



CLINICAL SCENARIO		DRUGS/DOSES		
		Standard Protocol	Known or Suspected MRSA ^a	Penicillin allergy ^b (Delayed)
Refer to the separate ChAMP guidelines for children with suspected meningitis/ meningococcal meningitis				
Severe sepsis	Severe Sepsis with haemodynamic instability requiring ICU admission and/or vasopressors.	In severe sepsis, antimicrobial therapy should be administered without delay. Following empiric treatment with antimicrobials, all patients with severe sepsis should be discussed with Infectious Diseases or Clinical Microbiology services		
		Due to the increased prevalence of multi-drug resistant organism, CONSIDER IV Vancomycin ^c 15mg/kg (to a maximum initial dose of 750mg) 6 hourly AND IV Meropenem 40mg/kg (maximum dose of 2gram) 8 hourly	As per standard protocol	CONSIDER Vancomycin ^{c,d} AND Amikacin ^e
Neonatal sepsis	Neonatal viral infections can sometimes present with neonatal sepsis. Consider testing and empiric HSV treatment with Aciclovir			
	Early onset <u>neonatal</u> sepsis (<48 hours of life)	IV Penicillin OR IV Amoxicillin AND Gentamicin doses as per neonatal guidelines	As per standard protocol	Not applicable
	Late onset (hospital acquired) <u>neonatal</u> sepsis (>48 hours old)	IV Vancomycin AND IV Gentamicin doses as per neonatal guidelines		
	Community acquired <u>neonatal</u> sepsis (meningitis excluded)	IV Amoxicillin AND IV Gentamicin doses as per neonatal guidelines	As per standard protocol	Discuss with ID or Microbiology service
	Community acquired <u>neonatal</u> sepsis (meningitis not excluded)	IV Amoxicillin AND IV Cefotaxime CONSIDER ADDING IV gentamicin IF haemodynamically unstable doses as per neonatal guidelines	As per standard protocol	Discuss with ID or Microbiology service

- a) Children known or suspected to be colonised with MRSA may need to have their therapy/prophylaxis modified. Children suspected of having MRSA include:
 - i) household contacts of MRSA colonised individuals and
 - ii) children with recurrent skin infections or those unresponsive to beta-lactam therapy. For further advice, discuss with Microbiology or ID service
- b) An immediate (IgE mediated) reaction is characterised by the development of urticaria, angioedema, bronchospasm or anaphylaxis within 1 to 2 hours of drug administration. Delayed reactions including maculopapular or morbilliform rashes, drug fever and cytopenias and are more in keeping with other forms of immunological reactivity. Isolated diarrhoea is not usually immune-mediated and does NOT contraindicate the future use of an antibiotic
- c) Consider a Vancomycin loading dose for patients with severe infection in discussion with Infectious Diseases or Microbiology
- d) IV Vancomycin **15mg/kg/dose** (maximum initial dose 750mg) 6 hourly
- e) IV Amikacin **18mg/kg for children ≥ 10 years and 22.5mg/kg for children < 10 years** (to a maximum of 1.5grams) once daily. Therapeutic drug monitoring required
- f) IV Gentamicin **6mg/kg for children ≥ 10years and 7.5mg/kg for children <10 years** (to a maximum of 480mg) once daily. Therapeutic drug monitoring required
- g) IV Ceftriaxone **50mg/kg/dose** (to a maximum of 2grams) 12 hourly
- h) IV Piperacillin/Tazobactam **100mg/kg** (to a maximum of 4grams piperacillin component) 8 hourly
- i) IV Vancomycin **20mg/kg/dose** (to a maximum initial dose of 1gram) 8 hourly
- j) IV Cefepime **50mg/kg/dose** (to a maximum of 2grams) 8 hourly

CLINICAL SCENARIO		DRUGS/DOSES			
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Community-Acquired Sepsis	Community acquired sepsis 1-3 months old (meningitis excluded)	IV Amoxycillin 50mg/kg (to a maximum of 1gram) 6 hourly AND IV Gentamicin 7.5mg/kg daily (to a maximum of 480mg)	As per standard protocol	Discuss with ID or Microbiology service	
	Community acquired sepsis 1-3 months old (meningitis not excluded)	IV Amoxycillin 50mg/kg (to a maximum of 1gram) 6 hourly AND IV Ceftriaxone 50mg/kg (to a maximum of 2grams) 12 hourly. CONSIDER ADDING IV Gentamicin 7.5mg/kg daily (to a maximum of 480mg) IF haemodynamically unstable	As per standard protocol	Discuss with ID or Microbiology service	
	Community acquired sepsis (≥ 4 months)	IV Ceftriaxone 50mg/kg (to a maximum of 2grams) 12 hourly AND IV Vancomycin ^c 15mg/kg (to a maximum initial dose of 750mg) 6 hourly CONSIDER ADDING IV Gentamicin ^f 6 or 7.5mg/kg once daily (to a maximum of 480mg) IF haemodynamically unstable	As per standard protocol	Vancomycin ^d AND Gentamicin ^f	
Healthcare-Associated Sepsis	Healthcare-Associated Sepsis ie. presumed bacteraemia (> 1 month): includes community acquired sepsis with CVL in place	Management of Healthcare-Associated Sepsis should take into consideration previous microbiological results. For therapeutic advice, discuss with Infectious Diseases or Clinical Microbiology services			
		IV Piperacillin/tazobactam 100mg/kg (to a maximum of 4gram piperacillin component) 8 hourly AND IV Vancomycin ^c 15mg/kg (to a maximum initial dose of 750mg) 6 hourly CONSIDER ADDING IV Gentamicin ^f 6 or 7.5mg/kg daily (to a maximum of 480mg) IF haemodynamically unstable	As per standard protocol	Vancomycin ^{c,d} AND Gentamicin ^f	Vancomycin ^{c,d} AND Gentamicin ^f

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Fever and Neutropenia (see definition below)	Antimicrobial therapy should not be altered without first discussing with the responsible oncologist			
	Standard risk patient	IV Piperacillin/tazobactam 100mg/kg (to a maximum of 4gram piperacillin component) 6 hourly	Piperacillin/Tazobactam ^h AND Vancomycin ⁱ	Cefepime ^j Discuss with ID or Microbiology service
	High risk Patient (see definitions below)	IV Piperacillin/tazobactam 100mg/kg (to a maximum of 4gram piperacillin component) 6 hourly	As per standard protocol	Cefepime ^j AND Vancomycin ⁱ Discuss with ID or Microbiology service
	Skin infection or erythema over CVAD or fever/rigors following accessing CVAD	AND IV Vancomycin 20mg/kg (to a maximum initial dose of 1gram) 8 hourly		
Features of systemic compromise (see definitions below)	IV Piperacillin/tazobactam 100mg/kg (to a maximum of 4gram piperacillin component) 6 hourly AND IV Vancomycin 20mg/kg (to a maximum initial dose of 1gram) 8 hourly AND IV Gentamicin ^f 6 or 7.5mg/kg daily (to a maximum of 480mg)	As per standard protocol	Cefepime ^j AND Vancomycin ⁱ AND Gentamicin ^f Discuss with ID or Microbiology service	

Fever: Temp > 38.5°C or Temp > 38.0°C on two sequential occasions in a 12 hour period

Neutropenia: ANC < 500 x 10⁶/L OR 500 – 1000 and likely to fall further in next 48h

High risk patients:

- HSCT pre-engraftment or with significant myelo/immunosuppression
- AML
- Relapsed ALL on reinduction chemotherapy
- All children with high risk or Infant ALL during intensive chemotherapy


Systemic compromise:

- Haemodynamic compromise
- Significant tachypnoea, increased work of breathing or O2 sats <90% on room air
- Confusion or decreased consciousness
- End organ dysfunction including renal or hepatic dysfunction, coagulopathy

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Endocarditis-Endovascular infection	Endocarditis or other endovascular infection (native valve or homograft)	IV Benzylpenicillin 45mg/kg (to a maximum of 1.8grams) 4 hourly AND IV Flucloxacillin 50 mg/kg (to a maximum of 2grams) 4 hourly AND IV Gentamicin ^f 6 or 7.5mg/kg (to a maximum of 480mg)once daily	Vancomycin ^d AND Gentamicin ^f		
	Endocarditis or other endovascular infection (prosthetic valve or graft)	IV Vancomycin 15mg/kg (maximum initial dose 750mg) 6 hourly AND IV Gentamicin ^f 6 or 7.5mg/kg once daily (to a maximum of 480mg)			

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