

# Summary of: NICE guideline on antibiotic prophylaxis against infective endocarditis: attitudes to the guideline and implications for dental practice in Ireland

R. Ní Ríordáin<sup>1</sup> and C. McCreary<sup>2</sup>

## FULL PAPER DETAILS

<sup>1</sup>Clinical Fellow in Oral Medicine, <sup>2</sup>Senior Lecturer/Consultant in Oral Medicine, Cork University Dental School and Hospital, Wilton, Cork, Ireland

\*Correspondence to: Dr Richeal Ní Riordáin  
Email: richeal.niriordain@ucc.ie

Online article number E11

Refereed Paper – accepted 28 November 2008

DOI: 10.1038/sj.bdj.2009.250

©British Dental Journal 2009; 206: E11

**Aims and objectives** To investigate attitudes of Irish dental practitioners, cardiologists and patients with cardiac lesions to the new NICE guideline for antibiotic prophylaxis against infective endocarditis and to determine the implications of this guideline for dental practice in Ireland. **Methods** Individually tailored anonymous postal questionnaires were sent to 500 dental practitioners, 54 cardiologists and 50 patients with a history of antibiotic prophylaxis usage before dental treatment. **Results** Two hundred and ninety questionnaires were returned from dental practitioners (a response rate of 58%), 20 questionnaires were returned from cardiologists (a response rate of 37%) and 34 questionnaires were returned from patients (a response rate of 68%). Two thirds of patients surveyed would be concerned about the possible cessation of antibiotic prophylaxis before dental treatment and would require either verbal or written confirmation from a cardiologist. Among the dental practitioners surveyed a significant majority were not willing to implement the NICE guideline without further information from the patient – general medical practitioner, cardiologist or an official Irish body. **Conclusion** To enable patient re-education regarding antibiotic prophylaxis, dental practitioners must keep abreast of changes to current guidelines and understand the rationale driving these changes. Difficulties arise for dental practitioners when there is no national statutory body endorsing such guidelines, particularly now that the guidelines in relation to antibiotic prophylaxis in dentistry are so different.

## EDITOR'S SUMMARY

In our daily round of treating patients and their problems we are apt to forget that dentistry is both a science and an art. We also tend to jump at the definition of art as referring to the aesthetic competencies that we possess in creating visually pleasing restorations, dentures and facial appearances. However, a major skill that we are all called upon to exercise is that of the art of judgement, especially in clinical decision making.

This need is highlighted in the current paper which details colleagues in Ireland finding themselves caught between two sets of partially conflicting guidelines; those of the 2007 American Heart Association (AHA) and of the 2008 UK NICE. The dilemma is whether to prescribe antibiotics for prophylaxis (AHA) against infective endocarditis or not (NICE). Two issues arise: firstly what is best for the patient and secondly,

in the event of an incident of infective endocarditis arising what would be the legal position?

As far as the best treatment for the patient is concerned then wherever in the world it is taking place, consultation with other health professionals, such as cardiologists, has to be the most prudent route, armed with the relevant guidelines and their evidence, and the particular circumstances of the individual patient. From the legal point of view in the extremely unlikely event of a case being proven and thus of action being taken against a practitioner, the procedure would certainly include consideration of the extent to which the dentist had followed 'accepted' guidelines current in that legal jurisdiction.

All of which makes understandable the position of Irish dentists in attempting to decide what to do in such cases. Although definitive advice from the government is

being called for, and would clarify the legal position, the ultimate decision still rests with the individual practitioner. In Ireland as in the UK and elsewhere this can only be made on the basis of that clinician's skill and judgement. The paper intriguingly highlights an ethical, clinical and arguably moral dilemma thrown up by the conflict of 'evidence' and the need for qualitative reasoning as well as quantitative measure.

The full paper can be accessed from the *BDJ* website ([www.bdj.co.uk](http://www.bdj.co.uk)), under 'Research' in the table of contents for Volume 206 issue 6.

Stephen Hancocks,  
Editor-in-Chief

DOI: 10.1038/sj.bdj.2009.232

**TO ACCESS THE BDJ WEBSITE TO READ THE FULL PAPER:**

- BDA members should go to [www.bda.org](http://www.bda.org)
- Do not login on the BDA home page, if you are already logged in, please log out.
- Then, in [www.bda.org](http://www.bda.org) click on the link to the BDJ in the top left of the screen. A new window will open. If a new window fails to open please check the settings of any pop up blocker software that you have installed on your computer.
- You will now be asked to login with your BDA website login details which are on your BDA membership card.
- Once your details have been entered you will be transferred to the BDJ website. If your login does not work please contact the BDA Membership Department on 020 7563 4550.
- If you are not able to access the article on the BDJ website there may be an issue with your system's firewall. If so, return to the BDA homepage and click on the link 'BDJ access problems' and follow the step by step guide.

**IN BRIEF**

- Presents the attitudes of Irish dentists, cardiologists and patients to the 2008 NICE guideline on antibiotic prophylaxis against infective endocarditis.
- Highlights the uncertainty of patients regarding prophylactic antibiotics and the importance of patient re-education.
- Outlines the difficulties facing Irish dentists due to the lack of direction from a national body regarding antibiotic prophylaxis against infective endocarditis.

**COMMENT**

The new NICE guideline on antibiotic prophylaxis against infective endocarditis is a paradigm shift in clinical practice for both dentists and cardiologists. It is a complete reversal for patients previously advised to take antibiotic prophylaxis. A major activity within NICE is implementation of its guidelines and it was always anticipated that implementing such a radical change in clinical practice would cause discomfort among some practitioners, especially cardiologists, who see the devastating effects of infective endocarditis in their patients.

It is not surprising, therefore, that this paper demonstrates a lack of uniformity of approach among Irish dentists and cardiologists who have a choice of following either the NICE or the American Heart Association guidelines. The cardiac lesions which increase the risk of infective endocarditis are common to both guidelines and these are only diagnosable by cardiologists, who are well placed to educate patients in the future regarding the need for antibiotic prophylaxis.

Also, most practitioners are confident to follow advice in the BNF and now both the BNF and the BNFC recommend following the NICE guideline. This should improve compliance to the NICE guideline. Interestingly, in this survey 75% of cardiologists were already content for dentists to adopt the NICE guideline without further consultation with them.

The authors rightly highlight that there is no national statutory body

in Ireland to endorse these guidelines but it would be helpful if guidance from government was forthcoming. In the meantime, as the authors have also highlighted, dentists have a duty not to over-prescribe antibiotics when it may be to the disadvantage of the individual patient and will increase antimicrobial resistance. Dentists must independently assess each case and not merely follow the opinion expressed by the patient's medical practitioner or cardiologist.

This survey raises the issues relating to compliance with the new NICE guideline and is of interest to both Irish dentists and to those in the UK.

**D. Wray, Professor of Oral Medicine,  
Glasgow Dental School**

**AUTHOR QUESTIONS AND ANSWERS****1. Why did you undertake this research?**

We conducted this study due to the diversity in the recent antibiotic prophylaxis guidelines on both sides of the Atlantic, from the 2007 American Heart Association (AHA) guideline to the 2008 NICE guideline in the UK. We were acutely aware of the lack of consensus in Ireland and the uncertainty among dental practitioners regarding which guideline to adopt, due to the lack of a direction from a national statutory body. We felt it important to establish the opinion of those most affected by these guideline changes in Ireland, ie patients previously requiring antibiotic prophylaxis before dental treatment, dental practitioners and cardiologists.

**2. What would you like to do next in this area to follow on from this work?**

This study has highlighted the difficulty facing Irish dental practitioners regarding the prescription of prophylactic antibiotics against infective endocarditis. We will follow with interest the implementation of this NICE guideline in the UK and see if national guidance becomes available in Ireland in this area. A follow-up study could be conducted at the end of a five-year period to see if a more uniform approach to the subject of antibiotic prophylaxis against infective endocarditis exists in Ireland.