

The Use of Direct Composite

Jeffrey A Platt DDS, MS

Welcome to Supplement 7 of Operative Dentistry! I am excited to share this additional information for subscribers—especially when one considers that Supplement 6 was published nearly 15 years ago. Historically, the publishing of supplements was an expensive enterprise requiring additional sponsorship. With the transition to electronic submissions and the option of online only publication, this supplement is being offered online to our subscribers only. If you should desire to obtain a printed copy of Supplement 7 (for a reasonable fee to cover printing and postage), please contact our editorial office.

In an effort to highlight the work being done by European clinicians and scientists in the area of Operative Dentistry, this supplement focuses on the information presented at the 2014 Academy of Operative Dentistry European Section meeting held in Edinburgh, Scotland. The challenges that our European colleagues face in the provision of care are somewhat different from what we currently face in the United States. I believe it is extremely valuable for all of us to have open communication and to learn from each other through the treatment choices made in different cultures with various reimbursement and legal environments. At my request, Drs. Niek Opdam and Reinhard Hickel responded and graciously agreed to be guest editors of this supplemental issue.

Having taught Dental Materials for the past 27 years, I find it amazing that, purely from a materials perspective, if I needed to have a posterior restoration placed in my mouth today, I would prefer a gold restoration—the same as I would have chosen decades ago. But, honestly, how many gold restorations have I placed during my 31 years of practice? As one might guess, this number is small in relation to the number of dental amalgam restorations that were placed during the same time. How can it be that an inferior material essentially eliminated the use of a far superior material?! Although, the significantly decreased cost of dental amalgam was a primary factor, the technical ability of the dentist (who may have graduated last in the class) to

successfully place the material was also a factor. Regardless of the reasons, the fact remains that an inferior material became the standard of care for the restoration of missing tooth structure.

What about today? The pressures are strangely different. They are shaped not just by economic pressure nor technique sensitivity concerns. Rather, in addition to environmental and occupational health concerns, the choice of restorative material is also driven by esthetic pressures.

For two weeks last summer, Indiana University School of Dentistry sent students to provide dental care in United States Federally Qualified Health Centers (FQHC). Our students also run a Student Outreach Clinic in an inner-city Indianapolis FQHC. All of these facilities treat low-income, uninsured individuals; the portion of the population with the highest incidence of dental caries. And, many of these FQHCs no longer allow dental amalgam to be placed. What is a student to do when they have been taught that dental amalgam is what should be used for direct restorations when placing large posterior restorations?

Gold or amalgam? Amalgam or resin composite? From a materials perspective, it may seem as though our profession is sliding down a slope in a bad way. Although there are a few places where the economics still seem to be of primary influence (eg. the U.S. military), the reality is that pressures are moving all of us away from dental amalgam restorations and towards the placement of direct resin restorations.

Much of the data comparing dental amalgam to resin composite which has been generated over recent decades has focused on the longevity of the individual restoration. And, historically, this has been a good measure of success. However, the growth in understanding of adhesive dentistry and how to use composite materials is changing the way we should evaluate the success of resin composites.

In my opinion, the Academy of Operative Dentistry European Section stands out as having a greater

understanding than anyone else of how to use resin composite to successfully manage dental caries in the world's population. After significant effort over several months, Drs. Opdam and Hickel have assembled this interesting and thought provoking group of articles contained in Supplement 7. I am

very grateful and indebted to them for their willingness to undertake this challenging task.

May this supplement help stimulate thinking, broaden perspectives, and help us all tackle the pressures which dentistry is facing in our day. Enjoy!