

Pediatric Empyema Treatment Algorithm

GENERAL MANAGEMENT INFORMATION

Daily CXR: per discretion of primary team. Routine CXR is not recommended after pigtail placement if patient remains stable.

Pleural fluid: Send for gram stain, culture (aerobic/anaerobic) and WBC at initial intervention.

Endotracheal aspirate: Send culture (aerobic/anaerobic) if intubated.

Inflammatory markers: WBC, CRP, procalcitonin.

Clinician resources for pigtail questions or troubleshooting pediatric empyema patients: Ped Surg, PICU APPs/Physicians.

ANTIBIOTIC MANAGEMENT FOR EMPYEMA

Empiric IV antibiotics for empyema:

- Ceftriaxone + Clindamycin
- Ceftriaxone + Vancomycin if hemodynamically unstable or Clindamycin allergy
- PCN anaphylaxis: Levofloxacin + Clindamycin

Clindamycin: discontinue if cultures are negative for S.aureus after 48hrs

IV antibiotic dosing:

- Ceftriaxone: 75mg/kg/dose daily (max 2g/d)
- Clindamycin: 10mg/kg/dose q6-8hrs (max 600mg/dose & 2.7g/d)
- Levofloxacin: 5yrs 10mg/kg/dose daily (max 750mg/d)
- Vancomycin: 15mg/kg/dose q6-8hrs, >14yrs q8hrs (max 2g/dose) Trough 30min prior to 4th dose, goal 10-15

Oral antibiotics:



Tailored to pleural fluid cultures.

- Staphylococcus aureus: Clindamycin (if susceptible)
- Group A streptococcus: Amoxicillin (high dose)
- Streptococcus pneumoniae: Amoxicillin (high dose)
- No growth: Amoxicillin (high dose)
- Any other organism except above: contact Peds ID

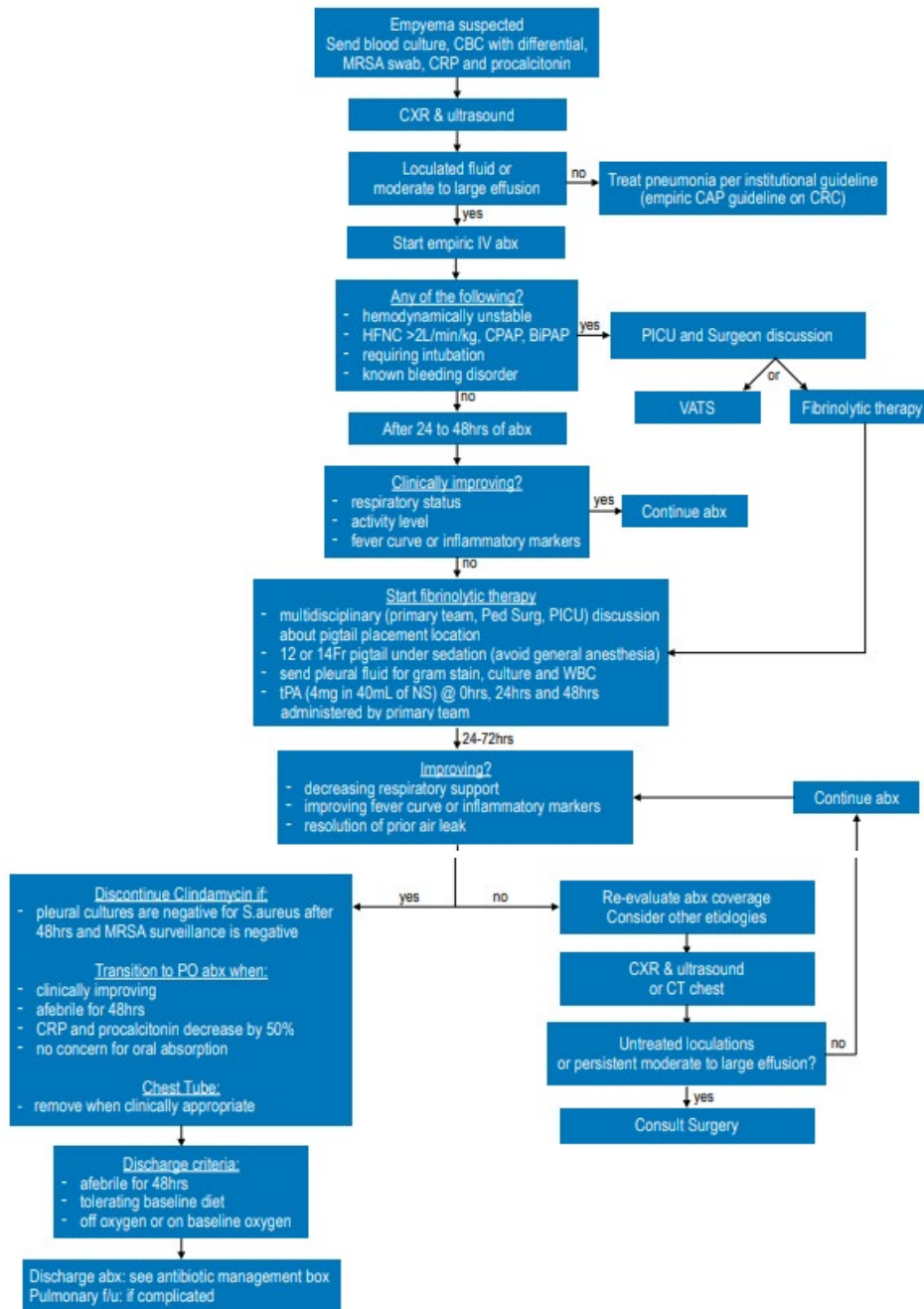
Duration of antibiotics:

Total duration depends on adequacy of drainage and hospital course with a minimum of 7 days from last fever

PO antibiotic dosing:

- Clindamycin: 10mg/kg/dose PO TID (max 1800mg/day)
- Amoxicillin (high dose): 30mg/kg/dose PO TID (max 500mg/dose)

Other Resources:



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