/S), Service (S), Patient Care (PC), Administration (A) – effort reporting: e.g., 50% T, 20% R/S, 5% S, 25% PC, 0% A (Answer = average of full-time faculty; exclude exceptions such as Chairs with minimal teaching or significant administration time)

	T	R/S	S	PC	A
UAB	60%	15%	5%	20%	
UFL	55-70%	10-30%	5%	10-15%	??
ECU	60%	10%	10%	10%	10%
GHSU	60%	5%	10%	20%	5%
UKY	50%	10%	10%	20%	10%
ULSD	75%	10%	7%	8%	0%
MMC		20%			
UNC	NRS	NRS	NRS	NRS	NRS
NOVA	75-80%	Other activities varying			
UPR	50%	5%	15%	25%	5%
MUSC	60%	10%	5%	20%	5%
VCU	60%	8%	7%	9%	14%

4. Do you anticipate significant changes in the roles/duties of Operative/Restorative faculty in the next 5 years? If yes, give a concise description.

UAB Not here. Will continue with the Comprehensive Care clinical teaching model involving faculty teaching different areas (prosth and operative)

UFL Yes. We have just recently merged departments to become the Department of Restorative Dental Sciences. The three divisions are Operative Dentistry, Prosthodontics and Pre-doctoral General Dentistry. We have no idea how the roles and duties will be changing at this time since we are so early in the process with our new Chair just starting this week. We assume that there will be a blurring of the lines between the divisions of this new department, clinically for sure and pre-clinically possibly.

ECU Once we are fully staffed and our building is complete, I would anticipate the faculty having more time for scholarly activity

GHSU No changes are anticipated at this time

UKY Yes, replacement of faculty when someone retires or quits.

ULSD No

MMC Yes. We now do Restorative Dentistry in Oral Diagnosis

UNC No response submitted

NOVA Our biggest change clinically came after the implementation of the group team leader model system in June 2010. With the development and implementation of the new CDM curriculum, faculty will assume greater responsibilities in comprehensive patient care and in a multidisciplinary teaching model.

UPR No

MUSC No

VCU Probably more active involvement with technology in operative dentistry education.

5. Does your Operative/Restorative faculty feel that they are valued members of the faculty with a similar standing and status as enjoyed by other dental faculty?

UAB No

UFL From time to time we feel that we are valued. We have found that over the years the Operative Faculty are considered the "jack of all trades" and we are called on to pick up any slack within the system since we are basically "general dentists."

ECU Yes

GHSU Sometimes. Our Promotion and Tenure Committee has decided only to recognize ADA-recognized specialities when considering a candidate for promotion to Professor. Faculty with General Dentistry or Operative Board certifications are not considered board-certified.

UKY Yes

ULSD Yes

MMC No

UNC No response submitted

NOVA Yes

UPR Yes

MUSC Not so much. I suspect it's because there are OMFS, Endo, Perio, Ortho and Pedo residencies here and those generate money, especially OMFS. Maybe that will begin to change next year when our AEGD is fully implemented. It is not fully staffed with faculty/residents; this is it's first year.

VCU Yes

E. **DESIRABLE CHARACTERISTICS FOR OPERATIVE/RESTORATIVE FACULTY**

1. For the Chairmen/Section Directors - what personal traits or characteristics do you associate with an effective teacher of Operative/Restorative Dentistry (e.g., the "ideal faculty job description)?

UAB Reliable, knowledgeable, continually updates oneself with restorative materials CE courses, approachable, level-headed/grounded, good computer skills to create Powerpoint presentations, provides excellent patient care.

UFL No response submitted

ECU In consort with the General Dentistry model here, the operative dentistry faculty must be able to teach their area of focus and cover all other procedures expected for a general dentist. This would include diagnosis, preventative planning, periodontal care, prosthodontic care, endodontic care, surgical procedures, recall planning and services, as well as restorative care.

GHSU SECTION DIRECTOR: I can't tell if this question is about personality traits or qualifications. Since I can't answer the former, I'll answer the latter. Most preferred: formal training in operative dentistry, certificate and Master's degree. Second most: AEGD or GPR certification or formal training in dental materials, with dental degree and experience in restorative practice. DEPARTMENT CHAIR: Desire to teach, hard worker, self-motivated, innovative, good

communication skills, gets along well with other faculty, staff, and students, practical clinical experience and above average clinical skills, private practice experience, research experience, experience in dental education, team player, shows initiative, honest and has integrity, specific area of expertise or interest that will "bring something to the table" and benefit the department, computer and/or technology expertise.

UKY Competent, knowledgeable, enthusiastic, inquisitive, drive, fair, understanding, honest, prepared, and compassionate.

ULSD Professionalism, integrity, respect for others, responsibility, fairness

MMC Requires patience and commitment

UNC No response submitted

NOVA Proactive, lifelong learners, staying up-to-date on course content and clinic protocols (standardized), knowledge of evidence-based dentistry, communication skills, good listening skills, hands-on teaching

UPR No response submitted

MUSC Extensive knowledge of the subject; ability to communicate that knowledge clearly to both large groups and individuals.

VCU Content area expert; excellent teaching, clinical and communication skills; possesses a passion to teach; engaged in research and scholarly activities; active in professional organizations - especially those in content area (Operative Dentistry) and dental education (ADEA); maintains professional relations with peers in other dental schools (CODE), service and community involvement.

II. DENTAL MATERIALS FOR OPERATIVE/RESTORATIVE DENTISTRY

A. How do you introduce new materials or products in your operative/restorative clinics?

UAB Usually via consensus with other areas (Op, Pros, Biomaterials). Following laboratory and/or clinical testing of materials, scientific articles, also cost effectiveness.

UFL Once approved, the proposal then goes to the Clinical Materials Committee of the Restorative Sciences Department.

ECU A committee will pick our initial materials. Once the school is fully up, a materials and devices committee will review new products for consideration in the programs.

GHSU Faculty or group of faculty recommends consideration of a change. Usually the new material or product would have been evaluated in the faculty practice clinic. Then the other faculty are asked their opinion regarding the change. It there is consensus, the change is then implemented. Whenever possible, we introduce these beginning in pre-clinic. The new product is agreed to be either a worthy new addition or replacement after discussion among the Operative faculty and approval by Dean of Clinics. Once a product is in the student clinics, it is added to the pre-clinical course and lab.

UKY Small groups are formed to investigate and trials established. An example of some of the newest nano-filled microhybrids on the market.

ULSD Usually Faculty Practice to pre-clinic to materials committee chair to clinic.

MMC CEREC/CAD/CAM, juniors, seniors, and pre-clinical Operative Dentistry are involved.

UNC No response submitted

NOVA Pre-doctoral Protocol to Introduce New Product into Patient Clinic:

1. Student must fill our new product form and submit to both team leader and respective pre-doctoral director(Instructor wanting to introduce new product would submit form directly to respective pre-doctoral director)
2. Pre-doctoral director evaluates the form and takes to chair of department
3. The chair will evaluate the product and confirm with Kathie Lowe that the new product will not cause a sterilization problem
4. Decision of chair will proceed back through respective pre-doctoral director to the instructor or to the student's team leader
5. Product will not be used until chair has rendered an official decision through the pre-doctoral director

Pre-doctoral Protocol for Dental Product Directions for Use:

1. All products in the pre-doctoral clinic will be utilized following the manufacturers directions for use (DFU)
2. Oversight will be the responsibility of the department chairs and they should perform a review bi-monthly with the dispensing assistants as well as with their pre-doctoral directors and team leaders
3. Any deviation from this protocol identified by the quality assurance committee will be brought to the attention of the appropriate department chair. The outcome of how this inconsistency was dealt with must be reported back to the committee in a timely manner.

UPR Clinical trials by restorative faculty; Lunch and Learn sessions

MUSC They are introduced first into the Operative laboratory courses; then introduced into the clinical the following summer

VCU Via Committee approval

B. Do you have any disclaimers, warnings, or other information documents that your patients have to read and sign relative to safety or risks for dental materials that may be used in their treatment? Yes/No. Examples might include: Amalgam (mercury), Resin (Bisphenol-A), non-precious casting metal (nickel). Describe the materials involved and the documentation used to satisfy informed consent goals.

UAB No disclaimers for amalgam or resin materials use. We do not use non-precious alloys.

UFL No

ECU No

GHSU No. Our dental clinics do not use resins containing bisphenol-A or nickel. There are no warnings or disclaimers for amalgam use.

UKY Yes. Patients sign informed consent forms relative to the tyope of treatment they are to receive. No disclosures are given for the types of materials such as mercury in amalgam, BPA in composite, or nickel in non-precious castings.

ULSD Not specific; just general informed consent

MMC Yes, consent forms

UNC No response submitted

NOVA No. Examples might include: amalgam (mercury), resin (bisphenol-A), non-precious casting metal (nickel). Describe the materials involved and the documentation used to satisfy informed consent goals.

UPR No, but the use of nickel-containing metal is contraindicated.

MUSC No response submitted

VCU The only consent forms to my knowledge are in speciality areas, such as Oral Surgery, not for specific dental materials. AxiUm requires consent for any dental treatment.

C. Have you stopped using any dental materials or product categories in the past 5 years due to concerns described above? e.g., Latex Rubber dam.

UAB No latex gloves in the pre-clinical labs and several clinics (i.e., the treatment planning clinic, limited care clinic)

UFL Latex gloves

ECU The school will be latex free

GHSU No latex in clinic, base metals for fixed used only for resin-retained FPDs. We have been latex free campus-wide since 2005. Rubber dam and elastic RD ligatures have been replaced by non-latex materials.

UKY Yes, we have switched from latex rubber items (i.e., gloves, rubber dams)

ULSD No

MMC Yes (non-latex gloves)

UNC No response submitted

NOVA All latex products

UPR No

MUSC OptiBond Solo (substituted OptiBond FL)

VCU There has been an effort to reduce exposure to latex by changing glove and rubber dam material, among others, to use mostly non-latex products where possible.

D. Rank the following reasons for using any dental material in your clinic by priority from High to Low: Evidence for Effectiveness, Safety, Economics, Packaging, Ease of Use, Manufacturer Reputation, Other – Describe.

UAB Evidence for effectiveness, safety, manufacturer reputation, packaging, economics, ease of use

UFL Evidence for effectiveness, safety, ease of use, economics, packaging, manufacturer reputation

ECU Evidence for effectiveness, safety, economics, manufacturer reputation, ease of use

GHSU Evidence for effectiveness, safety, ease of use, economics, manufacturer reputation

UKY Evidence for effectiveness, safety, economics, ease of use, manufacturer reputation, packaging

ULSD Evidence for effectiveness, safety, ease of use, manufacturer reputation, economics, packaging

MMC Safety, evidence for effectiveness, economics, ease of use

UNC No response submitted

NOVA Safety, economics, packaging, ease of use, manufacturer reputation

UPR Safety, manufacturer reputation, evidence for effectiveness, economics, packaging

MUSC Evidence for effectiveness, ease of use, safety, economics, packaging, manufacturer reputation

VCU High - Laboratory research comparison of measurable properties of clinic significance, evaluation of handling characteristics with student operators in mind, Faculty feed-back from sample trials in faculty practice, literature evaluation and online Google and scientific data base searches for papers, company technical reports and product reports analysis by Product evaluation newsletters. Faculty feedback of problems with material use.

III. ETHICS/PROFESSIONAL CONDUCT AND OPERATIVE/RESTORATIVE DENTISTRY

A. Is there any ethics instruction or other ethical didactic content in your Operative/Restorative curriculum? Identify the courses by name (content), and year in your curriculum (Fr, So, Jr, Sr).

UAB

Ethics in Dentistry	Dent 1115	D1	Dr. Bill Myers
Cultural Competence	Dent 1125	D1	Drs. Coar and Mazer
High Stakes Assessment	Dent 1290	D1	Dr. Mike McCracken
High Stakes Assessment	Dent 2290	D2	Dr. Mike McCracken
High Stakes Assessment	Dent 3290	D3	Dr. Mike McCracken
High Stakes Assessment	Dent 4290	D4	Dr. Mike McCracken
Case Based Education 1	Dent 1110	D1	Drs. McKenzie and S. Mitchell
Case Based Education 2	Dent 2110	D2	Drs. McKenzie and S. Mitchell
Ethics Seminar Half -Day	D3/D4	ALDA Sponsored	

UFL Not a part of Operative/Restorative. There is a full semester course, approximately 35 contact hours, for first years students in their first semester (Den 5013). In addition, in the third and fourth years, there is a half-day "Ethics Course" done with members of the American College of Dentists.

ECU There is an ethics and professionalism curriculum that will span the 4 years. Restorative issues are included in this curriculum.

GHSU Minimal, the subject of material choices are discussed in the Freshman Operative Dentistry course and ethics is mentioned as a consideration. We discuss the need to inform patients of the pros or cons when recommending dental materials when a case allows for more than 1 material. The Junior Esthetic Dentistry Course includes a lecture on longevity of restorations which includes another brief opportunity to bring up ethics regarding reasons for replacement and material selection.

UKY Team leaders have conference and instructional videos on ethics, material choices, and treatment options. These are integrated into a course in which the final exam is an essay exam.

ULSD Operative Dentistry 3, Junior (year)

MMC Yes.

UNC No response submitted

NOVA Ethics content was not specifically taught in our past Operative/Restorative curriculum or in the current version of the integrated course. Ethics is covered in a broader based format in the D1 year and then addressed again in the D4 year. In the newly revised curriculum, it is integrated with other disciplines.

UPR No, but we do have a core course in ethics: DESP 7357, Professional Development III. Sixty (60) hours. Prerequisites: DESP 7117, DESP 7127.
This course has two components. The First Part is concerned with the discussion and analysis of those laws which govern the dentist's professional relationship with the Commonwealth of Puerto Rico, with the patient, and with colleagues. It also introduces the dental student to a series of ethical issues within Dentistry and provides the opportunity to apply ethical principles to clinical situations. The Second Part of the course provides the necessary knowledge and skills to promote effective management of a dental practice. It will develop in the dental student the basic skills to relate effectively with peers, staff and patients; to apply the principles of management and to develop strategies to establish and maintain a dental practice.

MUSC No response submitted.

VCU There is an ethics course (Introduction to Professionalism, Ethics and Ethical Decisions) in the spring of the D2 year, but it is not taught as part of the restorative curriculum. In the past, we've had general practice faculty give a lecture for this course. We also have a yearly ethics lecture for all students in the fall, with an invited speaker.

B. If yes, what type of ethics instruction takes place in your restorative courses? Lecture only, small group discussions, on-line instruction, reading assignments, papers, others?

UAB The instructions take place outside of the Restorative/Operative curriculum (see course list). Format: lectures, classroom discussion, reading assignments, small group discussions, UAB book discussion.

UFL None

ECU Didactic presentations, small group discussions, practitioner panels, reading assignments, and examination s are all used in our ethics course.

GHSU It only occurs as a small part of some lectures; not very significant. OPER5001 does not have adequate clock hours to allow the addition of anymore content without removing something else.

UKY No response submitted

ULSD Lecture Only

MMC Lecture only

UNC No response submitted

NOVA In the D1 year course, there are lectures, small group (student-led) presentations, reading assignments, class projects and exams.

UPR N/A

MUSC No response submitted

VCU Small group discussions

C. Are your Operative/Restorative faculty involved with teaching in an ethics course(s) that is (are) directed by another department? If yes, describe how many are involved as a percentage or

fraction of the total faculty in this (these) course(s) e.g., 50% or 3/7ths.

UAB Most courses are directed by other departments. Less than 10% of the Restorative faculty.

UFL Several Operative/Restorative Faculty participate in small group ethical dilemma discussions as part of DENT5013. Approximately 25%.

ECU Operative/Restorative Faculty is not the module director, but are involved in the ethics curriculum. Ethics is part of the Dental Team Leader theme in our curriculum. The "Dental Team Leader Faculty" who is the overall theme director is a restorative/general dentist.

GHSU No. Ethics Courses-
Fr. ETHD 5001, Ethics for Health Professionals- Semester 1 of 11 (none or 0%)
Sr. ETHD 5002, Ethics, Jurisprudence and Dentistry- Semester 11 of 11 (none or 0%)
American College of Dentists- Georgia Section members come to the dental school for a day and conduct small group seminars with rising juniors using ethical dilemma cases that are mostly related to restorative issues. Most of these ACD members are General Dentists.

UKY No

ULSD No. The Chair of the department is director of ethics course

MMC Yes, 20%

UNC No response submitted

NOVA As a member of the Section of CARD, Dr. Brodie, Associate Dean of Curriculum teaches the Ethics and Professionalism course in the D1 year. She has guest speakers from the CDM and from other NSU programs as well as outside NSU speakers.

UPR N/A

MUSC No response submitted

VCU There is one operative faculty who teaches in the course out of five total.

D. If a student commits what would be considered an ethics violation in an Operative/Restorative CLINICAL course, what types of punishment/sanctions could they face if found guilty? Briefly summarize the process from reporting to final outcome.

UAB We have a Code of Ethics in place. D1 students are introduced to it and are held to these standards from day one. Wide range of consequences, including dismissal.
See Attached UAB SOD Code of Ethics Excerpt. [*Editor's Note: No attachment submitted*]

UFL A paper trail is created for unprofessional behavior. The Student would meet with the Instructor and the Dean of Student Affairs. The incident may be referred to the Student Honor Court. Discipline may range from written reprimand to suspension from the Clinic for a period of time with the ultimate punishment being expulsion.
UFCD Student Handbook - page 38
1. Selection of Remedies in Student Discipline (Regulations of the University of Florida, 6C1-4.013)
(1) Students charged with violations of either the Student Honor Code or the Student Conduct Code shall have their cases heard by the appropriate person or body designated below:
(a) The Health Center Student Conduct Standards Committee for alleged violations of the Student Honor Code, 6C1-4.017, F.A.C., by students in the College of Dentistry, Health Related Profession, Medicine, Nursing, Pharmacy, and Veterinary Medicine.
(b) The Student Conduct Committee or the Director for Student Judicial Affairs, for alleged violation of the Student Conduct Code, 6C1-4.016, F.A.C.

© The HIPAA Hearing Committee for alleged violations of the Student Conduct Code, subsection 6C1-4.016(3)(v), F.A.C.

(2) Disciplinary adjudications under (1) and (2) above shall be subject to review and/or appeal in accordance with 6C1-4.016(5)(g) and (6), F.A.C. Disciplinary adjudications under (2) above shall be subject to review and/or appeal in accordance with 6C1-4.016(5)(g) and (6), F.A.C.

(3) Except for alleged violations of 6C1-4.016(3)(v), F.A.C., the guidelines for hearing student judicial cases is sixty (60) calendar days from the date the case is referred to the hearing body or person. If the sixty (60) days has not expired at the conclusion of the fall or spring semester, and the primary individuals in the case are unavailable for a student judicial hearing or other proceeding, the running of the sixty (60) day period can be tolled until the first day of class for the following fall or spring semester. In the event the hearing body or person is unable to conduct the hearing within this time frame, the Director of Student Judicial Affairs, after consulting with the hearing body or person, may reassign the case to a different hearing body to insure that the case is resolved in a timely manner. The accused student or the original hearing body or person may appeal this reassignment, in writing, to the Dean of Students within five (5) business days after being notified of the decision. The decision of the Dean of Students shall be final.

(4) Hearings for violations of subsection 6C1-4.016(3)(v), F.A.C., shall be resolved within thirty (30) days from the date the case was referred to the HIPAA Hearing Committee.

ECU These exact policies are written and in place. I cannot quote them at this time. Depending upon the violation, the student could lose clinic privileges for a period of time or they could be dismissed.

GHSU Without a clear definition as to what constitutes an ethics violation in respect to Operative, I would not know when one has occurred. (See the attached table for a summary of the process by which conduct violations are handled.)

Disciplinary Action Options:

1. Administrative Probation- Warning with a defined probationary period
2. Administrative Probation with Restrictions- Above with Loss of Scholarship, Loss of class credit for the related violation, Failing grade in the affected course, Restitution if damages, Loss of privileges, Suspension.
3. Suspension
4. Expulsion

UKY Punishment ranges from reprimand to suspension (requiring remediation) and dismissal (failure of the course).

ULSD Usually: Disciplinary probation to suspension. Rarely: Dismissal

Process: Faculty reports to dept chair; chair reports to Assoc Dean for Predoctoral Education; Assoc Dean takes action and reports action to Chair of Student Review Council OR Assoc Dean refers to Chair of Student Review Council. Assoc Dean of Clinic Affairs could report directly to Assoc Dean for Predoctoral Education who could take either of above two options.

MMC Reprimand to dismissal

UNC No response submitted

NOVA All potential student violations in the predoctoral program follow a process described in the Predoctoral Handbook. Briefly, this includes a written report by the faculty member; it then goes through the chair, division chief, clinic director, academic affairs, potentially the Student Progress Committee and the Dean. Sanctions range from reprimand to dismissal, with approximately 8 levels in-between. The student has the right to an appeals process also described in the Predoctoral Handbook.

UPR Code of Academic Honesty, University of Puerto Rico

MUSC Ranges from loss of credit for the day's procedure to expulsion from school

VCU Our school has a university's honors system that we would follow in this case.

IV. CARIOLOGY

A. Which textbook is being used for Cariology?

UAB *Dental Caries: The Disease and Its Clinical Management*- Edited by Ole Fejerskov and Edwina Kidd - Blackwell Munksgaard - 2nd Edition

UFL We have a Cariology textbook as recommended but not as required textbook - *Dental Caries: The Disease and Its Clinical Management;* Fejerskov O & Kidd E (eds)- 2nd edition - Blackwell Munksgaard Ltd, Copenhagen

ECU There is no specific textbook in Cariology

GHSU None is required for the course specifically in cariology taught by basic sciences faculty; Fejerskov and Kidd, *Dental Caries: The Disease and Its Clinical Management*, 2nd edition and Newbrun, *Cariology*, 3rd edition are available for reference.
There is some clinically relevant material in the Treatment Planning in Dentistry book that we will cover in Introduction to Oral Medicine course and Treatment Planning I.
In the freshmen Operative class, we refer to Summitt's Operative Dentistry text.

UKY Sturdevant's *Art & Science of Operative Dentistry* and Summit's *Fundamentals of Operative Dentistry*

ULSD The course entitled Cariology is separate from the restorative courses. Text is not required, but often referred to: *Dental Caries: The Disease and It's Clinical Management*, 2nd ed. By Fejerskov and Kidd, Blackwell Publishing

MMC Sturdevants, 5th ed, ?????

UNC No response submitted

NOVA *Essentials of Dental Caries*. Edwina A.M. Kidd; Oxford. 3rd Edition, 2005; Supplemental book: *Fundamentals of Operative Dentistry. A Contemporary Approach*. Summit, JB; Robbins, JW; Hilton TJ; Schwartz, RS. Quintessence Publishing. 3rd Edition, 2006

UPR O. Fejerskov, B. Nyvad and E.A.M. Kidd, *Dental Caries: The Disease and Its Clinical Management*, 2nd Edition. Wiley-Blackwell

MUSC No response submitted

VCU *Dental Caries: The Disease and Its Clinical Management*, edited by Fejerskov and Kidd

B. In which department/section are the Cariology courses conducted?

UAB Cariology content:
Fundamentals D1 - Various Departments
Operative Dentistry D1 - GDS
Operative Dentistry D3 - GDS
Pediatric Dentistry D3 - Pediatrics
Health Promotion D4 - Biomaterials/Prosthodontics

UFL The discipline of Cariology is being taught within the preclinical Operative Dentistry courses - Restorative Dental Sciences Department, Division of Operative Dentistry - there is no Cariology course per se. Cariology is also incorporated in the Pediatric courses and taught by Pediatric specialists.

ECU Foundational Basic Sciences and Foundational Clinical Sciences themes of our curriculum.

GHSU The course director along with this listing of the Cariology course are in the department of Oral Biology. Cariology is covered for clinical detection and management (including risk assessment and preventive protocols) in Operative and Treatment Planning, both of which are in the Oral Rehabilitation Department.

UKY Restorative

ULSD Surgical and Hospital Dentistry (This course represents the biological basis of dental caries as an infectious disease.) Dept. of General Dentistry & Oral Medicine (The Operative courses discuss the progression, treatment and prevention of dental caries.)

MMC Restorative Dentistry and Microbiology Department

UNC No response submitted

NOVA Department of Cariology and Restorative Dentistry

UPR Oral Biology session

MUSC No response submitted

VCU Department of General Practice Dentistry - GENP 620

C. What are the faculty qualifications for teaching Cariology?

UAB Primarily DMD's. Faculty additional training/background: PhD in Microbiology; MS in Biomaterials; MS/Certificate in Pediatric Dentistry

UFL There are no defined qualifications of teaching Cariology; however, the instructor, Dr. Marcelle Nascimento, has a MS and PhD in Cariology from the University of Campinas, Brazil.

ECU DDS or PhD

GHSU Microbiology/ Immunology of caries: Ph.D. Microbiologist
Pathology of caries: Oral Pathologist
Diagnosis of Caries: Board certified Oral Radiologist
Fluoride and caries prevention: World-class fluoride expert and toxicologist
Sealants and caries prevention: Board certified pediatric dentists
Diet and Caries (planned for future courses); Restorative dentist
Clinical applications and perspectives: Restorative dentist

UKY AEGD two-year course

ULSD Postdoctoral Fellowship in Cariology, University of Minnesota and 10 years of federal funding on the etiology of the disease and defining potential antigens for a caries vaccine.

MMC Degree in Microbiology

UNC No response submitted

NOVA Course director and lecturer: Prosthodontist

Lecturers: Prosthodontist with Master in Operative Dentistry; General dentist with Master in Public Health; General dentist

UPR PhD in Cariology, PhD in Genetics

MUSC No response submitted

VCU Additional training/CE courses/Conferences in Cariology (not necessarily a Certificate or Masters program)

D. Are full time faculty of Operative Dentistry provided the textbook(s)?

UAB No. Those interested purchase the textbook

UFL No, however, the department has the textbook which is available to all faculty

ECU They have access to the Infectious Disease Curriculum and manual that covers biofilm diseases.

GHSU No

UKY Yes

ULSD No

MMC Yes

UNC No response submitted

NOVA Both textbooks are available to full-time faculty in an electronic format (VitalSource software) and in the library reference area.

UPR Available through VitalSource

MUSC No

VCU Yes

E. Are there concepts of Cariology which are not well supported by the Clinical faculty?

UAB Yes

UFL I don't believe so, however, not all faculty are up-to-date with the evidence-based clinical principles of Cariology.

ECU No

GHSU For the most part, the clinical faculty is supportive of the concepts taught in Cariology as taught by the Oral Biology department

UKY No

ULSD No

MMC No

UNC No response submitted

NOVA There is controversy in literature over the concept of incomplete caries removal (leaving caries behind in a completely sealed environment). This concept is supported only in the indirect pulp cap procedure which is not routinely done. Use of pharmaceuticals in caries prevention is

recommended in the Preventive Treatment Plan. Using preventive measures rather than a surgical approach for lesions that clinically are limited to the outer half surface of enamel depends on the accessibility of the lesion and the Caries Risk Assessment of the patient.

UPR Yes

MUSC No response submitted

VCU Still trying to implement CAMBRA clinically, this is what students are being taught currently.

F. What are the concepts and why the lack of support?

UAB Non-surgical treatment of caries: some perceive "cutting" as the only treatment sealing slow progressing lesions of caries to arrest their progress.

UFL Caries risk assessment, diagnosis of enamel caries and remineralization of caries lesions

ECU N/A

GHSU I'm still not sure how well the concepts are being carried forward after Junior clinic. We are planning on doing significantly more in this year's Oral Medicine, Treatment Planning and Sophomore block courses. The biggest issue here is likely the use of small lesions for mock boards or competencies when remineralization might be more appropriate.

UKY No response submitted

ULSD No response submitted

MMC N/A

UNC No response submitted

NOVA The following concepts are not well supported: the concept of leaving caries and sealing them in the tooth and the concept of treating occlusal or interproximal enamel lesions exclusively with pharmaceuticals in high caries risk patients. Since this is a school environment and patient follow-up care is not always ideal, clinical faculty generally tend to be more invasive in an attempt to minimize more extensive problems occurring from neglect.

UPR Basically, developing treatment plans based on caries risk assessment, leaving carious lesion to recalcify, the use of sharp explorer instead of a blunt one, resistance to change, student procedural requirements.

MUSC No response submitted

VCU Again, CAMBRA, and limited faculty teaching the current methodology. Also, large adjunct force in clinics that may or may not be aware of all aspects of student training.

G. What are the interpretations of textbook content as to Restorative intervention, caries removal, etc? (Are there criteria and situations when caries could intentionally be left – restored or sealed?)

UAB No response submitted

UFL The following clinical protocol are not necessarily derived from the textbook but from knowledge of evidence-based clinical trials and clinical practice. Caries removal and restorative intervention is recommended when carious lesions are cavitated and/or have reached the D1 stage as detected by radiographic examination. Lesions at E1 and E2 stages of progression are controlled and monitored by remineralization and other minimally invasive methods. In the case

of "caries control" and/or deep lesions where pulp exposure may occur, caries may be left in the pulpal and/or axial walls and the temporary restoration (caries control) or definitive/permanent restoration may be placed. It is important that all restoration margins are well sealed. In cases where caries is left and a permanent restoration is placed, the tooth should be monitored for at least 3 months and tooth re-entry is only recommended if the prognosis is leading to root canal therapy; otherwise, if the tooth is healthy no re-entry is recommended.

ECU Yes, there are situations when caries could be left and restored

GHSU In the Cariology course, the restorative intervention "philosophy" of one restorative faculty member is presented. Clinically, with the separation of Oral Rehabilitation and the Comprehensive Dentistry departments, we could be better calibrated, but all restorative faculty are open to sealants, leaving decay in Vital Pulp therapy, etc. Restorative intervention is based on radiographic...

UKY The rationale of leaving caries in an indirect pulp therapy situation, but placing liners (such as using the sandwich technique), sealing the tooth, placing a restoration, and advising the patient of potential future problems.

ULSD Operative courses use Sturdevant's text.

- Temporary restorations placed where there is very deep caries
- Re-entering to remove remaining caries: "Carefully controlled studies are lacking, but the consensus is shifting against re-entry procedures." We routinely re-enter.
- Use of calcium hydroxide: the text presents the controversy. We routinely place calcium hydroxide under temporary restorations involving deep caries excavation.
- Use of bonding agents for pulp-capping: Text says that "use of resin bonding agents may prove beneficial for pulp-capping procedures." We disagree.
  The disastrous effects of the "total etch" technique in vital pulp capping in primates. Am J Dent. 1998 Jan;11 Spec No:S45-54. In the three experimental groups using a bonding agent, the 25- and 75-day groups had a total of 40 teeth of which 18 (45%) became non-vital and 10 (25%) exhibited bridge formation.
  Response of human pulp capped with a bonding agent after bleeding control with hemostatic agents. Oper Dent. 2005 Mar-Apr;30(2):147-55. Overall, the histological features showed that the pulp response from Groups 1 through 4 was inferior to the response from Group 5 (calcium hydroxide), where dentin bridging occurred. In all groups, where the adhesive system was used for capping, the pulp response varied from an acute inflammatory, with varying degrees, to necrosis. No dentin bridge was formed after adhesive capping.
  Short-term evaluation of the pulpo-dentin complex response to a resin-modified glass-ionomer cement and a bonding agent applied in deep cavities. Dental Materials, Volume 19, Issue 8, December 2003, Pages 739-746. Based on the experimental conditions, it was concluded total acid etching followed by application of One Step bonding agent cannot be recommended as adequate procedures. In this clinical condition the cavity walls should be lined with a biocompatible dental material, such as Vitrebond or Dycal.
  Direct Pulp Capping with a Dentin Bonding System in Human Teeth: A Clinical and Histological Evaluation. Operative Dentistry: May 2006, Vol. 31, No. 3, pp. 297-307 In conclusion, SBAS (Single Bond) should be avoided for vital pulp therapy, while CH remains the capping agent of choice for mechanically exposed human dental pulp
- Leaving caries
  An in vitro Study of Affected Dentin as a Risk Factor for the Development of Secondary Caries, Caries Res 2006;40:47-51. The objective of the study (lab investigation) was to investigate the association between the presence of residual caries (inner affected dentin) on the cavity walls of cavity preparations and the further development of secondary caries lesions. It was concluded that conservative cavity preparations leaving behind affected dentin do not increase the risk of secondary caries development.

Deep Caries Lesions after Incomplete Dentine Caries Removal: 40-Month Follow-Up Study. Caries Res 2007;41:493-496. Radiographic changes after indirect pulp capping (32 teeth in 27 patients) were studied for up to 36-45 months. Radiolucent zone (RZ) depth and tertiary dentine formation were assessed qualitatively and changes in radiographic density (by image subtraction) in RZ and control areas (CA) were estimated. During follow-up there were 1 pulp necrosis, 1 pulp exposure, 3 fractures and 3 withdrawals. Twelve cases showed decreased RZ depth and 4 displayed tertiary dentine. No changes with time in density of CA or RZ, or in the difference between them, were observed. It is concluded that indirect pulp capping arrests lesion progression, suggesting that complete dentine caries removal is not essential for caries control.

MMC No. We do not believe in indirect pulp capping

UNC No response submitted

NOVA The information below is taken from our textbook and is the Department philosophy. At this time we do not leave active caries in any tooth preparation.
(Proximal lesions) "The following tend to indicate lesion activity:
- A patient with proximal lesions on the radiograph who is at high risk for caries
- A proximal lesion present radiographically and persistent gingival inflammation despite the patient's attempts to remove plaque with dental floss
- A lesion not present at previous examination
The following features indicate that the lesion may be arrested:
- Successive, reproducible, bite-wing radiographs showing no lesion progression
- A patient who is now judged to be at low risk for caries because, following preventive treatment, he or she presents with no new lesions". (Summitt, James B..*Fundamentals of Operative Dentistry: A Contemporary Approach*, 3rd Edition. Quintessence Publishing (IL), 012006. p. 90).
(Occlusal lesions) "The following features indicate lesion activity:
- White spot lesions that have a matte or visibly frosted surface or are plaque covered. This can be noticed after drying or application of a disclosing solution.
- Cavitated lesions, including microcavities and cavities exposing dentin .
- Lesions visible in dentin on bite-wing radiographs.
The following feature indicates that the lesion may be arrested:
- White or brown spot lesions with a shiny surface"
(Summitt, James B..*Fundamentals of Operative Dentistry: A Contemporary Approach*, 3rd Edition. Quintessence Publishing (IL), 012006. p. 89).

UPR Yes, if procedure is performed in a cavitated lesion under rubber dam isolation and evident risk of pulpal exposure.

MUSC No response submitted

VCU Restorative intervention only when the lesion is beyond remineralization/repair; caries removal to the point of infected dentin. Affected dentin only should be left, active caries is removed. The new text introduces alternatives to complete caries removal (i.e. ART technique and Step-wise excavation are addressed and discussed with students.)

V. CARIES RADIOGRAPHIC INTERPRETATION

A. Is there current clinical evidence that supports restorative intervention on interproximal caries that show in the outer ½ of the enamel when viewed on digital imagery?

UAB Only if there is cavitation of the enamel

UFL No. We feel that remineralization can be achieved with lesions that approximate the dentin (and possibly even present in dentin).

ECU No

GHSU No

UKY No

ULSD I could not find any article relating digital imagery to lesion depth.
http://www.midentistry.com/JMID-4-5.pdf
Minimum Intervention Treatment Plan (MITP) practical implementation in general dental practice. J Minim Interv Dent 2009; 2: 103-23. (Doesn't address radiographs. Does address when intervention is needed.)
Dental caries: The Disease and Its Clinical Management. Ole Fejerskov, Edwina Kidd, Edwina A. M. Kidd, p. 360. (States that R4 lesions, radiographically (not digital) reaching inner ½ of dentin, are always indicated for restoration. R3 lesions, in outer ½ of dentin, may or may not be cavitated and may or may not be indicated for restoration.)
Management of the precavitation lesion. Saudi Dental Journal: 2000, 12(1); 37-47.
http://www.sdsjournal.org/2000/volume-12-number-1/2000-12-1-37-47-full.html

1. When enamel is sound on bitewing radiograph, treatment should not be done.
2. When radiolucency is confined to the enamel, preventive measures and attempt to remineralize should be instituted.
3. When radiolucency is confined to the enamel but has reached the amelo-dentinal junction, it should be monitored closely with bitewing radiographs and, if lesions are progressing, restoration via minimal cavity preparation should be done.
4. When radiolucency has entered the dentine, and the patient has a high caries rate, treatment should be instituted immediately via minimal cavity preparation. When caries incidence is low, monitoring through bite-wing radiographs should be carried out. If the patient is not available for regular inspection, restoration should be performed immediately.
5. When radiolucency in dentine is close to the pulp, restoration should be done immediately; where possible, use a minimal occlusal cavity approach and always line with calcium hydroxide.

MMC No

UNC No response submitted

NOVA No evidence-based, recent studies or randomized clinical trials support that.

UPR No

MUSC No

VCU Not to my knowledge

B. If yes, reference and summarize the conclusions.

UAB Non-surgical caries treatment:
Dental Caries - The Disease and Its Clinical Management, Edited by Ole Fejerskov and Edwina Kidd - Blackwell Munksgaard - 2nd Edition
Nonsurgical treatment of incipient and hidden caries, Thompson VP, Kaim JM., Dent Clin North Am. 2005 Oct;49(4):905-21, viii.
Caries management by risk assessment: implementation guidelines, Young DA, et al., J Calif Dent Assoc. 2007 Nov;35(11):799-805.
A paradigm shift in the treatment of caries. Steinberg S, Gen Dent. 2002 Jul-Aug;50(4):333-8.

Update on Non-surgical, Ultraconservative Approaches to Treat Effectively Non-Cavitated Caries Lesions in Permanent Teeth, Borges, BCD. Et al. ,Eur J Dent. 2011 April; 5(2): 229-236.

UFL No response submitted

ECU No response submitted

GHSU No response submitted

UKY No response submitted

ULSD See answer to Item V-section A

MMC N/A

UNC No response submitted

NOVA Older publications in the lower levels of evidence tree can be found to support this concept

UPR No response submitted

MUSC No response submitted

VCU No single diagnostic technique can detect precavitated carious lesions reliably on all tooth surfaces. The use of only radiographs for caries diagnosis also is unreliable because of technical difficulties, such as exposure, angulation, tooth position, presence of restorations, and interpretation bias. Demineralization in enamel that is visible radiographically may not indicate active caries and is not an indication for restoration because radiolucency is visible on proximal enamel surfaces before cavitation. Sturdevant, 5th ed., pp. 104-105. Also, sometimes, over-manipulation of the digital software can give false positives, which could potentially lead to misdiagnosis. (No reference)

C. Do current teaching concepts support restorative intervention on only these interproximal lesions that extend beyond the outer ½ of the enamel when viewed on digital imagery?

UAB No restorative intervention for non-cavitated lesions at this level. Treatment recommended is caries risk assessment, HY reinforcement, dietary counseling, high fluoride containing paste or ACP paste, close recall.

UFL Probably

ECU Depends on Caries Risk Assessment

GHSU Only on lesions 'reaching' the DEJ, only if patient is expected to remain of high caries risk. Yes.
1. Pitts NB and Rimmer PA, Caries Res 1992 26:146-52
2. WF Waggoner and JJ Ashton, *Predictability of cavitation based upon radiographic appearance: comparison of two film types*. Quintessence Int, 20 (1989), pp. 55-60

UKY No

ULSD Cannot find any articles relating to depth on digital imagery

MMC No

UNC No response submitted

NOVA In the cariology course the students are exposed to the current concept of using preventive measures until the lesion extends beyond the outer one half of the enamel. However they are also instructed that the intervention may differ once they get into clinics since this a school

environment and patient follow-up is often difficult. Additionally treatment interventions are based on caries risk assessment, plaque control, and accessibility of lesion.

UPR No

MUSC Yes

VCU Yes, but with other factors taken into account, such as caries risk, etc.

D. What are the current teachings for intervention based on 1/3 extensions in enamel and dentin? e.g., outer, middle, inner third.

UAB Conservative cavity preparations: adhesive restorations, slot preps both in amalgam and resin composite

UFL Caries removal and restorative intervention is recommended when carious lesions are cavitated and/or have reached the D1 stage (1/3 into dentin) as detected by radiographic examination. Lesions at E1 and E2 stages of progression are controlled and monitored by remineralization and other minimally invasive methods.

ECU No response submitted

GHSU Intervene as above for anticipated future high caries risk, intervene on anyone once dentinal lesion shows. Unless clinical cavitation is confirmed, we recommend intervention when the lesion appears to be the size of a standard preparation, i.e., between the DEJ and 1/3 extension into dentin.

UKY The DEJ is the deciding factor and whether it is penetrated along with the caries risk of the patient (i.e. high risk)

ULSD See answer to Item V-section A (nothing mentioned 1/3)

MMC Cavitated lesions, we would restore as necessary

UNC No response submitted

NOVA Enamel outer 1/3: preventive/pharmaceutical
Enamel middle 1/3: preventive/pharmaceutical
Enamel inner 1/3: preventive/pharmaceutical and restorative intervention
Dentin outer 1/3: preventive/pharmaceutical and restorative intervention
Dentin middle 1/3: preventive/pharmaceutical and restorative intervention
Dentin inner 1/3: preventive/pharmaceutical and restorative intervention

UPR Outer for dentin and inner third for enamel

MUSC We use outer ½ or inner ½; all lesions in dentin are restored

VCU Outer: try to remineralize,
Middle: try to remineralization if low-moderate caries risk
Inner: restore

E. What is the evidence-based information that supports the current teaching concept?

UAB *Dental Caries - The Disease and its Clinical Management* - Edited by Ole Fejerskov and Edwina Kidd - Blackwell Munksgaard - 2nd Edition
Fundamentals of Operative Dentistry - A Contemporary Approach. Authors: J. Summitt, J.W.

Robbins and R. Schwartz, 2nd Edition. Quintessence Books.

UFL *Ultraconservative and Cariostatic Sealed Restorations - Results at 10 years*, Mertz-Fairhurst et al, JADA 1998

ECU *Fundamentals of Operative Dentistry: A Contemporary Approach*, Summitt, James B. 3rd edition, Quintessence Publishing (IL)

GHSU Almost any study on the subject by Kidd, E.A. demonstrates that with non-restorative intervention on a compliant patient, lesions extending 1 mm into dentin on radiograph can be arrested about 50% of the time. However, Kidd considers this as evidence not to restore, while we consider this as evidence that we should restore.
Pitts showed the correlation of cavitation and radiographic extent:
Outer half of enamel - 0%
Inner half of enamel (to DEJ- classic board lesion) - 10%
Outer third of dentin - 40%
Middle third of dentin - 100%
However, we are not willing to let the lesion go so deep that it produces an unnecessarily large restoration. Taking the caries risk assessment into account is critical in this decision as well, and plays a large part in when we intervene.

UKY 1) Gordon VV, Garvan CW, Heft MW, et al. *Restorative treatment thresholds for interproximal primary caries based on radiographic interpretation*. Gen Dent Nov/Dec 2009:654-663.
2) Espelid I. *Radiographic diagnoses and treatment decisions on approximal caries*. Community Dent Oral Epidemiol 1986;14(5):265-270.
3) Mileman PA, Espelid I. *Decisions on restorative treatment and recall intervals based on bitewing radiographs. A comparison between national surveys of Dutch and Norwegian practitioners*. Community Dent Health 1988;5(3):273-284.
4) Nuttal NM, Pitts NB. *Restorative treatment thresholds reported to be used by dentists in Scotland*. Brit Dent J 1990;169(5):119-126.
5) Lewis DW, Kay EJ, Main PA, Pharoah MG, Csima A. *Dentists' variability in restorative decisions, microscopic and radiographic caries depth*. Community Dent Oral Epidemiol 1996;24(2):106-111.
6) Lewis D, Kay E, Main P, Pharoah M, Csima A. *Dentists' stated restorative treatment thresholds and their restorative and caries depth decisions*. J Public Health Dent 1996;56(4):176-181.
7) Bader JD, Shugars DA. *What do we know about how dentists make caries-related treatment decisions?* Community Dent Oral Epidemiol 1997;25(1):97-103.
8) Yorty JS, Brown KB. *Caries risk assessment/treatment programs in U.S. dental schools.* J Dent Educ 1999;63(10):745-747.
9) Clark TD, Mjor IA. *Current teaching of cariology in North American dental schools*. Oper Dent 2001;26(4):412-418.
10) Mejare I, Sundberg H, Espelid I, Tveit B. *Caries assessment and restorative treatment thresholds reported by Swedish dentists*. ActaOdontolScand 1999;57(3):149-154.
11) Gordan VV, Bader JD, Garvan CW, Richman JS, Qvist V, Fellows JL, Rindal DB, Gilbert GH, for the Dental PBRN Collaborative Group. *Restorative treatment thresholds for primary caries by dental practice-based research network dentists*. J Am Dent Assoc (in press).
12) *Diagnosis and management of dental caries throughout life*. Available at: http://consensus.nih.gov/2001/2001DentalCaries115html.htm. Accessed June 22, 2009.
13) Bille J, Thylstrup A. *Radiographic diagnosis and clinical tissue changes in relation to treatment of approximal carious lesions*. Caries Res 1982;16(1):1-6.
14) Kay E, Nuttall N, Knill-Jones R. *Restorative treatment thresholds and agreement in treatment decision-making*. Community Dent Oral Epidemiol 1992;20(5):265-268
15) Mileman PA, Mulder E, van der Weele L. *Factors influencing the likelihood of successful*

decisions to treat dentin caries from bitewing radiographs. Community Dent Oral Epidemiol 1992; 20(4):175-180
16) Lagerlof F, Oliveby A. *Clinical implications: New strategies for caries treatment*. In: Stookey GK, ed. *Early detection of dental caries: Proceedings of the 1st annual Indiana Conference*. Indianapolis: Indiana University School of Dentistry;1996:297-316.
17) Young DA, Featherstone JD, Roth JR. *Curing the silent epidemic: Caries management in the 21st century and beyond*. J Calif Dent Assoc 2007;35(10):681-685

ULSD See answer to Item V-section A

MMC Sturdevant's, 5th ed, Cariology Group, AADR Research

UNC No response submitted

NOVA Cariology and Operative textbooks; Peer reviewed articles

UPR Sturdevant's textbook (restoration of cavitated lesions)

MUSC No response submitted

VCU Current literature, textbooks, etc.

F. Is there a discernible difference of radiographic evidence of actual clinical penetration of interproximal caries between conventionally exposed radiographs versus digital imagery? If so, which do you think represents a more accurate depiction of the clinical condition?

UAB Clinical presentation is more extensive than radiographic depiction of lesion. Radiographs are bi-dimensional.

UFL We have found that with our phosphor plate-based digital radiographs, they tend to be very grainy in appearance and many times are difficult to read. We are doubtful of their accuracy and many long for conventional radiographs. We have seen radiographs from the endodontic residents, where an electrode system is used, and the results are much better.

ECU We do nothing but digital so what's the point.

GHSU Digital better than film in correlating to clinical condition. Always more caries evident clinically. Our radiology faculty says there is convincing literature that there is no difference between digital and film in diagnosing caries, citing the studies of Ann Wenzel, H. Hintz. Several abstracts here:

1. A. Wenzel. *Digital radiography and caries diagnosis*, Dentomaxillofacial Radiology, Vol 27, Issue 1 3-11.

Direct digital acquisition of intra-oral radiographs has been possible only in the last decade. Several studies have shown that, theoretically, there are a number of advantages of direct digital radiography compared with conventional film. Laboratory as well as controlled clinical studies are needed to determine whether new digital imaging systems alter diagnosis, treatment and prognosis compared with conventional methods. Most studies so far have evaluated their diagnostic performance only in laboratory settings. **This review concentrates on what evidence we have for the diagnostic efficacy of digital systems for caries detection**. Digital systems are compared with film and those studies which have evaluated the effects on diagnostic accuracy of contrast and edge enhancement, image size, variations in radiation dose and image compression are reviewed together with the use of automated image analysis for caries diagnosis. **Digital intra-oral radiographic systems seem to be as accurate as the currently available dental films for the detection of caries**. Sensitivities are relatively high (0.6-0.8) for detection of occlusal lesions into dentine with false positive fractions of 5-10%. A radiolucency in dentine is recognized as a good predictor for demineralization. **Radiography is of no value for the**

detection of initial (enamel) occlusal lesions. For detection of approximal dentinal lesions, sensitivities, specificities as well as the predictive values are fair, but are very poor for lesions known to be confined to enamel. Very little documented information exists, however, on the utilization of digital systems in the clinic. It is not known whether dose is actually reduced with the storage phosphor system, or whether collimator size is adjusted to fit sensor size in the CCD-based systems. There is no evidence that the number of retakes have been reduced. It is not known how many images are needed with the various CCD systems when compared with a conventional bitewing, nor how stable these systems are in the daily clinical use or whether proper cross-infection control can be maintained in relation to scanning the storage phosphor plates and the sensors and the cable. There is only sparse evidence that the enhancement facilities are used when interpreting images, and no evidence that this has changed working practices or treatment decisions.

2. *Depth of Occlusal Caries Assessed Clinically, by Conventional Film Radiographs, and by Digitized, Processed Radiographs*, A. Wenzel, O. Fejerskovb, E. Kidd, S. Joyston-Bechald, A. Groenevelde, Caries Res 1990;24:327-333 (DOI: 10.1159/000261291)

Occlusal caries depth was assessed in 47 extracted premolars and permanent molars by 4 observers on a rank scale by eye inspection, by film radiographs, and by 2 of the observers also by digitized radiographs after filtering and contrast enhancement of the image. Quantitative estimates of caries depth were obtained from the digitized radiographs. Accuracy of scorings was determined with the histologic section as validating criterion. Occlusal caries was present in a spectrum from incipient fissure decalcification to large cavity formation. Clinical as well as radiographic scorings most frequently under-estimated lesion depth. **Accuracy of radiographic assessments increased substantially by digital processing of the radiographic image**. Quantitative measures of caries depth on digitized radiographs were strongly correlated to the histologic measures (r = 0.91). Interobserver agreement was fair to moderate according to kappa coefficients for the clinical and the radiographic scorings. The agreement was highest for the scorings of the digitally enhanced images. The study suggests that digital processing of radiographic images constitutes a diagnostic aid that may give a more accurate estimate of occlusal caries depth.

3. Wenzel A. *Bitewing and digital bitewing radiography for detection of caries lesions*. J Dent Res 2004;83

When radiography is applied in the clinic for caries detection, the recommended technique is bitewing projection (Gröndahl, 1994). This technique was introduced by Raper (1925) and has continued with only minor alterations. The aims of this report are to provide evidence for (1) optimal bitewing recording for individual examinations and clinical trials, (2) advantages and disadvantages of digital receptors for bitewing examinations, (3) the diagnostic outcomes and limitations of bitewing radiography, and (4) computer automated detection of caries.

4. H Hintze, A Wenzel and C Jones, *In vitro comparison of D- and E-speed film radiography, RVG, and Visualix digital radiography for the detection of enamel approximal and dentinal occlusal caries lesions*. Caries Res, 28 (1994), pp. 363-367.
5. H-G Gröndahl, *Radiologic diagnosis in caries management, Textbook of clinical cariology,* Munksgaard, Copenhagen (1994), pp. 367-382.

UKY My personal opinion = yes. Conventional radiographs.

ULSD No difference or digital better.

1. *Radiographic detection of approximal caries: a comparison of dental films and digital imaging systems*. Dentomaxillofacial Radiology, 2000, Vol 29, Issue 5 312-318.

The diagnostic accuracy of digital systems is comparable with that of dental films. The ability of dentists to recognize caries correctly is the main factor contributing to variation in radiographic diagnosis and not the imaging modality.

2. *Endodontic working length assessment: Comparison of storage phosphor digital imaging and radiographic film*. Oral Surgery, Oral Medicine, Oral Pathology, Oral Radiology, and

Endodontology. Volume 85, Issue 3, March 1998, Pages 325-328.

Conclusions. The smaller difference between file tip and root apex found with digital imaging suggests that this technique is more accurate to assess trial file length. This imaging modality for assessing file positions during root canal treatment may be beneficial to the practitioner.

3. *Comparison of diagnostic accuracy of digital imaging by using CCD and CMOS-APS sensors with E-speed film in the detection of periapical bony lesions*. Oral Surgery, Oral Medicine, Oral Pathology, Oral Radiology, and Endodontology Volume 89, Issue 3, March 2000, Pages 356-362

No statistically significant differences were found between film, charge-coupled device (CCD) sensor, and a complementary metal-oxide semiconductor active pixel sensor (CMOS-APS).

MMC Digital is more accurate, trouble with reading some x-rays.

UNC No response submitted

NOVA Most current referenced-based radiology literature agrees that there are no significant differences among film, SP plates, and direct digital sensors in caries detection. SP plates have a higher accuracy in outer enamel lesions in some studies but also have a greater rate of false-positives. Most literature indicates that there are no significant differences between histologic and radiographic caries in enamel but progressive differences as the lesion approaches and passes the DEJ (histologic caries always greater than radiographic). The greatest discrepancy is with deeper dentin lesions.

1. A comparison of older and newer versions of intraoral digital
2. Accuracy of caries detection with four storage phosphor systems and E-speed radiographs
3. Accuracy of caries diagnosis in digital images from charge-coupled device and storage phosphor systems: an in vitro study
4. Approximal Caries Depth Assessment with Storage Phosphor
5. Bitewing and digital bitewing radiography for detection of caries
6. Comparison of microscopy and radiography as gold standards in radiographic caries diagnosis
7. Detection of occlusal caries without cavitation by visual inspection, film radiographs, xeroradiographs, and digitized radiographs
8. Digital radiography and caries diagnosis
9. Evaluation of three radiographic methods for detecting occlusal caries
10. In vitro comparison of D-and E-speed film radiography, RVG, and visualix digital radiography for the detection of enamel approximal and dentinal occlusal caries
11. Radiographic detection of approximal caries: a comparison of dental films and digital imaging systems
12. Relationship between histological and radiographic caries lesion depth measured in images from four digital radiography systems
13. Screening with conventional and digital bite-wing radiography compared to clinical examination alone for caries detection in low-risk children

UPR Yes, conventional radiograph still more accurate

MUSC Conventional film radiographs are more accurate. At least with the equipment we have.

VCU Some schools of thought believe that there is a difference in image perception between traditional and digital format. The digital software allows one to view an image in different formats while always keeping the original or “raw” image unchanged. Different enhancement tools like sharpening, invert function, edge enhancement can potentially improve the diagnostic ability (bare in mind this is a small sample of dentistry).

VI. COMMUNICATION IN OUR DIGITAL ERA

Students have critiqued faculty in course reviews as not being responsive if e-mails are not answered immediately or over the weekend prior to an examination early in the week.

A. How does the time required to implement and manage an electronic curriculum compare to before the use of online teaching resources?

1. More time
2. Same amount of time
3. Less time

List specifics as it relates to your answer

UAB Electronic curriculum requires expertise in informatics that our faculty are not necessarily trained to perform, use of electronic boards (BlackBoard), using software specific for test design.

UFL More time

ECU No response submitted

GHSU More time

UKY Preparation time including posting lectures, handouts, and the syllabus.

ULSD If this question is referring to use of BlackBoard-type systems, there is a very slight increase in time to load the PowerPoint.

MMC Same amount of time.

UNC No response submitted

NOVA An electronic curriculum, i.e. WebCT, will take longer to (set-up) and prepare but then management should take less time. Outlines for lecture and labs can be posted under course content as well as lectures for the students. Announcements as well as questions from students can be posted on the discussion boards.

UPR More time. Students want seven days a week, twenty-four hours a day.

MUSC We do not have electronic curriculum. Until this past summer, the University used WebCT. Many of us in Restorative Dentistry used it to put lectures and handout materials on-line, This past year, for budgetary reasons, the University cancelled that contract and replaced it with a product called "Moodle Rooms" with less capacity. No dental faculty use it to the extent that WebCT was used; most don't use it at all.

VCU No response submitted.

B. In your experience for individual student interactions do students prefer

1. E-mail to communicate
2. Office appointments
3. Online tools with your electronic curriculum resources

UAB No response submitted

UFL Office appointments and online tools with your electronic curriculum resources

ECU No response submitted

GHSU E-mail to communicate

UKY No response submitted

ULSD E-mail to communicate

MMC Office appointments

UNC No response submitted

NOVA E-mail to communicate

UPR E-mail to communicate

MUSC E-mail to communicate. I believe most students would prefer direct one-on-one office visits, but because faculty are spread thinly it is hard for students to find us outside class times when they don't have another class or clinic.

VCU No response submitted

C. When students are e-mailing faculty, when are they expecting a faculty response?
1. Same day
2. Within several days
3. Within a week

UAB No response submitted

UFL Same day

ECU No response submitted

GHSU Same day

UKY No response submitted

ULSD Same day

MMC Same day

UNC No response submitted

NOVA Same day

UPR Same day

MUSC Same day

VCU Same day (if time sensitive), otherwise within several days usually.

D. When students ask a question about a specific course, lecture as it pertains to an upcoming examination, how do you manage your response?
1. Answer that student only.
2. Answer forwarded to entire class (keeping student anonymous) so that all students get the information.
3. No response, student must meet with the faculty member.
4. Faculty are not given any guidelines.

UAB No response submitted

UFL Faculty are not given any guidelines

ECU No response submitted

GHSU Answer forwarded to entire class (keeping student anonymous) so that all students get the information

UKY No response submitted

ULSD Answer forwarded to entire class (keeping student anonymous) so that all students get the information

MMC Answer that student only

UNC No response submitted

NOVA Answer that student only. Students are encouraged to post their questions on the discussion board so that the answers can be seen by all students. In addition, students can also comment on other student posting.

UPR Answer that student only

MUSC Answer that student only; answer forwarded to entire class (keeping student anonymous) so that all students get the information, Faculty are not given any guidelines

VCU Answer forwarded to entire class (keeping student anonymous) so that all students get the information. Although, occasionally a student will just want clarification that I feel the rest of the class does not need, so I'll just respond to that student only.

E. How are faculty directed to use e-mail as a communication with students?
   1. Respond only during school hours.
   2. Respond during school hours and evenings.
   3. Respond during school hours, evenings and weekends.
   4. Faculty are not given any guidelines.

UAB No response submitted

UFL Faculty are not given any guidelines

ECU No response submitted

GHSU Faculty are not given any guidelines

UKY No response submitted

ULSD Faculty are not given any guidelines

MMC Faculty are not given any guidelines

UNC No response submitted

NOVA Faculty are not given any guidelines

UPR Faculty are not given any guidelines

MUSC Faculty are not given any guidelines

VCU Faculty are not given any guidelines. However, they do want us to respond in a reasonably timely fashion.

F. What guidance are students given as it regards faculty responses to student e-mails that are sent off-school hours that the student requires an immediate response?
   1. E-mails are responded to only during school hours.
   2. E-mails are responded to whenever the faculty wants to.
   3. No guidance is given to students about expectations to respond

UAB No response submitted

UFL No guidance is given to students about expectations to respond

ECU No response submitted

GHSU No guidance is given to students about expectations to respond

UKY No response submitted

ULSD No guidance is given to students about expectations to respond. We gave no official policy. Course directors may address response times when they meet with class.

MMC No guidance is given to students about expectations to respond

UNC No response submitted

NOVA No guidance is given to students about expectations to respond

UPR No guidance is given to students about expectations to respond

MUSC No guidance is given to students about expectations to respond

VCU No guidance is given to students about expectations to respond to my knowledge.

Regional CODE Agenda

To be established by the respective Region and Regional Director. Please also report on responses to the Regional Agenda from all participants.

See Next Portion of Report

Suggestions for CODE

To locate the web site via a search engine, enter Consortium of Operative Dentistry Educators or Academy of Operative Dentistry and then use the link, CODE.

No Suggestions Submitted

2010 NATIONAL CODE AGENDA
REGION VI
SUMMARY RESPONSES TO REGIONAL AGENDA

(Editor note: Questions condensed for printing purposes)

Region VI School Abbreviations

UAB	**University of Alabama**	**MMC**	**Meharry Medical College**
UFL	**University of Florida**	**UNC**	**University of North Carolina**
ECU	**Eastern Carolina University**	**NOVA**	**Nova Southeastern University**
GHSU**	**Georgia Health Sciences University****	**UPR**	**University of Puerto Rico**
UKY	**University of Kentucky**	**MUSC**	**Medical University of South Carolina**
ULSD	**University of Louisville**	**VCU**	**Virginia Commonwealth University**

** **Editors note**: Medical College of Georgia (MCG) changed to Georgia Health Sciences University (GHSU) in February of 2011

I. MAGNIFICATION

Only two of the eleven respondents require magnification for students. The other schools recommend it. There are no specific vendors for most schools. 2.5x magnification is the most recommended.

II. TREATMENT GARMENTS

Over half of the schools have a disposable gown used when treating patients. Those who utilize a reusable gown have it laundered by an outside source.

III. OPERATIVE CLINICAL EXPERIENCES

The majority of schools report having expectations for student clinical procedures, and these expectations continue from 3rd to 4th years.

IV. FACULTY CLINICAL EVALUATIONS OF STUDENTS

Most schools have daily grading for clinical procedures. This is accomplished through clinic management software such as AxiUm or (in some schools) on paper.

V. GRADING

A variety of Summative and Cumulative grading models are used. Attachments are provided.

2010 REGIONAL CODE AGENDA
REGION VI RESPONSES
(Evidence cited where applicable)

Region VI School Abbreviations

UAB	**University of Alabama**	**MMC**	**Meharry Medical College**
UFL	**University of Florida**	**UNC**	**University of North Carolina**
ECU	**Eastern Carolina University**	**NOVA**	**Nova Southeastern University**
GHSU**	**Georgia Health Sciences University****	**UPR**	**University of Puerto Rico**
UKY	**University of Kentucky**	**MUSC**	**Medical University of South Carolina**
ULSD	**University of Louisville**	**VCU**	**Virginia Commonwealth University**

** ***Editors note****: Medical College of Georgia (MCG) changed to Georgia Health Sciences University (GHSU) in February of 2011*

I. Magnification

A. Are your students required to purchase magnification for pre-clinic or clinic?

UAB They are encouraged but not required

UFL No, but it is strongly recommended

ECU Magnification is a required purchase starting their freshman year (pre-clinic and clinic)

GHSU It is not required, but it is recommended for Operative clinic. Most buy lopes during the fall semester of the first year.

UKY No

ULSD No

MMC No

UNC No response submitted

NOVA No, but highly recommended

UPR Yes

MUSC No

VCU Not required, but encouraged. Most students do wear magnification

B. Is there a specific vendor?

UAB There are multiple vendors who present their products to students. Students are exposed to products throughout the 6 years but especially in D1 (also during Vendors, Alumni Meeting)

UFL The ASDA organization has a “loupes fair” each year where any vendor is welcome

ECU Faculty decided upon Orascoptic after looking at most vendors.

GHSU No. Several vendors come to the school regularly

UKY No

ULSD N/A

MMC Surgitel if indicated

UNC No response submitted

NOVA No

UPR Surgitel and Orascoptic

MUSC N/A

VCU We do not have a specific vendor; a variety of vendors visit the school so the students have a choice

C. Is there a specific recommended degree of magnification?

UAB No

UFL No response submitted

ECU At least 2.5

GHSU Faculty consensus in the first-year Operative class is no more than 2.5x

UKY 2.5 - 4.0x

ULSD N/A

MMC Two to three plus (2 to 3+)

UNC No response submitted

NOVA 2.5 - 3.5

UPR 2.5x

MUSC No, but we generally advise 2.5X

VCU No

II. Treatment Garments

A. What sort of treatment gown is worn by the students in clinic?

UAB Students wear scrubs under protective gown. Classes wear various scrub colors, but all will wear same color starting next year.

UFL Disposable (faculty as well)

ECU We will use disposable over-garments in the clinic. The students are required to wear a particular color and brand of scrubs as a clinic uniform. These garments will be worn over scrubs.

GHSU A breathable paper gown (Alpha Pro Tech Inc or High Five Products) is worn by the students, faculty and staff in clinic. Different colors are worn by these three groups.

UKY 99% polyester gown that drapes on the front and ties in the back

ULSD Blue snap-up long sleeve gown over scrubs.

MMC Disposable

UNC No response submitted

NOVA Green clinic coat laundered by school

UPR Disposable

MUSC Disposable: Henry Schein isolation gowns, $4.95 per package of ten. On average, we purchase between 30 and 40 packs per week.

VCU Disposable

B. How is it laundered?

UAB Only the lab/white coats are laundered, but they are NOT to be used during patient treatment

UFL Disposable

ECU Disposable

GHSU It is disposed of after clinic or when it becomes visibly soiled

UKY Outside source

ULSD Commercial company supplies the health science center

MMC Disposable

UNC No response submitted

NOVA Commercial laundry

UPR Disposable

MUSC Disposable

VCU Disposable

III. Operative Clinical Experiences

A. Do you have "requirements" or "expectations"?

UAB Yes

UFL We have RVU (Relative Value Units) cumulative year-end expectations

ECU There will be a minimum level of expectations and skills assessments. Clinic performance will be based on production and skills assessments.

GHSU We have 2 basic clinical restorative requirements:
1. Relative Value Units (RVU's) that assign a weight to procedures that varies with complexity or the time required to complete them.
2. Clinical Competency Exams:
   Junior year- 3 clinical competency exams: Class I Amalgam or Composite or Class V Amalgam, Composite, or Glass Ionomer, Class II, and Class III.
   Senior year- Class II Composite and Cusp Replacement Amalgam or Composite

UKY Expectations. We use "clinical encounters" which closely monitors the use of clinic time.

ULSD Suggested experiences + competency exams

MMC Expectations

UNC No response submitted

NOVA Yes. See Attachment C

UPR Both. Juniors have clinical requirements and daily formative evaluations. Competency is evaluated by clinical exams.

MUSC No, we use hours or exposure or credit hours (number of hours credit given based on the complexity of the procedure and equal to the average time it should take, for example, Class I amalgam equals 1 hour credit and Class II equals 2 hours, etc.) For restorative, it is 890 hours to graduate. As part of a course called "Early Clinics", Freshmen and Sophomores are in the clinic as assistants to the Juniors and Seniors.

VCU Expectations

B. Are they different for the Junior and Senior years, or is it a clinical continuum from pre-clinic to graduation?

UAB There are minimum expectations for the D3 and D4 years, separate from the pre-clinical exercises. The clinic productivity is also accounted for.

UFL For each of the 3DN year and the 4DN years, we have cumulative RVU expectations.

ECU Clinic will be a continuum of sorts. Certain skills assessments must be passed before the students advance to the Senior year and travel out to our Service Learning Centers.

GHSU This is the first year that an RVU System was adopted for the Junior year. The Senior Comprehensive Care Program has used RVU's for 5years and they include all procedures completed starting with the first semester (summer) of the Senior year.

UKY Three clinical assessments are used for the 2nd year students, 30 clinical assessments are used for each of the 3rd and 4th year students.

ULSD Some disciplines have different suggested experiences in the Junior and Senior year. Operative only has suggested experiences prior to being eligible for competency exams.

MMC Yes. It is a clinical continuum and each student is required to pass the FCCE. More points are required for more difficult procedures.

UNC No response submitted

NOVA Yes. See Attachment C

UPR Yes, Third year is requirement-based while Senior year is based on expectations and competency exams at the Comprehensive Care Clinic. A Competency Examination Clearance form is enclosed for the 13 competencies that the students must complete. See Attachment B

MUSC No, it is 890 hours from beginning of junior year until graduation. It is a 2 year clinical experience (not really broken up into semesters or years). 890 credit hours in combined restorative areas (operative, fixed, removable, implants, endo).

VCU Different for Junior and Senior years.

C. If you have requirements, are they measured by number of procedures, or by Relative Value Unit (RVU) points or some other point system that takes into consideration the degree of difficulty or the average time required for the procedures?

UAB Use both: minimum passing number of procedures and productivity point system

UFL RVUs by procedure

ECU There is a RVU per procedure depending upon the complexity and overall point totals to measure

production.

GHSU Yes, see answer to previous question.

UKY There is no value system used

ULSD No point system

MMC Yes, RVUs

UNC No response submitted

NOVA RVUs and competency exams - has been implemented for the Juniors. Senior class is still requirements and competency exams.

UPR Requirements are measured by numbers of procedures as follows:

Junior/Senior

Class I Ag 4/5	Class I Resin 5/5
Class II Ag 6/10	Class II Resin 5/5
Class III Resin 4/10*	Bleaching 2/4
Class IV Resin 4/5	Laminates & Inlays 2/2
Class V Ag 4/5	

*Including Pin-retained amalgams

MUSC N/A. Our Clinic Manual describes how many hours different procedures are worth. It is attached at the end of Attachment A

VCU They do have "requirements" (expectations) and competencies the D3 year, but they calculate a "production" amount the D4 year based on a point system, mimicking private practice (assigning a dollar amount to procedures; additionally, what they earn in the 3rd year is carried over into the 4th year; 1 point - $2,000 and 30 points = $60,000); the D4 year also has some requirements.

D. What are your procedure expectations or Relative Value Units (RVU) total for each or both years? (x fillings or y RVU points)

UAB D3/D4 students have to complete a minimum number of procedures each year (10/8 Class II amalgam restorations, 10/8 Class III and IV composite resin restorations, 3/8 Class II posterior composite resin restorations) and a minimum number of productivity points. Points assigned to completed procedures all year long.

UFL 3DN - 30,000 RVU's/4DN - 12,000 RVU's

ECU Not there yet. Don't have a clinic up and running (DS1's only)

GHSU Junior- 80 RVU's minimum; Senior- An average of the top 5 most productive students in the Senior class establish the total by which the others are compared. The minimum production required is 65% of the total.

UKY Students in the 3rd and 4th years may have up to 60 clinical experiences. Daily Evaluation Forms are graded and the student receives immediate feedback.

ULSD N/A

MMC 200 points are required for each student, plus final clinical exam plus FCCE.

UNC No response submitted

NOVA See Attachment C

UPR See answer to previous question

MUSC N/A. It's a two year program, not broken into Junior and Senior. The Departmental faculty reviews progress twice a year. Short comings are discussed with individual students and often selected new patients are assigned. Plus technical Assessment exams done twice a year on typodonts.

VCU The D3 year requires 250 points total to pass the class with a "C". Each surface = 1 point, and the grade is given at the end of the D3 year after the spring semester. The D4 year clinical revenue scale is based on a percentage of the "fixed cost" + pro-rated portion of dispensary expenses ("disposable costs").

E. If you use an RVU system for operative, what procedures (codes) count?

UAB What we refer to as Operative procedures and adjunct restorative procedures

UFL All CDT Restorative Codes

ECU All codes will count, The actual value will depend upon complexity of the procedure.

GHSU Table of RVU's for Operative in the Junior year.

UKY No response submitted

ULSD N/A

MMC N/A

UNC No response submitted

NOVA See Attachment C

UPR N/A

MUSC N/A

VCU Any Operative procedure costs

IV. Faculty Clinical Evaluation s of Students

A. Do you have Formative or Daily Grading?

UAB Both. Daily grading in clinic: procedure steps and also a patient or clinic management grade. Students are expected to attend all clinic rotations and they either see their own patients, assist, utilize chart administration time or have infection control duty.

UFL We have Daily (Quality) Grades (20%) and Professionalism Grades (10%) and Competency Grades (70%)

ECU Yes, we will

GHSU Yes, daily grading using Axium was started in both the Junior and Senior Clinics this academic year

UKY Daily Grading

ULSD Some disciplines have daily grades, some grade certain steps (Fixed, Removable, and Complete Prosth). Operative grades competencies. We have Axium but have not initiated the grading module yet. Operative has the option of reporting poor performance to Group Manager.

MMC Yes, daily

UNC No response submitted

NOVA Yes

UPR Yes, formative

MUSC Daily Grading

VCU Formative

B. If so, please explain how it is accomplished (software module, paper, or other)? (Please share your criteria)

UAB Operative and Comprehensive Care Clinic - 3 - 4 sets of Faculty Assessment grades are done individually, on paper with comments added by faculty. We use FileMaker Pro to record the grades, average and compute them.

UFL All grades are done through Axium, however, we currently have paper backup for our competencies, but hope to be paperless by next semester.

ECU Assessment will be done using Mi Forms on an iPad. Criteria are not completely finished at this time. I have an example of this working for evaluation summative and formative dental morphology wax-ups.

GHSU An Axium module opens automatically whenever a procedure is completed

UKY Evaluation sheets are completed with the student performing a self-evaluation on the left side of the form followed by the faculty evaluation on the right side of the form (including comments for critiquing and self-improvement)

ULSD No response submitted

MMC Axium Software Module and paper. Many students do not look at their grading system until they are finished and then they look at the "point" system.

UNC No response submitted

NOVA Axium grading sheet with self-assessment

UPR We use ACO (computer software developed for the administration of the Clinic). Few disciplines use papers. Cumulative summative evaluations are made every 3 months for 65% of the grade, 30% for Portfolio and 5% for Board Exam Seminar.

MUSC Each clinical experience is graded (in approximately 2 hour blocks). Grades are entered into Axium and averaged for a semester grade.

VCU Through software: graded competencies on Axium. Our criteria is graded on a 1-5 scale, in 5 areas. After the student self-assesses, the faculty comes over and then grades the student on these same 5 criteria.

V. Grading

A. Do you have Summative or Cumulative Grading? (Mid-term and/or end-of-term?)

UAB Operative Dentistry Clinic is year long in both D3and D4 years. Cumulative grades, productivity and 3 sets of Faculty Assessments grades. Grades reported in the Spring,
CCC is semester long with grades reported in the end of Fall and end of Spring semester.

UFL We have summative clinical competencies each semester of their two years of clinical education, but they must retake (and pass) the category of competency they failed by the end of each year. We have summative grading for mid-term and cumulative grading at the end of term for preclinical courses. The pre-clinical students are given a chance to remediate only at the end of a course. Our faculty do discuss regularly throughout each semester what we need to review with students to assist them in learning what they may be missing and in our pre-clinical teaching we

follow specific criteria within our psychomotor exams to determine if there is a negative trend in certain areas of their learning.

ECU Yes, we will have summative grading. Skills Assessments will be taken by the schedule for pre-clinical operative, and when ready for the clinical skills assessments. These exams are not mid-term or end-of-term unless that is just a coincidence.

GHSU Yes, we have had Summative Grading in both years for at least 15 years

UKY Cumulative Grading. Grades are assigned at the end of the year.

ULSD Both for Operative. Poor performance can be reported to academic achievement committee, who will call the student in for a discussion (not a hearing) to determine if any intervention is needed. Course grades are given at the end of the spring semester.

MMC Cumulative Grading

UNC No response submitted

NOVA The CDM is on a trimester year. The end of summer and fall is evaluated as Progressing or Non-progressing (PR/NPR) and at the end of winter D3 final grades are given. During the D4 year PR/NPR grades are given for summer and fall semesters and at the end of the D4 year winter final grades are given. (D4 final grades are cumulative from D3 year). Each D4 student will print copy of their personal planner from axiUm and meet with Chair who will sign as complete for graduation. For class of 2013, we are currently setting up the ability to track RVU's in axiUm. For current D-3's, OL and OB, though Class I's will be worth 2 RVU's; 1, 2, and 3 surface C1 III's will be worth 1 RVU; 4 surface anterior restorations including Class IV's will be worth 2 RVU's; 2 and 3 surface posterior restorations e.g. MO, MOD, will be worth 2 RVU's and 4 + surface posterior restorations will be worth 3 RVU's . See Attachment C

UPR See questions 4B and enclosed Competency Examination Clearance Form that each student must comply with for graduation. See Attachment B

MUSC Cumulative Grading

VCU Summative at the end of the year.

B. If so, how is it accomplished? (Please share your criteria)

UAB No response submitted

UFL Clinical competencies: minimum of 2 competencies in each semester within their two year clinical education and each year they must successfully complete each of the seven categories of competencies, plus complete a direct composite veneer/diastema closure and a CEREC restoration or assist twice on each of these procedures. See Attachment D

ECU Criteria are under development

GHSU Faculty submit mid-year and year-end subjective grades using a 4 point scale.

UKY Clinical assessment grades are averaged and a final grade given.

ULSD No response submitted

MMC The students are given an S or U for satisfactory or unsatisfactory work. At the end of the semester, they are to receive a grade by order of the Dean.

UNC No response submitted

NOVA See answer to previous question

UPR See questions 4B and enclosed Competency Examination Clearance Form that each student must comply with for graduation. See Attachment B

MUSC Each procedure is graded in Axium as completed. Data is extracted from Axium into Excel and averages computed.

VCU D3 year: 40% clinical (service, preventive, diagnostic, extracurricular such as help out with Boards, Give Kids a Smile, etc., restorative). The minimum amount of restorative points is 150; competency 24%, final exam 10%, case documentation 10%, mini-mock board 15%, 1% professional conduct; to pass the course you need 250 points total (operative requirements); any amount of points that run over the 500 can be applied to 4th year production; 500=A, 250=C; less than 250=F. The D4 year is broken down into the following: 10% Evaluations, 30% competencies (9 competencies including two mock boards and an OSCE exam), 30% clinical revenue, and 30% comprehensive care.

ATTACHMENTS

Attachment A

DEPARTMENT OF ORAL REHABILITATION
CLINICAL EDUCATION PROGRAM
Class of 2012

The clinical education goal of the Department of Oral Rehabilitation is to create an atmosphere that allows students to develop clinical skills while treating patients in a professional environment under the supervision of dental faculty. Patients should expect to receive treatment appropriate to their dental needs in a timely and organized manner.

Dentistry is technically demanding and requires knowledge of many materials and techniques. To comprehensively treat patients, students must apply judgment, knowledge and skill. It is expected that students will require support from the attending faculty at certain times to accomplish a patient treatment procedure.

The skills of a competent dentist are not judged by any one area. To be judged competent, a dentist must be professional in all phases of patient communication, actions and appearance. The dentist must have extensive knowledge of materials and possess technical skills to appropriately use the materials for predictable treatment.

Goals for Achieving Clinical Competence
Students will be expected to provide clinical care for their assigned patients in a comprehensive and timely manner. This care will be provided in various clinics of the Department of Oral Rehabilitation. An on-going evaluation process will be done in each clinic whenever a student is present and treating a patient. These grades will be based on all activities related to patient care and not just on technical skills. However, clinical skills will be part of the daily evaluation and emphasis will be placed on professionalism, patient management, preparation for the appointment, knowledge of materials and planning. The clinical competency assessment will be an on-going process. Faculty of each division will determine the level of competency based on an accumulation of grades and clinical experience. It is expected that a student will not be considered for clinical competency assessment until they enter the fourth year and have achieved a significant number of grades. The normal process of patient care on assigned patients should provide an adequate number of clinical grades. However, it will vary each semester and students may require additional patient assignment.

Department of Oral Rehabilitation

I. Requirements for Clinical Competency
   1. Achieve a minimum average grade of 80 in each division.
      This is a minimum passing grade.
   2. Meet clinical competency statements issued by each division.
   3. Pass third and fourth year Technical Assessment Exams. (Performed in the Sim Lab)
   4. Receive a passing grade for the spring semester senior year for each division in the Department of Oral Rehabilitation. This includes Endodontics, Implant Prosthodontics, Removable Prosthodontics and Restorative (operative and fixed).
   5. Receive recommendation for graduation by the Department of Oral Rehabilitation Faculty.

II. Independent Work
   A student who achieves all competency requirements by the end of the fall semester of the senior year will be considered clinically competent to work with limited supervision. Each division will have the authority to make this decision. A CORDS Card (Competent Oral Rehabilitation Dental Student) will be issued to the successful student.
   If a student is not deemed competent at that time, additional opportunities for re-assessment will be available in the spring semester of the senior year.

III. Graduation Requirements for the Department of Oral Rehabilitation

1. Produce 890 hours of clinical dentistry in the Department of Oral Rehabilitation and receive a passing grade for the spring semester senior year for each division of the Department which includes Endodontics, Implant Prosthodontics, Removable Prosthodontics and Restorative (operative and fixed). To receive a passing grade in each division the student must receive passing grades on daily work in the clinic, complete clinical competency statements and receive the CORDS Card. Working toward the suggested hours in each division will provide the opportunity to achieve these goals.
2. Achieve clinical competency requirements as stated in Section I above.
3. Follow patient treatment guidelines from the office of the Associate Dean for Clinical Affairs.

Department Of Oral Rehabilitation Divisions

Endodontics
Implant Prosthodontics
Removable Prosthodontics
Restorative Dentistry (includes Fixed Prosthodontics & Operative Dentistry)

Department of Oral Rehabilitation Clinics

Endodontics
Implant Prosthodontics
Restorative (Fixed Prosthodontics and Operative Dentistry)
Removable Prosthodontics
Caries Management

Average Available Clinics per Semester for the Department

Fall	80 (15 weeks)
Spring	80 (15 weeks)
Summer	50 (10 weeks)
	210 per year

Two years Clinical experience = 420 Periods

420
x 3 hour periods
1,260 hours available to schedule patients

Total hours to achieve suggested amount of experience for the divisions of the Department of Oral Rehabilitation = 890 hours

Hours Suggested in Each Area:

Operative	200
Endodontics	100
Fixed Pros	210
Removable Pros	212
Implant Pros	18
Treatment Planning*	150
	890 hours

*NOTE: Treatment Planning: The process of treatment planning includes radiology, charting, diagnostic impressions and facebow. The procedures are accomplished in the clinical area. It is then necessary to pour the impressions and mount the casts prior to the treatment planning appointment. Gathering information from faculty is helpful to form a preliminary treatment plan before bringing the patient to the Treatment Planning Clinic. It is expected that an average of five treatment plans per semester will be performed.

5 treatment plans
x 5 hours for each patient
25 hours per semester
x 6 semesters
150 hours

One hour = one unit where units are indicated rather than hours.
Department of Oral Rehabilitation must equal 890 hours for graduation.

ADDITIONAL CREDIT

Due to patient cancellations and other problems with scheduling patients, it will be possible to achieve credit without a patient.

1. If no patient is scheduled or a patient cancels credit can be achieved by the following:
   a. A student may assist another student in any of the Oral Rehabilitation Department clinics.
   b. The time of the assist must be a minimum of two hours.
      Note: A student may assist with more than one procedure to get the two hours.
   c. Two hours will be given for assisting.
   d. Assisting will be limited to an average of 10 per semester and not to exceed 60 for the two years.
   e. Assists will be recorded by using the code D2999A in Axium.
2. Certain approved clinics for outside rotations allow credit to be earned for restorative procedures. These clinics are assigned by the Associate Dean for Clinical Affairs and staffed by part-time faculty of the College of Dental Medicine.
   a. A report of the work must be signed by the attending faculty member identifying the work. The standard form is available in the Associate Dean for Clinical Affairs office.
   b. The report must be turned in to that office within one week after completing the rotation.
   c. The total hours earned cannot be more than 75.

Technical Assessment Exams

#1. Exam Week after Spring Semester of Junior Year

It will be much like the preclinical competency exam with slightly more complex problems. It will be scheduled for two days.

#2. End of Fall Semester of Senior Year

this exam will include multiple technical procedures associated with all phases of restorative dentistry. It will test the participant's ability to work and think independently to provide restorative treatment in a simulated situation,. It will be scheduled for two days.

Minimum Suggested Clinical Experience

Removable Prosthodontics

1 Complete denture opposing an RPD
2 Complete maxillary over complete mandibular denture
3 Removable partial dentures
1 Denture or RPD repair
3 Dentures or RPD recalls
1 Denture or RPD laboratory reline

Fixed Prosthodontics

10 Crowns
3 Post and cores
1 3-unit bridge
5 Foundation build-ups

Operative

Routine Class I and Class II amalgams
Complex Class II amalgams
Placement of retentive pins
Routine anterior composites
Complex anterior composites
Class I and II posterior composites

Total: 53 restorations

Implant Prosthodontics

Attend all Implant Clinic blocks
Complete one implant restoration from treatment planning through delivery of restoration.
Successfully complete senior competency in the Implant Clinic.

Endodontics

Complete 10 canals
Attend clinic and treat patients as well as attend endo clinic block assignments
Complete 10 canals
Attend clinic and treat patients as well as attend endo clinic block assignments

Endodontics Procedure Time Values

Code	Procedure	Units
D3310.1	Anterior Root Canal	7
D3310.2	Anterior Root Canal	14
D3320.1	Premolar Root Canal	7
D3320.2	Premolar Root Canal	14
D3330.3	Molar Root Canal	21
D3346.1	Retreat Anterior Root Canal	7
D3346.2	Retreat Anterior Root Canal	14
D3347.1	Retreat Premolar Root Canal	7
D3347.2	Retreat Premolar Root Canal	14
D3347.3	Retreat Premolar RCT - 3 canals	21
D3348	Retreat Molar Root Canal	21
D3348.3	Retreat molar root canal - 3 canals	21
D3348.4	Retreat molar root canal - 4 canals	28
D9974	Bleaching, Internal (preexisting endodontic tooth)	3

D2999A	Restorative Assist	2

Fixed Prosthodontics Procedure Time Values

Code	Procedure	Units
2740	Ceramic/Porcelain Crown	8
2740C	CAD/CAM Crown	8
2750	PFM Crown High Noble Metal and Ultragold	8
2752	PFM Crown Noble Metal	8
2790	Gold Crown High Noble Metal	8
2792	Gold Crown Noble Metal	8
2950	Core Buildup Including Pins	3
2952	Cast Post and Core	5
2954	Prefab Post and Core	3
6210	Pontic High Noble Metal	4
6212	Pontic Noble Metal	4
6240	Pontic PFM High Noble Metal	4
6242	Pontic PFM Noble Metal	4
6750	Retainer PFM High Noble	8
6752	Retainer PFM Noble	8

2999A	Restorative Assist	2

Implant Prosthodontics Procedure Time Values

Code	Procedure	Units
0120HI	Initial Implant Exam	
	Final Implant Exam	
6059UI	PFM Implant Crown	6
6062UI	Gold Implant Crown	6
6066UI	PFM Screw Retained Crown	6
6067UI	Gold Screw Retained Crown	6
6069UI	PFM Cement Retained Bridge	4/unit
6072UI	Gold Cement Retained Bridge	4/unit
6076UI	PFM Screw Retained Bridge	4/unit
6077UI	Gold Screw Retained Bridge	4/unit
5875UI	Overdenture Md Modify After Implant	6
6190UI	Implant Surgical Template	9
2999A	Restorative Assist	2

Operative Procedure Time Values

Code	Procedure	Units
0470	Diagnostic Casts	2.0
1351	Sealant - Pit and Fissure (per tooth)	1.0
2140	Amalgam (1 surface)	2.0
2150	Amalgam (2 surfaces)	3.0
2160	Amalgam (3 surfaces)	3.0
2161	Amalgam (4 or more surfaces)	3.0
2330	Comp. resin, anterior (1 surface)	2.0
2331	Comp. resin, anterior (2 surfaces)	3.0
2332	Comp. resin, anterior (3 surfaces)	3.0
2335	Comp. resin,ant. (4+surf.)orincAngle	3.0
2335B	DiastemaClosure (per tooth)	3.0
2391	Comp. resin, posterior (1 surface)	3.0
2392	Comp. resin, posterior (2 surfaces)	3.0
2393	Comp. resin, posterior (3+ surfaces)	3.0
2740	Crown - Ceramic	8.0
2910	Recement Casting	1.0
2940	Sedative (temporary) Restoration	2.0
2950	Core BU, nonvital,inc any pins	3.0
2951	Pin, retentive (per pin)	1.0
2954	Post - prefabricated, includes core	3.0
2960	Veneer - Comp. resin (direct)	3.0
2961	Veneer - Comp. Resin (lab)	3.0
2962	Veneer - Porcelain (lab)	8.0
9972	Bleaching - nightguard (per arch)	4.0
2999A	Restorative Assist	2.0

Removable Prosthodontics Procedure Time Values

D5110	Complete Denture Maxillary (includes 6 hours lab + 2 POT's)	22 hours
D5120	Complete Denture Mandibular (includes 6 hours lab + 2 POT's)	22 hours
D5130	Immediate Denture Maxillary (includes 6 hours lab) + 4-6 POT's	26 hours
D5140	Immediate Denture Mandibular (includes 6 hours lab) + 4-6 POT's	26 hours
D5211	Maxillary RPD Resin Base (includes 6 hours lab) + 2 POT's	12 hours
D5212	Maxillary RPD Resin Base (includes 6 hours lab) + 2 POT's	12 hours
D5213	Maxillary Cast RPD (includes 6 hours lab) +2 POT's	22 hours
D5214	Mandibular Cast RPD (includes 6 hours lab) + 2 POT's	22 hours
D5510-5660	Denture and RPD Repair (includes 3 hours lab)	10 hours
D5730-5741	Chairside Reline Procedures	2 hours
D5750	Maxillary Denture Reline Lab	5 hours
D5751	Mandibular Denture Reline Lab	5 hours
D5760	Maxillary RPD Reline Lab	5 hours
D5761	Mandibular RPD Reline Lab	5 hours
D5810	Interim Denture Maxillary (includes 6 hours lab)	24 hours
D5811	Interim Denture Mandibular (includes 6 hours lab)	24 hours
D5820	Interim Maxillary RPD (includes 5 hours lab)	15 hours
D5821	Interim Mandibular RPD (includes 5 hours lab)	15 hours
D5850	Maxillary Tissue Conditioning	3 hours
D5851	Mandibular Tissue Conditioning	3 hours
D5860	Overdenture Complete (includes 6 hours lab)	27 hours
D5861	Overdenture RPD (includes 6 hours lab)	27 hours

2999A	Restorative Assist	2 hours

ATTACHMENT B

Comprehensive Care Clinic PRET 7400
Competency Examination Clearance Form

Student: _____ **Student Number:** _____ **Module:** ___

Competency	Examination	Date Approved	Professor	Authorized Signature
1	Case			
2	Portfolio Based Assessment			
3	Module supervising exercise			
4 and 5	Case Presentation			
6	Assessed during Competency 7 or 12 examinations			
7	OSCE Clinical Case			
8	Extraction			
9	Active, Completed and Pedodontics Recall examinations			
10	Written Exam Periodontics case presentation and reevaluation 1 RPC			
11	OSCE Case transfers			
12	Written Exam Clinical Case			
13	Operative: CITA based Cl. II amalgam and Cl. III composite			
	Removable Prosthodontics: RPD design and prescription			
	Fixed Prosthodontics: Clinical Case CITA based examination			

ATTACHMENT C (Nova Southeastern University)

Section on Cariology and Restorative Dentistry
Clinical Requirement Summary
Class Graduating 2012 (emailed 5-25-10; updated 4-12-11, 5-10-11)

Dr. Audrey Levitt Galka, Chair Department of Cariology and Restorative Dentistry
Dr. Amir Far, Pre-Doctoral Restorative Director Davie Clinic

* Before preforming Restorative procedures in the clinic, the Dentoform Competency examinations for Class II Amalgam and Class II Composite must be satisfactorily completed.
* *MANDATORY CLINIC ATTENDANCE POLICY IS IN EFFECT*

Fall D3

Dentoform Competency Exams (must be done Summer D3)
1 Dentoform Competency (in mannikin with shroud) Class II Amalgam (end of fall semester) (in Sim-lab)
1 Dentoform Competency (in mannikin with shroud) Class II Composite (in Sim-lab)
If a dentoform competency is failed, it must be remediated for a maximum grade of 70. All remediation must be completed by the end of Fall semester.

Winter D3

Clinical Competency Exam: before preforming a Restorative clinical competency exam on a patient, a minimum of 5 Class II restorations, either amalgam or composite, performed on patients, must be satisfactorily completed. The Group Leader will determine when the student is ready to attempt a Clinical Competency Form. The D3 Clinical Competency Exams for Class II Amalgam and Class II Composite may be performed on a patient or a dentoform in the mannikin with shroud.
Class II Amalgam Preparation and Restoration Patient or Dentoform (end of winter semester)
Class II Composite Preparation and Restoration Patient or Dentoform
If a Patient Competency Exam is failed, the same procedure may be demonstrated on a dentoform and then can be performed on a patient, or 2 competency exams can be performed on a dentoform. A maximum grade of 70 can be achieved.

Fall D4

You **must perform** the D4 Clinical Competency Exams for Class II Amalgam and Class II Composite Competency Exams on patients.
Class II Amalgam Preparation and Restoration Patient (end of fall semester)
Class II Composite Preparation and Restoration Patient
If a Clinical Competency Examination is failed, the same procedure must be demonstrated on a dentoform and then must be preformed on a patient for a maximum grade of 70.
Treatment Planning Competency Exam (fall semester to middle of the spring semester)

Minimum Number of Restorative Procedures Performed on Patients to Graduate: 48 Relative Value Units (RVUs)

The number of clinical procedures to be done on patients will be determined by the group leader

10 Class I Composite or Amalgam Restorations
10 Cl II Restorations (including patient competency exams and patient prerequisites)
8 PRR's
2 DiagnodentAnalysis on Patients
5 Cl V (Carious or non-carious, or root caries)
2 Class III Composite Restorations
1 Diastema Closure, Class IV, or Composite Laminate
1 Complex Restoration with cusp replacement
8 Core- buildups (equivalent to 4 Restorative Procedures)
8 Sealants (equivalent to 2 Restorative Procedures)
2 arches Tooth whitening (equivalent to 1 Restorative Procedure)
2 arches Fluoride Trays (equivalent to 1 Restorative Procedure)
4 Unspecified procedures refurbishing e.g. polishing an existing restoration, repair (equivalent to 1 Restorative Procedure)

SUMMARY

Summer D3	Date collection and Treatment Planning (option to take Fall Dentoform Competency Exam)
Fall D3	2 dentoform Competency Exams/8 Clinical Units
Winter D3	2 Clinical Competency Exams (patient or dentoform) Additional 10 Clinical Units 2 Diagnodent Analysis (2 patients)
Total	**4 Competency Exams/20 Clinical units (18 Clinical units = 2 Diagnodent)**
Summer D4	0 Competencies required/additional 10 clinical units
Fall D4	2 Patient Competency Exams/additional 10 Clinical Units 1 Treatment Planning Competency
Winter D4	0 Competencies required/additional 10 Clinical Units
Total	**7 Competency Exams/minimum 48 Relative Value Units + 2 Diagnodent**

Special Procedures

Sealant	4 sealants = 1unit, up to a maximum of 4 units of credit
PRR	1 PRR (using rotary instrument) = 1 unit, up to a maximum of 10 units of credit
Sedative Filling (including Triage, IRM)	4 = 1 unit, for a maximum of 5 units of credit (only when it is not placed due to insufficient time management by the student)
Fluoride Trays	2 = 1 unit, for a maximum of 4 units of credit
Diagnodent analysis and reevaluations	4 = 1 unit, for a maximum of 4 units of credit
Bleaching	2 arches = 1 unit, up to maximum of 4 units of credit
Core-buildup (Luxacore)	2 = 1 unit, up to a maximum of 4 units of credit
Unspecified Procedure (polishing, repair bonding/veneer)	4 = 1 unit, up to a maximum of 4 units of credit

Department of Cariology and Restorative Dentistry
Clinical Experiences-Summary
Class Graduating 2013

Dr. Audrey Levitt Galka, Chair Department of Cariology and Restorative Dentistry
Dr. Amir Far, Pre-doctoral Restorative Director Davie Clinic

Requirement to perform Restorative procedures in Clinic:
Successful completion of D-2Operative Review Dentoform Practical Examinations:
1 Class II Amalgam and 1 Class II Composite Preparation and Restoration
Before performing a Restorative clinical competency exam on a patient, a minimum of 5 Class II restorations, either amalgam or composite, performed on patients, must be satisfactorily completed.

D3	**Clinical Experiences**	**Competency Exams**
	95 Relative Value Units (RVUs)	7 Competency Exams
Summer D-3	0 RVU	Competency Exams required
	Data Collection	(Can take Fall D-3 Competency Exams)
	Treatment Planning	
Fall D-3	10 RVUs	2 DentoformCompetency Exams:
		Class III Composite Preparation and Restoration
		Class II Amalgam Preparation and Restoration

If a dentoform competency is failed, it must be remediated for a maximum grade of 70.

Winter D-3	25 RVUS	1 Clinical Competency Exam on a Patient:
		Class II Composite or Amalgam Preparation & Restoration

If a Clinical Patient Competency Examination is failed, the same procedure must be remediated as a Dentoform Competency Exam and then must be performed on a patient for a maximum grade of 70.

D4	**Clinical Experiences**	**Competency Exams**
Summer D-4	10 RVUs	0 Competencies
Fall D-4	25 RVUS	3 Clinical Competency Exams on Patients:
		Class II Composite Preparation and Restoration
		Class II Amalgam Preparation and Restoration
		Class III Composite Preparation and Restoration
		1 Treatment Planning Competency

If a Clinical Patient Competency Examination is failed, the same procedure must be remediated as a Dentoform Competency Exam and then must be performed on a patient for a maximum grade of 70.

Winter D-4	25 RVUS	0 Competencies

Students are required to successfully complete **95 Relative Value Units** in a variety of restorative procedures, plus **7 Competency Exams**. **10 restorations must be multi-surface- Class II Restorations and 4 must be Class III Restorations**.

Relative Value Units:

Sealant	4 sealants = 1unit, up to a maximum of 4 units of credit
Protective restoration (Triage)	4 = 1 unit, for a maximum of 5 units of credit (only when it is not placed due to insufficient time management by the student)
Tooth Whitening & Reevaluations	2 arches = 1 unit, up to maximum of 4 units of credit
Core-buildup - restored with proper contact, anatomy, and occlusion	1 = 1 unit, where no post is indicated, up to a maximum of 8 units of credit
Unspecified Procedure (refurbishing, e.g. polishing and existing restoration, repair)	4 = 1 unit, up to a maximum of 4 units of credit
PRR	1 PRR = 1 unit, up to a maximum of 10 units of credit
Class I Amalgam/Composite Restorations	1 unit
Class V Composite, Glass ionomer, or Amalgam Restorations (carious or non-carious)	1 unit
Class III Composite Restoration	1 unit
Class II Amalgam or Composite Restorations	1 = 2 units
Diastema Closure, Class IV Composite Restorations or Composite Laminates	1 = 2 units
Complex Restorations with cusp replacement	1 = 2 units

All Dentoform Competency exams are to done in the Sim-Lab in the mannikin with shroud.
Competency Exams will include a verbal questioning of the procedure, including self-assessment.
Deadline for Competency Exams and Clinical experiences will be the last day of each semester.

DIVISION OF OPERATIVE DENTISTRY
CLINICAL COURSES OVERVIEW

SEMESTER	COURSE NUMBER	CREDIT HOURS			RVUs	COMPETENCIES
SIX JUNIOR SUMMER	DEN 7744L	1			accumulate	(see below**)
SEVEN JUNIOR FALL	DEN 7745L	2			accumulate	Minimum of 2
EIGHT JUNIOR SPRING	DEN 7746L	2			3,000 (cumulative)	Minimum of 2 (Pass each of 7 competencies)
NINE SENIOR SUMMER	DEN 8747L	2			accumulate	Minimum of 2
TEN SENIOR FALL	DEN 8748L	2			accumulate	Minimum of 2
ELEVEN SENIOR SPRING	DEN 8749L	2			10,0000 (cumulative) (12000 Cl.2013)	Minimum of 2 (Pass each of 7 competencies)

Junior Year

Semester 6 **

- Pass Complex Class II and Direct Composite Veneer competencies on a dentoform in the clinic.

Semesters 7 and 8

- Complete and pass a caries management competency, if not completed in semester 6
- Pass a minimum of two competencies each semester
- Complete 1 Cerec restoration (or 2 assists) and 1 Direct Composite Veneer/Diastema Closure (or 2 assists)
- By the end of semester 8 you must pass each of the seven competencies ("a" through "g") from competency menu
- Complete a total of 3,000 RVUs accumulated through semesters 6-8

Senior Year

Semesters 9 and 10

- Pass a minimum of two competencies each semester (competency menu on page 4)

Semester 11

- By the end of semester 11 you must pass each of the seven competencies ("a" through "g") from competency menu
- Within semesters 9-11 you must complete 1 Cerec restoration(or 2 assists) and 1 Direct Composite Veneer/Diastema Closure(or 2 assists)
- By the end of semester 11 you must complete a total of 10,000(12,000 Class 2013) RVUs accumulated through semesters 6-11

Note: In semesters 6 – 11, competency exams may be carried over from semester to semester. Each type of procedure must be completed successfully, at least once, prior to challenging for a competency of that same type of procedure. A total of 10,000(12,000 Class 2013) Operative RVUs must be completed to graduate.