



Department of

**Health, Social Services
and Public Safety**

www.dhsspsni.gov.uk

AN ROINN

**Sláinte, Seirbhísí Sóisialta
agus Sábháilteachta Poiblí**

MÁNNYSTRIE O

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To: All on distribution list

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Date: 19 June 2008

Dear Colleague

ANTIBIOTIC PROPHYLAXIS AGAINST INFECTIVE ENDOCARDITIS

Prophylaxis against infective endocarditis (March 2008, No.64) is a clinical guideline issued by National Institute for Health and Clinical Excellence (NICE). It contains important recommendations regarding the use of antibiotic prophylaxis against infective endocarditis. As this guideline represents a major change in clinical practice, it requires wide dissemination in HSC organisations, primary care, educational establishments, and independent hospitals, clinics and hospices. In addition, it is important that members of the public have an opportunity to discuss the care and treatment of people at risk of infective endocarditis who are who are undergoing procedures in the HSC. The full guideline and additional information, including information for patients and carers, is available on www.nice.org.uk.

In summary, this guideline recommends that ***antibiotic prophylaxis solely to prevent infective endocarditis (IE) should not be given to people at risk of IE undergoing dental and non-dental procedures (see appendix 1 for all recommendations).***

This NICE guidance and recommendations are now effective in Northern Ireland.

The evidence to support this recommendation is:

- There is no consistent association between having an interventional procedure, dental or non-dental, and the development of IE;
- Regular tooth brushing almost certainly presents a greater risk of IE than a single dental procedure because of repetitive exposure to bacteraemia with oral flora;
- The clinical effectiveness of antibiotic prophylaxis is not proven;
- Antibiotic prophylaxis against IE for dental procedures may lead to a greater number of deaths through fatal anaphylaxis than a strategy of no antibiotic prophylaxis, and is not cost effective; and
- Patients should not be offered chlorhexidine mouthwash as prophylaxis against infective endocarditis as this has not been proven to be effective.



Infective endocarditis is a rare condition with significant morbidity and mortality. It may arise following bacteraemia in a patient with a predisposing cardiac lesion. In an attempt to prevent this disease, over the past 50 years, at-risk patients have been given antibiotic prophylaxis before dental and certain non-dental interventional procedures.

In the absence of a robust evidence base, antibiotic prophylaxis has been given empirically to patients with a wide range of cardiac conditions including a history of rheumatic fever. The efficacy of this regimen in humans has never been properly investigated and clinical practice has been dictated by clinical guidelines based on expert opinion.

Recent guidelines by the British Society for Antimicrobial Chemotherapy (Gould et al. 2006) and the American Heart Association (Wilson et al. 2007) have challenged existing dogma by highlighting the prevalence of bacteraemias that arise from everyday activities such as toothbrushing, the lack of association between episodes of IE and prior interventional procedures, and the lack of efficacy of antibiotic prophylaxis regimens.

Against this background, the Department of Health, in 2005, asked NICE to produce a short clinical guideline which would give clear guidance on best clinical practice for prophylaxis against IE in patients undergoing dental and certain non-dental interventional procedures.

The full guideline can be found at www.nice.org.uk. This new guidance is also contained in the current edition of the British National Formulary (BNF 55, March 2008).

A list of all recommendations is in the attached appendix 1.

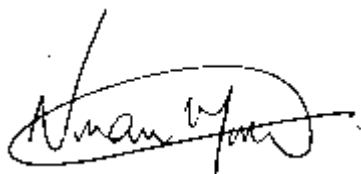
Yours sincerely



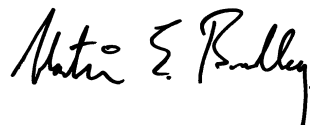
Donncha O'Carolan
Acting Chief Dental Officer



Dr Michael McBride
Chief Medical Officer



Dr Norman Morrow
Chief Pharmaceutical Officer



Martin Bradley
Chief Nursing Officer

Appendix 1

A list of all recommendations.

Adults and children with structural cardiac defects at risk of developing infective endocarditis

Healthcare professionals should regard people with the following cardiac conditions as being at risk of developing infective endocarditis:

- acquired valvular heart disease with stenosis or regurgitation
- valve replacement
- structural congenital heart disease, including surgically corrected or palliated structural conditions, but excluding isolated atrial septal defect, fully repaired ventricular septal defect or fully repaired patent ductus arteriosus, and closure devices that are judged to be endothelialised
- previous infective endocarditis
- hypertrophic cardiomyopathy

Patient advice

Healthcare professionals should offer people at risk of infective endocarditis clear and consistent information about prevention, including:

- the benefits and risks of antibiotic prophylaxis, and an explanation of why antibiotic prophylaxis is no longer routinely recommended
- the importance of maintaining good oral health
- symptoms that may indicate infective endocarditis and when to seek expert advice
- the risks of undergoing invasive procedures, including non-medical procedures such as body piercing or tattooing

Prophylaxis against infective endocarditis

Antibiotic prophylaxis against infective endocarditis is not recommended:

- for people undergoing dental procedures
- for people undergoing non-dental procedures at the following sites:
 - upper and lower gastrointestinal tract
 - genitourinary tract; this includes urological, gynaecological and obstetric procedures, and childbirth
 - upper and lower respiratory tract; this includes ear, nose and throat procedures and bronchoscopy

Chlorhexidine mouthwash should not be offered as prophylaxis against infective endocarditis to people at risk of infective endocarditis undergoing dental procedures.

Infection

Any episodes of infection in people at risk of infective endocarditis should be investigated and treated promptly to reduce the risk of endocarditis developing.

If a person at risk of infective endocarditis is receiving antimicrobial therapy because they are undergoing a gastrointestinal or genitourinary procedure at a site where there is a suspected infection, the person should receive an antibiotic that covers organisms that cause infective endocarditis.

Distribution List:

All dentists in hospital, community and general dental practice
GP practices for cascade to practice staff, including practice nurses and sessional doctors
Community pharmacists
Chief Executives of HSC Trusts and Boards for cascade to governance leads
Medical Directors in HSC Trusts for cascade to all consultants
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