Welcome to the Dental PBRN quarterly newsletter! This newsletter is designed to provide you a synopsis of the contents of our website, http://www.DentalPBRN.org.

You can also view the projects for which we are currently recruiting dental practitioners, as well as suggest and view new research ideas.

When you visit our website you can complete your online training course that will provide the foundation for you to begin on a project if you have not already done so.

**News Items**

**Second annual meeting for HealthPartners and Minnesota DPBRN practitioner-investigators**

HealthPartners and Minnesota DPBRN practitioner-investigators held their second annual meeting on October 25, 2007. The meeting was held at Luther Seminary in St Paul, Minnesota. The meeting was well-attended, with almost forty practitioners in attendance. A new early-bird format was introduced this year. The early session gave attendees the opportunity to hear information about our current ONJ studies by Dr. Brad Rindal (HealthPartners staff dentist and Principal Investigator of the HP/MN region), future studies planned in the network by Dr. Gregg Gilbert (DPBRN Network Chair) and results from the enrollment questionnaire by Dr. Mike Bauer (HP/MN practitioner-investigator).

At the evening session, Study 1 results were presented. Study 1 is a survey of dentists regarding the assessment of caries risk, caries diagnosis and caries treatment among DPBRN practitioner-investigators. The data were presented by Drs. Pat Foy, Don Worley and Robin Yardiac (all HP/MN practitioner-investigators). Practitioner-investigators gathered in small groups after each presentation and discussed the results. The small group discussions were then shared with the larger group and new ideas for analysis were generated. The attendees also heard from Drs. Mark Litaker and Gregg Gilbert from the University of Alabama and Dr. Don DeNucci from NIDCR. Merry Jo Thoele, Regional Coordinator, presented updates related to Study 2 and congratulated practitioner-investigators who have completed Study 2. The DPBRN members present at the meeting elected Dr. Pat Foy as the practitioner-investigator representative to the Executive Committee for the HP/MN region. Attending practitioner-investigators gave very positive feedback and found the meeting to be worthwhile.
Second annual meeting for Kaiser Permanente/Permanente Dental Associates practitioner-investigators

Almost 50 practitioner-investigators and DPBRN project staff gathered to share experiences, refine study ideas, and plan for future studies at the annual meeting of the PDA region on Saturday, October 27, 2007.

Presenters included Frank Allen, DMD, who shared the results of his recently-published article, “In Vivo Study of Apical Cleaning” (http://www.agd.org/publications/articles/?ArtID=2006). Jeffrey Fellows, PhD, Principal Investigator of DPBRN Study 12, talked about the Osteonecrosis of the Jaw (ONJ) study and shared content of provider-patient discussions about ONJ. Dan Pihlstrom, DDS, the PDA region’s practitioner-investigator representative on the DPBRN Executive Committee, shared results from DPBRN Assessment of Dental Caries Diagnosis and Treatment (Study 1) and Reasons for Placing the First Restoration on Permanent Tooth Surfaces (Study 2). The DPBRN Network Chair, Gregg Gilbert, DDS, MBA, presented information about DPBRN’s current projects, while NIDCR project officer Don DeNucci, DDS, MS, discussed other practice-based research networks.

Dentists and facilitators also participated in Breakout Sessions. Small groups met and discussed pediatric clinical questions to develop research ideas for a pediatric dental study. One group discussed how to implement and overcome barriers to a randomized clinical trial. One group looked more closely at operationalizing items for DPBRN Study 6 (“Questionable Occlusal Caries Lesions”), while another discussed the evidence for the use of Light Speed for endodontic procedures. Attendees also used the small group sessions to discuss translational research and the DPBRN network-wide meeting to be held in Atlanta on May 15-17, 2008.

Plans are already underway for the 2008 PDA annual regional meeting. We’re sure practitioner-investigators will find the 2008 meeting as informative as the 2007 regional meeting and that they won’t want to miss the opportunity to share research findings, plan future studies, and be a part of shaping clinical practice.

DPBRN Presentation at the Birmingham (Alabama) District Dental Society Meeting

Dr. James Sanderson Jr. has participated in DPBRN Study 1 and 2, has let two DPBRN faculty tour his office to learn about his system of electronic photographs and dental records, and has helped contribute to the design of Study 2. He also recruited his partner, Dr. Holt Gray, to participate in Study 2. An active DPBRN practitioner-investigator, his private practice is in Hoover, Alabama. He and Dr. Gregg Gilbert, DPBRN Network Chair, gave presentations to the Birmingham District Dental Society Meeting on December 4, 2007.

Dr. Sanderson presented results from DPBRN Study 1 (“Assessment of Caries Diagnosis and Caries Treatment”) and then discussed his rewarding experiences with doing DPBRN Study 2 (“Reasons for placing the first restoration on permanent tooth surfaces”). Dr. Sanderson encouraged all attendees at the meeting to enroll in DPBRN because doing so will help improve their clinical practice and make it more rewarding and appreciated by their patients.

Dr. Gilbert gave a presentation entitled “Real-world research in private practice” and discussed the goals and the many accomplishments of DPBRN so far. He also spoke about the benefits to participating in DPBRN as reported by DPBRN practitioner-investigators themselves.

Dr. Gilbert introduced Sherry Sutphin and Jackie Love, DPBRN Regional Coordinators. Between them, Jackie and Sherry have 35 Birmingham District Dental Society members who have participated in DPBRN research studies. He also introduced Dr. Sonia Makhija, DPBRN Director of Communications.
He then recognized four BDDS members in the audience who had participated in Study 2: Dr. James Sanderson Jr. and Dr. Holt Gray of Hoover, AL; Dr. Gerry Walker of Trussville, AL; and Dr. Janice Jackson of Birmingham, AL. Dr. Sanderson received his certificate for completion of DPBRN Study 2 (see photo below).

PDA Executive Committee representative elected

Dr. Dan Pihlstrom has been elected as the practitioner-investigator representative for the PDA region on the DPBRN Executive Committee. His three-year term will run from December 2007 – December 2010. Dr. Pihlstrom served on an appointed basis from 2005-2007 and continues to represent the PDA region in an expert and conscientious manner. Dr. Pihlstrom is a DPBRN practitioner-investigator in the Tigard Clinic in Tigard, Oregon and also serves as the PDA Associate Director and Chair of the Clinical Effectiveness Committee. Congratulations to Dr. Pihlstrom!

Article regarding the creation and development of the Dental Practice-Based Research Network in the January issue of the Journal of the American Dental Association (JADA)

The January 2008 issue of JADA features an article about DPBRN entitled "The Creation and Development of the Dental Practice-Based Research Network". The article describes the creation and development of DPBRN, which originally began as the Alabama Dental Practice-Based Research Network in 2002. The article also explains the administrative and study development process within the network. The abstract can be viewed at JADA website: http://jada.ada.org/.

FDA Public Health Notification: Patient Burns from Electric Dental Handpieces

Below is an excerpt of the Public Health Notification from the US Food and Drug Administration (FDA):

This is to inform you about serious patient injuries, including third degree burns, associated with the use of poorly maintained electric dental handpieces, and to recommend specific actions to prevent or minimize the problem. While this notification is directed to dental health professionals, the following information may be useful to all users of electric handpieces.

Patients have been severely burned when poorly maintained electric dental handpieces were used during dental procedures. Some patients had third degree burns which required plastic surgery. Burns may not be apparent to the operator or the patient until after the tissue damage has been done, because the anesthetized patient cannot feel the tissue burning and the handpiece housing insulates the operator from the heated attachment. Although the reported burns have occurred during cutting of tooth and bone, tooth extraction and other dental surgical procedures, overheating could occur during any dental procedure.

With high and low speed air-driven handpieces, sluggish handpiece performance will alert the dental practitioner to maintenance issues such as a dull bur or worn or clogged gears or bearings. A poorly maintained electric handpiece does not provide a similar warning that maintenance is needed. Instead, if an electric handpiece is worn or clogged, the electric motor sends increased power to the handpiece head or attachment in order to maintain handpiece performance. This increased power can rapidly generate heat at the head of the handpiece attachment. Because the heat buildup is so rapid, and is efficiently conducted through the metal handpiece, a burned patient may be the first indication of handpiece problems that the practitioner receives.
Continued

**Recommendations**

- Be vigilant about maintaining electric dental handpieces according to manufacturer’s instructions.
- Verify with the manufacturer the appropriate routine service interval for your dental practice based on the actual use of your handpieces.
- Train personnel to properly clean and maintain the electric dental handpieces and to follow specific device maintenance requirements.
- Develop a method for tracking maintenance and routine service for each handpiece used.
- Examine the handpiece attachments prior to use. Do not use worn drills or burs.
- Do not use poorly maintained electric dental handpieces.

Please visit the FDA website at http://www.fda.gov for more information or the DPBRN website at http://www.DentalPBRN.org under the “News” section.

**Studies Update**

DPBRN Study 2 (“Reasons for placements of restorations on previously unrestored surfaces”) continues to exceed our expectations. Our goal was to recruit 100-200 practitioner-investigators. All DPBRN regions except for the Scandinavian region have finished their recruitment of practitioner-investigators for Study 2. We already have more than 200 practitioner-investigators enrolled.

The next study will be DPBRN Study 5 (“Longitudinal study of dental restorations”). This study will recruit all the practitioner-investigators who participated in Study 2. Recall that Study 5 involves following-up the restorations that you placed in Study 2. Study 5 enrollment will occur from Winter-Summer 2008.

DPBRN Study 3 (“Reasons for replacement or repair of dental restorations”) and Study 4 (“Patient satisfaction with dental restorations”) will be done at the same time in each practice. Recruitment for these studies will occur in 2008, as will recruitment for Study 6 (“Questionable occlusal caries lesions”).

DPBRN Study 7 (“Trans-PBRN study of osteonecrosis of the jaws”) continues to progress well. Data collection should be completed in Spring 2008. This study involves all 3 practice-based research networks with a goal of identifying 179 cases. DPBRN has exceeded expectations of cases. To date, the Alabama/Mississippi region has 61 cases; HealthPartners has 10 cases; and the Kaiser Permanente/Permanente Dental Associates have 16 cases.

**Save the Date**

The Annual DPBRN Meeting will be held May 15-17, 2008 at the Intercontinental Hotel in the Buckhead area of Atlanta, Georgia. DPBRN members from all regions are invited to attend this important meeting. You will receive 15 hours of CE credit in addition to getting the most current information regarding DPBRN. Spaces are limited, so please register as soon as possible. Please contact your Regional Coordinator for more information.