

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

Breast milk can be used in the management of procedural pain in infants and should be used in preference to sucrose.

Oral

Corrected age (weeks)	Incremental dose	Maximum dose per single event	Maximum total dose per 24 hours
< 32	0.1mL (2 drops)	0.2mL (4 drops)	1mL (20 drops)
≥ 32 to 40	0.1mL (2 drops)	0.5mL (10 drops)	2.5mL (50 drops)
>40	0.1mL (2 drops)	1mL (20 drops)	5mL (100 drops)

For patients who are nil by mouth use the smallest possible volume.

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. Avoid administering too quickly as can cause gagging and choking.

For babies who are nil by mouth or medically unstable, sucrose can be administered on the infant's tongue using a mouth swab.



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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

- > 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 (i.e., 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

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- > Stevens B, Yamada J, Ohlsson A, et al. Sucrose for analgesia in newborn infants undergoing painful procedures. Cochrane Database Syst Rev 2016; 7:CD001069.
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Document Ownership & History

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Approval Date	Version	Who approved New/Revised Version	Reason for Change
01/11/2022	V2.1	Domain Custodian, Clinical Governance, Safety and Quality	Dosing updated to reflect Royal Children's Hospital Guideline.
24/08/2018	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.

