Patients at highest risk for complications

- Prosthetic cardiac valves
- Transcatheter valves
- Prosthetic material used for valve repair
- Previous infective endocarditis
- Transplant recipients with valvulopathy
- Congenital heart disease AND:
- Unrepaired cyanotic lesions
- Cyanotic lesions with palliative shunts or conduits
- Repair ≤6 months ago with prosthetic material
- Repaired lesions with residual defects

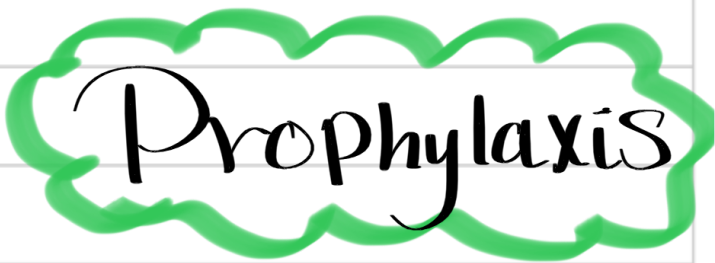
Who does NOT require prophylaxis?

- Mitral valve prolapse with:
- Regurgitation
- Thickened leaflets
- Acquired valvular heart disease
- Prior rheumatic fever
- Hypertrophic cardiomyopathy
- Uncorrected, non-high risk congenital defects
- Bicuspid aortic valve
- Patent ductus arteriosus
- VSD
- Primum ASD
- Aortic coarctation

Which procedures require prophylaxis?

- Dental procedures
- Manipulation of gingival tissue or root of teeth
- Perforation of oral mucosa
- Cleaning, extraction, root canal
- Incision into active skin/soft tissue infection
- Incision or biopsy in respiratory tract
- Tonsillectomy/adenoidectomy
- Bronchoscopy with biopsy

Prophylactic drugs :
Clindamycin or ampicillin or amoxicillin
Before 30 min of the procedure



✅ Modified Duke Criteria

Used to categorize infective endocarditis into:

🔷 Definite IE:
- By pathology:
- Microorganisms found on excised valve, vegetation, or abscess
- Histology showing active endocarditis
- By clinical criteria:
- 2 major
- 1 major + 3 minor
- 5 minor

🔷 Possible IE:
- 1 major + 1 minor, or
- 3 minor criteria

🔷 Rejected IE:
- Alternative diagnosis fully explains the symptoms
- No pathological evidence of IE and <4 days of antibiotics
- Resolution of symptoms with <4 days of antibiotics

🩺 Major Clinical Criteria

1. Positive blood cultures:
- Typical organisms (e.g., Strep viridans, Staph aureus)
- Multiple positive cultures OR
- Single positive culture for Coxiella burnetii
2. Evidence of endocardial involvement:
- Echocardiogram findings:
- Vegetation
- Abscess
- Prosthetic valve dehiscence
- New valvular regurgitation

🧪 Minor Clinical Criteria

1. Predisposing condition: e.g., IV drug use, structural heart disease
2. Fever ≥38°C
3. Vascular phenomena:
   - Janeway lesions
   - Embolic infarcts
   - Splinter hemorrhages
   - Conjunctival hemorrhage
   - Mycotic aneurysm
4. Immunological phenomena:
   - Osler's nodes
   - Roth spots
   - Glomerulonephritis
   - Rheumatoid factor
5. Microbiological evidence that does not meet major criteria

🧠 Quick Mnemonic for Minor Criteria: "FIVE PM"

- Fever
- Immunologic signs
- Vascular signs
- Evidence of risk (IV drug use, heart disease)
- Positive cultures (not enough for major)
- Minor!

1 if the Pt. has Pacemaker and there's suspession of IE → Remove the pacemaker

2 if pt. has IE that lead to Stroke and the pt. is on warfarin → Stop warfarin to avoid bleeding.

Device infections: management

1. Suspect device infection
   - Fever, WBCs up, ESR up
   - Erythema, swelling and erosion at generator site
2. Hx, physical exam, device interrogation
3. Blood cultures followed by antibiotics

Complete removal of the device

Device infections: management

1. Suspect device infection
   - Fever, WBCs up, ESR up
   - Erythema, swelling and erosion at generator site
2. Hx, physical exam, device interrogation
3. Blood cultures followed by antibiotics

Complete removal of the device

Device infections: management

When might the device remain?

1. Superficial infection at incision site
2. No pocket involvement
3. Bacteremia alone with ALL of the following:
   - Clinical stability, established alternative source
   - TEE negative for lead involvement
   - No involvement of pocket or recent manipulation
   - No valvular involvement or endocarditis
   - Resolution of bacteremia with antibiotics

Device infections: management

When can the device be re-implanted?

1. Does the patient need a new device
2. Select new site, preferably contralateral
3. Wait for negative blood cultures
   - 72 hours after device removal
   - 14 days if valves involved

لين الحمايده