

2008 CODE National Agenda

Question V. Curriculum
Part 2: Preclinic – Clinic Time Gap

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Question V. Part 2:

- **What is the time gap** between the end of pre-clinical operative dentistry and the start of clinical operative experiences for students?
- **Describe the curricular progression** of your students in operative dentistry (Example– Fresh. Pre-Clinic Technique lab, Soph. Block Clinic, Jr. Discipline Clinic, Sr. Comp. Care Clinic).
- **Is there any concern with diminishing knowledge or skills** between pre-clinic courses and clinical practice? What types of knowledge or skill erosion did you observe and what have you done about it?

What is the time gap between the end of pre-clinical operative dentistry and the start of clinical operative experiences for students?

49 respondents

Avg. of 49 = 3.4 months

(11 of 49 = 0 months or NO GAP)

Avg. of 38 = 4.4 months

Range= 1 week - 12 months

(4 Months = 1 Semester)

Describe the curricular progression of your students in operative dentistry

- ▶ Freshman &/or Sophomore Pre-Clinic
- ▶ Sophomore Clinic Experience / or NONE
- ▶ Junior Discipline Clinic /or Jr-Sr Comp Care
- ▶ Senior Comprehensive Care/Gen Dentistry

Sophomore Experiences

- ▶ 43% (21 /49) Schools have Sophomore Clinic

- ▶ Sophomore Experiences include:
 - Service Rotations, pts. appointed for them
 - Mentor oversight & a vertical team (Fr-Sr) approach
 - Sr-Soph pairs D4's prep, D2's r. dam & restore
 - Sophomore pairs sharing pts. referred from Srs.
 - Regular clinic with carefully screened patients

Is there any concern with diminishing knowledge or skills between pre-clinic courses and pre-clinical practice? What types of knowledge or skill erosion did you observe and what have you done about it?

50%
ARE concerned with
Drop-off of Knowledge or Skills
(24/49)

Time Gap Compensation Strategies

The following examples of strategies to deal with loss of knowledge or skills due to a time gap between preclinic and clinic have been paraphrased from responses provided by various schools in the 2008 CODE Report.

Examples of actions taken by schools to deal with the time gap

- ▶ D2 4th quarter – pass an OSCE for amalgam and composite prior to seeing patients.
- ▶ During 2nd yr students only treat minor Operative problems..tend to forget about more complex procedures & concepts. Require them to do complex procedures (cuspal coverage amalgams, indirect preps & rests on **dentoforms**) to compensate for the lack of clinical exposure to complex cases.

Examples of actions taken by schools to deal with the time gap

- ▶ Implemented a **mini review** operative course that emphasized skills & didactic knowledge
- ▶ Instituted a **bridge course** at the beginning of the summer of the students' 3rd year before they start clinic (that semester)
- ▶ **Simulation lab sessions** immediately before beginning clinic

Examples of actions taken by schools to deal with the time gap

- ▶ ..modified Soph curriculum to include **sim lab** sessions immediately before beginning clinic
- ▶ The final preclinical course is the **Esthetic** course– summer of the D3 year (while they're working up pts). [Esthetics helps basic skills]
- ▶ Offer an **elective** ½ day review course taken immediately before students enter the clinic. We had 96% attendance last year (its 2nd yr).

Examples of actions taken by schools to deal with the time gap

- ▶ ...give a comprehensive didactic exam with all clinical depts. (provides) input at the end of the D-2 year to determine a student's ability to relate didactic information to actual clinical situations. This...**"Capstone Examination"** (requires that) students must pass to enter the D-3 clinic. This exam attempts to measure critical thinking skills.

Examples of actions taken by schools to deal with the time gap

- ▶ **During Junior and Senior years** each student has a three hour session each month in a small group of 8 students to **review and perform manikin procedures** previously learned in the preclinic. This allows nearly one on one instruction with each student by the faculty...to correct any misconceptions or problems that students are having with basic procedures.

Examples of actions taken by schools to deal with the time gap

- ▶ Since students have a **full year between** the end of the operative course and the beginning of the clinic experience we have established the **D2 review course that must be passed** in order for the students to be eligible to perform operative procedures on their patients; both a clinical and didactic component.

Examples of actions taken by schools to deal with the time gap

- ▶ ..a block rotation, Intro to Clinical Practice **simulates a clinical patient appt. in the sim lab using a tyodont in a sim head.** The student has an established restorative treatment plan for the sim pt...reviews the pt medical & dental histories, simulates taking vital signs...presents the case to faculty & performs operative procedures using rubber dam & personal protective equipment... (for) 6 sessions per student during the semester.

Other Comments

- ▶ **..major concerns** with diminishing knowledge and delayed entry into clinics. Some don't even remember doing certain types of restorations in pre-clinical labs or the why's. Operative tx. planning has eroded, also. We have expressed concern over this with the curriculum committee. PBL is so ingrained (with certain faculty and administrators) that most of our concerns have fallen on deaf ears

Other Comments

- ▶ What types of knowledge or skill erosion? If it can be forgotten, it will be forgotten
- ▶ ...we see a drop off of content knowledge **EXPONENTIALLY**. Working on this with video and lecture library.
- ▶ Skills do not necessarily erode, but require that leap which comes with treating a patient rather than a typodont...DS2 clinical session allows closer supervision for these entry forays into applied operative procedures.

Other Comments

- ▶ ...students seem to forget the details in some procedures. A clinical reference manual is available to aid them... Also repetition seems to be very helpful, especially after the students have seen the clinical cases.
- ▶ Most problems...technical issues such as how to place a matrix band in a retainer, how to mix certain materials. However... quickly recovered. Biggest problem is decision making which is why we have clinic courses.

Other Comments

- ▶ The biggest problems...involve the loss of specific details for...procedures or materials. By the time... [they're]experienced enough to place retentive pins, they have forgotten many...details... also confused on basic knowledge such as...a matrix for CI II Resin... considering redesigning overall curriculum to decrease the lag time btwn when a procedure or material is introduced in preclinic, and when they can apply that procedure clinically.

Other Comments

- ▶ Eight weeks between the end of pre-clinic and actual preps and restorations (DS2 to DS3). Of course we have some concern re: diminishing knowledge/skills during this period. Students are urged to prep extracted teeth prior to their actual first or second clinical experience. Our observations [lost knowledge] vary from not much to “which end of this handpiece does the bur go in?”

Other Comments

- ▶ ...disconnect between preclinical and clinical experiences, perhaps (due to) clinical faculty unaware of what is taught preclinically...many 2nd & 3rd yr faculty are part-time and students are hesitant to work with faculty that they do not recognize... does not contribute to... seamless transition from preclinic to clinic. Students need to be guided through that transition by engaged faculty who understand the special type of guidance required.

Summary

- ▶ Average time gap is 4 mo. btwn pre-clinical operative dentistry instruction & clinic.
- ▶ Most pre-clinical operative instruction is in Fresh/Soph. yr, most significant clinic is Jr. yr.
- ▶ 50% of schools are concerned with a drop-off of knowledge & skills btwn pre-clin & clinic.
- ▶ 43% of Schools have Sophomore Clinics
- ▶ Many schools have instituted review courses or clinical entry exams or use simulation to maintain pre-clinical skills & knowledge.

Conclusions

From one of the responses to this question-

- ▶ Preclinical experiences teach skills and concepts, but regardless of the level of technology, a good transition is faculty-based ... the students are unaware of how to make such a transition. **Perhaps, additional focus on this transitional phase would help gain additional continuity of teaching and development.**

**“If there's something wrong,
those who have the ability to
take action have the
responsibility to take action.”**

Although this quote is from a movie (National Treasure),
the problems associated with Operative Dentistry Curricula
are ours to solve.

Support CODE

- ▶ The Operative Academy gives us legitimacy and relevance to the outside world.
- ▶ CODE gives us relevance in Dental Education through the Operative & Biomaterials Section.
 - Attend Regional meetings
 - Read & use the Annual Report
 - Establish formal or informal “communities”
 - Go to ADEA and get engaged
 - Market Operative’s value to your schools