



DESCRIPTION	<p>Clindamycin is a semi-synthetic antibiotic effective against aerobic Gram positive and anaerobic Gram positive and Gram negative bacteria. It inhibits protein synthesis by binding to the 50S ribosomal subunit^{1,4}</p> <p>Clindamycin is indicated in the treatment of serious infections caused by gram positive bacteria resistant to other agents (e.g. Methicillin resistant <i>Staphylococcus aureus</i>) or in patients allergic to other agents (e.g. penicillin and/or cephalosporin allergy) and as an adjunct to standard beta-lactam antibiotics in specific clinical situations (e.g. severe Group A Streptococcal infections).</p>
ChAMP INDICATIONS AND RESTRICTIONS	<p>IV and Oral : Category B: Monitored ChAMP team to be informed of use and will review if ongoing therapy is required and does not meet specified indications.</p> <p>Standard Indications:</p> <ul style="list-style-type: none"> • MRSA infection – neonate or skin, soft tissue, bone or joint infection • Severe pneumonia - neonate • Endocarditis and/or surgical prophylaxis – penicillin allergy • Skin, soft tissue, bone or joint infection (<i>S. aureus</i>) – penicillin allergy • Skin, soft tissue, bone or joint infection – severe or necrotising infection • Streptococcal sepsis/ toxic shock <p>Oral and topical: Category A: Unrestricted This is not a restricted agent. Follow standard ChAMP guidelines where appropriate.</p>
FORMULATIONS	<p>150mg Capsules 150mg/mL Solution for Injection</p>
DOSAGE	<p>The doses listed below fall within the standard range. Higher doses may be prescribed for certain situations. This should be in consultation with Infectious Diseases or Microbiology consultants.</p> <p>IV: Usual dose: 10mg/kg/dose 8 hourly (maximum 4.8g/day)^{2,3,4} Severe infections: 10mg/kg/dose 6 hourly (maximum 4.8g/day)^{2,3,4}</p> <p>Oral: Usual dose: 7.5mg/kg/dose 8 hourly (maximum 1.8g/day)^{2,3,4}</p> <p>Neonates: Please refer to neonatal clinical care drug protocols Neonatology Clinical Care Unit - Drug Protocols - Services A — Z - Women and Newborn Health Service</p>
DOSAGE ADJUSTMENT	<p>Dose reduction <u>may</u> be required in cases of significant renal or hepatic impairment. Contact Pharmacy for advice.⁵</p>
RECONSTITUTION	<p>Not applicable – Use solution prepared in pharmacy if available</p>
ADMINISTRATION	<p>IV infusion: Dilute to 12mg/mL or weaker and infuse over 10 – 40 minutes or at a rate no greater than 30mg/minute.^{6,7}</p> <p>Continuous infusion: May be given over 24 hours by continuous infusion. Contact Pharmacy for advice.</p> <p>Oral: Swallow capsules whole with water. If the patient is unable to swallow capsules or the dose is not a multiple of 150mg then the capsule(s) may be opened and the contents of the capsule(s) dissolved in water, if only a portion of the mixture is required, draw up the required volume and discard the remaining solution. The contents of the capsule may be mixed in juice or soft food to disguise the taste. (NB. Clindamycin solution is extremely unpalatable – only use where no</p>

	alternative exists) ⁴ Each dose should be followed by a glass of water to avoid oesophageal irritation. ¹
MONITORING	Hepatic function should be monitored weekly with prolonged therapy (i.e. longer than 7 days). ^{4,5}
ADVERSE EFFECTS	Common: diarrhoea (mild-to-severe), nausea, vomiting, abdominal cramps, rash, itch ^{1,3,4,7,8} Rare: <i>Clostridium difficile</i> -associated disease, toxic epidermal necrolysis, taste disturbance, anaphylaxis, blood dyscrasias, polyarthritis, jaundice, raised liver enzymes (with high doses); IV: hypotension, cardiac arrest (with rapid injection), thrombophlebitis; IM: pain, induration, sterile abscess. ^{1,3,4,7,8}
COMPATIBLE FLUIDS	Glucose 5% Glucose/sodium chloride solutions Sodium chloride 0.9% Hartmann's ^{4,6}
PRECAUTIONS	Clindamycin is contraindicated in patients with a previous hypersensitivity reaction to clindamycin, lincomycin or any of the ingredients contained in the product ^{1,7} Hypotension and cardiac arrest have been reported with rapid intravenous administration. Clindamycin should be diluted to a strength of 12mg/mL or less and rate of administration should NOT exceed 30mg/minute ^{6,7,3}
COMMENTS	Injection ampoule contains benzyl alcohol which may cause allergic reactions in some people. ¹ Clindamycin has good oral bioavailability – consider switching to oral dosing as soon as clinically appropriate


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

References:

1. MIMS Australia Pty Ltd. MIMS [online]. St Leonards (NSW): CMPMedica Australia Pty Ltd; accessed online 9th April 2013.
2. Kemp CA, McDowell JM, editors. Paediatric Pharmacopoeia 13th edition. Melbourne: Pharmacy Department, Royal Children's Hospital; 2005. p.64.
3. Taketomo CK, Hodding JH, Kraus DM, editors. Pediatric dosage handbook with international tradename index. 19th edition. Ohio: Lexi-Comp Inc; 2012-2013. p.398-400.
4. Australian Medicines Handbook Pty Ltd. Australian Medicines Handbook [online] Adelaide (SA): Australian Medicines Handbook Pty Ltd accessed online 9th April 2013.
5. Ashley C and Currie A, editors. The Renal Drug Handbook: Third edition. Abingdon (UK): Radcliffe Publishing Ltd; 2009. p. 167.
6. Burrige N, Deidun D, editors. Australian injectable drugs handbook, fifth edition [online]. Collingwood: The Society of Hospital Pharmacists of Australia; 2011. accessed online 9th April 2013.
7. Elsevier. Clinical Pharmacology [online]. Tampa (Florida): Elsevier BV; accessed online 9th April 2013.
8. BNF Group, the Royal Pharmaceutical Society. BNF for Children [online] London: Pharmaceutical Press accessed online 9th April 2013.

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File Name and Path:	W:\Safety & Quality\CAHS\CLOVERS MEDICAL Pharmacy\Procedures Protocols and Guidelines\ChAMP		
Document Owner:	Children's Antimicrobial Management Program (ChAMP)		
Reviewer / Team:	Children's Antimicrobial Management Program Pharmacist		
Document Sponsor:	PMCCU		
Date First Issued:	May 2013	Version:	3
Last Revised:	November 2013	Review Date:	October 2015
Endorsed by:	DTC	Date:	21 st October 2013
Standards Applicable:	NSQHS Standards: 		
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