### Alert
Concomitant use of a thiazide diuretic is recommended. Avoid higher doses where possible.

### Indication
Treatment of neonatal hyperinsulinaemic hypoglycaemia (transient or persistent).

### Action
Opens potassium-ATP channels on pancreatic beta-cells to inhibit insulin secretion. Opening of these channels also occurs in cardiac and vascular smooth muscle leading to decrease in blood pressure and potential for cardiorespiratory deterioration.

### Drug Type
Antihypertensive, antidiuretic benzothiadiazine.

### Trade Name
- **Oral:** Proglycem.
- **Intravenous:** DBL Diazoxide Injection BP.

### Presentation
- **Oral:** Diazoxide 10 mg/mL solution compounded in house by the Pharmacy department; 50 mg/mL commercial oral preparation available as an unregistered product.
- **Intravenous:** DBL Diazoxide Injection BP 300 mg/20 mL ampoule.

### Dosage / Interval
5–15 mg/kg/day. Can be given as 2–5 mg/kg/dose every 8 hours or 2.5–7.5 mg/kg/dose every 12 hours.

### Maximum daily dose
- **Neonates:** 15 mg/kg/day.
- **Children:** Up to 30 mg/kg/day but caution exceeding 20 mg/kg/day.

### Route
- **Oral.**
- **Intravenous.**

### Preparation/Dilution
- **Oral solution:** Shake well before use.
- **Intravenous:** Do not dilute (15 mg/mL).

### Administration
- **Oral:** Administer after feeds (preferred).
- **Intravenous:** Administer over at least 30 seconds. DO NOT administer by intramuscular or subcutaneous injection (alkaline solution).

### Monitoring
Monitor blood pressure and blood glucose levels during initial treatment. Monitor for sodium and fluid retention (urine output, electrolytes and weight). Consider monitoring albumin and liver function.¹

### Contraindications
Hypersensitivity to thiazide derivatives.

### Precautions
- Avoid sodium and water overload.
- Concomitant use of a thiazide diuretic is recommended.
- Avoid higher doses where possible.
- Use with caution in premature infants – increased risk of cardiorespiratory complications;
- Use with caution in jaundice – may displace bilirubin from albumin.
- Reduce dose in infants with renal impairment.
- Use with caution in infants with hepatic impairment.
- Use with caution in mechanical hypertension, e.g. secondary to aortic coarctation or arteriovenous shunt.
- Use with caution in pulmonary hypertension.

### Drug Interactions
Concomitant administration of diuretics may result in potentiation of the hyperglycaemic, hyperuricaemic or hypotensive effect of diazoxide.

### Adverse Reactions
- Tolerance to diazoxide is usually good.
- Severe adverse effects include sodium and fluid retention which may precipitate congestive heart failure in patients with compromised cardiac reserve. Usually responds to diuretic therapy.
- Life-threatening episodes of pulmonary hypertension were observed in some neonates receiving diazoxide.² Prematurity and higher diazoxide doses are risk factors for cardiovascular side effects.³
- Severe hypotension can be controlled with sympathomimetic agents if necessary.
- With prolonged use, hypertrichosis can sometimes be marked and distressing in young children, but will be reversible after treatment cessation.
- Haematological side effects are very rare with the usual doses.
- Overdose of diazoxide produces hyperglycaemia and possibly ketoacidosis which should be treated promptly with insulin and restoration of fluid and electrolyte balance.

### Compatibility
Do not mix with other fluids or drugs.
### Incompatibility
Do not mix with other fluids or drugs.

### Stability
Discard remaining IV solution after use.

### Storage
Ampoules: Store below 25°C. Protect from light. Avoid excessive heat and freezing.
Oral solution: As per advice from Pharmacy.

### Special Comments
Concomitant use of a thiazide diuretic is recommended to counter sodium and fluid retention from use of diazoxide.⁴,⁵
Oral diazoxide is not registered in Australia. Complete a category A Special Access Scheme form and obtain parental consent.

### Evidence summary
As per NMF Consensus Group. Refer to reference manual or electronic version.

### References
As per NMF Consensus Group. Refer to reference manual or electronic version.

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