

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 Reena Wadia.

Implementing evidence-based guidance in practice

Cassie H, Treweek S, McKee L, Ramsay C, Young L, Clarkson J. 'Well, in dentistry the dentist is always the boss': a multi-method exploration of which organisational characteristics of dental practices most influence the implementation of evidence-based guidance. *BMJ Open* 2022; DOI: 10.1136/bmjopen-2021-059564.

Evidence-based dental recommendations are not routinely translated into practice so guidelines should aim to tailor recommendations and implementation strategies to reflect the complexities and varying contexts that exist in primary care dentistry.

This study investigated which organisational characteristics of primary care dental practices influence the implementation of evidence-based guidance. A multi-method study set within primary care dentistry in Scotland comprised of semi-structured interviews with dental teams as well as a questionnaire-based survey and case studies. Survey data revealed compliance with recommendations from three topics of dental guidance to be variable, with only 41% (emergency dental care), 19% (oral health assessment and review) and 4% (drug prescribing) of respondents reporting full compliance. Analysis revealed no significant relationship between practice characteristics and compliance with emergency dental care or drug prescribing recommendations. Positive associations were observed between compliance with oral health assessment and review recommendations and having a practice manager, as well as with the type of treatment offered, with fully private practices more likely, and fully NHS practices less likely, to comply, when compared with those offering a mixture of treatment. Synthesis of the data identified leadership and context as key drivers of guidance uptake. The authors concluded that evidence-based dental recommendations are not routinely translated into practice.

<https://doi.org/10.1038/s41415-022-5037-5>

Oral piercings – what's the damage?

Passos P F, Pintor A V B, Marañón-Vásquez G A *et al.* Oral manifestations arising from oral piercings: A systematic review and meta-analyses. *Oral Surg Oral Med Oral Pathol Oral Radiol* 2022; **134**: 327–341.

Gingival recession, abrasion and dental fractures were amongst the most prevalent complications associated with oral piercings.

Fifty-four studies were included in this systematic review, with 15 achieving good methodological quality. Periodontal and tooth damage were the most reported, followed by soft tissue/mucosal injuries, speech disorders, chewing, soft plaque, and saliva. Pain was the most reported complication, followed by infection, swelling, bleeding, inflammation, allergy, and adornment aspiration. Meta-analyses revealed that 33% of participants with piercings had gingival recession, 27% had non-specified dental damage, 22% had tooth chipping, 34% wear/abrasion and 34% had dental fractures.

<https://doi.org/10.1038/s41415-022-5039-3>

Periodontitis and systemic inflammation

Luthra S, Orlandi M, Hussain S B *et al.* Treatment of Periodontitis and C-Reactive Protein: A Systematic Review and Meta-Analysis of Randomized Clinical Trials. *J Clin Periodontol* 2022; DOI: 10.1111/jcpe.13709. Online ahead of print.

Treatment of periodontitis reduces serum CRP levels to a degree equivalent to that observed after traditional lifestyle or drug interventions.

Systemic inflammation is implicated in the onset and progression of several chronic diseases. Periodontitis is a potential trigger of systemic inflammation. The purpose of this review was to comprehensively appraise all the evidence on the effects of the treatment of periodontitis on systemic inflammation assessed by serum CRP levels. Six electronic databases were searched up to February 2022. The study selection included 26 randomised controlled clinical trials reporting changes amongst 2,579 participants about CRP levels at six months or more after treatment. Meta-analyses were performed using random and fixed effect models. Treatment of periodontitis reduced CRP levels by 0.69 mg/L (95% CI: -0.97; -0.40) after six months but limited evidence was retrieved from studies with longer follow-ups. Similar findings were observed in participants with other co-morbidities in addition to periodontitis. Greatest reductions were observed in participants with concentrations of CRP >3 mg/L at baseline. This evidence supports a causal association between periodontitis and systemic inflammation.

<https://doi.org/10.1038/s41415-022-5038-4>

Geographic tongue – risk factors

Zhang C, Pan D, Li Y, Hu Y, Li T, Zhou Y. The risk factors associated with geographic tongue in a southwestern Chinese population. *Oral Surg Oral Med Oral Pathol Oral Radiol* 2022; **134**: 342–346.

In the Chinese population, geographic tongue was more prevalent in patients with <30 years of age, fissured tongue and gastrointestinal disorders, and it was less prevalent in those with burning mouth syndrome and oral lichen planus.

This retrospective cross-sectional study explored potential risk factors for the geographic tongue (GT) in a Chinese population. Demographic and medical data of 3,400 patients between March 2021 and August 2021 from the Department of Oral Medicine at West China Hospital of Stomatology was included. Binary logistic regression was conducted to analyse the association of GT and age, fissured tongue (FT), burning mouth syndrome (BMS), oral lichen planus (OLP), gastrointestinal disorders, and haematologic disorders. GT occurred in 3.6% of patients, with 15 out of 123 (12.2%) patients with GT having a family history. Binary logistic regression found age <30 years, FT, BMS, OLP and gastrointestinal disorders were significantly associated with GT, and GT was unrelated to recurrent aphthous ulcer or systemic diseases such as cardiovascular diseases.

<https://doi.org/10.1038/s41415-022-5040-x>