

# CHRONIC NON-COMMUNICABLE DISEASES

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As described in a recent Opinion piece<sup>1</sup> the European Federation of Periodontology (EFP) and the American Academy of Periodontology (AAP) held what may well become to be recognised as a historic joint meeting in November 2012. The purpose of the meeting was to make sense of the rapidly growing literature base on the impact of periodontal inflammation on chronic systemic diseases of ageing, and to develop consensus statements.

Twelve systematic reviews, commissioned from global leaders in this field provided rigorous scientific analysis of the evidence base for periodontitis and its relationship with cardiovascular disease, diabetes and adverse pregnancy outcomes, and other systemic conditions where the evidence base is less well developed (<http://onlinelibrary.wiley.com/doi/10.1111/jcpe.2013.40.issue-s14/issuetoc>). The expanding literature base was used to answer specific questions set by the chairmen for the 72 expert delegates. Three consensus reports were generated, alongside guidelines for medical and dental practitioners, patients and the public: these are freely available at <http://perioworkshop.efp.org>, together with the full manifesto. The manifesto 'calls upon all dental and health professionals to act in the prevention, early diagnosis, and effective treatment of periodontal disease in order to combat the devastating oral and general health effects for the individual and society'.

Notwithstanding the ground breaking work completed to date, we are at the end of the beginning of research on the impact of periodontal diseases upon chronic systemic inflammatory diseases of humans. There is a pressing need to refine understanding of the biological mechanisms behind the associations and their impact, let alone the

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need for large intervention studies to explore the effects of improving periodontal health upon systemic disease outcomes. What is clear, however, is that the most plausible mechanistic explanation is of the chronic low-grade bacteraemia induced by eating, speaking and oral hygiene procedures. Such a bacteraemia triggers an inflammatory response – the so-called 'acute-phase response' by the liver resulting in elevated blood levels of C-reactive protein and the release by circulating leukocytes, in particular neutrophils, of oxygen radicals. These species and their products all play a role in systemic inflammatory damage, such as atherosclerosis, and they also raise blood glucose levels.

So, where does this leave us? The contention that successful periodontal treatment leads to improved tooth retention is indisputable. Also, there is now no contention that restoring periodontal health impacts positively on general health and wellbeing. Importantly, for the future of oral health provision, healthcare systems are waking up to the evidence that resolving periodontal inflammation, now elevated to be one of the top six most important chronic non-communicable diseases (NCDs) of humans, may well be a cost effective and achievable primary prevention strategy in the management of chronic systemic diseases of ageing. Furthermore, there is a growing appreciation that the dental team could play a key role in both the screening for such diseases and the promotion of healthy lifestyles, in particular amongst the many individuals who seek dental care but rarely consult their medical practitioners.

Mindful of the above, and having acknowledged the robust underpinning body of evidence, the BDA was an early adopter of the EFP manifesto. When individuals and

other organisations follow the lead provided by the BDA, and sign up to the manifesto, bodies such as the EFP will be greatly empowered to progress to at least the next level – translation into everyday clinical practice.

It is becoming increasingly clear that the scope of the practice of dentistry and the underpinning educational processes should be reviewed to meet new and emerging patient needs and expectations. Dentists, as has been recognised for some time, need to become as much physicians as surgeons in their skill sets, knowledge and practice, to better serve the ever changing healthcare landscape.<sup>2</sup> These are challenges for, in particular, leaders of the profession and the GDC as the regulator. Without relevant, fit-for-purpose regulation, appropriate training, guidance and forward-looking leadership, it is suggested that patients with, and those susceptible to, chronic non-communicable diseases will not be best served by dentistry, let alone suitably protected by regulation.

Manifestos are public declarations of policies and aims. They are produced to raise awareness of and generate support for actions that impact upon the public. The EFP manifesto is just that – a call for support and action, not just another source of evidence-based information. As in all matters in healthcare, patients come first. If the members of the dental team are to fulfil this requirement for patients with chronic NCDs, the need for change is evident from the evidence. Opportunity should not be lost to be at the forefront of a new era in the practice of dentistry.

1. Chapple I L C, Wilson N H F Manifesto for a paradigm shift: periodontal health for a better life. *Br Dent J* 2014; **216**: 159-162.
2. Hancocks S. Sawbones no longer? (Editorial). *Br Dent J* 2012; **212**: 353. doi:10.1038/sj.bdj.2012.316

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