



Multnomah Falls, Columbia Gorge, Oregon

Message from the Director

As I write this, Labor Day weekend is almost here. It is hard to believe that the summer is almost over. But fall brings a lot of excitement: a new group of dental students, the start of a new academic year, football season, and of course, the annual PROH conference! You, the PROH members, chose the topics and we found six great speakers who will provide evidence-based answers to the clinically-relevant issues you identified. Additional information and registration forms are included with this newsletter. We are going to keep a couple of format changes that we instituted last year. We will keep the increased presentation length of 40 minutes. This will allow more time for questions and answers at the end of each presentation. It will also allow attendees to get more CE credit than in past years. We will have two breaks rather than one, so it will be a comfortable pace and offer plenty of opportunity to catch up with friends and colleagues. A new change in our format for this year is that we are cancelling the annual member's business luncheon and meeting. This event has not been well attended in recent years. Rather, we will take a few minutes at the beginning of the conference and provide an update on various PROH activities. This will allow us to update the members, as well as to provide information to the attendees that will hopefully serve as a recruiting opportunity to bring new members into PROH.

We continue to pursue a variety of avenues to secure funding for PROH projects. Cracked teeth is a primary theme for our funding efforts, since that is one of the top subjects you have identified as an area of clinical importance. We are trying to combine a laboratory assessment of cracks in teeth, using techniques such as dye, sophisticated new radiographic techniques such as micro-CT (computerized tomography), or ultrasound that have the potential for future clinical use, with an assessment by PROH dentists of cracks in extracted teeth, and a clinical risk assessment of cracked teeth on patients in your practices. We want to determine tooth and or crack characteristics that are most predictive of future adverse outcomes. We have submitted two unsuccessful grants to the National Institute of Dental and Craniofacial Research (NIDCR-a branch of the National Institute of Health [NIH]) in the past year. The fact of the matter is that the competition is very tight for federal

research dollars, and less than 1 out of every 5 applications is successful. So we keep trying, and we are hopeful that we will find the right protocol that will interest the NIDCR. We are going to be collecting five-year data for the Premise (Kerr) posterior composite study starting this fall. You will recall that five PROH practices placed 50 posterior composite restorations and performed clinical assessments, and took photos and impressions of the restorations after one and two years. While this provided useful information, we all know that the most helpful clinical information is provided from longer-term data. The company was unable to secure further funding to complete this five-year assessment but they did provide the necessary materials. Thanks to the dedication of Drs. Mark Driver, Walt Manning, George McCully, Ron Selis and Scott Travelstead to evidence-based dentistry, we will get the five-year data on the clinical performance of Premise composite in posterior restorations. See the last page of the newsletter for more information on this study.

We had a productive Steering Committee meeting, held at the annual Oregon Dental Conference. Your Steering Committee members Dr. Sean Benson, Dr. Mark Driver, Dr. Mark Jensen, Dr. Walt Manning, Dr. George McCully and Dr. John Shurtz are a tremendous resource in helping direct us to subjects for future research, as well as providing us with guidance in developing research protocols that are appropriate for conducting research in private practices. In addition to the cracked teeth study ideas, we discussed additional potential studies. Two dental manufacturers have expressed interest in supporting PROH clinical assessments of some of their products. These products include a new adhesive, two new composites, a new curing light, and a silver-fluoride varnish for caries prevention. We will keep you informed as these potential studies evolve. I hope everyone has a safe and enjoyable remainder of the summer. I look forward to seeing you at the annual PROH conference in November!

Thomas J. Hilton, D.M.D., M.S.
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“Dental Myths & Controversies V” Continuing Education Course

The Eighth Annual PROH Conference was held on Friday, November 4, 2011 in Portland at the World Trade Center. In keeping with our mission of promoting evidence-based dentistry, we once again focused on “myths and controversies” that face us in dentistry today. Six OHSU faculty members introduced their topic, identified the opposing viewpoints, reviewed the relevant research, and presented their position on the topic based on their understanding of the evidence. Each presentation was followed by a brief question and answer period. Below is a summary of the course.



“Implant supported RPDs: Valuable treatment option or outdated modality?” by Scott Dyer, D.M.D., M.S., Ph.D., adjunct assistant professor in the department of restorative dentistry and a private practitioner.

Options reviewed for replacing missing teeth were 1) do nothing, 2) removable partial denture, 3) fixed partial denture, and 4) implant with removable partial denture. After taking all factors into account, it is accepted that no partial can be designed/constructed that will not be destructive in the mouth and it is not possible to control all forces, but the proper distribution of forces leads to clinical success. Strategic implant placement replaces key missing abutments (canines and first molars), decreases cantilever (distal position), decreases stress on remaining dentition (mesial position), and supports prosthetic occlusion. Endosseous implants result in the best survival rates for teeth adjacent to an over-partial.



“Should every extraction site be grafted?” by Brad McAllister, D.D.S., Ph.D., adjunct assistant professor in the department of periodontology and a private practitioner.

Dr. McAllister discussed many of the considerations the clinician must take into account when trying to decide if an extraction socket should be grafted. CBCT studies that demonstrate how thin the buccal plate typically is in the anterior maxilla were reviewed and how this can impact the amount of bone remodeling with and without bone grafting. How bone grafting can be helpful in implant cases was also reviewed, with an emphasis on the anterior maxilla where having insufficient bone buccal to the implant was shown to result in more gingival recession.



“Cold sores: Preventable, treatable, or inevitable?” by Cynthia Kleinegger, D.D.S., M.S., associate professor in the department of pathology and radiology and a practitioner in the OHSU Faculty Dental Practice.

Approximately 1/3 of the US population suffers from recurrent herpes labialis, typically experiencing 1 to 6 episodes per year. A variety of topical and oral antiviral medications are available to treat this problem. Numerous research studies have attempted to determine the efficacy of these treatments. The majority have compared an individual drug to a placebo rather than two or more drugs to each other. The results have been mixed and it is difficult to compare studies due to variations in study designs and outcomes measured. Additionally, results that may be statistically significant do not necessarily translate into clinical significance. It does appear that some patients can be expected to benefit from antiviral therapy, although it is not possible to predict which patients will benefit and to what degree. In general, research indicates that oral medications are more effective than topical medications and that topical medication is more effective in a cream base than in an ointment base.



“Over-the-counter dental products: Do they work (Part 2)?” by Erinne Lubisich, D.M.D., assistant professor in the department of restorative dentistry and a private practitioner.

Xylitol: There is strong evidence supporting the use of xylitol to prevent dental caries. More research is needed to determine optimal dosing. *Mouthrinses for halitosis*: Rinses containing chlorhexidine, cetylpyridinium chloride, and chlorine dioxide/zinc are effective in reducing halitosis. *Mouthrinses for gingival inflammation*: Chlorhexidine, cetylpyridinium chloride (Crest ProHealth, Cepacol, and Breath Rx), and essential oils (Listerine) are effective agents in rinses to reduce plaque and inflammation. *Fluoride Mouthrinses*: Regular supervised use of fluoride mouthrinse by children reduces tooth decay, even if they drink fluoridated water and use fluoridated toothpaste. More research is needed on adverse effects and acceptability of fluoride mouthrinses. Research evaluating a relationship between mouthwash use and oral cancer is inconclusive.



“Which endodontic rotary system works best?” by Brian Whitten, D.D.S., assistant professor and pre-doctoral program director in the department of endodontology.

The most extensively studied aspects of what is “best” are shaping ability and avoiding instrument fracture. All NiTi rotary instrument systems shape canals well and better than hand instruments, all are subject to cyclic fatigue and all have torsional load limits. Evidence to incorporate electropolishing or M-Wire as standard procedures is inconclusive. Dr. Whitten emphasized that it is not the instrument chosen to use that is important but rather how the instrument is used. Important technique factors are straight-line access, glide path, early coronal flaring, crown down preparation, following the manufacturer’s recommendations (speed, torque, and sequence), pecking/

brushing motion, use of NaOCl (lots of it!), maintaining patency, light apical forces, being considerate of anatomy, replacing files often, considering hybrid techniques, and, most importantly, the training period/experience. The majority of US endodontists use rotary NiTi in 100% of cases, torque-control motors at 300 rpm, crown-down technique with NaOCl, and discard instruments after 2-4 patients or after even a single use in challenging canals.



“Caries prevention in a “green” world: Is fluoride a toxin or a treatment?” by Eli Schwarz, D.D.S., M.P.H., Ph.D, professor and chair of the department of community dentistry.

As with all substances, dosage determines toxicity. The probable toxic dose (PTD) of fluoride is 5 mg/kg body weight. The new recommended level of fluoride in drinking water is 0.7 parts per million. Fluoride remains the cornerstone of modern non-invasive dental caries prevention and management. The most cost-effective and equitable population preventive measure is still water fluoridation. The multiple sources of fluoride and expansion of fluoride therapies have created a complex scenario for evaluating total fluoride ingestion and isolating the beneficial effects of water fluoridation. Dental professionals must use available evidence about fluoride benefits and adverse effects to balance their own use and what they recommend to the public.

9th Annual PROH Conference “Dental Myths and Controversies VI” Friday, November 2, 2012

World Trade Center □ Auditorium □ Bridge Level - 121 SW Salmon - Portland, OR 97204

Join us for an exciting, fast-paced morning with six speakers addressing some of those confusing and contentious myths and controversies that face us in dentistry today. Select faculty from OHSU and the University of Washington will each introduce their topic, identify the opposing viewpoints, review the relevant research, present their position on the topic based on their understanding of the evidence, and answer your questions. Topics and speakers are as follows:

“New kid on the block: Are all-ceramic restorations ready to replace traditional metal-based indirect restorations?” by **Steven Gold, D.D.S.**, Assistant Professor, Department of Restorative Dentistry and Group Practice Leader at OHSU.

“Perio and cardiovascular disease: is this a chicken or the egg story?” by **Jim Katancik, D.D.S., Ph.D.**, Associate Professor and Chair, Department of Periodontics at OHSU.

“Pulpotomy and restoration of primary teeth: What goes in them and what goes on them?” by **Elizabeth Palmer, D.M.D.**, Assistant Professor, Department of Pediatric Dentistry at OHSU.

“Do fiber posts provide adequate support for restoring root filled teeth?” by **Roberto Macedo, D.D.S., Ph.D.**, Assistant Professor, Department of Restorative Dentistry at OHSU.

“You’re under arrest! Halting and preventing caries: topical fluoride or silver nitrate?” by **Steve Duffin, D.D.S., M.B.A.**, Affiliate Assistant Professor at OHSU and private practice in Keizer, Oregon.

“I can’t eat ice cream...or can I? Treatment of dentin hypersensitivity” by **John Wataha, D.M.D., Ph.D.**, Professor and Chair, Department of Restorative Dentistry at the University of Washington.

Course Times & Fees:

Registration and Continental Breakfast: 7:15-8:00 Course: 8:00-1:00

Registration: \$150 Dentist & \$130 Staff *Early Fees: \$140 Dentist & \$120 Staff

*Early fees are applicable when registering 1-month prior to the course date.

Registration:

Online registration is available at <http://prohannualconference.eventbrite.com> .

You can also register by calling 503.494.8857.

Note:

There will NOT be a business luncheon following the conference this year.

Contact PROH

Steering Committee

Moving Forward with 5-Year Evaluations

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John Shurtz, D.D.S., Salem

Office manager – open position

The PROH network enrolled its first patient in a posterior composite study in August 2007. We contracted with Kerr Corporation to place and track 50 Premise restorations for 24 months.

Knowing that 5-year evaluations would be more meaningful, we approached Kerr with a proposal to conduct an additional recall appointment. After several months of wrangling and a change in the vice president of research at Kerr, they agreed to provide materials for the additional evaluations but there was no funding available to reimburse dentists or patients for their time. Drs. Mark Driver, Walt Manning, George McCully, Ron Selis and Scott Travelstead graciously agreed to donate their time in order to collect the additional data.

We have just begun these 5-year evaluations and we anticipate completing the appointments in June of 2013. We will let you know the results!

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Newsletter of the Practice-based Research in Oral Health network