LOPERAMIDE

Trade Name	Diamide relief® (loperamide capsules) MYLAN
Class	Antimotility / Antidiarrhoeal
Mechanism of Action	Acts directly on circular and longitudinal intestinal muscles, through the opioid receptor, to inhibit peristalsis and prolong transit time. It reduces faecal volume, increases viscosity, and diminishes fluid and electrolyte loss, as well as having anti-secretory activity.
Indications	1. Short bowel syndrome 2. High volume ileostomy losses 3. Chronic diarrhoea
Contraindications	Ileus, constipation, abdominal distension, colitis
Supplied As	2mg capsules
Dilution	Open one 2mg capsule and dilute contents with 4ml of water to make a **0.5mg/ml solution** Use a new capsule for each dose.
Dosage	Start at 0.1mg/kg/**dose** 12 hourly and titrate the dose depending on the effect. Increase to a maximum of 1-2 mg/kg/**day**[3,5] Loperamide to be started only after consultation with Paediatric Gastroenterology
Guardrail	N/A
Interval	8-12 hourly
Administration	Oral / Nasogastric Best absorbed if given 30 minutes before a feed
Compatible With	N/A
Incompatible With	N/A
Interactions	None known
Monitoring	Monitor for effect or constipation
Stability	Use a new capsule to make up the solution for each dose, then discard the remainder
Storage	Store capsules at room temperature

Adverse Reactions	Nausea, flatulence, headache, dizziness Rarely – paralytic ileus, urticaria, Steven Johnson Syndrome, Toxic Epidermal Necrolysis Syndrome
Metabolism	Loperamide undergoes hepatic metabolism where it is conjugated and excreted via the bile. Due to the very high first pass metabolism the plasma concentration of unchanged Loperamide remains extremely low. The plasma protein of Loperamide is 95%, mainly to albumin. The half-life of Loperamide in adults is around 11 hours (9-14 hours). Time to peak concentration is 5 hours while onset of action is within 30 to 60 minutes.
Comments	Loperamide 1mg/5ml liquid (section 29) is available however this product is not funded in NZ and its low concentration means most children are unable to tolerate the volume of dose required. Note also that the liquid contains preservatives, flavouring, colouring and an unspecified amount of ethanol all of which may not be suitable for neonatal use. Therefore we have chosen to use the contents of a capsule diluted in water to provide an aliquot for each dose.
References	1. NZFc www.nzf.org.nz 2. Uptodate Loperamide paediatric information October 2014 3. Medicines for children RCPCH 2003 4. Paediatric & Neonatal Dosage Handbook 19th ed. 5. Shann F RCH Melbourne, Drug Doses 2008.
Updated By	S Qi, B Robertshawe, A Lynn October 2014 M Wallenstein, A Lynn, B Robertshawe September 2020 (update) A Lynn, B Robertshawe July 2023 (routine update)