South Australian Neonatal Medication Guidelines

diazoxide 10mg/mL oral mixture (SAS)* WCH product

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Note:

This guideline provides advice of a general nature. This statewide guideline has been prepared to promote and facilitate standardisation and consistency of practice, using a multidisciplinary approach. The guideline is based on a review of published evidence and expert opinion.

Information in this statewide guideline is current at the time of publication.

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Health practitioners in the South Australian public health sector are expected to review specific details of each patient and professionally assess the applicability of the relevant guideline to that clinical situation.

If for good clinical reasons, a decision is made to depart from the guideline, the responsible clinician must document in the patient's medical record, the decision made, by whom, and detailed reasons for the departure from the guideline.

This statewide guideline does not address all the elements of clinical practice and assumes that the individual clinicians are responsible for discussing care with consumers in an environment that is culturally appropriate and which enables respectful confidential discussion. This includes:

- The use of interpreter services where necessary,
 - Advising consumers of their choice and ensuring informed consent is obtained,
 - Providing care within scope of practice, meeting all legislative requirements and maintaining standards of professional conduct, and
- Documenting all care in accordance with mandatory and local requirements

Dose and Indications

Treatment of hyperinsulinism/hypoglycaemia in neonates, after consultation with a neonatologist

Oral

2 to 5 mg/kg/dose every 8 hours

For severe hypoglycaemia, commence therapy at the higher dose and reduce according to response.

A maximum of 20mg/kg/day may be required by some neonates.

Preparation and administration

10mg/ml mixture (WCH product)*

Dose	5mg	10mg	15mg	20mg	25mg
Volume	0.5mL	1mL	1.5mL	2mL	2.5mL

*oral mixture is prepared at Women's and Children's Health Network Pharmacy.

Please note the capsules used to make this mixture are not marketed in Australia and are only available via the Special Access Scheme (SAS). SAS paperwork (and informed parental consent) for capsules should be organised prior to starting treatment.



Adverse Effects

Common

Sodium and fluid retention, tachycardia, flushing, gastrointestinal symptoms (with chronic use)

Infrequent

Fever, rash, lymphadenopathy, dizziness, hyperuricaemia, gastrointestinal symptoms

Rare

Neutropenia, eosinophilia, thrombocytopenia.

Monitoring

Blood glucose

Fluid balance

Practice Points

- > Hyperglycaemia usually occurs within a few hours of dose administration. If no response observed with the maximum dose, diazoxide is unlikely to be effective and endocrine advice should be sought
- > The dose can be reduced gradually once normoglycemia has been achieved, continue to monitor blood glucose levels at least 24 hours after cessation of diazoxide
- > Fluid retention associated with use can be decreased by the addition of chlorothiazide, which may further reduce insulin secretion.
- > Diazoxide binds to the SUR1 and Kir6.2 components of the ATP dependent potassium channel (K_{ATP}) on the β cell, keeping this channel 'open' and thereby preventing insulin release. Diazoxide will be ineffective where hyperinsulism is due to mutations in genes coding for the SUR1 and Kir6.2 components of the K_{ATP} channel.

Document Ownership & History

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Approval Date	Version	Who approved New/Revised Version	Reason for Change	
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		Governance Committee	scheduled timeline for review.	
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