



# cefEPIME

<b>Indication</b>	<ul style="list-style-type: none"> <li>Treatment of serious infections caused by susceptible gram-negative or gram-positive organisms resistant to third generation cephalosporins<sup>1</sup></li> </ul>		
<b>INTRAVENOUS</b>	<b>Presentation</b>	<ul style="list-style-type: none"> <li>Vial: 1 gram</li> </ul>	
	<b>Dosage</b> <sup>1</sup>	<ul style="list-style-type: none"> <li>50 mg/kg every 12 hours</li> </ul>	
	<b>Preparation</b>	<ul style="list-style-type: none"> <li>Add 8.7 mL of 0.9% sodium chloride to 1 g vial               <ul style="list-style-type: none"> <li>Concentration now equal to 100 mg/mL</li> </ul> </li> <li>Draw up 2.8 mL of 100 mg/mL solution and make up to 7 mL total volume with 0.9% sodium chloride<sup>2</sup> <ul style="list-style-type: none"> <li>Concentration now equal to 40 mg/mL</li> </ul> </li> </ul>	
	<b>Administration</b>	<ul style="list-style-type: none"> <li>Prime the infusion line and reduce total syringe volume to the prescribed dose</li> <li>IV infusion via syringe driver infusion pump over 30 minutes<sup>2</sup> <ul style="list-style-type: none"> <li>On completion, disconnect syringe and infusion line</li> <li>Flush access port at same rate as infusion</li> </ul> </li> </ul>	
<b>IM</b>	<b>Presentation</b>	<ul style="list-style-type: none"> <li>Vial: 1 gram</li> </ul>	
	<b>Dosage</b> <sup>1</sup>	<ul style="list-style-type: none"> <li>50 mg/kg every 12 hours</li> </ul>	
	<b>Preparation</b> <sup>2</sup>	<ul style="list-style-type: none"> <li>Add 3 mL of 0.9% sodium chloride or 1% lidocaine (lignocaine) to 1 g vial (gives a volume of 4.4 mL)               <ul style="list-style-type: none"> <li>Concentration now approximately 230 mg/mL</li> </ul> </li> </ul>	
	<b>Administration</b>	<ul style="list-style-type: none"> <li>Draw up the prescribed dose and divide equally into two syringes</li> <li>Intramuscular injection into thickest part of the vastus lateralis of each anterolateral thigh (maximum 0.5 mL per site)</li> </ul>	
<b>Special considerations</b>	<ul style="list-style-type: none"> <li>Consult with an infectious disease physician prior to use</li> <li>If co-prescribed with aminoglycoside, give the antibiotic with shortest duration of administration first (so antibiotic cover commences asap)               <ul style="list-style-type: none"> <li>Do not mix in the same injection or infusion solution; flush before and after</li> </ul> </li> <li>IM route only if IV not available</li> <li>UAC route: consult with neonatologist/paediatrician prior to use and refer to Queensland Clinical Guideline: <i>Neonatal medicines</i><sup>3</sup></li> </ul>		
<b>Monitoring</b>	<ul style="list-style-type: none"> <li>Renal function if co-administered with nephrotoxic drugs</li> </ul>		
<b>Compatibility</b>	<ul style="list-style-type: none"> <li>Fluids               <ul style="list-style-type: none"> <li>5% glucose<sup>2</sup>, 10% glucose<sup>4</sup>, 0.9% sodium chloride<sup>2</sup></li> </ul> </li> <li>Y-site               <ul style="list-style-type: none"> <li>Dexmedetomidine<sup>2</sup>, granisetron<sup>2</sup>, sodium valproate<sup>2</sup></li> </ul> </li> </ul>		
<b>Incompatibility</b>	<ul style="list-style-type: none"> <li>PN and fat emulsion: co-infusion with cefepime not recommended (evidence limited). If unavoidable, seek pharmacist advice first, filter infusion and flush before and after</li> <li>Fluids               <ul style="list-style-type: none"> <li>Mannitol<sup>2</sup></li> </ul> </li> <li>Drugs               <ul style="list-style-type: none"> <li>Acetylcysteine<sup>2</sup>, aciclovir<sup>2</sup>, aminoglycosides (amikacin gentamicin, tobramycin)<sup>2</sup>, caspofungin<sup>2</sup>, ciprofloxacin<sup>2</sup>, droperidol<sup>2</sup>, erythromycin<sup>2</sup>, filgrastim<sup>2</sup>, ganciclovir<sup>2</sup>, haloperidol<sup>2</sup>, magnesium sulphate<sup>2</sup>, metoclopramide<sup>2</sup>, metronidazole<sup>2</sup>, midazolam<sup>2</sup>, nocardipine<sup>2</sup> ondansetron<sup>2</sup>, vecuronium<sup>2</sup>, voridconazole<sup>2</sup></li> </ul> </li> </ul>		
<b>Interactions</b>	<ul style="list-style-type: none"> <li>IV aminoglycosides are inactivated by IV cephalosporins, penicillins and teicoplanin<sup>2</sup></li> <li>Potent diuretics<sup>2</sup></li> </ul>		
<b>Stability</b>	<ul style="list-style-type: none"> <li>Store vial below 25 °C. Protect from light<sup>5</sup></li> </ul>		
<b>Side effects</b>	<ul style="list-style-type: none"> <li>Hypersensitivity reactions: rare in neonates. May present as erythema and rash (maculopapular rash, red purple plaques or urticarial type plaques<sup>6-9</sup>)</li> <li>Blood pathology: elevated hepatic transaminases<sup>1</sup>, eosinophilia<sup>1</sup>, positive Coomb's test<sup>1</sup></li> <li>Digestive: vomiting<sup>10</sup>, diarrhoea<sup>1</sup></li> </ul>		

<b>Actions</b>	<ul style="list-style-type: none"> <li>• Fourth generation cephalosporin with extended spectrum of activity and bactericidal properties</li> <li>• Acts by inhibiting bacterial cell wall synthesis<sup>5</sup></li> </ul>
<b>Abbreviations</b>	IM: intramuscular, IV: intravenous, UAC: umbilical artery catheter,
<b>Keywords</b>	Cefepime, cephalosporin, sepsis, infection

The Queensland Clinical Guideline *Neonatal Medicines* is integral to and should be read in conjunction with this monograph. Refer to the disclaimer. Destroy all printed copies of this monograph after use.

## References

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## Document history

ID number	Effective	Review	Summary of updates
NMedQ20.049-V1-R25	20/07 2020	20/07/2025	Endorsed by Queensland Neonatal Services Advisory Group (QNSAG)
NMedQ20.049-V2-R25	13/08/2021	20/07/2025	<ul style="list-style-type: none"> <li>• Removed UAC icon and amended instructions for administration via UAC</li> <li>• Amended instructions for co-prescription with aminoglycosides to clarify order of administration</li> </ul>

## QR code

