

# Empyema management

Evidence of EMPYEMA on Chest X-Ray?  
 Assessment based on local PEWS score/sepsis tool  
 Signs of cardiovascular instability  
 (Lactate > 2 or blood pressure below normal age adjusted range)  
 Signs of respiratory instability  
 (High Flow Oxygen OR FiO<sub>2</sub> >30%)



PLAN A	
IV <b>Ceftriaxone</b> 80mg/kg OD. Add Clindamycin 10mg/kg QDS (max. per dose 1.2g) if evidence of toxin mediated disease	<b>If increased respiratory compromise (High Flow +/- FiO<sub>2</sub> ≥ 30%) or cardiovascular compromise at any stage – activate <u>PLAN C</u></b>
Maintain SaO <sub>2</sub> ≥ 92% with additional O <sub>2</sub> therapy if required	
If clinical improvement, discharge on 2-4 week course of oral antibiotics	
If no clinical improvement/ongoing fever after 48-72 hours <b>Activate PLAN B</b>	



PLAN B	
Consider differential diagnosis	<b>If increased respiratory compromise (High Flow +/- FiO<sub>2</sub> ≥ 30%) or cardiovascular compromise at any stage – activate <u>PLAN C</u></b>
Contact respiratory paediatrician at tertiary centre (Southampton or Oxford).	
Arrange <b>PROMPT</b> transfer to tertiary centre by appropriate DGH team <b>OR</b> discuss with SORT for advice	
Respiratory physician to determine need for chest drain insertion as per local protocol	

PLAN C	
Contact PICU via SORT	
Transfer patient to theatre or ICU in preparation for I&V and drain insertion	
Intubation and ventilation prior to drain insertion	
Anticipate cardiovascular deterioration on induction - ensure fluid bolus and vasopressor/inotropes available. Consider peripheral Dopamine prior to I&V	
Preparation for <b>simultaneous</b> drain insertion on intubation if deterioration	
Transfer by SORT to PICU	
Twice daily instillation of Urokinase into chest drain – 6 doses	
Once clinical improvement wean ventilation and extubate	
Transfer to paediatric ward for ongoing management	