

**American Academy of Periodontology
2013 Predoctoral Educators Workshop Final Outcomes and
Small Group Summary**

The 2013 Predoctoral Educators Workshop, "The Art and Science of Educating to Competency", was held Saturday, September 28, 2013 in Philadelphia. The workshop focused on the assessment of dental students to ensure they can competently and independently provide periodontal treatment for their patients.

Learning objectives from the workshop included:

1. Implementing periodontal referrals as a clinical competency in the predoctoral clinical curriculum
2. Standardizing periodontal faculty for proper assessment of student's clinical competencies
3. Developing guidelines for a more uniform periodontal Competency Performance Assessments
4. Assessing skills required for students to be considered competent in periodontics
5. Learn how other schools use a team approach for treatment planning and referral

During the workshop, attendees broke into small groups and discussed best practices in educating students to competency in predoctoral periodontal education. Attached to this document is a summary of those discussions. Learning objectives are in **bold** and focus questions are *italicized*.

Following the workshop, the AAP Education Committee developed suggested assessment criteria and tools for use by periodontal programs to complement their existing assessment techniques. These tools are only a guide and should be modified to fit individual institution's needs. They are posted on the AAP website under the Careers and Education section, Periodontal Educator Resources. <http://www.perio.org/education/educators.htm>

Evaluating Periodontal Referral in Predoctoral Education

Standardizing clinical competencies for periodontal referral in predoctoral education

1. Re-Evaluation: Insert a question of whether to refer or not
2. Portfolio assessment: Focused report on decision to refer
3. Self-assessment: Student can recognize "should have referred" and at which point
4. Case Management Exam: Develop expectations at re-evaluation in order to make the referral decision
 - a. Obstacle to achieving this point is that it is done in the clinic, but not tested

Evaluating periodontal referral as a clinical competency in all phases of periodontal patient evaluation and management in the predoctoral education (Initial, Reevaluation and Maintenance)

1. Initial Exam:
 - a. Develop criteria for when a consultation with a periodontist is needed
 - i. Patients with 5mm or deeper probing depths, 5mm or greater CAL, mucogingival problems, etc).
 - ii. when case cannot be completed by predoctoral (i.e. beyond the skill level of a predoctoral student/general dentist)
 - b. can be part of the overall exam/dx competency
 - i. Add scenarios if patient doesn't need a referral
 1. e.g. what if the patient now has this disease
 2. how would you treatment plan it
 - c. Concerns at the initial examination appointment:
 - i. Who is verifying the data (charting) to determine whether patient has periodontal disease or not? Periodontist or general dentist
 - ii. Some schools do PSR screening to determine which patients need full periodontal examination
 - iii. Size of school may be factor in determining who evaluates periodontal exam; some schools have separate clinics where initial exam is performed (if possible, periodontist involvement is important)
 - iv. Require certain criteria of patient complexity, if possible, so there is enough to test in the exam competency
2. 1-Month Reevaluation:
 - a. Exam/Dx CE that includes long-term treatment plan (maintenance) or referral for further periodontal therapy
 - b. Student may identify the need for surgical therapy: ability for the student to do surgical therapy, vs referral for surgical therapy, may vary depending on student and school
 - c. Should be discussion of systemic, risk factors: long term management is complex and student needs to appreciate the complexity
 - d. Instruct and test on "How to write a referral to a specialist".

3. Evaluating Referral At Maintenance:
 - a. Perform a maintenance/recall CE
 - b. School can develop criteria for referral at a maintenance apt
 - c. Concerns:
 - i. Patients may or may not be recognized as going downhill but never referred: "compromised maintenance" is "supervised neglect".
4. Evaluating Referral At Community Clinics ("externships");
 - a. Most clinics don't have periodontists on staff so uncertain if referral tested or considered
 - b. Suggestion: get periodontists involved by either serving as staff or calibrating the clinic staff
5. Other Ideas:
 - a. Students to rotate to community periodontists, they can see what kinds of cases are referred
 - b. Interdisciplinary grand rounds: promotes referral
 - c. This should be case based: can assign the students a multidisciplinary case that they present to multidisciplinary faculty

Standardizing Periodontal Faculty for Proper Assessment of Student's Clinical Competencies

How do we calibrate our faculty members, including the general dentists, for a more objective evaluation of our dental students when performing clinical periodontal competencies?

Short Summary: Calibration should be done with all periodontal educators, whether full or part-time, as well as residents and specialist educators in prosth, ortho and pedo prior to the school year start and at least on a monthly basis. Ideally, periodontists should be involved with each case prior to it moving to restorative treatment. Assessments by faculty should be done daily and student self-assessment proves teachable moments. Student feedback as to effectiveness of faculty calibration is most accurate.

1. Who do we calibrate?
 - a. Full and Part-time Periodontists, Residents, and General Dentists.
 - b. Other Specialists such as Prosthodontists, Orthodontists, and Pedodontists
 - c. Future challenge to calibrate the General Dentist offsite with the new dental school models
2. When do we calibrate?
 - a. In-service on monthly basis, and one school had a half day a week for faculty development that included calibration
 - b. One week before school
 - c. Retreats
 - d. Online: case based exercise for periodontists and general dentists – to do on their own time and it is documented
3. End-Points of therapy, calibrate faculty
 - a. Do not want the 6 mm probing depth that keeps getting passed on annually
 - b. If general dentistry clinic model in the senior year, perio should have a voice in the re-evaluation for next treatment steps of periodontal needs
4. Daily Assessment by faculty
 - a. Daily grades are inconsistent with many times inflation noted
 - b. Some schools have more of a global grade system that has some merit
 - c. Keeping track of daily progress is better served with competencies
5. Self-assessment by the student
 - a. May give better discussions about the evaluation or treatment on a daily basis
 - b. A teachable moment without the focus on the grade alone
6. Competencies by faculty
 - a. To track progress early in year 3
 - b. Data collection and scaling competencies may need to be assessed if the patient pool does not allow for periodontal therapies to be assessed

The scope of periodontal practice, how it's taught to predoctoral students?

1. Current Education at Various Schools

Short Summary: Most schools have third year students assist in referral process and rotate in the graduate clinic assisting residents and in surgeries. Residents teach in the dental school clinic to aid in reinforcement of a co-management philosophy.

- a. Western U: Full stages/scope of periodontal therapy; clinical cases; write essays; verbal presentations; instill "passion" in patient case
 - b. U Michigan: Assign case; comprehensive exam (interdisciplinary); establish treatment plan; referral as part of plan; rotations with graduate clinic and private office
 - c. Oregon: Competency focus on nonsurgical therapy; focus on managing early to mild periodontitis; select students rotate through postdoctoral clinical and participate in surgery
 - d. Temple: Change discussion from PD to CAL to prepare students for national and regional boards; four perio courses; third year surgical focus didactically; case-based learning and exams; case discussion; relationship mentoring with residents via assisting experiences;
 - e. Iowa: Junior year block system; senior year comprehensive care; 20-week block, one day per week; didactic class concurrently; assist postdoctoral residents; document a case of interest (virtual grand rounds) treated non-surgically or managed; oral presentations of the grand round to fellow students
 - f. Georgia: Junior students assisting residents; resident teaching in clinic (role modeling); senior didactic class with periodontist and generalist joint case presentation; communicate how referral takes place (one 2-hour session)
 - g. UCSF: All four years comprehensive care; third year introduce decision making in referral; assigned instructor and interactive session (one on one); fourth year multi-disciplinary case with periodontal needs
2. Role modeling: Rotations through postdoctoral residency clinic and/or private practices
- a. Pairing of student with resident and/or faculty as the "mentor"
 - b. Enrichment experiences beyond program benchmarks (requirements)
 - c. Residents presenting to dental students as part of didactic courses (integrated)
 - d. Travel grants for dental students to attend local or regional periodontal meetings
3. All specialists present to year one students to expose students to breadth of dentistry
- a. Early exposure
 - b. Periodontics represented at all treatment planning
 - c. Periodontics presented as part of continuum of learning
 - d. Student-centered learning with Periodontist on the "Instruction Team"

4. Case portfolio or oral presentations
 - a. case documentation
 - b. evidence-based reviews and reflective statements on diagnosis
 - c. treatment planning
 - d. understanding outcomes of care and need for referral
5. Periodontal-systemic disease association
 - a. managing periodontal inflammation and referral as indicated for improved outcomes of care
 - b. periodontist as qualified for managing patients with systemic co-morbidities
6. Limited surgical experience (team-based learning)
 - a. Pig jaw preclinical surgical laboratory

Developing guidelines for a more Uniform Periodontal Competency Performance Assessments

New CODA standards; ability to treat and refer patients? How are these best assessed? According to standards, what must graduates provide to show they are competent?

1. Competency Examinations Develop Independent Critical Thinking
 - a. Identify factors that would require referral
 - b. OSCE Examination with a scenario for referral (periodontal maint with breakdown, reevaluation with lack of response to initial therapy)
 - c. CBE and/or student feedback mechanism for didactic teaching of referral

2. According to standards, graduates must show competency by:
 - a. Independent treatment planning including consultations and referral
 - b. Case Presentation Models
 - c. Portfolio Models
 - d. Self-Assessment
 - i. New Case and Determine referral need
 - ii. Identify Patient who should have been referred
 - e. Identify expected outcomes of therapy and compare with actual outcomes
 - i. Reflection/Self-assessment

3. How to assess
 - a. Faculty assessment of patient based upon criteria
 - b. Comprehensive Care system → screening with restorative dentist, referral after restorative, periodontal examination and tx plan development
 - i. Gingival description
 - ii. Radiographic findings
 - iii. Etiology
 - iv. Prognosis
 - v. Tx plan, including referrals
 - c. Phase I therapy performed by predoctoral students
 - d. Reevaluation competency examination—students are evaluated with referral
 - e. Case Management competency examination
 - f. Multidisciplinary treatment planning approach

4. Strengths of Assessments
 - a. Self-assessment of referral of cases
 - b. Excellent role models for teaching/clinical practice
 - c. Vertical integration of treatment with predoctoral and postdoctoral students

5. Weaknesses of Assessments
 - a. Lack of faculty numbers and calibration
 - b. Compartmentalized treatment planning
 - c. Faculty/resident driven referral process, rather than student generated referral

6. Opportunities of Assessments

- a. Students have opportunity to see expected responses of initial therapy in mild/moderate cases prior to referral by initial therapy
- b. Allow student to predict phase II therapy/refer within the predoctoral curriculum
- c. Intermediate cost alleviation with honors graduate periodontal care
- d. Mix of younger and more experienced faculty to allow approachability
- e. Availability for consultation/discussion within the comprehensive care model
- f. Vibrant intramural practice for retention of master clinicians within academia
- g. Collaborative efforts with other departments
- h. Shift focus from individual patients to factors that would prompt referral from periodontal care
- i. "Grand Rounds" M&M model to identify problems in treatment planning/referral/management

7. Threats to Assessments

- a. Patient does not want to be released (costs, protracted tx)
- b. Student does not want to refer due to low patient numbers
- c. Faculty calibration regarding appropriate referral criteria
- d. Compromised care: Faculty/student perception of periodontal importance
- e. Financial pressures

Assess the Skills Required at Various Schools for the Students to be Considered Competent in Periodontics

When/How should dental students start to demonstrate clinical competency in Periodontics?

1. Case presentation in 2nd year after rotation in perio lab during first year'
2. Instrument sharpening
3. Eight station OSCE
4. Any patient during 1st year; Lebanon (OHI) (5 year program)
5. Trying to implement patient contact during 1st year

Are we testing individual competencies?

Schools are testing:

1. Exam, diagnosis and OHI competencies
2. Instrumentation competency before allowed to go to clinic (w/patient)
3. Separate maintenance competency
4. 3rd year diagnosis, tx plan competencies, SCRIP. When the student feels ready they can challenge the competency
5. Oral boards with Juniors and Seniors (2:1 faculty/student ratio for 150 students for 1 week)

What is competency? What is the definition?: Competency is independent, unsupervised practice.

When and how should we test them?

1. First competency exam
 - a. In Preclinical environment
 - b. On Mannequin combined with didactic courses
2. Last competency exam
 - a. All competencies tested in 4th year
 - b. Suggestion: If student is competent they should be left alone to do whatever they were deemed competent. At time before graduation a 2nd competency exam should be implemented (Keystone)
3. Self-Reflected portfolio
 - a. Review one treated case and critically assess in writing what they would have done differently.
 - b. Done every quarter

Criteria for evaluation of treatment

1. Many schools: competency is pass/fail and factored in a final grade also based on clinical performance.
2. Daily assessment: Satisfactory, Unsatisfactory, Fail
3. Several schools use A, B and F or A, B, C, D, E, and F
4. 70% of grades based on competency, 20% on daily clinic and 10% on self-reflected assessment
5. Issues:
 - a. Criteria not well defined
 - b. Competency is rarely failed

Ideal competency experience:

1. Competencies to be tested
 - a. Examination
 - b. Diagnosis
 - c. Comprehensive treatment planning
 - d. Non-surgical
 - e. Re-evaluation
2. Competency evaluated by a blinded examiner (ideal but not practically doable)
3. Final testing on an unknown new patient
4. Pass/fail or not?...no participants should come from any pass/fail system
5. Reflective component? May help tying up the different competencies together
6. Creating a final capstone experience for the student whereby they have a final case prior to graduation where they demonstrate for a second time the different steps in their competency requirements prior to graduation.

Essential aspects of the surgical phase of periodontics for predoctoral students

1. Various requirements for surgical experiences has been reduced in some schools
2. Most schools give a surgical experience tagged to surgical assisting and lab/simulation course. Some have lab exercises with plastic models or animal heads (pig).
3. Honor programs and selective courses are popular and stimulate students to periodontics as a career; Externship programs have added to their experiences

*What do we need to teach; what is important for them to know/understand about surgical **periodontal** care?*

1. Surgical education will help them better understanding the disease
 - a. Stimulates their interest in periodontics
 - b. Exposes the generalist to basic surgical techniques should they be in underserved areas
 - c. Brings the reality of the periodontal anatomy to their understanding
2. Referring patients: leads to better idea of what to expect for the patient
3. What is a treatable condition; the limits of periodontal maintenance and non-surgical therapy; the extent of periodontitis and prognosis of teeth in pt

*What is important for them to know/understand about surgical **implant** care?*

1. Limitations of the anatomy and basics of implant therapy
2. Site preparation
3. Requirement for implant restorations:
 - a. Surgical guides teach appropriate work-up and Site development as a basic concept.
 - b. They will learn about implant therapy from someone, often another general dentist, so we need to be proactive and teach them.

How institutions use a team approach for treatment planning and referral

Comprehensive care clinic functioning and clinical supervision patterns for periodontal patients

Short Summary: Most schools are managed by general practice groups and interdisciplinary issues handled with consultations for specialists. San Antonio had the least involvement with general dentists doing most everything, while Iowa, Harvard and South Carolina having the most input and control with these groups.

1. Rutgers University
 - a. Worksheet based on PBL; 4 categories: a) patient info; b) radiographs; c) clinical exam; d) occlusal exam
 - b. Many parameters for each of these and problems are listed
 - c. 4 problem lists created: PI and GI, diagnosis, prognosis, treatment plan, and assessment of who will treat; treatment plan must address anything in the problem list
 - d. Lack of faculty to address the number of students
 - e. multidisciplinary team approach with comprehensive care
 - f. these are their competencies also, basically handled by consults
2. University of Minnesota
 - a. Group leaders run the final treatment planning
 - b. Comprehensive clinic, consultation as needed for different disciplines
3. University of South Carolina
 - a. Patient screened, then to radiology, then to treatment planning
 - b. Currently restructuring to do data collection, full perio charting, get all consults, then go to treatment planning clinics
 - c. Discipline-based, comprehensive
4. Temple University
 - a. Cluster system in predoc: general practice groups with specialty consultants
 - b. Grads teach 1 half day a week
 - c. Predoc clinic: refer cases as needed, handled by consults, patients taken to each clinic for actual consult, consults for advanced cases are done early on. Other problem based issues, implants, etc.
5. University of Texas, San Antonio
 - a. Comprehensive care model
 - b. Treatment planning done in groups; Perio had a little input on consult basis only: implant, mucogingival, Perio disease
 - c. All Perio is done under general dentists and not managed by Perio dept,
 - d. Interdisciplinary consults done by general groups, moving towards dental hygiene being more involved in teaching.

6. Harvard University
 - a. All pt ps go thru oral diagnosis, predoc or postdoc
 - b. All comp exams and specialty consults
 - c. 4 society groups with senior tutors/group leader, they approve all treatment plans
 - d. Competencies are multiple, 6 formative, 2 summative, must be done by Perio faculty
 - e. 1:9 fac to stu ratio, small class size, students must also do 4 perio surgeries

7. West Virginia University
 - a. Consults basis at screening clinic - depends on who is working in it
 - b. Every patient with teeth gets a Perio consult at end of non-surgical treatment that summarizes outcomes and referral sheet to Perio grad program
 - c. Team leaders monitor students and help with treatment planning
 - i. must do a Pros view if more than a couple of crowns
 - ii. QA person makes sure that all consults are reflected in treatment plan

8. University of Iowa
 - a. Block rotation system in 3rd year and comprehensive in 4th, a hybrid