



## Monographs for Commonly Administered Intravenous Medications in Home and Community Care

### Clindamycin

<b>Drug Class<sup>1</sup></b>	Antibiotic	
<b>Spectrum<sup>1</sup></b>	<b>Refer to product monograph for complete spectrum</b> Gram positive cocci ( <i>Staphylococcus</i> , <i>Streptococcus</i> , <i>Pneumococcus</i> ), <i>Chlamydia trachomatis</i> . Anaerobic bacteria- <i>Bacteroides</i> species, <i>Peptostreptococcus</i> , <i>Clostridium</i> species, anaerobic streptococci	
<b>Cross Sensitivities / Allergies<sup>1</sup></b>	No cross sensitivities – Often used when a patient has an allergy to a penicillin or cephalosporin – and gram positive coverage is required	
<b>Indications<sup>1,2</sup></b>	<ul style="list-style-type: none"> <li>• Lower respiratory</li> <li>• Skin and skin structure</li> <li>• Bone and joint</li> <li>• <i>P. jiroveci</i> (previously <i>P. carinii</i>) pneumonia (in patients with HIV/AIDS)</li> </ul>	<ul style="list-style-type: none"> <li>• Gynecological</li> <li>• Intra-abdominal</li> <li>• Septicemia</li> <li>• Other culturally sensitive conditions</li> </ul>
<b>Outpatient Considerations<sup>1,2</sup></b>	<ul style="list-style-type: none"> <li>• Must be able to access laboratory monitoring (either at outpatient laboratory or by arranging in-home lab) if using an interacting oral medication (see Drug interactions) or has severe liver disease.</li> <li>• Use with caution in patients who have a history of <i>Clostridium difficile</i>, colitis or inflammatory bowel disease as Clindamycin can exacerbate or cause a reoccurrence</li> <li>• Antibiotic associated diarrhea may occur more frequently in the elderly.</li> <li>• Oral clindamycin is an option, and step down from IV to oral should be considered after 3-5 days depending on indication, gastrointestinal absorption and clinical status.</li> </ul>	
<b>Prescribing Considerations and Dosage in Adults<sup>1-3</sup></b>	<ul style="list-style-type: none"> <li>• Usual dose 300 – 900 mg IV every 6-12 hours. Doses up to 4800 mg/day can be used in life threatening infections.</li> <li>• Can also be administered intramuscularly (max 600 mg per dose), although IV is preferred for severe infections.</li> </ul> <p><b>No renal dose adjustment is necessary</b></p>	
<b>Administration<sup>2,3</sup></b>	<ul style="list-style-type: none"> <li>• Dispensed in an ambulatory cassette/multi-dose bag intended for an infusion pump, programmed to deliver total daily dose via preprogrammed boluses over 24 hours.</li> <li>• Alternatively, may be dispensed in single dose 50-100ml NS or D5W and infused over 10-45 minutes (depending on dose and volume) during nursing visits via gravity or pole pump. Maximum infusion rate is 30 mg/min.</li> <li>• Prior to connecting the patient to therapy, double check pump programming against the order. Recheck after each order change.</li> <li>• Contact pharmacy infusion provider for specific questions pertaining to</li> </ul>	



## Monographs for Commonly Administered Intravenous Medications in Home and Community Care

### Clindamycin

administration.			
<b>Stability / Compatibilities<sup>1-3</sup></b>	<p><i>Compatible with:</i></p> <ul style="list-style-type: none"> <li>• 0.9% Sodium Chloride (NS)</li> <li>• Dextrose 5% in Water (D5W)</li> <li>• Ringer's Lactate</li> </ul> <p>Follow the stability as specified by the infusion provider (as it is based on the dilution). Ensure appropriate storage conditions as specified are being met.</p>		
<b>Monitoring Parameters<sup>1</sup></b>	<table border="0" style="width: 100%;"> <tr> <td style="width: 50%; vertical-align: top;"> <p><b>Laboratory:</b></p> <ul style="list-style-type: none"> <li>• Complete blood counts weekly (especially those taking concomitant primaquine)</li> <li>• For patients with severe liver disease, monitor liver and kidney function weekly.</li> <li>• See Potential Drug Interactions section below for additional monitoring information.</li> </ul> </td> <td style="width: 50%; vertical-align: top;"> <p><b>Clinical by Nurse:</b></p> <ul style="list-style-type: none"> <li>• Ask daily about any onset of severe diarrhea. Contact prescriber to reassess therapy and possibly order stool cultures to rule out <i>C. difficile</i> and implement treatment, if necessary</li> <li>• Observe site for phlebitis and skin necrosis daily</li> </ul> <p>Review home medications and compare against the selected drug interactions listed below. Report to prescriber if patient is using an interacting drug and obtain further orders. For more comprehensive drug interaction screening, contact the patient's community pharmacist(s).</p> </td> </tr> </table>	<p><b>Laboratory:</b></p> <ul style="list-style-type: none"> <li>• Complete blood counts weekly (especially those taking concomitant primaquine)</li> <li>• For patients with severe liver disease, monitor liver and kidney function weekly.</li> <li>• See Potential Drug Interactions section below for additional monitoring information.</li> </ul>	<p><b>Clinical by Nurse:</b></p> <ul style="list-style-type: none"> <li>• Ask daily about any onset of severe diarrhea. Contact prescriber to reassess therapy and possibly order stool cultures to rule out <i>C. difficile</i> and implement treatment, if necessary</li> <li>• Observe site for phlebitis and skin necrosis daily</li> </ul> <p>Review home medications and compare against the selected drug interactions listed below. Report to prescriber if patient is using an interacting drug and obtain further orders. For more comprehensive drug interaction screening, contact the patient's community pharmacist(s).</p>
<p><b>Laboratory:</b></p> <ul style="list-style-type: none"> <li>• Complete blood counts weekly (especially those taking concomitant primaquine)</li> <li>• For patients with severe liver disease, monitor liver and kidney function weekly.</li> <li>• See Potential Drug Interactions section below for additional monitoring information.</li> </ul>	<p><b>Clinical by Nurse:</b></p> <ul style="list-style-type: none"> <li>• Ask daily about any onset of severe diarrhea. Contact prescriber to reassess therapy and possibly order stool cultures to rule out <i>C. difficile</i> and implement treatment, if necessary</li> <li>• Observe site for phlebitis and skin necrosis daily</li> </ul> <p>Review home medications and compare against the selected drug interactions listed below. Report to prescriber if patient is using an interacting drug and obtain further orders. For more comprehensive drug interaction screening, contact the patient's community pharmacist(s).</p>		
<b>Selected Clinically Significant Drug Interactions<sup>1</sup></b>	<p><b>Primaquine<sup>1</sup></b> - in patients with G6PD deficiency, primaquine used in combination with clindamycin can cause serious hematologic toxicities (neutropenia, anemia, and thrombocytopenia). Vigilant monitoring is required.</p> <p><b>Cyclosporine<sup>4</sup></b> – case reports have noted a decrease in cyclosporine levels, so vigilant monitoring is required to ensure low cyclosporine levels do not result in therapeutic failure (i.e., transplant rejection).</p> <p><b>Warfarin<sup>5</sup></b> – A few case reports have demonstrated an increased INR while on clindamycin. Increased monitoring at the beginning and ending of antibiotic therapy is recommended, or weekly if an extended duration of treatment.</p>		
<b>Patient Education</b>	<p><i>Advise patient to report to their doctor or nurse if they have:</i></p> <ul style="list-style-type: none"> <li>• New onset watery, foul smelling diarrhea and abdominal cramping. Clindamycin can cause <i>C. difficile</i> diarrhea.</li> <li>• Pain or swelling at the infusion site</li> <li>• Signs of bleeding (if taking an anticoagulant).</li> </ul>		
<b>Other</b>	<p>For information on pregnancy and nursing please contact the Motherisk Helpline at <a href="http://www.motherisk.org/women/contactUs.jsp">http://www.motherisk.org/women/contactUs.jsp</a></p>		



## Monographs for Commonly Administered Intravenous Medications in Home and Community Care

### References:

1. Clindamycin [product monograph]. Richmond Hill (ON): Fresenius Kabi Canada Ltd.; 2015 Apr 22 [cited 2016 Feb 16]. Obtained through Health Canada Drug Product Database; search term “clindamycin” as active ingredient, available from: <http://webprod5.hc-sc.gc.ca/dpd-bdpp/index-eng.jsp>
2. Clindamycin [monograph]. In: Bedard M, Gergoure N, Massicotte A, Editors. Parenteral Drug Therapy Manual. Ottawa (ON); 2015.
3. Clindamycin [monograph]. Global RPh. [cited 2016 Apr 11]. Available from: [http://www.globalrph.com/clindamycin\\_dilution.htm](http://www.globalrph.com/clindamycin_dilution.htm)
4. Thurnheer R, Laube I, Speich R. Possible interaction between clindamycin and cyclosporin. *BMJ*. 1999;319(7203):163.
5. Clindamycin drug interaction with warfarin leading to International Normalised Ratio (INR) increased [PRAC Recommendation]. European Medicines Agency - Pharmacovigilance Risk Assessment Committee. 2014 Apr [cited 2016 Feb 16]. Available from: [http://db.cbgmeb.nl/veegactie/csp/Clindamycin\\_april2014.pdf](http://db.cbgmeb.nl/veegactie/csp/Clindamycin_april2014.pdf)

*Disclaimer:* This monograph is intended to be used as a reference to support healthcare professionals in the home and community setting. It supplements, but does not replace: clinical judgement, the information provided by the product manufacturers, and the need to consult with the prescriber.

All reasonable precautions have been taken by the Institute for Safe Medication Practices Canada (ISMP Canada) to verify the information contained in this document. However, ISMP Canada does not guarantee the quality, accuracy, completeness or timeliness of such information. Accordingly, the information is shared without warranty or representation of any kind (express, implied or statutory). The responsibility for the interpretation and use of the information provided hereby lies with the reader. In no event shall ISMP Canada be liable for damages arising from the use or misuse of such information.

© ISMP Canada 2016

Developed with support from Health Quality Ontario