

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.

STAINING

Effect of beverages on color and translucency of new tooth-colored restoratives

Tan BL, Yap AUJ *et al. Oper Dent* 2015; 40: E56-65. doi: 10.2341/149027-L.

Conventional resin-based composite materials stain the least and generally stain less than giomers.

Tooth-coloured restorative materials stain. But how do the staining characteristics of giomers (that combine resin-based composite and pre-reacted glass ionomer) compare with that of other tooth-coloured restorative materials? Forty-two specimens (shade A2) were formed from each of two different types of giomer, two nanocomposites, and two different types of resin-modified glass-ionomer cement. The CIELAB colorimetric system was used to measure colour differences and translucency before and after immersion of specimens for 7 days in staining solutions. Coffee and red wine consistently resulted in visible staining. The resin-modified glass ionomers were most susceptible to staining compared with the nanocomposites and giomers. The nanofilled version of the resin-modified glass ionomer performed better than the conventional material. When considering the relative resistance to staining of the flowable giomer, a possible reason was its higher TEGDMA content, with decreased water sorption and staining. Not surprisingly, those materials that stained the most, showed the greatest reduction in translucency.

DOI: 10.1038/sj.bdj.2015.499

CHOOSING WISELY® – NON-MALEFICENCE

Choosing wisely in the UK: the Academy of Medical Royal Colleges' initiative to reduce the harms of too much medicine

Malhotra A, Maughan D *et al. BMJ* 2015; 350: h2308. doi: 10.1136/bmj.h2308

Hammurabi, the sixth Amorite king of Babylon, 'proclaimed a law threatening overzealous surgeons with the loss of a hand or an eye'.

'...overdiagnosis...lead(s) to unnecessary treatment, wasting resources while increasing patient anxiety.' So on one hand effete practices have to be abandoned, yet new ones have to be adopted. This paper introduces Choosing Wisely®, a forum for the sharing of information between clinicians and patients (www.choosingwisely.org – for a dental example see 'Don't remove mercury-containing dental amalgams'). This has been developed in the US and Canada with the aim of ensuring treatments are both necessary, and free from harm. Colleges and specialist societies are invited to draw up lists of tests or procedures that are commonly used but whose outcomes are questioned; those most cited interventions should be discontinued. The causes of such overtreatment is a culture of 'more is better', the onus on the practitioner to do something and the link between pay and performance. However, this blunt approach offered by the Choosing Wisely® initiative, must be shaped by the values held by patients.

DOI: 10.1038/sj.bdj.2015.500

SEVERE ACUTE DENTAL INFECTIONS

Management of severe acute dental infections

Robertson DP, Keys W *et al. BMJ* 2015; 350: h1300. doi: 10.1136/bmj.h1300

Between 1998 and 2008, 'the number of patients admitted to English hospitals for treatment of spreading dental infections doubled'.

This paper gives general medical practitioners a guide to manage acute dental infections. And for dentists, it is apposite to revisit the signs and symptoms associated with this potentially life-threatening condition. The 'red flag' symptoms are, facial swelling, trismus, dysphagia or systemic upset. Patients showing these symptoms require immediate referral for management by an oral and maxillofacial surgeon. Furthermore, if the medical practitioner is unclear about the diagnosis and appropriate treatment, they should refer this patient to a dentist, rather than empirically prescribe antibiotics. Less familiar signs of severe infection are tachycardia, tachypnoea, hypotension and WBC $<4 \times 10^9$ cells/l or $>12 \times 10^9$ cells/l, or $>10\%$ immature neutrophils. There is a note of caution for medical practitioners; '...indemnity would not cover a medical practitioner for the management of a dental problem as it is classed as being outside the scope of their practice.'

DOI: 10.1038/sj.bdj.2015.501

ARRESTING ENAMEL LESION PROGRESSION

Infiltration and sealing *versus* fluoride treatment of occlusal caries lesions in primary molar teeth. 2-3 years results

Bakhshandeh A, Ekstrand K. *Int J Paediatr Dent* 2015; 25: 43-50

Early carious lesions in primary molar teeth treated by infiltration (Icon®) and fluoride varnish, progressed less than those treated by fluoride varnish only ($p = 0.021$).

However, the use of a conventional fissure sealant (Delton®) together with fluoride varnish (Duraphat®), was not significantly more effective than fluoride varnish only ($p = 0.096$). Caries progression was measured using radiographs. Infiltration of the carious lesions employed Icon® (DMG, Hamburg, Germany). The method for infiltration is exacting. It comprised, 1) applying 15% HCl to the lesion for 2 minutes, 2) dehydrating the area twice using 95% ethanol, and then 3) applying the resin for 3 minutes. It is suggested that 15% HCl removes the surface zone of the carious lesion. Dehydration by 95% ethanol, enables the resin to penetrate the pores of the lesion. All selected occlusal lesions regardless of baseline treatment, received fluoride varnish at baseline and a further three times during the study period. This was an elegant, split-mouth randomised clinical trial. However there was selection bias. As a consequence of inclusion criteria, the caries experience in this study group was half that of the general population of children.

DOI: 10.1038/sj.bdj.2015.502