

GUIDELINES FOR TREATMENT HAP/VAP IN PEDIATRIC ICUs

Patient has an X-ray(s) with new or progressive infiltrate

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Clinical signs of infection: fever, worsening of respiratory status/ventilator settings

Clinical Suspicion of VAP → OBTAIN respiratory culture (mini-BAL or ET aspirate) and consider procalcitonin and/or CRP

EXCLUSIONS for mini-BAL: ECLS, lung surgery, significant airway bleeding, ETT \leq 3.5

Relative Contraindications

* FiO₂ >0.6 and/or PEEP > 10, HFOV

* Intracranial hypertension

* Status asthmaticus

* Hemodynamic instability

* h/o total or segmental lung resection

* Severe pulmonary hypertension

* Anticoagulation or platelets < 50,000

* Scheduled bronchoscopy

If NO recent antibiotic therapy OR hospital stay < 72 hours

ceftriaxone[^] (consider addition of vancomycin if know history of MRSA or MRSA screen positive)

[^]if less than 2 months old treat with cefotaxime rather than ceftriaxone

If recent broad spectrum antibiotic therapy OR hospital stay \geq 72 hours OR known colonization with multidrug resistant pathogens

cefepime (consider addition of vancomycin if known history of MRSA or MRSA screen positive)

- Once Mini-BAL or ET aspirate culture has resulted **narrow therapy** to microbiologically confirmed pathogen(s)
- If respiratory cultures are negative, low procalcitonin and CRP, consider discontinuing antibiotics
- If other source of infection found, **narrow therapy** to microbiologically confirmed pathogens

Usual duration of antibiotic therapy for VAP is 7 days in clinically responding patients

Manifestation (early vs. late)	Common Pathogens
Early hospital-acquired Pneumonia (< 72 hours): Community-acquired organisms: colonizing pt at hospital admission	<i>Streptococcus pneumoniae</i> <i>H. influenzae</i> <i>S. aureus</i> (MSSA predominantly) <i>Moraxella catarrhalis</i> In neonates gram negative organisms-GBS
Late hospital-acquired Pneumonia (>72 hours): Hospital acquired organisms: colonization of more resistant bugs or recent exposure to broad spectrum antibiotics	As above plus <i>Pseudomonas aeruginosa</i> <i>Acinetobacter baumannii</i> ESBL-producing <i>Klebsiella</i> & <i>E. coli</i> <i>Staphylococcus aureus</i> (MRSA > MSSA)