CARDIOVASCULAR SYSTEM

Infective Endocarditis

Empirical therapy

NATIVE VALVE IE

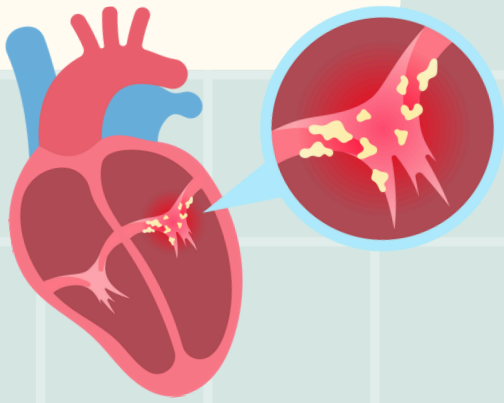
Staph aureus, Viridans strep, Coagulase -ve staph, Enterococci, Strep bovis, HACEK gram -ve bacilli

- **IV benzylpenicillin + flucloxacillin + gentamicin**
- **MRSA endocarditis: IV vancomycin + flucloxacillin + gentamicin**
- **Penicillin allergy: IV vancomycin + cefazolin + gentamicin**

PROSTHETIC VALVE & CIEDS-ASSOCIATED IE

Staph aureus, Coagulase -ve staph, Corynebacterium sp., Strep, Enterococci, Enterobacteriaceae, Pseudomonas

- **IV vancomycin + flucloxacillin + gentamicin**
- **Penicillin allergy: IV vancomycin + cefazolin + gentamicin**



CIEDS: cardiac implantable electronic devices

CARDIOVASCULAR SYSTEM

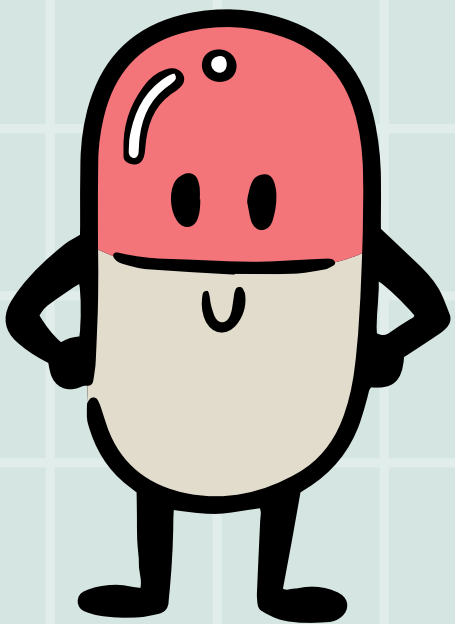
Acute Rheumatic Fever

Antibiotic treatment against **STREP. PYOGENES**

IM benzathine benzylpenicillin OR oral phenoxymethylpenicillin

Penicillin allergy

- **Delayed non-severe: oral cefalexin**
- **Immediate (non-severe/severe) or delayed severe: oral azithromycin**



To treat **residual infection** and eliminate carriage

Also used for **2° prophylaxis** to prevent recurrence of ARF

RESPIRATORY SYSTEM

Pneumonia

Empirical therapy

LOW SEVERITY CAP

- **Oral amoxicillin**
- **Atypical pathogens suspected:**
  oral doxycycline/clarithromycin
- **Penicillin allergy:**
  oral doxycycline/clarithromycin

MODERATE SEVERITY CAP

- **IV benzylpenicillin +**
  oral doxycycline/clarithromycin
- **Non-severe penicillin allergy:**
  IV ceftriaxone/cefotaxime +
  oral doxycycline/clarithromycin
- **Severe penicillin allergy: oral moxifloxacin**

HIGH SEVERITY CAP

- **IV ceftriaxone/cefotaxime**
  + IV azithromycin
- **Severe penicillin allergy: IV moxifloxacin**

Tuberculosis

ANTI-TB REGIMEN

R Rifampicin

I Isoniazid

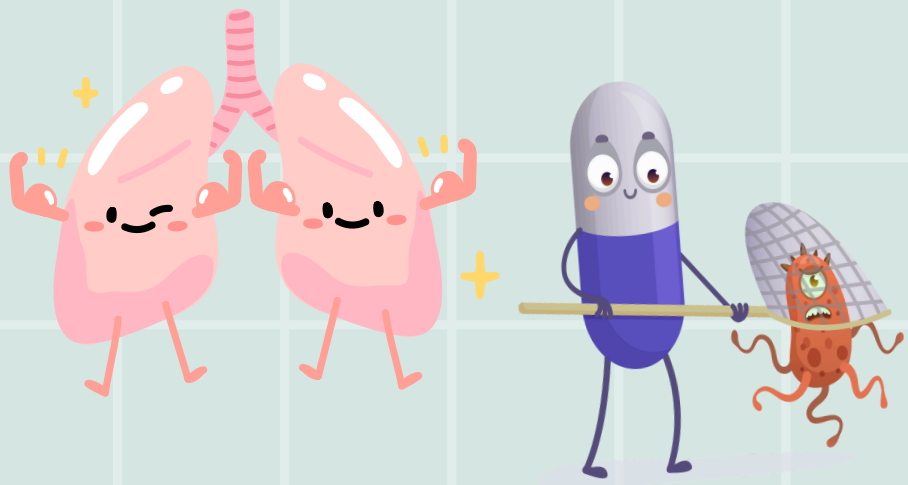
P Pyrazinamide

E Ethambutol

} 2 months

+

4 months of rifampicin and isoniazid



GASTROINTESTINAL SYSTEM

Peptic Ulcer Disease

H. PYLORI ERADICATION THERAPY

1st line Triple therapy

- **Oral PPI + amoxicillin + clarithromycin**
- **Penicillin allergy: oral PPI + metronidazole + clarithromycin**

2nd line Quadruple therapy

- **Oral PPI + bismuth + tetracycline + metronidazole**

Oral PPI e.g. esomeprazole, omeprazole, pantoprazole

Acute Appendicitis

Empirical therapy

Enterobacteriaceae, Enterococci, Bacteroides

IV gentamicin + metronidazole + amoxicillin/ampicillin

Non-severe penicillin allergy: IV ceftriaxone/cefotaxime + metronidazole

Severe penicillin allergy: IV gentamicin + clindamycin/lincomycin

GASTROINTESTINAL SYSTEM

Acute Cholangitis

Empirical therapy

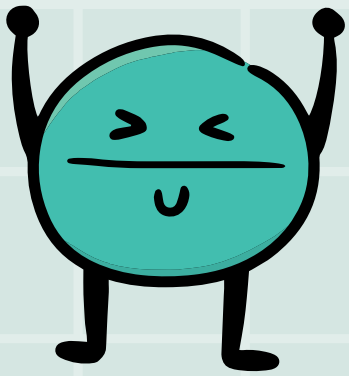
Gram -ve, anaerobes (more likely in chronic biliary obstruction)

IV gentamicin + amoxicillin/ampicillin

For patients with chronic biliary obstruction: add IV metronidazole

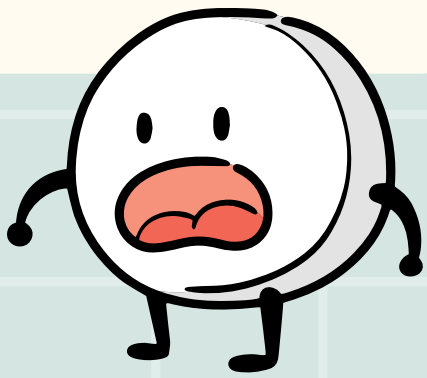
Non-severe penicillin allergy: IV ceftriaxone/cefotaxime

Severe penicillin allergy: IV gentamicin



Diverticulitis

Empirical therapy



UNCOMPLICATED

Oral amoxicillin-clavulanate

Penicillin allergy: oral trimethoprim-sulfamethoxazole + metronidazole

COMPLICATED

IV gentamicin + metronidazole + amoxicillin/ampicillin

Penicillin allergy: similar as acute appendicitis

GENITOURINARY SYSTEM

Urinary Tract Infection

Empirical therapy

E. coli, Staph saprophyticus, Klebsiella, Proteus, Pseudomonas

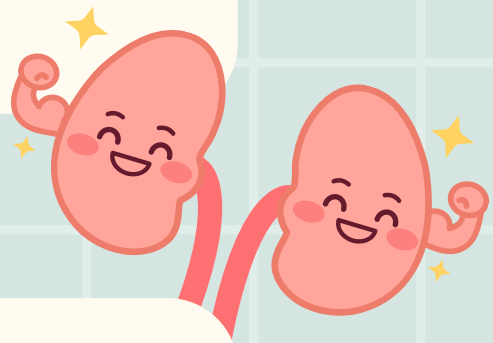
ACUTE CYSTITIS (UNCOMPLICATED)

Oral trimethoprim / nitrofurantoin / cefalexin

PYELONEPHRITIS (NON-SEVERE)

Oral amoxicillin-clavulanate

Penicillin allergy: oral ciprofloxacin



PYELONEPHRITIS (SEVERE)

IV gentamicin + amoxicillin/ampicillin

Penicillin allergy: IV gentamicin

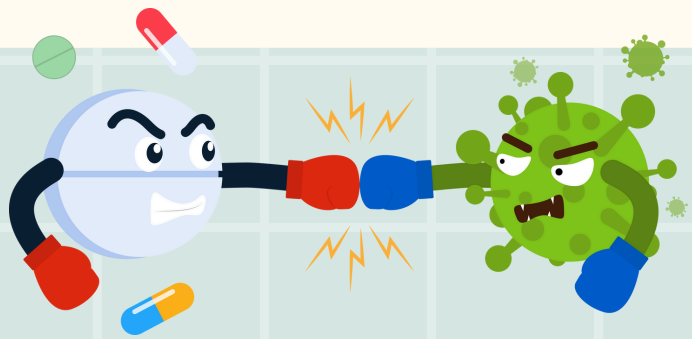
NEUROLOGICAL SYSTEM

Meningitis

Empirical therapy

Strep pneumoniae, Neisseria meningitidis, Haemophilus influenzae

IV ceftriaxone/cefotaxime + dexamethasone



DERMATOLOGICAL SYSTEM

Cellulitis

Empirical therapy

MILD	MODERATE	SEVERE
Staph aureus, Strep pyogenes	*Staph aureus, Strep pyogenes*	*Staph aureus, Strep pyogenes*
Oral cefalexin	**IV cloxacillin**	**IV ampicillin-sulbactam ± clindamycin**

MUSCULOSKELETAL SYSTEM

Osteomyelitis

Empirical therapy

Staph aureus

IV flucloxacillin

Non-severe penicillin allergy: IV cefazolin
Severe penicillin allergy: IV vancomycin
MRSA infection: IV vancomycin

Septic Arthritis

Empirical therapy

Empirical therapy should be directed by the result of the gram stain of joint aspirate

Suspected
STAPHYLOCOCCAL
septic arthritis

IV flucloxacillin

Non-severe penicillin allergy: IV cefazolin
Severe penicillin allergy: IV vancomycin
MRSA infection: IV vancomycin

Suspected
STREPTOCOCCAL / GRAM NEGATIVE
septic arthritis

IV ceftriaxone / cefotaxime

References

1. eTG - CVS, Respi, GIT, GUT, Neuro, MSK

2. Malaysia National Antimicrobial Guidelines 2019 - Derm

Disclaimer

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we hope this helps!