Other journals in brief

A selection of abstracts of clinically relevant papers from other journals.
The abstracts on this page have been chosen and edited by **John R. Radford**.

Resin composite luting cements shades – again

Shade of resin-based luting agents and final color of porcelain veneers

Perroni AP, Amaral C *et al. J Esthet Restor* Dent 2016; **28:** 295–303

All that is required is three shades of luting cement.

Reported in a recent abstract summarised in this section of the *Br Dent J* (doi:10.1038/sj.bdj.2017.74), the investigators suggest that, from a clinical perspective, it was equivocal as to whether or not different shades of resin cement can modify the final shade of the tooth. To the contrary, in this study the shade of the luting agent did influence the final shade. In this *in vitro* study, 1 mm monolithic and laminate ceramic discs were paired with resin composite discs (ca. 100 µm) of different shades (A2 and B1) and placed on a simulated dental substrate. A spectrophotometer measured the CIE L*a*b* colour coordinates. Glycerine was used to mimic the 'coupling agent'. The investigators suggest that the following three luting agent shades would be sufficient for shade matching: 'one white shade with a high value and high opacity' (white opaque), 'one white shade with high translucency', (translucent), 'and one shade that combines chroma and hue (such as A2).'

DOI: 10.1038/sj.bdj.2017.265

Value for money

Cost-effectiveness of regular versus irregular supportive periodontal therapy or tooth removal

Schwendicke F, Stolpe M *et al. J Clin Periodontol* 2016; **43:** 940–947

Regular SPT (supportive periodontal treatment) retains teeth longer than irregular SPT but this regimen is not necessarily cheaper; extraction and replacement of teeth was usually the most expensive.

Supportive periodontal treatment, is central in helping patients maintain periodontal health after active treatment. But at what monetary cost? Indeed, is it cheaper to extract posterior teeth adopting a shortened dental arch occlusal scheme or replacing strategic teeth with a prosthesis? This prolific group of investigators used comparable methods of investigation as they have for other dental interventions. In summary, they used a tooth-level Markov model (a stochastic approach randomly changing systems where it is assumed that the future, including replacing teeth with implant-supported crowns, depends only on the current). Cost-effectiveness was estimated as euro/tooth retention year using Monte Carlo microsimulations. The model was set in a German healthcare context from a private payer perspective. If the costs for regular supportive periodontal treatment were '<5.03 euro per tooth and visit', this approach would be both more effective and less costly than other treatment options, particularly for anterior teeth which if extracted, invariable require replacement.

DOI: 10.1038/sj.bdj.2017.266

Fiscal policies for the prevention of non-communicable diseases

Taxes on sugar-sweetened beverages *(Editorial)*

Lee JY, Giannobile WV. *J Dent Res* 2016; **95:** 1325–1326, and

Effects of taxing sugar-sweetened beverages on caries and treatment costs

Schwendicke F, Thomson WM *et al. J Dent Res* 2016; **95:** 1327–1332

'The oral health community needs to band with our public health colleagues to support SSB (sugar-sweetened beverages) taxation to improve health.'

And not unexpectedly as the above key message from the *Editorial* was published in a dental journal; this contrasts starkly with seven commentaries on dietary guidelines published last year in the *BMJ* (see doi:10.1038/sj.bdj.2016.294). In these commentaries, oral health was afforded only a perfunctory mention.

Sugar-sweetened beverages are marketed aggressively. They have a putative association with diabetes, obesity, metabolic syndrome (combination of diabetes, high blood pressure and obesity), cardiovascular diseases, and certain cancers. There is moderate evidence, that when the amount of free sugars is less than 10% there is a reduction in the incidence of dental caries. The authors of this editorial are not persuaded as to the efficacy of educational campaigns to reduce consumption of sugar-sweetened beverages. Despite 'framing the message', such interventions 'are time intensive and expensive for the little benefit they net in return.'

This *Editorial* focuses on the role that taxing sugar-sweetened beverages could have on bring about that elusive behavioural change. The authors of the editorial highlight the key findings from the Schwendicke paper (not fully referenced in the *Editorial*) published in the same issue of the journal. This study used a model-based approach over a period of ten years in 14–79-year-old Germans. They assumed that the demand for goods varies as to the price but concede such data was not derived from Germany, and in addition, there may be issues associated with cross-price elasticities. Implementing a 20% sugar-sweetened beverage sales tax: 1) reduced consumption in nearly all male groups but in fewer female groups, 2) the reduction was greater among younger than older individuals, 3) the reduction was more in those from low incomes, and 4) caries reduction and treatment costs mirrored this reduction in sugar-sweetened beverages. The generated treatment costs were 2.64 billion (with taxation) vs 2.72 billion euro (without taxation). Additional tax revenue was a staggering 40 billion euro over 10 years. It is suggested that such monies could be used to subsidise the cost of healthy foods. Yet over 10 years, net caries increments at the population level were not that different with 82.27 (with taxation) vs 83.02 (without taxation) million carious lesions.

It is often muted that 'a sugar tax is simply a tax on the poor.' Schwendicke *et al.* touch on this from a rule utilitarianism perceptive; although there is a greater fiscal burden on the poor this should be welcomed as such may narrow the oral health divide.

DOI: 10.1038/sj.bdj.2017.267