



Dental Practice-Based Research Network
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Each month we highlight a recent DPBRN publication, recent study results, or other important DPBRN information.

Abstract of DPBRN Publication of the Month

Methods dentists use to diagnose primary caries lesions prior to restorative treatment: findings from The Dental PBRN. *J Dent* 2010;38 (12): 1027-1032.

The December 2010 issue of *Journal of Dentistry* features an article entitled "Methods dentists use to diagnose primary caries lesions prior to restorative treatment: findings from The Dental PBRN". The purpose of this article was to quantify the diagnostic techniques used by DPBRN dentists before they decide to treat primary caries lesions surgically and (2) examine whether certain dentist, practice, and patient characteristics are associated with their use. A total of 228 DPBRN dentists recorded information on 5676 consecutive restorations inserted due to primary caries lesions on 3751 patients. Practitioner-investigators placed a mean of 24.9 (SD=12.4) restorations. Lesions were categorized as posterior proximal, anterior proximal, posterior occlusal, posterior smooth, or anterior smooth. Techniques used to diagnose the lesion were categorized as clinical assessment, radiographs, and/or optical. They found that, by lesion category, the diagnostic technique combinations used most frequently were clinical assessment plus radiographs for posterior proximal (47%), clinical assessment for anterior proximal (51%), clinical assessment for posterior occlusal (46%), clinical assessment for posterior smooth (77%), and clinical assessment for anterior smooth (80%). Diagnostic technique was significantly associated with lesion category after adjusting for clustering in dentists ($p < 0.0001$). These results - obtained during actual clinical procedures rather than from questionnaire-based hypothetical scenarios - quantified the diagnostic techniques most commonly used during the actual delivery of routine restorative care. Diagnostic technique varied by lesion category and with certain practice and patient characteristics.