Dental PBRN Newsletter

Fall 2006

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 we are currently recruiting dental practitioners for 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.

In This Issue

Our Mission:

"To improve oral health by conducting dental practice-based research and by serving dental professionals through education and collegiality."

News Item

DPBRN Study 2 has begun recruitment in some regions

Study 2 is entitled "Reasons for Placing the First Restoration on Permanent Tooth Surfaces". This study of previously-untreated permanent tooth surfaces is the second of three restorative dentistry studies planned for the Dental Practice-Based Research Network (DPBRN). The aims for this Study 2 are to: (a) quantify DPBRN practitioner-investigators' pre-operative and post-operative assessments of the depth of the caries lesion being treated; and (b) quantify the prevalence of dental material types used to restore the first restoration in a permanent tooth surface.

For this study, practitioners need to be certified in Human Subjects Protection. You can take an online course at www.DentalPBRN.org for this certification. If you are unsure of your certification status or need certification, please contact your regional coordinator, found in the "Contact Us" section of this newsletter.

Practitioners also need to attend an orientation session in person or view an orientation session video prior to the second study. If you are unsure if you have attended a session, please contact your regional coordinator, found in the "Contact Us" section of this newsletter, or the "Contact Us" section of our website, www.DentalPBRN.org.

Preview of Future Study: Osteonecrosis of the Jaws and Bisphosphonate Usage

On May 30th, the Trans-PBRN Protocol Review Committee met in Bethesda, MD and approved both DPBRN Study 7 ("Trans-PBRN case-control study of osteonecrosis of the jaws") and DPBRN Study 12 ("Retrospective cohort study of osteonecrosis of the jaws"). Although these studies will be the fourth and fifth DPBRN studies (DPBRN Studies 1-3 will begin this funding-year), DPBRN studies are numbered in the order in which they were approved by the DPBRN Executive Committee.

Continued

Osteonecrosis of the jaws (ONJ) is a potentially morbid and costly oral condition. In the recent past more than 200 cases of ONJ have been described in patients treated with bisphosphonates (BPs) for osseous cancer lesions or osteoporosis. About 3 million patients have been treated with BPs and another 7-8 million osteoporotic or cancer-afflicted persons in the U.S. may take BPs in the near future. The number of BP prescriptions has been steadily increasing, creating concerns about this potential side effect. The causes and risk factors for ONJ are not known. To date, the prevalence of ONJ has not been quantified, nor is it known whether exposure to BPs actually increases ONJ prevalence.

DPBRN is an effort to help dental professionals directly improve the efficiency and effectiveness of dental care.

Essentially, it is research done about and in the "real world" of daily clinical practice.

The DPBRN studies 7 “Trans-PBRN case-control study of osteonecrosis of the jaws” and 12 “Retrospective cohort study of osteonecrosis of the jaws" will focus on this condition which is becoming an increasingly popular area of investigation in dentistry. More detailed information outlining the specific aims of the two studies can be found at www.DentalPBRN.org in the “current studies” link under the research section of the website.

Andreea Voinea-Griffin, DDS, MBA, MSHA, CHE, postodoctoral fellow at the UAB School of Dentistry, may be contacting your office regarding ONJ cases in your practice.

Member Highlight

In this issue, we are highlighting Dr. Ivar A. Mjör, BDS, MSD, DrOdont. Dr. Mjör is a DPBRN Executive Committee member, Academy 100 Eminent Scholar, and Professor in the Department of Operative Dentistry at the University of Florida College of Dentistry. He is Principal Investigator for DPBRN Study 2 and Study 3.

DPBRN Study 2 deals with the reasons for planning the first restoration on any tooth surface. This is a crucial event in the life of a tooth; it is a point to its original state and the stage at which preventive measures no longer are considered feasible. Uncertainty exists as to when the fist restoration should be placed, and the present study will provide evidence for the stage at which clinicians place the first restoration.

Restorations are not permanent solutions to the problems they solve, but rather a start of a replacement cycle which is costly and results in a gradual loss of tooth tissues. DPBRN Study 3 will provide a basis for analysis of reasons for why restorations fail. These analyses will form the basis for improvements in restorative techniques and materials used to restore teeth.

DPBRN Enrollment Questionnaire Results

The Dental PBRN has enrolled over 1,100 practitioners throughout the Alabama, Florida, Oregon, Minnesota, and Scandinavian regions. Some preliminary information from the enrollment questionnaire completed by participating practitioners is provided in the table below:

Some have referred to much of dental research conducted to date as "scientifically valid, statistically significant, but clinically useless". We would like to change that.

Characteristic	% Distribution or mean
Practice arrangement	
Employed by another dentist	6
Self-employed, no partners, no cost-sharing	59
Self-employed, no partners, with cost-sharing	5
Self-employed as a partner	12
Other	16
Full-time personnel in practice	
# full-time hygienists	1.9
# full-time dental assistants	2.2
# full-time laboratory technicians	0.3
# full-time other office personnel	2.0
Part-time personnel in practice	
# part-time hygienists	1.3
# part-time dental assistants	1.1
# part-time laboratory technicians	0.2
# part-time other office personnel	0.9
% patient contact time you spend doing...	
Non-implant restorative	45
Endodontic therapy (surgical and non-surgical)	16
Other (sealants, exam, preventive, diagnostic)	12
Extractions (surgical & non-surgical)	10
Periodontal therapy (surgical and non-surgical)	6
Removable prosthetics (full & partial dentures)	6
Implants (prosth. & surgical implant procedures)	5
% patient contact time you spend doing...	
Procedures for esthetic reasons	30
Procedures for non-esthetic reasons	70
% patients who get the service at some time while they are in your practice ...	
Dental x-rays	90
Oral cancer screening examination	85
Oral hygiene instruction	83
In-office fluoride application	43
Patient education from video or slides	41
Blood pressure screenings	34
Patient education from written pamphlets	32
Diet counseling	31
Fluoride gel/rinse for home use	29
Intraoral photographs taken	20
At-home whitening	14
Intraoral video images taken	12
In-office whitening	6

Tip of the Month

Tip of the month provided by Ken Tilashalski, DMD, Associate Professor, Department of Diagnostic Sciences, University of Alabama at Birmingham School of Dentistry. Email address: drt@uab.edu

Whooping cough, shingles, cervical cancer, and genital warts?

What do all of these conditions have in common? There are newly FDA-approved vaccinations for each of these diseases.

Children are routinely immunized for pertussis (whooping cough) as part of the DTaP (Diphtheria, Tetanus, Pertussis) vaccine. While it is recommended that adults receive a Td booster vaccine every 10 years, there has not been a vaccine against pertussis for adults until 2005. It is now recommended that healthcare workers who have direct patient contact get a dose of the newly licensed Tdap (Tetanus, Diphtheria, Acellular Pertussis) as a substitute for one booster of Td.

In May of this year the Food and Drug Administration (FDA) licensed Zostavax, a new vaccine to reduce the risk of shingles (herpes zoster) for use in people 60 years of age and older. Shingles is a reactivation of the chickenpox virus and about 20% of adults will develop the disease in their lifetime. A shingles outbreak is characterized by painful blisters and can cause severe pain, sometimes for months or years after the outbreak. The vaccine reduces the incidence of shingles by about 50%.

The FDA recently approved Gardasil, which is a vaccine that targets the virus that causes cervical cancer and genital warts. The vaccine is 95-100% effective in preventing infection with human papilloma virus (HPV) types 6, 11, 16, and 18. The vaccine is specifically aimed at young women between the ages of 9-26, since it is best to get the inoculated before the start of sexual activity. HPV is the most common sexually-transmitted infection in the United States, with about 6.2 million Americans infected each year. The vaccine is effective against HPV 16 & 18, which are responsible for approximately 70% of cervical cancers and against HPV 6 &11, which cause about 90% of genital warts. The vaccine does not protect against other less common types of HPV and is not effective if there has been infection with HPV prior to vaccination, so it is not a replacement for regular pap screening.

With advances in vaccine research, hopefully we will see a decrease in the burden of many other infectious diseases in the near future.