

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.

Antimicrobials in perio therapy

Nibali L, Koidou V P, Hamborg T, Donos N. Empirical or microbiologically-guided systemic antimicrobials as adjuncts to non-surgical periodontal therapy? a systematic review. *J Clin Periodontol* 2019; DOI: 10.1111/jcpe.13164. [Epub ahead of print].

There is no evidence to suggest that baseline detection of periodontopathogenic bacteria should be used as a criterion for prescribing adjunctive antibiotics.

This paper considered the clinical benefit in periodontitis patients taking adjunctive systemic antimicrobials to non-surgical therapy, depending on pre-treatment detection of periodontopathogenic bacteria. A search was conducted for randomised controlled trials reporting clinical outcomes following adjunctive antibiotic for patients divided by baseline microbiological profiles. Four studies were suitable for a fixed effects two-stage individual participant meta-analysis adjusted for baseline data. Collectively, adjunctive Amoxicillin and Metronidazole yielded superior clinical results (measured as reduction of PPDs) compared to placebo. No significant differences were detected for the effect of adjunctive antibiotics by detection of *A. actinomycetemcomitans* on PPDs ≥ 5 mm or other clinical outcomes.

DOI:10.1038/s41415-019-0636-5

Socket management prior to implant placement

Tonetti M S, Jung R E, Avila-Ortiz G *et al.* Management of the extraction socket and timing of implant placement: Consensus report and clinical recommendations of group 3 of the XV European Workshop in Periodontology. *J Clin Periodontol* 2019; **46**: 183-194.

A substantial and expanding evidence base is available to assist clinicians with clinical decision-making related to the transition from a tooth requiring extraction to its replacement with an implant.

The transition from a tooth requiring extraction to its replacement with a dental implant requires a series of clinical decisions related to timing, approach, materials, cost-effectiveness and the assessment of potential harm and patient preference. This paper summarises evidence-based consensus statements and clinical recommendations from a recent European Periodontology workshop. Four systematic reviews covering the areas of alveolar ridge preservation/bone grafting, immediate early and delayed implant placement and alveolar bone augmentation at the time of implant placement in a healed ridge formed the basis of the deliberations. The evidence base was summarised in 23 consensus statements and 12 specific clinical recommendations. The key six considerations identified to assist clinicians in clinical decision-making included: presence of infection; inability to achieve primary stability in the restoratively driven position; presence of a damaged alveolus; periodontal phenotype; aesthetic demands; and systemic conditions.

DOI: 10.1038/s41415-019-0634-7

Musculoskeletal disorders in oral healthcare

Roll S C, Tung K D, Chang H *et al.* Prevention and rehabilitation of musculoskeletal disorders in oral health care professionals: A systematic review. *J Am Dent Assoc* 2019; **150**: 489–502.

Magnification loupes and indirect-vision techniques have a positive effect on the reduction of musculoskeletal symptoms.

This systematic review describes the evidence for preventive and rehabilitative interventions for musculoskeletal disorders in oral healthcare. Investigators in 17 experimental studies described the results of preventive or rehabilitation interventions and in 17 survey research studies predicted or correlated preventive or protective techniques to a reduction in musculoskeletal symptoms. The primary techniques evaluated in the studies included equipment modification, ergonomic training, and physical exercise. The evidence suggested that magnification loupes and indirect-vision techniques have a positive effect on the reduction of musculoskeletal symptoms. In terms of evaluating intervention efficacy, other techniques have mixed evidence or are limited by low-level study design.

DOI: 10.1038/s41415-019-0635-6

Disinfection of dental loupes

Zwicker D H, Price R B, Carr L, Li Y H. Disinfection of dental loupes: A pilot study. *J Am Dent Assoc* 2019. pii: S0002-8177(19)30213-2. DOI: 10.1016/j.adaj.2019.03.008. [Epub ahead of print].

Visibly clean loupes may be a source of cross-contamination.

Magnification loupes are not disposable and must be cleaned and disinfected between each patient. In this pilot study, the authors determined the efficacy of infection-control procedures used by dental students. Visibly clean loupes used by 25 dental students were swabbed for bacteria using a standard microbiology method at baseline and then cleaned with surface disinfectant before they were returned. The students then used and disinfected their loupes for five days as they treated patients, after which time the loupes were retrieved and swabbed again. After the samples had been cultured, the numbers of aerobic and anaerobic colony-forming units (CFUs) were enumerated. At baseline, the number of CFUs ranged from 0–100. When used according to the manufacturers' instructions, the disinfectant reduced the count to no more than two CFUs. After the loupes were used for five days, 20% of loupes were highly contaminated (> 100 CFUs), 20% moderately contaminated (20-100 CFUs), and 60% had less than 20 CFUs. Students who performed a restoration on day five were 12 times more likely to have loupes contaminated with aerobic bacteria than those who had not. The recommended prophylaxis and disinfection protocol worked well when used correctly, but it was likely that the protocol was often not followed properly or consistently.

DOI: 10.1038/s41415-019-0633-8