

Infective Endocarditis Prophylaxis (Adults) - Full Clinical Guideline

Reference no.:CG-ANTI/2023/018

1. Introduction

Antibiotic prophylaxis for Infective endocarditis (IE) is **not routinely** recommended for patients undergoing routine dental procedures, procedures of the upper or lower gastrointestinal tract, genitourinary tract (including urological, gynaecological, and obstetric procedures, and childbirth), or upper or lower respiratory tract (including ear, nose and throat procedures and bronchoscopy) (NICE 2008, updated 2016). However, prophylaxis may be offered to high risk patient groups undergoing high risk procedures (ESC 2015).

2. Definitions, Keywords

Infective endocarditis: rare condition involving infection of the endocardium lining of the heart, including the heart valves.

3. Categorising high-risk patient groups and procedures

High risk patients undergoing high risk procedures should be offered prophylaxis (note: this is following ESC guidelines 2015 rather than NICE).

High risk patients	High risk procedures
<ul style="list-style-type: none"> • Patients with a previous history of infective endocarditis • Patients with any form of prosthetic heart valve (including transcatheter valve) • Those in whom prosthetic material was used for cardiac valve repair • Patients with any type of cyanotic congenital heart disease • Patients with any type of congenital heart disease repaired with prosthetic material, whether placed surgically or by percutaneous techniques, for the first 6 months after the procedure or lifelong if a residual shunt or valvular regurgitation remains 	<ul style="list-style-type: none"> • Manipulation of gingival tissue • Manipulation of the periapical region of the teeth • Perforation of the oral mucosa

4. Antibiotic prophylaxis for dental procedures in high-risk patients

The antibiotic prophylaxis recommendations for dental procedures in high-risk patients undergoing high risk procedures is as follows;

Doses for adults only - should be administered 30-60 mins prior to procedure:

First line prophylaxis	Penicillin allergy
Oral: Amoxicillin 3g sachet single dose If I.V. treatment is necessary: Amoxicillin 2g single dose	Oral: Clindamycin 600mg single dose If I.V. treatment is necessary: Clindamycin 600mg IV single dose
Pre-operative chlorhexidine 0.2% mouthwash should NOT be offered (NICE 2016)	

5. Antibiotic prophylaxis for non-dental procedures in high-risk patients

Antibiotic prophylaxis is not recommended for non-dental procedures. Antibiotic therapy is only needed when invasive procedures are performed in the context of infections.

Site	Procedure	In patients at high risk of endocarditis
Respiratory tract	Invasive procedure to treat an established infection such as draining of abscess	Ensure the antibiotic regime includes an agent that is active against <i>Staphylococci</i>
Gastrointestinal (GI) or genitourinary (GU) procedures	Established infection or prophylactic antibiotics being given to prevent wound infection or sepsis associated with a GI or GU procedure	Ensure the antibiotic regime includes an agent that is active against <i>Enterococci</i>
Dermatological or musculoskeletal (MSK) procedures	Surgical procedure involving infected skin (including oral abscesses) or musculoskeletal tissue	Ensure the antibiotic regime includes an agent that is active against <i>Staphylococci</i> and <i>Beta-haemolytic Streptococci</i>
Cardiac or vascular interventions e.g. implantation of prosthetic valve, prosthetic graft or pacemaker.	<ul style="list-style-type: none"> Prophylaxis should be started immediately before the procedure Repeat dose if procedure is prolonged Stop 48 hours after procedure Strongly recommended that potential sources of dental sepsis are eliminated 2 weeks before the implantation of a prosthetic valve or other foreign material unless the procedure is urgent 	

6. Non-pharmacological prophylaxis advice

Advise patients at risk of endocarditis of the symptoms to look out for which may indicate infective endocarditis and when to seek expert advice.

Advise patients at risk of endocarditis of the risks of undergoing invasive procedures, including non-medical procedures such as body piercing or tattooing.

Advise patients at risk of endocarditis to maintain good oral hygiene.

Investigate and treat promptly any episodes of infection in people at risk of infective endocarditis to reduce the risk of endocarditis developing. Ensure blood cultures are taken before antibiotics are started.

Advise patients of the benefits and risks of antibiotic prophylaxis and an explanation of why antibiotic prophylaxis is no longer **routinely** recommended, i.e. prophylaxis may expose patients to the adverse effects of antimicrobials when there is not conclusive evidence of benefit.

7. References

1. NICE clinical guideline CG64 Prophylaxis against infective endocarditis: antimicrobial prophylaxis against infective endocarditis in adults and children undergoing interventional procedures. March 2008; updated July 2016
2. Antibacterials, use for prophylaxis: Prevention of endocarditis. British National Formulary (BNF) [online] London: BMJ Group and Pharmaceutical Press. Available from: <https://www.medicinescomplete.com/mc/bnf/current/PHP78210-antibacterials-use-for-prophylaxis.htm> [accessed 20/4/2020]
3. 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). Endorsed by: European Association for Cardio-Thoracic Surgery (EACTS), the European Association of Nuclear Medicine (EANM). Eur Heart J. 2015 Nov 21;36(44):3075-128. doi: 10.1093/eurheartj/ehv319.

8. Documentation Controls

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Training and Dissemination: Disseminate amongst cardiology team				
Development of Guideline: Aiysha UI-Haq, Kayleigh Lehal, Surojit Bose, Osama Ahmed Job Title: Specialist Antimicrobial Pharmacist, Lead antimicrobial pharmacist, Consultant cardiologist, Consultant microbiologist				
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