

Combinations of topical fluoride (toothpastes, mouthrinses, gels, varnishes) versus single topical fluoride for preventing dental caries in children and adolescents. *Cochrane Database Syst Rev* 2004; CD002781.

6. Department of Health/British Association for the Study of Community Dentistry. *Delivering better oral health: an evidence based toolkit for prevention*, 2nd ed. London: Department of Health, 2009.

*Professor Roger Smales and Dr Kevin Yip respond: We appreciate the interest of readers in our recent article, in particular the measures that could be included to prevent the development of primary caries.*

*We also acknowledge that the British Dental Journal has an international readership, which is why we stated that domestic water supplies should be fluoridated at 0.5+ ppm. The additional fluorides that are required to reach the equivalent of approximately 1.0 ppm (1.0 mg/L) depend very much on the amounts contained in the foods and beverages consumed in the particular locality. In some instances, the domestic fluoridated water originally recommended and supplied at 1 ppm has had to be reduced progressively to 0.5 ppm to maintain the optimum overall effective ingestion level at 1 ppm.<sup>1</sup> And, as was stated previously, the present series of articles is not intended to be a critical review of each and every topic mentioned.*

*On the effectiveness of various fluoride measures, we would refer R. G. Watt et al. to our rather lengthy response to the recent letter of G. Yesudain and C. Deery (above), relating to the scant evidence available on the long-term cost-effectiveness in general practice of repeated topical fluoride applications to occlusal pits and fissures in adults in particular. Because the cariostatic effect of fluoride varnishes does not necessarily continue after the cessation of biannual topical applications,<sup>2</sup> then for how long should such preventive treatments continue and at what costs? There appears to be little benefit from the routine use of professionally applied topical fluorides in patients at low risk for active caries.<sup>3</sup> Obviously, additional research on many topics related to professionally applied topical fluoride is required and has been recommended.<sup>3</sup> Rather than employing a routine blanket prescription of professionally applied topical fluorides for*

*caries prevention, we recommend that their use be based on the dental practitioner's assessment of the individual patient's risk for caries, which would also include the availability of fluoridated water supplies.*

*R. G. Watt et al. have a particular interest in promoting the current (and future) edition of Delivering better oral health: an evidence-based toolkit for prevention which, as was stated, all English NHS dentists have already received. And, though in this excellent domestic publication there are very few specific criteria stated for different caries risk levels, and methods for the prevention of secondary (recurrent) caries are not mentioned, we would be happy to include the toolkit in any future Reading list as a very detailed addition to the general advice contained in the present Part 5 article.*

1. Evans R W, Stamm J W. Dental fluorosis following downward adjustment of fluoride in drinking water. *J Public Health Dent* 1991; **51**: 91-98.
2. Seppä L, Tuutti H, Luoma H. Post-treatment effect of fluoride varnishes in children with a high prevalence of dental caries in a community with fluoridated water. *J Dent Res* 1984; **63**: 1221-1222.
3. American Dental Association Council on Scientific Affairs. Professionally applied topical fluoride. Evidence-based clinical recommendations. *J Am Dent Assoc* 2006; **137**: 1151-1159.

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## ATAVISTIC MALFORMATION

Sir, the cover photo depiction on the 10 November 2012 issue of the *BDJ* (issue 9) of an open-mouthed African penguin not only portrays the tooth-like barbs substituting for absent teeth, but clearly shows the cleft palate naturally occurring in birds and reptiles. The mammalian fused palate separating the oral and nasal cavities is an evolutionary advance enabling mastication, in contrast to gulping food in birds and reptiles. A cleft palate in humans represents a genetically atavistic malformation.

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