

Galway: GAPP - Galway Antimicrobial Prescribing Policy / Guidelines (GAPP): Cardiovascular

Bacterial Endocarditis

Bacterial Endocarditis

1. The following is intended primarily to provide **initial short-term guidance** on empiric therapy of seriously ill patients and those with prosthetic valves.
2. **Immediate consultation** on the next day with **Microbiology or Infectious Diseases** is recommended in **all cases** of suspected endocarditis.
3. In those with **sub-acute** presentation of suspected endocarditis, with a native valve and who are clinically stable at presentation it is often preferable to send blood cultures (as below) and to **withhold antibiotics pending consultation** and culture results.
4. In all but the most profoundly ill patients **take 3 sets of blood cultures** (10ml into each of two bottles for each set) **BEFORE** any antibiotics are given. If the patient is seriously ill the interval between cultures can be as short as 20 or 30 minutes.

Empiric Antibiotics for Bacterial Endocarditis			
Infection	1 st Line Antibiotics	Penicillin allergy: immediate or severe delayed reaction See penicillin hypersensitivity section for further information	Comment
Bacterial Endocarditis	Native Valve or Prosthetic valve Vancomycin IV infusion, dose per GAPP App calculator. See footnote* + Gentamicin IV 1mg/kg (maximum 80mg) every 12 hours. See footnote* + CefTRIAxone IV 2g every 24 hours	Native Valve or Prosthetic valve Vancomycin IV infusion, dose per GAPP App calculator. See footnote* + Gentamicin IV 1mg/kg (maximum 80mg) every 12 hours. See footnote* + Ciprofloxacin PO 500mg every 12 hours (IV 400mg every 12 hours if NPO)	Once culture and sensitivity results are available direct antibiotic therapy accordingly in discussion with Microbiology or Infectious Diseases. Duration as advised by Microbiology or Infectious Diseases.
* For advice on monitoring see Gentamicin & Vancomycin Dosing & Monitoring section.			

Refs:

1. Gould et al. BSAC Guidelines for the diagnosis and antibiotic treatment of endocarditis in adults. [Journal of Antimicrobial Chemotherapy](#) 2012;67:269-289
2. Baddour et al. AHA Infective Endocarditis: Diagnosis, Antimicrobial Therapy, and Management of Complications. [Circulation](#) 2015;132:1435-1486
3. Delgado et al. ESC Guidelines for the management of endocarditis: Developed by the task force on the management of endocarditis of the European Society of Cardiology (ESC) Endorsed by the European Association for Cardio-Thoracic Surgery (EACTS) and the European Association of Nuclear Medicine (EANM). *European Heart Journal* , 2023 ; 44: 3948–4042

Prophylaxis of Infective Endocarditis

Prophylaxis of Infective Endocarditis

1. The **routine use** of antibiotics in most situations is **NOT** justified on the balance of risk and benefit.
2. Consult with Microbiology or Infectious Diseases recommended if infection at procedure site.
3. **Only patients identified with the following cardiac conditions** undergoing one of the following **high risk procedures** should be considered for prophylaxis for infective endocarditis (IE):

1. Prosthetic cardiac valves	
2. Prosthetic cardiac material	
3. Unrepaired congenital cardiac defects	
4. Repaired congenital cardiac defects	
5. Cardiac transplant with prosthetic valve	
6. Cardiac transplant with prosthetic material	
7. Cardiac transplant with prosthetic material and prosthetic valve	
8. Cardiac transplant with prosthetic material and prosthetic valve and prosthetic material	
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20. Cardiac transplant with prosthetic material and prosthetic valve and prosthetic material and prosthetic valve and prosthetic material and prosthetic valve and prosthetic material and prosthetic valve and prosthetic material and prosthetic valve and prosthetic material and prosthetic valve and prosthetic material and prosthetic valve and prosthetic material	

Refs:

Walter et al. *Prevention of Viridans Group Streptococcal Infective Endocarditis. A Scientific Statement from the American Heart Association. Circulation.* 2021;143:e963–e978

Delgado et al. ESC Guidelines for the management of endocarditis: Developed by the task force on the management of endocarditis of the European Society of Cardiology (ESC) *Endorsed by the European Association for Cardio-Thoracic Surgery (EACTS) and the European Association of Nuclear Medicine (EANM).* *European Heart Journal* , 2023 ; 44: 3948–4042.