

## **INDOMETACIN**

Read in conjunction with **Disclaimer** 

Formulary: Restricted  Requires Neonatologist review within 24 hours of initiation					
Presentation	Prefilled syringe: 1000 microg/5 mL (KEMH Pharmacy) Oral suspension: 250 microg/mL				
Classification	Non-steroidal anti-inflammatory (NSAID)				
Indication	Haemodynamically significant patent ductus arteriosus				
Contraindications	<ul> <li>Anuria or oliguria (less than 0.5 to 1 mL/kg/hour)</li> <li>Serum creatinine greater than 150 micromol/L</li> <li>Thrombocytopenia or coagulopathy</li> <li>Active bleeding</li> <li>Necrotising enterocolotis (NEC)</li> <li>Ductal dependant congenital heart disease</li> <li>Pulmonary hypertension</li> </ul>				
Monitoring	ng Assess for ductal closure, urine output, urea, creatinine, electrolytes				
Compatibility	Fluids: Sodium chloride 0.9%, water for injection  Refer to KEMH Neonatal Medication Guideline: Y-Site IV Compatibility in Neonates				
Incompatibility	Calcium gluconate, dobutamine, dopamine, gentamicin, glucose 10%, midazolam, morphine, vancomycin				
	Aminoglycosides & Vancomycin: Dose may need to be modified if indometacin affects renal function.				
Interactions	<b>Digoxin:</b> Reduces Indometacin volume of distribution, an increased dose may be required.				
	<b>Diuretics:</b> Concomitant use of diuretics may increase incidence of renal impairment.				
Side Effects	Common: Hyponatraemia, hyperkalaemia, abdominal distension, oedema				
	<b>Serious:</b> GI bleeding, transient ileus, renal impairment, necrotising enterocolitis (NEC)				
Storage & Stability	Prefilled syringe: Refrigerate between 2 to 8°C. Do not freeze.				
	Oral suspension: Refrigerate between 2 to 8°C. Do not freeze.				
Comments	Indometacin is associated with transient renal impairment. Late and prolonged treatment of the ductus arteriosis with indometacin may increase the incidence of NEC.				

	Presentation (for oral use)	Oral suspension: 250 microg/mL			
		Haemodynamically significant patent ductus arteriosus			
Ļ	Dosage	Neonate must be on at least 100mL/kg/day of oral feeds before starting oral administration			
		Age	Dose	Frequency	
ORAL		All ages	200 microg/kg	Once daily (for 3 to 5 days)	
	Preparation	Oral suspension is available			
	Administration	<ul> <li>Shake well before use</li> <li>Draw prescribed dose into oral/enteral syringe</li> <li>Can be given Oral/OGT/NGT</li> <li>Give with or soon after a feed.</li> </ul>			

	Presentation (for IV use)	Prefilled syringe: 1000 microg/5 mL (KEMH Pharmacy)				
INFUSION	Dosage	Haemodynamically significant patent ductus arteriosus Given once daily for 3 days as per table below:				
<b>E</b>		Age	First dose	Subsequent doses		
		All ages	200 microg/kg	100 to 200 microg/kg		
SOON		<ul> <li>A further 2 daily doses may be given if required (maximum 5 doses total)</li> </ul>				
VEN	Preparation	Prefilled syri	Prefilled syringes are available			
INTRAVENOUS	Administration	<ul> <li>IV infusion:</li> <li>Infuse over 20 to 30 minutes</li> <li>Flush bung with 0.5 mL of sodium chloride 0.9% over at least 30 minutes to avoid rapid administration of remaining medication</li> </ul>				

## **Related Policies, Procedures, and Guidelines**

**CAHS Clinical Practice Guidelines:** 

Patent Ductus Arteriosus (PDA)

## References

Australian Medicines Handbook. Indometacin. In: Australian Medicines Handbook Children's Dosing Companion [Internet]. Adelaide (South Australia): Australian Medicines Handbook; 2023 [cited 2023 Dec 28]. Available from: <a href="https://amhonline.amh.net.au/">https://amhonline.amh.net.au/</a>

Truven Health Analytics. Indometacin. In: NeoFax [Internet]. Greenwood Village (CO): Truven Health Analytics; 2023 [cited 2023 Dec 28]. Available from: https://neofax.micromedexsolutions.com/

Neomed Formularies. Indometacin. In: The Royal Hospital for Women [Internet]. [South Eastern Sydney, New South Wales]; 2021 [cited 2023 Dec 28]. Available from: https://www.seslhd.health.nsw.gov.au/royal-hospital-for-women/neomed-formularies

Takemoto CK, Hodding JH, Kraus DM. Pediatric & neonatal dosage handbook with international trade names index: a universal resource for clinicians treating pediatric and neonatal patients. 23rd ed. Hudson (Ohio): Lexicomp; 2020-2021. p1248.

de Albuquerque Botura C, da Rocha BA, Balensiefer T, Ames FQ, Bersani-Amado CA, Nakamura Cuman RK. Oral pharmacological treatment for patent ductus arteriosus in premature neonates with hemodynamic repercussions. Asian Pac J Trop Med. 2017 Nov;10(11):1080-1083.

## **Document history**

Keywords	Indometacin, indomethacin, patent ductus arteriosus, PDA, NSAID					
Document Owner:	Chief Pharmacist					
Author/ Reviewer	KEMH & PCH Pharmacy/Neonatology Directorate					
Version Info:	5.0 – full review, new template					
Date First Issued:	March 2014	Last Reviewed:	28/12/202	23	Review Date:	28/12/2028
Endorsed by:	Neonatal Directorate Management Group Date: 23/04/2024					23/04/2024
NSQHS Standards Applicable:	Std 1: Clinical Governance Std 4: Medication Safety					
Printed or personally saved electronic copies of this document are considered uncontrolled.  Access the current version from WNHS HealthPoint.						

This document can be made available in alternative formats on request for a person with a disability.

© North Metropolitan Health Service 2023