

# Sucrose

## 24% oral mixture

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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

### Reduction of procedural pain

**Oral**

Weight (grams)	Initial Dose	Maximum Dose
< 1500grams	0.1mL (2 drops)	0.5mL
1500grams to 3500grams	0.5mL (10 drops)	1mL
>3500grams	0.5mL (10 drops)	2mL

Maximum of 5 doses in 24 hours

## Preparation and Administration

**Oral**

Drop the appropriate dose of sucrose onto the baby's tongue 2 minutes prior to procedure. A dummy or comforter may be given to suck following the oral administration of the sucrose.

## Adverse Effects

The adverse effects of repeated doses in neonates are unknown.

Hyperglycaemia has not been reported but may need to be considered with chronic high doses of sucrose.

Administration may be associated with minor oxygen desaturation, bradycardia or brief apnoea.



### Practice Points

- > Breast milk can be used in the management of procedural pain in infants and should be used in preference to sucrose.
- > Sucrose reduces procedural pain from single events including:
  - intravenous insertion
  - suction
  - lumbar puncture
  - dressing changes
  - heel prick
  - venipuncture
  - bladder tap
  - removal of tapes from lines or tube.
- > Sucrose may be contraindicated for intravenous insertion immediately before a general anaesthetic – seek anaesthetic advice.
- > Sucrose 24% has an osmolarity of about 1000mOsm/L.
- > Sucrose is only effective when given orally and is ineffective if given directly into the stomach ie via nasogastric tube.
- > Efficacy is enhanced if sucrose is combined with the use of a pacifier, and if the baby is held throughout the procedure. Parental comforting and positioning have also been suggested as helpful in combination with the sucrose.

### References

1. Anand KJS. Consensus statement for the Prevention and Management of Pain in the Newborn. Arch Pediatr Adolesc Med. 2001;155:173-180
2. Stevens B, Yamada J, Ohlsson A, et al. Sucrose for analgesia in newborn infants undergoing painful procedures. Cochrane Database Syst Rev 2016; 7:CD001069.
3. Royal Children's Hospital Melbourne, Current Guidelines for the use of oral sucrose.
4. Grael, R. Neonatal pain management with oral sucrose: 2003 update, Clinical Column, Document Number 7C, The Online Journal of Knowledge and Synthesis for Nursing



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### Document Ownership & History

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<b>Endorsed by:</b>	SA Health Safety and Quality Strategic Governance Committee
<b>Next review due:</b>	24 August 2023
<b>ISBN number:</b>	978-1-74243-953-2
<b>PDS reference:</b>	CG058
<b>Policy history:</b>	<p>Is this a new policy (V1)? <b>N</b></p> <p>Does this policy amend or update an existing policy? <b>Y</b></p> <p>If so, which version? V1</p> <p>Does this policy replace another policy with a different title? <b>N</b></p> <p>If so, which policy (title)?</p>

Approval Date	Version	Who approved New/Revised Version	Reason for Change
24/08/18	V2	SA Health Safety and Quality Strategic Governance Committee	Formally reviewed in line with 5 year scheduled timeline for review.
11/2012	V1	SA Maternal & Neonatal Clinical Network	Original SA Maternal & Neonatal Clinical Network approved version.

