Overcoming barriers

This guideline represents an important change to accepted clinical practice in limiting the role of antibiotic prophylaxis for those at risk of infective endocarditis. The evidence shows that everyday activities such as regular tooth brushing almost certainly present a greater risk of infective endocarditis than a single dental procedure because they can cause repetitive bacteraemias with oral flora. Furthermore no consistent association has been shown between having an interventional procedure and the development of infective endocarditis. Effective implementation of this guideline will require the education and training of healthcare staff to ensure that consistent information is given by different professional groups. Patient information and education

will be important. NICE has developed tools to help organisations implement the guideline.²

Contributors: RR drafted the summary, and TS and DW reviewed the contents.

Funding: The Centre for Clinical Practice (Short Clinical Guidelines Technical Team), part of the National Institute for Health and Clinical Excellence, wrote this summary.

Competing interests: DW is a director with the Medical and Dental Defence Union of Scotland.

Provenance and peer review: Commissioned; not peer reviewed.

- 1 Prendergast BD. The changing face of infective endocarditis. *Heart* 2006;92:879-85.
- 2 National Institute for Health and Clinical Excellence. *Prophylaxis against infective endocarditis*. 2008. (NICE clinical guideline No. 64) www.nice.org.uk/CG064

Commentary: Controversies in NICE guidance on infective endocarditis

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BMJ 2008;336:771

doi:10.1136/bmj.39512.666412.AD

Infective endocarditis has always fascinated clinicians, but until 2006 it had rarely caused fisticuffs. In that year, the British Society for Antimicrobial Chemotherapy produced guidelines on the prevention of endocarditis,¹ which incensed the British Cardiac Society, apparently causing “dismay among cardiologists and confusion among patients and dentists.”² The major change was the recommendation to restrict antibiotic prophylaxis to patients judged to be at highest risk. The British Cardiac Society countered by arranging for the National Institute for Health and Clinical Excellence (NICE) to review matters. As a result, NICE has published its own guidelines. Ironically, the draft version received scathing criticism via the British Cardiac Society's website (www.bcs.com/pages/news_full.asp?NewsID=18369177), and the definitive document seems destined to receive similar flak.

NICE no longer advocates antibiotic prophylaxis for the majority of patients in whom it would previously have been recommended, including those having dental, obstetric, gastrointestinal, and respiratory procedures. This is in clear conflict with long established clinical practice, according to which the devastating consequences of infective endocarditis demand that prophylaxis be given to everyone at any risk.

The full NICE guideline is virtually impenetrable. It is deeply impressive in bringing together evidence from disparate disciplines, but I doubt that any single individual in the UK health community is capable of understanding this vast horizon. I coped with *viridans* streptococci and Ebstein's anomaly, but if you also understand Markov subtrees as well as “ACERs” and Weibull functions, then I bow to your Leonardo-like learning, and this new NICE guidance should provide you with some new bedside reading.

The guidance is explicit on what is not recommended, but clarity about what is recommended and how health professionals should provide lacks “clear and consistent information” for patients. As all parties acknowledge, it will be hard to explain the shift in policy to patients, who have been reminded for years just how important their antibiotics were. A further substantive shortcoming is the lack of any detail about antibiotic choice or dosage. This will be a particular concern to non-specialists.

The recommendations are undoubtedly flawed in not providing positive indications of when to give antibiotics. However, they are clear and based on the most detailed available review of the admittedly imperfect evidence. Antibiotic prophylaxis has never been free nor risk-free, and these financial and health costs have tended to be ignored, not least by cardiologists. I'm swayed by the logic that the twice yearly visit to the dentist must be causing less trouble than twice daily tooth brushing. Antibiotic costs and serious reactions will be hugely reduced, as will the hassle to patients and clinicians. We may fail to prevent small numbers of cases of infective endocarditis, but prevention is in any case currently imperfect.

One final thought: it would be seemly for NICE to suggest that the NHS might adequately compensate anyone whose health suffered as a consequence of the new guidelines. That really would be power with responsibility.

Competing interests: None declared.

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- 2 British Cardiac Society. *Endocarditis guidance*. 2006. www.bcs.com/pages/news_full.asp?NewsID=17423276