

**DIAZOXIDE**

<b>Trade Name</b>	Proglycem Oral solution (Gate Pharmaceuticals)
<b>Class</b>	Antihypertensive Antihypoglycaemic agent
<b>Mechanism of Action</b>	Diazoxide promotes smooth muscle relaxation in peripheral arterioles resulting in decreased blood pressure with an associated reflex increase in heart rate and cardiac output. Diazoxide also inhibits insulin release from the pancreas
<b>Indications</b>	Intractable hypoglycaemia due to hyperinsulinism
<b>Contraindications</b>	Known family history of allergy to diazoxide, thiazide diuretics or sulphonamides. Aortic coarctation, arterio-venous shunts
<b>Supplied As</b>	<b>IV:</b> 300mg/20mL <b>Oral:</b> 50mg/mL solution
<b>Dilution</b>	N/A
<b>Dosage</b>	<b>1 mg/kg/dose</b> , then increase to, 2 mg/kg/dose if the blood sugars do not respond within 24-48 hrs and in discussion with Endocrinology Maximum dose usually used is 3mg/kg/dose to minimise side effects but up to 5mg/kg/dose has been used in neonates
<b>Interval</b>	8 hourly
<b>Administration</b>	Oral – use pre-made solution, shake well <b>Do not give iv solution orally</b>
<b>Compatible With</b>	Do not mix with other medications
<b>Incompatible With</b>	Do not mix with other medications
<b>Monitoring</b>	Blood glucose as directed by medical team Sodium monitored on all gases taken for a blood glucose and must be daily as diazoxide is started or if dose is increased NEON taken if concerns about falling sodium on gases Blood pressure daily FBC after a week and ongoing if changes seen
<b>Stability</b>	<b>Oral:</b> Expires after 6 months or manufacturers expiry date (whichever is shortest)
<b>Storage</b>	<b>Oral:</b> Stable at room temperature, do not store in the fridge. Protect from light.

<b>Adverse Reactions</b>	Sodium and fluid retention (can precipitate congestive heart failure), hyperuricaemia, leukopaenia, neutropaenia, excessive (facial) hair growth, hyperglycaemia, hypotension, pulmonary hypertension. An association with the development of NEC has been reported in the literature.
<b>Metabolism</b>	Peak hyperglycaemic effect within 1 hour, usually not more than 8 hours 50% excreted unchanged in urine
<b>Comments</b>	<b>Chlorothiazide must start at the same time as starting the diazoxide</b> to minimise sodium and fluid retention.  Chlorothiazide also works synergistically to control insulin levels  Do not use the injection intramuscularly, subcutaneously or orally because the solution is very alkaline.  Proglycem®- diazoxide oral solution is now funded in the community following application for special authority
<b>References</b>	<ol style="list-style-type: none"> <li>1. Frank Shann: "Drug Doses" booklet; 1998 (10<sup>th</sup> Ed.):26.</li> <li>2. Neonatal Formulary The Northern Neonatal Network.BMJ 2000.</li> <li>3. Hull D et al. Eds. Medicines for Children RCPCH 1999.0</li> <li>4. <a href="http://www.medsafe.govt.nz">www.medsafe.govt.nz</a></li> <li>5. Lacy et al. Paediatric Dosage Handbook 6<sup>th</sup> Edition 1999/2000.</li> <li>6. NZHPA Notes on Injectable Drugs 5<sup>th</sup> Edition</li> <li>7. Hussain K. Congenital hyperinsulinism. Sem Fetal Neonatal Med. 2005;10:369-76.</li> <li>8. Chandran S et al. Safety and efficacy of low dose diazoxide in small for GA infants with hyperinsulinaemic hypoglycaemia. Arch Dis Child Fetal Neonatal 2022; 107: F359-363.</li> </ol>
<b>Updated By</b>	<p>P Schmidt &amp; B Robertshawe November 2005  A Lynn, B Robertshawe October 2007  A Lynn, B Robertshawe February 2010  A Lynn, B Robertshawe June 2012 (re-order profile) June 2014 SA  A Lynn, B Robertshawe April 2017 (Update storage)  A Lynn, M de Bock Aug 2018 (Alter dosing to mg/kg/dose, max15mg/kg/d Diuretics must start concurrently)  A Lynn, M Wallenstein, B Robertshawe December 2020 (routine review)  N Austin B Roberstshawe June 2021, need to monitor Na levels  A Lynn, K MacKenzie, M Castro Sept 2022 (start at 1mg/kg/dose)</p>