



## NEONATAL MEDICATION GUIDELINE

# Colistin

**Scope (Staff):** Nursing, Medical and Pharmacy Staff

**Scope (Area):** KEMH NICU, PCH NICU, NETS WA

This document should be read in conjunction with the [Disclaimer](#).

### Quick Links

[Dose](#)

[Preparation & Administration](#)

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[Monitoring](#)

### Restrictions

#### Neonatal: Non-Formulary - [IPA Required](#)

In order not to create unnecessary delays in treatment in uncommon circumstances, medications not listed in the formulary but used in paediatrics may be used in the neonatal setting when under the direction of both a Specialist Consultant and a Neonatologist.

#### [Paediatric Formulary: Highly Restricted](#)

Restricted to prescribing by or in consultation with a Clinical Microbiologist or Infectious Disease Physician PRIOR to initiation of therapy

**[HIGH RISK Medication](#)** 

### Description

Antibacterial

### Presentation

**Vial:** 150mg powder for injection

(contains colistimethate sodium equivalent to 150 mg of colistin)

### Storage

**Vial:** store at room temperature, below 25°C

**Reconstituted solution:** stable for 24 hours at 2 – 8°C. Do not freeze

### Dose

**Dosing of colistin is complex and not routinely used in neonates, seek advice from Infectious Disease or Microbiology consultants**

**Gram-negative infections**

IV: 1.7mg/kg/dose every 8 hours

**Dose Adjustment****Renal Impairment:**

Should be avoided in renal impairment due to an increased risk of toxicity and worsening renal impairment.

For patients with any degree of renal impairment, consider using a slower rate of infusion (e.g. over 1 to 2 hours).

**Preparation****IV infusion**

**Step 1 Reconstitution:** Reconstitute the vial with 2mL of Water for Injections, swirl gently to avoid foaming; do not shake the vial. Concentration = **75mg/mL**

**Step 2 Dilution:** Dilute 2mL (150mg) to 30mL with a compatible fluid. Concentration = **5mg/mL**

**Administration****IV infusion**

Infuse dose over 30 minutes

**Compatible Fluids**

Sodium Chloride 0.9%, Glucose 5%

Refer to [IV Compatibility Chart in Neonates](#) for compatibility information or refer to the Pharmacy Department

**Side Effects**

**Common:** nephrotoxicity, neurotoxicity

**Serious:** hypersensitivity reactions, apnoea, sensory disorder

**Monitoring**

Renal function, urine output, full blood picture

## Comments

Each vial contains 1.09 mmol of sodium

Doses are expressed in terms of colistin base

pH = 7 – 8 when reconstituted

## Related Policies, Procedures & Guidelines

### WNHS Clinical Practice Guidelines:

Neonatal Medication Guideline: [Prescribing and Administration of Medications to Neonates](#)

## References









Australian Medicines Handbook. Colistin. In: Australian Medicines Handbook [Internet]. Adelaide (South Australia): Australian Medicines Handbook; 2021 [cited 2021 Jun 04]. Available from: <https://amhonline.amh.net.au/>

Society of Hospital Pharmacists of Australia. Colistin. In: Australian Injectable Drugs Handbook [Internet]. [St Leonards, New South Wales]: Health Communication Network; 2021 [cited 2021 Jun 04]. Available from: <http://aidh.hcn.com.au>

Takemoto CK, Hodding JH, Kraus DM. Pediatric & neonatal dosage handbook with international trade names index : a universal resource for clinicians treating pediatric and neonatal patients. 27th ed. Hudson (Ohio): Lexicomp; 2020.

Truven Health Analytics. Colistin. In: NeoFax [Internet]. Greenwood Village (CO): Truven Health Analytics; 2021 [cited 2021 Jun 04]. Available from: <https://neofax.micromedexsolutions.com/>

Ilhan O, Bor M, Ozdemir SA, Akbay S, Ozer EA. Efficacy and Safety of Intravenous Colistin in Very Low Birth Weight Preterm Infants. Paediatr Drugs. 2018 Oct;20(5):475-481. doi: 10.1007/s40272-018-0301-5. PMID: 30073562

Keywords	Colistin, colistimethate sodium				
Document Owner:	Head of Department - Neonatology				
Author/ Reviewer	KEMH & PCH Pharmacy/Neonatology Directorate				
Version Info:	July 2021 – inaugural guideline				
Date First Issued:	16/07/2021	Last Reviewed:	16/07/2021	Review Date:	16/07/2024
Endorsed by:	Medicines and Therapeutics Committee, Antimicrobial Stewardship Sub-Committee, Neonatal Coordinating Group			Date:	27/07/2021
NSQHS Standards Applicable:	<input checked="" type="checkbox"/>  Std 1: Clinical Governance <input type="checkbox"/>  Std 2: Partnering with Consumers <input type="checkbox"/>  Std 3: Preventing and Controlling Healthcare Associated Infection <input checked="" type="checkbox"/>  Std 4: Medication Safety		<input type="checkbox"/>  Std 5: Comprehensive Care <input type="checkbox"/>  Std 6: Communicating for Safety <input type="checkbox"/>  Std 7: Blood Management <input type="checkbox"/>  Std 8: Recognising and Responding to Acute Deterioration		
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