



X-ray vision

A decade after the Food and Drug Administration issued guidelines for dental radiographs, are we still exposing too many films on children? The answer is unknown. In informal conversations with pediatric dental colleagues, I find that many have "customized" the FDA guidelines to better meet the populations they serve, generalizing risk to their practice to further reduce exposure to individual children.

The disease patterns which led to the 1980s guidelines have continued to change. Dental caries progresses more slowly. Some lesions never worsen. While we still occasionally see decay that moves like wildfire through a dentition, such cases are much less common.

Administrative radiographs and teaching films have also declined in number, but some "closet" behaviors still exist in the dental health system. Dental payers, testing agencies, the courts and certifying boards still hold out the radiograph as the "gold standard" of care documentation. Dentists can be seduced into ordering a film thinking that down the road a denial, certification, or audit may be helped by a film with little value in care of the patient.

Dentistry in many ways is still hooked on the radiograph for diagnosis. Little progress has been made in alternative diagnostics for caries and growth and development — two of the major uses in pediatric dentistry. We've done little to generate clinically useful selection criteria to indicate who would most likely benefit the greatest from films. We as a profession are still recommending regular follow-up radiographs for pulpotomies, even in the absence of clinical findings, more than a half century after the procedure became standard. Surely, we should have a better way to determine success.

The "cascade" phenomenon is still alive and well. Take the recommendation of a panoramic film for growth and development. The clinician who suspects "something" on a panoramic film will undoubtedly follow it with a periapical or two to make a conclusive decision.

Finally, a lingering problem that we in dentistry must address at some point is the use of radiographs in seemingly healthy individuals. Dental radiographs for "growth and development" assessments of healthy mixed dentitions or "when contacts are closed" for diagnosis of caries in an otherwise healthy caries-free toddler beg review. The changes in caries progression, the lack of utility of cephalometric films in early treatment, and the extremely low occurrence of most anomalies certainly should prompt us to revisit radiation guidelines.

As with our sedation guidelines, we may never know the full positive impact of the radiation guidelines in reducing exposure. Also, like the sedation guidelines, we have never attempted to assess that impact. Perhaps the first step is to look at the last 10 years and determine if we have been successful and then examine what more needs to be done.

Dental radiographs seldom save lives, yet they contribute to the health of children. If our vision for those we care for includes both optimal health and reduction of risk, re-examination of dental radiation exposure in children is needed.

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Editor's Note: I hate to waste precious copy on a schmaltzy farewell and couldn't resist a final editorial, but I would regret leaving this position without thanking the editorial staff, in particular, Sara Pullan Geimer and John Ferguson. The Headquarters staff, the many editorial board members I've worked with, and the reviewers—all of whom really made the journal—also have my deepest thanks. After seven years, I leave with a lot of satisfaction and fond memories. This job put me in contact with a lot of Academy members and you are the greatest group of people in dentistry. Our children are in great hands. Thank you for this opportunity. And, Milt, good luck!