



## MONOGRAPH

# Ivermectin Monograph - Paediatric

<b>Scope (Staff):</b>	Medical, Pharmacy, Nursing
<b>Scope (Area):</b>	All Clinical Areas

### Child Safe Organisation Statement of Commitment

CAHS commits to being a child safe organisation by applying the National Principles for Child Safe Organisations. This is a commitment to a strong culture supported by robust policies and procedures to reduce the likelihood of harm to children and young people.

This document should be read in conjunction with this [DISCLAIMER](#)

### QUICKLINKS

<a href="#">Dosage/Dosage Adjustments</a>	<a href="#">Administration</a>	<a href="#">Compatibility</a>	<a href="#">Monitoring</a>
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### DRUG CLASS

Avermectin antiparasitic agent.<sup>(1)</sup>

### INDICATIONS AND RESTRICTIONS

Ivermectin is used in the treatment of filariasis, onchocerciasis, strongyloidiasis, scabies (crusted or if topical treatment has failed), headlice (if refractory to topical treatment) and cutaneous larva migrans.<sup>(2)</sup>

#### Oral: Monitored (orange) anthelmintic

- If the use is consistent with a standard approved indication, this must be communicated to ChAMP by documenting that indication on all prescriptions (inpatient and outpatient).
- The ChAMP team will review if ongoing therapy is required and/or if the order does not meet [ChAMP Standard Indications](#)
- If use is not for a standard approved indication, phone approval must be obtained from ChAMP before prescribing.

### CONTRAINDICATIONS

- Hypersensitivity to ivermectin or any component of the formulation.<sup>(1, 3-5)</sup>

## PRECAUTIONS

- Caution should be taken in patients with severe asthma, as there is the risk of worsening bronchial asthma.<sup>(1)</sup>
- Patients from Central or West Africa being treated for onchocerciasis should be assessed for co-infection with *Loa loa* (loiasis) due to the increased risk of serious or fatal encephalopathy precipitated by treatment if the microfilarial load is high.<sup>(1, 3, 6)</sup>
- When used for hyperreactive onchodermatitis, there is an increased risk of serious adverse events, especially oedema due to allergic or inflammatory responses to the death of the parasite.<sup>(1, 3)</sup>
- Ivermectin does not kill the adult worm in onchocerciasis, therefore it is likely further treatment may be required.<sup>(5, 6)</sup>

## FORMULATIONS

Listed below are products available at PCH, other formulations may be available, check with pharmacy if required:

- 3 mg tablet

Imprest location: [Formulary One](#)

## DOSAGE & DOSAGE ADJUSTMENTS

**Neonates and children weighing less than 15kg:** Not routinely used in neonates or children weighing less than 15 kg, contact infectious diseases (ID) or clinical microbiology for advice.

### Oral: Children ≥ 15 kg

Condition	Dose	Doses required
Onchocerciasis	0.15 mg/kg/dose	Single dose then can be repeated every 3 to 12 months as required. <sup>(5, 7)</sup>
Strongyloidiasis (uncomplicated):	0.2 mg/kg/dose	Single dose then repeated 7 to 14 days later. <sup>(2)</sup>
Strongyloidiasis (immunocompromised):	0.2 mg/kg/dose	Single dose on days 1, 2, 15 and 16. <sup>(2)</sup> Contact ID / Clinical Microbiologist for cases of hyperinfection or disseminated strongyloidiasis syndrome.
Scabies	0.2 mg/kg/dose	Single dose on days 1 and 7. <sup>(2)</sup>
Scabies (crusted):	0.2 mg/kg/dose	Contact ID / Clinical Microbiologist. Topical treatment with permethrin and a keratolytic agent must be used in conjunction. Refer to Therapeutic Guidelines for options. <sup>(2)</sup>  3, 5 or 7 dose course depending on severity. Give on days 1, 2, 8, 9, 15, 22 and 29 depending length of course. <sup>(2, 3, 8)</sup>

Condition	Dose	Doses required
Cutaneous larva migrans	0.2 mg/kg/dose	Single dose <sup>(2, 8)</sup>
Refractory (to topical treatment) head lice	0.2 mg/kg/dose	Single dose then repeated 7 days later. <sup>(2)</sup>

**Recommended dose bands<sup>(1)</sup>**

0.15 mg/kg/dose bands <sup>(1, 5, 9)</sup>	
Weight	Rounded dose
15 - 25kg	3 mg (1 tablet)
26 - 44kg	6 mg (2 tablets)
45 - 64kg	9 mg (3 tablets)
65 - 84kg	12 mg (4 tablets)
≥ 85kg	0.15 mg/kg

0.2 mg/kg/dose bands <sup>(1, 5, 9)</sup>	
Weight	Rounded dose
15 - 24kg	3 mg (1 tablet)
25-35kg	6 mg (2 tablets)
36-50kg	9 mg (3 tablets)
51-65kg	12mg (4 tablets)
66-79kg	15 mg (5 tablets)
≥ 80kg	0.2 mg/kg

**Renal impairment:**

- There is limited information available regarding the use of ivermectin in renal impairment. Dose adjustment does not seem necessary. <sup>(1, 4, 5)</sup>

**Hepatic impairment:**

- There is limited information available regarding the use of ivermectin in hepatic impairment. Care should be taken when administering ivermectin to patients with hepatic impairment as there is significant hepatic metabolism. <sup>(1, 4, 5)</sup>

**ADMINISTRATION**

- **Onchocerciasis:** Tablets should be administered on an empty stomach, half an hour before food. <sup>(1, 5)</sup>
- **Strongyloidiasis, cutaneous larva migrans, scabies or refractory head lice:** Tablets should be taken with a high fat meal to increase absorption. <sup>(4, 5, 9)</sup>

**MONITORING**

- Liver function tests should be conducted for those patients on extended courses. <sup>(1, 5)</sup>
- Patients should be monitored for symptomatic improvement. <sup>(3)</sup>
- **Onchocerciasis:** Microfilarial counts of the skin and eye as well as ophthalmic exam should be performed at baseline and periodically during therapy. <sup>(1, 5)</sup>
- **Strongyloidiasis:** Stools should be checked to ensure that the treatment was effective if previously positive (one stool culture per month for three months post therapy) <sup>(3)</sup>

**ADVERSE EFFECTS****Scabies:**

**Common:** skin reactions <sup>(1, 10)</sup>

**Infrequent:** headache, fatigue, dizziness, abdominal pain, vomiting, diarrhoea<sup>(6)</sup>

**Onchocerciasis:**

**Common:** Mazotti reaction – generally worse if there is a high microfilariae count (arthralgia, lymphadenopathy, itch, oedema, rash, fever, tachycardia, hypotension, worsening of ocular symptoms)<sup>(1, 6)</sup>

**Infrequent:** headache<sup>(6)</sup>

**Strongyloidiasis:**

**Common:** diarrhoea, nausea, dizziness, somnolence, skin reactions <sup>(6, 10)</sup>

**Infrequent:** fatigue, abdominal pain, constipation, vomiting, tremor, rash, itch<sup>(6)</sup>

**All indications:**

**Infrequent:** Elevated liver enzymes

**Rare:** toxic epidermal necrolysis, neurotoxicity (confusion, impaired consciousness, encephalopathy, seizures), ocular irritation<sup>(1, 6)</sup>

**STORAGE**

- Store tablets below 30°C<sup>(4)</sup>

**INTERACTIONS**

This medication may interact with other medications; consult PCH approved references (e.g. [Clinical Pharmacology](#)), a clinical pharmacist or PCH Medicines Information Service on extension 63546 for more information.

*\*\*Please note: The information contained in this guideline is to assist with the preparation and administration of ivermectin. Any variations to the doses recommended should be clarified with the prescriber prior to administration\*\**

**Related CAHS internal policies, procedures and guidelines**

[Antimicrobial Stewardship Policy](#)

[ChAMP Empiric Guidelines and Monographs](#)

[KEMH Neonatal Medication Protocols](#)

**References**

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## Healthy kids, healthy communities

Compassion

Excellence

Collaboration

Accountability

Equity

Respect

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