



MONOGRAPH	
Cefalexin (Cephalexin) Monograph - Paediatric	
Scope (Staff):	Medical, Nursing, Pharmacy
Scope (Area):	Perth Children's Hospital (PCH)

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

DESCRIPTION	<ul style="list-style-type: none"> Cefalexin is a bactericidal, first generation, moderate spectrum cephalosporin. It interferes with bacterial cell wall peptidoglycan synthesis by binding to penicillin-binding proteins resulting in cell lysis.⁽¹⁻³⁾
INDICATIONS AND RESTRICTIONS	<ul style="list-style-type: none"> Cefalexin is active against some streptococci and staphylococci infections and is also active against certain Gram-negative bacteria including <i>Escherichia coli</i> and most <i>Klebsiella</i> species.⁽³⁾ <p>Oral : Unrestricted (green) antibiotic</p> <ul style="list-style-type: none"> This is not a restricted agent. Follow standard ChAMP guidelines where appropriate.
CONTRAINDICATIONS	<ul style="list-style-type: none"> Cefalexin is generally contraindicated in patients with a history of high risk allergy to cephalosporins.(1, 2, 4-7)
PRECAUTIONS	<ul style="list-style-type: none"> 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.
FORMULATIONS	<p>Available at PCH:</p> <ul style="list-style-type: none"> 250mg/5mL powder for oral suspension 250mg and 500mg capsules <p>Other formulations:</p> <ul style="list-style-type: none"> 125mg/5mL and 250mg/5mL powder for oral suspension (multiple generic brands available) 250mg and 500mg capsules (multiple generic brands available)

<p>DOSAGE</p>	<ul style="list-style-type: none"> The doses listed below fall within the standard range. Higher doses may be prescribed for certain situations in consultation with an infectious diseases or clinical microbiology consultant. <p>Neonates (less than 30 days old):</p> <ul style="list-style-type: none"> Please refer to neonatal clinical care drug protocols <p>Children (>1 month to 18 years):</p> <p>Oral:</p> <ul style="list-style-type: none"> Usual dose: 20mg/kg/dose (to a maximum of 750mg) every 8 hours.⁽²⁾ Severe infections: 40mg/kg/dose (to a maximum of 1.5 grams) 8 hourly.^(2, 3, 6, 8, 9) UTI prophylaxis: 12.5mg/kg/dose (to a maximum of 250mg) given once daily at night.^(2, 3, 6, 8)
<p>DOSAGE ADJUSTMENT</p>	<p>Dosage adjustment required in renal impairment:</p> <ul style="list-style-type: none"> Dosage adjustment may be required in cases of impaired renal function (with creatinine clearance of less than 50mL/min).⁽⁵⁾ To calculate the estimated glomerular filtration rate (eGFR) use the following formula: $eGFR \text{ (mL/min/1.73m}^2\text{)} = \frac{36.5 \times \text{height (in cm)}}{\text{Serum creatinine (micromol/L)}}$ <ul style="list-style-type: none"> 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.⁽⁵⁾ For severe infections, higher doses may be required, contact pharmacy for advice. <p>Dosage adjustment required in hepatic impairment:</p> <ul style="list-style-type: none"> No dosage adjustment is required in hepatic impairment.⁽⁵⁾
<p>RECONSTITUTION</p>	<p>Oral Cefalexin 250mg/5mL:</p> <ul style="list-style-type: none"> 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. Refer to product packaging for reconstitution instructions for




	alternative brands.
ADMINISTRATION	<p>Oral:</p> <ul style="list-style-type: none"> When using the oral suspension, shake the bottle well before measuring each dose.⁽⁴⁾ Cefalexin may be given without regard to food intake.⁽¹⁾
MONITORING	<ul style="list-style-type: none"> Renal, hepatic and haematological function should be monitored with prolonged therapy (i.e. longer than 7 days).^(1, 2, 7, 10)
ADVERSE EFFECTS	<p>Common: generally very well tolerated</p> <p>Rare: diarrhoea, nausea, vomiting, abdominal pain, urticaria, rash, headache, dyspepsia, dizziness, <i>Clostridium difficile</i>-associated disease, cholestatic hepatitis, neurotoxicity (e.g. confusion, seizures, encephalopathy), blood dyscrasias, allergy, bleeding, rash, erythema multiforme, Stevens-Johnson syndrome, toxic epidermal necrolysis, arthritis, interstitial nephritis.^(1, 2, 4, 6)</p>
COMPATIBLE FLUIDS	<ul style="list-style-type: none"> Not applicable
STORAGE	<ul style="list-style-type: none"> Store the capsules below 25 °C Store the un-reconstituted powder below 30°C, after reconstituting, store in the refrigerator between 2°C and 8°C and discard after 14 days.⁽⁴⁾
INTERACTIONS	<p>Cefalexin may interact with other medications; please consult PCH approved references (e.g. Clinical Pharmacology), your ward pharmacist or Pharmacy on extension 63546 for more information.</p> <ul style="list-style-type: none"> Probenecid inhibits excretion of cephalosporins which may increase cefalexin levels and increase the risk of seizures in certain patients.^(1, 4) Cefalexin may affect the clotting process and increase the effect of anticoagulants (e.g. warfarin), close monitoring is required.^(1, 5)
COMMENTS	<ul style="list-style-type: none"> Note: Some texts recommend a lower standard dose of cefalexin. At PCH doses <12.5mg/kg/dose are rarely given except for dose adjustment in renal failure.
MANUFACTURER SAFETY DATA SHEET (SDS)	To access to the Manufacturer SDS for this product, use the following link to ChemAlert .

****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 and related external legislation, policies, and guidelines**

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