

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 8-10mg/kg/dose BID, >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

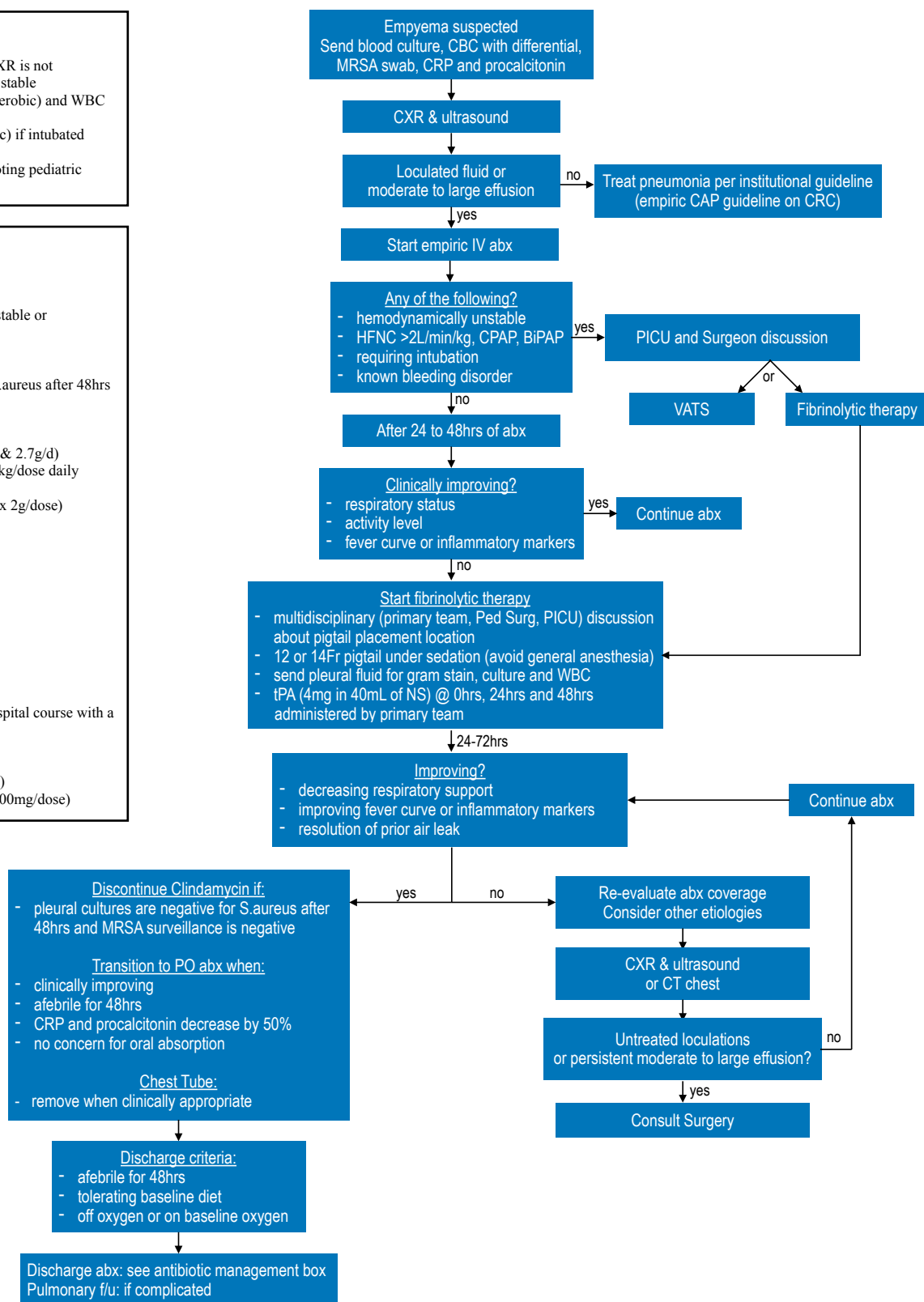
Tailored to pleural fluid cultures
 Staphylococcus aureus: Clindamycin (if susceptible)
 Group A streptococcus: Amoxicillin (high dose)
 Streptococcus pneumoniae: Amoxicillin (high dose)
 No growth: Amoxicillin (high dose)
 Any other organism except above: contact Peds ID

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)



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