



Sepsis



The University of Zambia
School of Public Health ◦ Family Medicine MMed Program

PSBI

Consider possible serious bacterial infection if <5yo & ≥ 1:

- Not able to feed since birth or stopped feeding well
- Convulsions
- Tachypnea (≥60/min)
- Severe chest indrawing
- Fever (≥38C) or hypothermia (<35.5C)

Bacteremia ≠ Sepsis

(Many with sepsis may have bacteremia, but most with bacteremia aren't septic)

General (regardless of age)

Early Recognition and Investigations

- Urinalysis
- Urine culture
- Blood culture x 2
- CSF culture
- HIV, RDT, RBS
- FBC (with platelets)
- LFTs, RFTs, electrolytes
- Site-specific investigations

Early Fluids and Antibiotics

- IVF: MIVF (based on age/weight), not boluses
 - If shock (*cold extremities + cap refill ≥ 3sec + weak/fast pulse*): 10-20 ml/kg isotonic crystalloids over 30-60 min then reassess
- Antibiotics: Start as soon as cultures are drawn
 - De-escalate based on cultures/other results
 - Duration: 7d (14d if meningitis)

Children 1mo – 12 years old

Empiric antibiotics in sepsis (1mo-12yrs)

1st Choice	Ampicillin 50mg/kg/dose q8hr IV OR Benzylpenicillin 30mg/kg/dose q8hr IV	PLUS Gentamicin 7.5mg/kg/dose q24hr IV
2nd Choice	Cefotaxime 50mg/kg/dose q8hr IV OR Ceftriaxone 80mg/kg/dose q24hr IV	

- Antibiotic choice may vary depending on suspected site
 - Meningitis: Cefotaxime 50mg/kg/dose q8hr IV **OR**
Ceftriaxone 100mg/kg q24hr IV

Recognition

SIRS: ≥ 2 of the following

- Temp: ≥ 38C or < 36C
 - WBC: ↑ or ↓, **OR**
>10% immature neutrophils
 - HR: ≥ 2 SD ↑ normal for age
 - RR: ≥ 2 SD ↑ normal for age
- PLUS** suspected source

Definitions

Early Onset (≤ 72 hours / 3d old)

- Often acquired vertically or in peripartum period

Late Onset (> 72 hours / 3d old)

- Often hospital acquired

Neonates (< 1 month)

Empiric antibiotics in sepsis (Neonates < 1mo old)

1st Choice	Ampicillin 50mg/kg/dose IV (≤1wk old: q12hr; >1wk old q8hr) OR Benzylpenicillin 30mg/kg/dose q8hr IV	PLUS Gentamicin 5mg/kg/dose q24hr IV
2nd Choice	Cefotaxime 50mg/kg/dose q8hr IV OR Ceftriaxone 80mg/kg/dose q24hr IV	

Bacterial Meningitis in Neonates (< 1mo old)

Ampicillin IV <ul style="list-style-type: none"> • 1st week of life: 50mg/kg/dose q12hr • 1st week of life: 50mg/kg/dose q8hr OR	PLUS	Gentamicin IV <ul style="list-style-type: none"> • 1st week of life: 5mg/kg q24hr • >1st week of life: 7.5mg/kg q24hr
Cefotaxime IV <ul style="list-style-type: none"> • 1st week of life: 50mg/kg/dose q12hr • 1st week of life: 50mg/kg/dose q6hr OR		
Ceftriaxone 100mg/kg q24hr IV		

WHO Abx Guide



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