# Children's Antimicrobial Management Program (ChAMP)

#### **MONOGRAPH**

# **Griseofulvin Monograph - Paediatric**

Scope (Staff):	Medical, Pharmacy, Nursing
Scope (Area):	All Clinical Areas – Perth Children's Hospital

# **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					
Dosage/Dosage Adjustments	Administration	Compatibility	<u>Monitoring</u>		

#### **DRUG CLASS**

Antifungal<sup>(1, 2)</sup>.

#### INDICATIONS AND RESTRICTIONS

Griseofulvin is used in the treatment of dermatophyte infections of the skin that;

- Are widespread or established,
- Has failed topical therapy,
- Has recurred on completion of treatment,
- Has been previously inappropriately treated with topical corticosteroid,
- Is present on scalp, palms or soles,
- Is inflammatory, hyperkeratotic, vesicular or pustular. (1, 3, 4)
- Griseofulvin is the preferred oral option if Microsporum species have been identified.
- Griseofulvin does not have activity against yeasts such as Candida spp. and Malassezia furfur, other common causes of cutaneous fungal infection.

#### Oral: Unrestricted (green) antifungal

This is not a restricted agent. Follow standard ChAMP guidelines where appropriate.

#### **CONTRAINDICATIONS**

- Hypersensitivity to griseofulvin or any component of the formulation. (2, 3, 5)
- Griseofulvin is contraindicated in pregnancy (category D) and women intending to become pregnant within one month of cessation of griseofulvin treatment. The manufacturer advises men not to father children during and for 6 months after treatment as griseofulvin may affect sperm. (1-3, 5, 6)
- Griseofulvin is contraindicated in patients with lupus erythematosus. (1-3, 5)
- Griseofulvin is contraindicated in severe liver disease as it may cause liver function to worsen. (1-3, 5)
- Griseofulvin is contraindicated in patients with acute porphyrias due to the risk of inducing a porphyric crisis. (2, 3, 5, 6)

## **PRECAUTIONS**

- Patients should avoid exposure to sunlight due to the risk of photosensitivity reactions.
   Patients should be instructed to wear protective clothing, a hat, sunglasses and sunscreen (physical sunscreen is preferred to chemical sunscreen) while taking griseofulvin.<sup>(1, 3)</sup>
- Griseofulvin reduces the efficacy of the oral contraceptive pill, sexually active adolescent females should use effective non-hormonal contraception whilst taking griseofulvin and for at least 4 weeks after ceasing therapy.<sup>(1, 3)</sup>

#### **FORMULATIONS**

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

125 mg and 500 mg oral tablets

Imprest location: Formulary One

#### **DOSAGE & DOSAGE ADJUSTMENTS**

**Neonates:** Not routinely used in neonates (less than 4 weeks corrected gestational age) contact Infectious Diseases for advice.

#### Children:

≥ 4 weeks to 12 years: 10-20 mg/kg (to a maximum of 1 gram) once daily. (7) If using the higher dose, reduce dose when clinical improvement occurs. (7, 8)

>12 years to 18 years: 500 mg daily. Up to 1 gram daily can be used for severe infections; reduce dose once response occurs. (7,8)

Duration of therapy is dependent on the site of the infection and initial response to treatment.

- Tinea capitis: 6 to 8 weeks. (1, 3, 4, 8)
- Tinea corporis: Minimum of 2 to 4 weeks.<sup>(1, 3, 8)</sup>
- Tinea unguium (onychomycosis): Oral terbinafine is generally preferred for the treatment of tinea unguium. If griseofulvin is commenced, treat for at least 4 months for fingernails and at least 6 months for toes nails. (1, 3, 8). Treatment is usually continued until the infected nail has grown out.

#### **Renal impairment:**

eGFR calculator

• Dosage reduction is generally not required in cases of significant renal impairment. Contact Pharmacy for advice. (2, 5)

### **Hepatic impairment:**

 Although no specific dose adjustments are required, griseofulvin is contraindicated in severe liver disease as it undergoes hepatic metabolism and may worsen liver function.<sup>(2, 5, 6)</sup>

#### **ADMINISTRATION**

 Griseofulvin should be administered with a high fat meal or milk to increase absorption and to avoid stomach upset. (1, 2, 4, 5, 7, 9)

#### **COMPATIBILITY**

Not applicable

#### **MONITORING**

 Renal, hepatic and haematological function should be monitored periodically if treatment course is 8 weeks or longer.<sup>(2, 5, 8)</sup>

# ADVERSE EFFECTS

**Common:** headache, nausea, vomiting, diarrhoea, anorexia, heartburn, flatulence, oral thrush, gastrointestinal bleeding. (1, 3, 6)

**Infrequent:** photosensitivity, urticaria, rash, blurred vision, confusion, fatigue, dizziness, taste disturbance, insomnia, irritability, abnormal coordination, peripheral neuropathy<sup>(1-3)</sup>.

**Rare:** toxic epidermal necrolysis, precipitation or exacerbation of lupus erythematosus, vomiting, severe diarrhoea, menstrual irregularities, leucopenia, neutropenia, anaemia, hypersensitivity (e.g. serum sickness like reaction), hepatotoxicity. (1-3, 6)

#### **STORAGE**

Store tablets below 30°C.<sup>(3)</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.

# Related CAHS internal policies, procedures and guidelines

Antimicrobial Stewardship Policy

**ChAMP Empiric Guidelines and Monographs** 

**KEMH Neonatal Medication Protocols** 

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

#### References

- 1. Australian Medicines Handbook. Adelaide, S. Aust.: Australian Medicines Handbook; 2024 [cited 2024 17th June]. Available from: <a href="https://amhonline-amh-net-au.pklibresources.health.wa.gov.au/">https://amhonline-amh-net-au.pklibresources.health.wa.gov.au/</a>.
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- 3. AusDI [Internet]. Health Communication Network Pty Ltd. 2024 [cited 2024 July 18th].
- 4. Antibiotic Writing Group. Therapeutic Guidelines Antibiotic. West Melbourne: Therapeutic Guidelines Ltd; 2022. Available from: <a href="https://tgldcdp-tg-org-au.pklibresources.health.wa.gov.au/etgAccess">https://tgldcdp-tg-org-au.pklibresources.health.wa.gov.au/etgAccess</a>.
- 5. Clinical Pharmacology powered by ClinicalKey [Internet]. Elsvier. 2024 [cited 2024 July 18th]. Available from: <a href="https://www-clinicalkey-com.pklibresources.health.wa.gov.au/pharmacology/">https://www-clinicalkey-com.pklibresources.health.wa.gov.au/pharmacology/</a>.
- 6. Paediatric Formulary Committee. BNF for Children: 2024. London: BMJ Group Pharmaceutical Press; 2024.
- 7. Royal Australian College of General Practitioners, Pharmaceutical Society of Australia, Australasian Society of Clinical and Experimental Pharmacologists and Toxicologists. AMH: Children's Dosing Companion. Adelaide: Australian Medicines Handbook Pty Ltd; 2022.
- 8. The Australian Healthy Skin Consortium. National Healthy Skin guidelines: for the Diagnosis, Treatment and Prevention of Skin Infections for Aboriginal and Torres Strait Islander Children and Communities in Australia. 2023;2nd Edition.
- 9. Symons K, Emer J (editors). Australian Don't Rush to Crush Handboook. 4th edition ed. Collingwood: The Society of Hospital Pharmacists of Australia; 2021.

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# Healthy kids, healthy communities

Compassion

Collaboration Accountability

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