METRONIDAZOLE

Read in conjunction with Disclaimer

Formulary: Restricted Requires neonatologist or microbiologist review within 24 hours of initiation.	
Presentation	**Oral suspension:** 200 mg/5 mL = **40 mg/mL** **IV infusion:** 500 mg/100 mL = **5 mg/mL**
Classification	Nitroimidazole antimicrobial
Indication	Treatment and prophylaxis of anaerobic or protozoal infections.
Special Considerations	• IV infusion contains **sodium** 0.135 mmol/mL, use with caution as sodium retention can occur. • **Alcohol including ethanol**, which may be contained in other liquid preparations of medications should be avoided with metronidazole and for 24 hours after the last dose of metronidazole due to the risk of disulfiram-like reactions e.g. nausea, vomiting, headache, palpitations.
Monitoring	• **Full blood count** with long term treatment. • **Renal and hepatic function** – see Dose Adjustment sections on page 2.
Compatibility	**Fluids:** Sodium chloride 0.9%, glucose 5% Refer to KEMH Neonatal Medication Guideline: Y-Site IV Compatibility in Neonates
Interactions	**Phenobarbital** can increase metabolism of metronidazole and reduce its concentration with possible treatment failure; monitor clinical effect as may need to increase metronidazole dose.
Adverse Effects	**Common:** Dry mouth, myalgia, nausea, metallic taste, vomiting.
	Infrequent/rare: Leucopenia and/or thrombocytopenia (with long term use), dark urine, peripheral neuropathy, CNS effects, seizures, severe cutaneous reactions.
Storage & Stability	**Oral suspension:** Store at room temperature, below 25°C. Protect from light. **IV infusion:** Store at room temperature, below 30°C. Protect from light.

ORAL

Presentation (for oral use)

Oral suspension: 200 mg/5 mL = **40 mg/mL**

Dosage

Suspected or proven infection due to susceptible organism:

Corrected Gestational Age	Loading Dose	Maintenance Dose	Frequency
Less than 26 weeks	15 mg/kg once only	7.5 mg/kg/dose	Every 24 hours
26 to 34 weeks	15 mg/kg once only	7.5 mg/kg/dose	Every 12 hours
Greater than 34 weeks	15 mg/kg once only	7.5 mg/kg/dose	Every 8 hours
Note: *Give first maintenance dose 24 hours after the loading dose.*			

Dose Adjustment

- **Renal impairment:** Metabolites may accumulate in severe impairment possibly causing adverse effects. Use with caution, dose adjustment is not usually necessary.
- **Hepatic impairment:** Risk of drug accumulation and toxicity in severe impairment, especially if renal impairment is also present. Dose reduction may be required.

Administration

- Shake well before use.
- Draw prescribed dose into oral/enteral syringe.
- Give on an empty stomach, 30 minutes before or 2 hours after a feed.

INTRAVENOUS

Presentation (for IV use)

IV infusion: 500 mg/100 mL = **5 mg/mL**
Available from CIVAS (KEMH) and PCS (PCH): *5 mg/mL*

Dosage

Suspected or proven infection due to susceptible organism:

Corrected Gestational Age	Loading Dose	Maintenance Dose	Frequency
Less than 26 weeks	15 mg/kg once only	7.5 mg/kg/dose	Every 24 hours
26 to 34 weeks	15 mg/kg once only	7.5 mg/kg/dose	Every 12 hours
Greater than 34 weeks	15 mg/kg once only	7.5 mg/kg/dose	Every 8 hours
Note: *Give first maintenance dose 24 hours after the loading dose.*			

Dose Adjustment

- **Renal impairment:** Metabolites may accumulate in severe impairment possibly causing adverse effects. Dose adjustment is not usually necessary.
- **Hepatic impairment:** Risk of drug accumulation and toxicity in severe impairment, especially if renal

	impairment is also present. Use with caution, dose adjustment is not usually necessary.	
Administration	**IV infusion:** • Administer undiluted. • Infuse via syringe driver pump over 30 minutes.	

Related Policies, Procedures, and Guidelines

CAHS Neonatology Clinical Practice Guidelines:

Necrotising Enterocolitis

Pharmaceutical and Medicines Management Guidelines:

CAHS Neonatology – Medication Administration Guideline

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Document history

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Abbreviations	IV: intravenous, ID: infectious diseases, CIVAS: Centralised Intravenous Additive Service, PCS: Pharmacy Compounding Service, KEMH: King Edward Memorial Hospital, PCH: Perth Children's Hospital				
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	Std 4: Medication Safety				
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