

## **Quick reference guide**

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# **Prophylaxis against infective endocarditis**

Antimicrobial prophylaxis against infective  
endocarditis in adults and children undergoing  
interventional procedures

## About this booklet

This is a quick reference guide that summarises the recommendations NICE has made to the NHS in 'Prophylaxis against infective endocarditis: antimicrobial prophylaxis against infective endocarditis in adults and children undergoing interventional procedures' (NICE clinical guideline 64).

### Who should read this booklet?

This quick reference guide is for healthcare professionals in primary medical and dental care, secondary care and community settings who have direct contact with patients, and other staff who care for people who have or are at risk of developing infective endocarditis.

### Who wrote the guideline?

The guideline was developed by the Centre for Clinical Practice at NICE, following the short guideline process. The Centre worked with a group of healthcare professionals (including consultants, GPs and nurses), patients and carers, and technical staff, who reviewed the evidence and drafted the recommendations. The recommendations were finalised after public consultation.

For more information on how NICE clinical guidelines are developed, go to [www.nice.org.uk](http://www.nice.org.uk)

### Where can I get more information about the guideline?

The NICE website has the recommendations in full, reviews of the evidence they are based on, a summary of the guideline for patients and carers, and tools to support implementation.

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## Introduction

Infective endocarditis is an infection of the lining of the heart, particularly affecting the heart valves, caused mainly by bacteria but occasionally by other infectious agents. It is a rare condition, but people with certain structural cardiac conditions are at risk. Despite advances in diagnosis and treatment, infective endocarditis remains a life-threatening disease with significant mortality (about 20%) and morbidity.

### How this guidance changes practice

Antibiotics have been offered routinely as a preventative measure to people at risk of infective endocarditis undergoing interventional procedures. However, there is little evidence to support this practice. Antibiotic prophylaxis has not been proven to be effective and there is no clear association between episodes of infective endocarditis and interventional procedures. Any benefits from prophylaxis need to be weighed against the risks of adverse effects for the patient and of antibiotic resistance developing. As a result, this guideline recommends that antibiotic prophylaxis is no longer offered routinely for defined interventional procedures.

For a discussion of the evidence, see the full guideline at [www.nice.org.uk/CG064](http://www.nice.org.uk/CG064)

## Summary of recommendations

### Adults and children with structural cardiac conditions

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
- hypertrophic cardiomyopathy
- previous infective endocarditis.

### Advice

**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.

### When to offer prophylaxis

- **Do not offer** antibiotic prophylaxis against infective endocarditis:
  - to people undergoing dental procedures
  - to people undergoing non-dental procedures at the following sites<sup>1</sup>:
    - ◆ 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.
- **Do not offer** chlorhexidine mouthwash as prophylaxis against infective endocarditis to people at risk undergoing dental procedures.

### Managing infection

- **Investigate and treat promptly** any episodes of infection in people at risk of infective endocarditis to reduce the risk of endocarditis developing.
- **Offer** an antibiotic that covers organisms that cause infective endocarditis 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.

<sup>1</sup> The evidence reviews for this guideline covered only procedures at the sites listed here. Procedures at other sites are outside the scope of the guideline.

### Patient-centred care

Treatment and care should take into account patients' individual needs and preferences. Good communication is essential, supported by evidence-based information, to allow patients to reach informed decisions about their care. Follow Department of Health advice on seeking consent if needed. If the patient agrees, families and carers should have the opportunity to be involved in decisions about treatment and care. If caring for young people in transition between paediatric and adult services refer to 'Transition: getting it right for young people' (available from [www.dh.gov.uk](http://www.dh.gov.uk)).

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NICE clinical guidelines are recommendations about the treatment and care of people with specific diseases and conditions in the NHS in England and Wales.

This guidance represents the view of the Institute, which was arrived at after careful consideration of the evidence available. Healthcare professionals are expected to take it fully into account when exercising their clinical judgement. The guidance does not, however, override the individual responsibility of healthcare professionals to make decisions appropriate to the circumstances of the individual patient, in consultation with the patient and/or guardian or carer, and informed by the summary of product characteristics of any drugs they are considering.

## Implementation tools

NICE has developed tools to help organisations implement this guidance. These are available on our website ([www.nice.org.uk/CG064](http://www.nice.org.uk/CG064)).

## Further information

### Ordering information

You can download the following documents from [www.nice.org.uk/CG064](http://www.nice.org.uk/CG064)

- A quick reference guide (this document) – a summary of the recommendations for healthcare professionals.
- ‘Understanding NICE guidance’ – information for patients and carers.
- The full guideline – all the recommendations, details of how they were developed, and reviews of the evidence they were based on.

For printed copies of the quick reference guide or ‘Understanding NICE guidance’, phone NICE publications on 0845 003 7783 or email [publications@nice.org.uk](mailto:publications@nice.org.uk) and quote:

- N1487 (quick reference guide)
- N1488 (‘Understanding NICE guidance’).

### Updating the guideline

This guideline will be updated as needed, and information about the progress of any update will be posted on the NICE website ([www.nice.org.uk/CG064](http://www.nice.org.uk/CG064)).