MONOGRAPH

Cefalexin Monograph - Paediatric

Scope (Staff):	Medical, Pharmacy, Nursing
Scope (Area):	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

Dosage/Dosage Adjustments	Administration	Compatibility	Monitoring

DRUG CLASS

Moderate spectrum cephalosporin(1)

INDICATIONS AND RESTRICTIONS

Oral: Unrestricted (green) antibiotic

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

- Cefalexin is indicated in the treatment of methicillin sensitive *Staphylococcus aureus* (MSSA) and streptococcal infections and in the treatment and prophylaxis of urinary tract infections.(1)

CONTRAINDICATIONS

- Hypersensitivity to cefalexin, a high-risk allergy to cephalosporins or any component of the formulation.(1-4)

PRECAUTIONS

- Cefalexin may be prescribed in selected patients with high risk allergy to another Beta-lactam sub-class (e.g. some penicillins, carbapenems) in discussion with immunology.

- In patients with a previous low risk reaction to cephalexin or another cephalosporin (delayed rash [>1hr after initial exposure] without mucosal or systemic involvement) the risk of subsequent reaction is low. Re-challenge may be acceptable in discussion with immunology.[2]

FORMULATIONS

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

- 250mg/5mL powder for oral suspension
- 250mg and 500mg capsules

Imprest location: Formulary One

DOSAGE & DOSAGE ADJUSTMENTS

Neonates: Refer to Neonatal Medication Protocols

Children (>1 month to 18 years):

Oral:

- **Usual dose:** 20mg/kg/dose (to a maximum of 750mg) every 8 hours.[5]
- **Severe infections:** 40mg/kg/dose (to a maximum of 1.5 grams) 8 hourly.[5]
- **UTI prophylaxis:** 12.5mg/kg/dose (to a maximum of 250mg) given once daily at night.[1, 6]

Note: Some texts recommend a lower standard dose of cefalexin given 6 hourly. At PCH doses <12.5mg/kg/dose are rarely given except for dose adjustment in renal failure.

Dosing in Overweight and Obese Children:

- Dose based on measured body weight.[7]

Renal impairment:

eGFR calculator

- CrCl ≥50mL/minute: normal dose
- CrCl ≥30 to <50mL/minute: 10mg/kg/dose given 8 hourly
- CrCl ≥10 to <30mL/minute: 10mg/kg/dose given 12 hourly
- CrCl <10mL/minute: 10mg/kg/dose given 24 hourly.[3, 4]
- For severe infections, higher doses may be required, contact pharmacy for advice.

Hepatic impairment:

- No dosage adjustment is required in hepatic impairment.[3]

RECONSTITUTION & ADMINISTRATION

Reconstitution:

Oral Cefalexin 250mg/5mL:

- Reconstitute with water as follows: tap bottle until all powder flows freely; add approximately half the total volume of water as per the manufacturer's instructions for reconstitution and shake vigorously to suspend powder.
- Add remainder of the water and again shake vigorously. This will result in 100mL of suspension. Store reconstituted suspension in the refrigerator and discard after 14 days.[8]
- Refer to product packaging for reconstitution instructions for alternative brands.

Administration:

- When using the oral suspension, shake the bottle well before measuring each dose.[3]
- Cefalexin may be given without regard to food intake.[3]

COMPATIBILITY *(LIST IS NOT EXHAUSTIVE)*

Not applicable

MONITORING

- Renal, hepatic and haematological function should be monitored with prolonged therapy (i.e. longer than 7 days).[1, 3, 4]

ADVERSE EFFECTS

Common: diarrhoea, nausea, vomiting, abdominal pain, rash, headache, dizziness, eosinophilia, leucopenia, neutropenia.[1, 2]

Infrequent: Anaphylactic reaction, angioedema

Rare: cholestatic hepatitis, neurotoxicity (confusion, seizures, encephalopathy), Blood dyscrasias (thrombocytopenia, agranular cytosis), nephritis tubulointerstitial, bleeding, renal impairment, severe cutaneous adverse reactions (SCARs).[1, 2]

STORAGE

- Store the capsules below 25 ˚C.[8]
- Store the dry powder below 25˚C, after reconstituting, store between 2˚C and 8˚C and discard after 14 days.[8]

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 **cefalexin**. 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

1. Rossi S, editor. Australian Medicines Handbook. Adelaide, S. Aust.: Australian Medicines Handbook; 2021.
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4. Cephalexin Paediatric Drug Information [Internet]. Lexicomp. 2022 [cited 10/05/2022].
5. Gwee A, Autmizguine J, Curtis N, Duffull SB. Twice- and Thrice-daily Cephalexin Dosing for Staphylococcus aureus Infections in Children. Pediatr Infect Dis J. 2020;39(6):519-22.
6. 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; 2020.
7. Kendrick JG, Carr RR, Ensom MH. Pediatric Obesity: Pharmacokinetics and Implications for Drug Dosing. Clin Ther. 2015;37(9):1897-923.
8. MIMS Australia. MIMS online [full product information]. St Leonards, N.S.W: CMP Medica Australia.; 2021. p. 1v. (various pagings).

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