NHS Education for Scotland

Scottish Dental Clinical Effectiveness Programme

Antibiotic Prophylaxis Against Infective Endocarditis - Advice for Cardiology and Cardiac Surgical Teams

Background

In 2016 the National Institute for Health and Care Excellence (NICE) amended Clinical Guideline 64 (CG64) *Prophylaxis against infective endocarditis*.[1] Recommendation 1.1.3 now states:

'Antibiotic prophylaxis against infective endocarditis is not recommended routinely for people undergoing dental procedures'.

The Scottish Dental Clinical Effectiveness Programme (SDCEP) has developed advice to help facilitate the implementation of this recommendation. This advice is not intended to replace CG64, but aims to help dental practitioners identify and manage the very small number of individuals who may require antibiotic prophylaxis prior to invasive dental treatment. The implementation advice also refers to guidelines from the American Heart Association (AHA) and the European Society of Cardiology (ESC).[2,3]

Advice relevant to cardiology and cardiac surgical teams

NICE recommends that healthcare professionals should regard people with the following cardiac conditions as being at increased risk of developing infective endocarditis:[1]

- acquired valvular heart disease with stenosis or regurgitation;
- hypertrophic cardiomyopathy;
- previous infective endocarditis;
- 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;
- valve replacement.

While the vast majority of patients at increased risk of infective endocarditis will receive their dental treatment without antibiotic prophylaxis (routine management), the following sub-group of patients may require special consideration for non-routine management.[2,3]

- patients with any prosthetic valve, including a transcatheter valve, or those in whom any prosthetic material was used for cardiac valve repair;
- patients with a previous episode of infective endocarditis;
- patients with congenital heart disease (CHD):
    - any type of cyanotic CHD;
    - any type of CHD repaired with a prosthetic material, whether placed surgically or by percutaneous techniques, up to 6 months after the procedure or lifelong if residual shunt or valvular regurgitation remains.

The SDCEP Implementation Advice recommends that for these special consideration patients, dentists should contact the cardiology or cardiac surgery team to confirm the nature of the patient's cardiac condition and to ask for your opinion as to whether the patient should be considered for antibiotic prophylaxis for invasive dental procedures. Be aware that some increased risk patients who do not fall

into the special consideration subgroup may also request antibiotic prophylaxis and their dentist may contact you for advice.

To support the implementation of CG64, it would be helpful for cardiology and cardiac surgery teams to be aware of the SDCEP advice and to discuss the issue of antibiotic prophylaxis against infective endocarditis with their patients. The NICE guideline still stands and antibiotic prophylaxis is not routinely recommended, even in patients who may require special consideration, as mentioned previously. However, the decision to recommend antibiotic prophylaxis should be made between the patient and their cardiologist/cardiac surgeon.

For all patients at increased risk of infective endocarditis:

- Discuss the risk of infective endocarditis with the patient while they are in your direct care to decide together whether antibiotic prophylaxis prior to invasive dental treatments is right for them.
  - Highlight the importance of maintaining good oral health, the symptoms that may indicate infective endocarditis and when patients should seek expert advice.
- Advise the patient to tell their dentist about their heart condition and any discussion that they have had with you.
  - It may be helpful to include this information, including your joint decision about antibiotic prophylaxis, in a written form, either as a letter or an alert card (see below for examples, templates are available to download from www.sdcep.org.uk). This may be sufficient to allow the patient's dentist to carry out dental treatment without needing to contact you for advice.

A leaflet which provides dental advice for patients at increased risk of infective endocarditis is available at www.sdcep.org.uk. The implementation advice for dental practitioners is also available to view here.

Please let your dentist see this card

Dental Treatment for Patients with Cardiac Conditions

We recommend antibiotic prophylaxis for invasive dental procedures for the following patient

Name .....

Cardiac Condition .....

Add logo here

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NICE Clinical Guideline 64 states:

'*Antibiotic prophylaxis is not recommended routinely for people undergoing dental procedures*'

For more details, see the SDCEP Implementation Advice, www.sdcep.org.uk.

For further advice, contact:

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Please let your dentist see this card

Dental Treatment for Patients with Cardiac Conditions

Antibiotic prophylaxis for invasive dental procedures is not required for the following patient

Name .....

Cardiac Condition .....

Add logo here

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NICE Clinical Guideline 64 states:

'*Antibiotic prophylaxis is not recommended routinely for people undergoing dental procedures*'

For more details, see the SDCEP Implementation Advice, www.sdcep.org.uk.

For further advice, contact:

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[1]*NICE Guideline 64. Prophylaxis against infective endocarditis: Antimicrobial prophylaxis against infective endocarditis in adults and children undergoing interventional procedures.* National Institute for Health and Care Excellence; 2008. Updated 2015. Amended 2016.
[2]Wilson W, Taubert KA, Gewitz M, et al. Prevention of infective endocarditis: guidelines from the American Heart Association. *Circulation*. 2007;116(15):1736-1754.
[3]Habib G, Lancellotti P, Antunes MJ, et al. 2015 ESC Guidelines for the management of infective endocarditis: The Task Force for the Management of Infective Endocarditis of the European Society of Cardiology (ESC). *European Heart Journal*. 2015;36(44):3075-3128.