GLOUCESTERSHIRE LMC DOCUMENT SUMMARY

Document Title: **Prophylaxis against infective endocarditis:** Antimicrobial prophylaxis against infective endocarditis in adults and children undergoing interventional procedures	
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Bottom Line: **Major change of current practice**, which has been going for 50 years. They now recommend that '**at-risk patients undergoing interventional procedures should no longer be given antibiotic prophylaxis against infective endocarditis**. In particular, the Guideline Development Group were convinced by the evidence suggesting that current antibiotic prophylaxis regimens might result in a net loss of life. It should be emphasised that **antibiotic therapy is still thought necessary to treat active or potential infections**.'	

Infective endocarditis (IE) is a potentially life-threatening condition, but rare. It can be triggered by interventional procedures – frequently dentistry but body piercings and tattooings can also trigger it. The logical and clinical basis for use of antibiotics before an interventional procedure has now been questioned. The main problem is that there is little hard evidence. NICE now recommends that **antibiotic prophylaxis solely to prevent IE should not be given to people at risk of IE undergoing dental and non-dental procedures**. The basis 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 toothbrushing 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.

SPECIFIC RECOMMENDATIONS

Recommendation number 1.1.1 Some heart conditions give increased risk of developing IE:

- 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 IE.
- Hypertrophic cardiomyopathy.

Recommendation number 1.1.2 Healthcare professionals should offer people at risk of IE 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 IE and when to seek expert advice.
- The risks of undergoing invasive procedures, including non-medical procedures such as body piercing or tattooing.

Recommendation number 1.1.3. Antibiotic prophylaxis against IE is not recommended:

- For people undergoing dental procedures.
- For people undergoing non-dental procedures at the following sites1:
    - 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.

Recommendation number 1.1.4 Chlorhexidine mouthwash should not be offered as prophylaxis against IE to people at risk of IE undergoing dental procedures.

Recommendation number 1.1.5 Any episodes of infection in people at risk of IE should be investigated and treated promptly to reduce the risk of endocarditis developing.

Recommendation number 1.1.6 If a person at risk of IE 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 IE.