

Sucrose 24% Oral Solution Use in Pediatrics

NOTE – a physicians order is needed for the use of sucrose

Purpose:

To provide short term pain relief for infants and children up to the age of 6 months. It may also be used in conjunction with pharmacological agents for relief of pain associated with more invasive procedures.

Minor procedures may include:

- Blood tests (venipuncture, capillary or arterial source)
- Intravenous insertion
- Intramuscular or subcutaneous injections
- Nasogastric tube insertion
- Urinary catheterization
- Adhesive tape removal
- Suture removal
- Minor dressing changes
- Percutaneous catheter (PICC) removal

More invasive procedures may include:

- Lumbar puncture
- Chest tube insertion or removal
- PICC placement
- Circumcision - neonatal

Contraindications/Exclusion Criteria:

- Carbohydrate intolerance due to short gut syndrome (unless physician approval)
- Metabolic or endocrine dysfunction (such as fructose or sucrose intolerance, diabetes)
- Inability to tolerate oral administration of the solution to the tongue
- Absent/deficient protective airway reflexes (gag, cough, swallow) from severe illness, CNS dysfunction, use of sedation/analgesics, neuromuscular blocking agents, or anesthetic agents. **Use cautiously in intubated patients or infants with cardiorespiratory instability.**
- Patient with suspected or confirmed necrotizing enterocolitis
- Oral surgery (unless approved by physician)
- Patients on a ketogenic diet
- Patients > 6 months of age
- NPO (unless physician approval)

Administration:

- Obtain maximum dose allowed for age prior to the start of the procedure
- Start with one drop – apply directly to the anterior tongue tip. Assess for tolerance (gagging or choking). Begin administration 2 minutes prior to the procedure
- Apply repeated drops as required using the minimum volume possible and not exceeding the maximum recommended dose (see Recommended Dose Chart). If the first drops are tolerated, use approximately ½ of the dose, then utilize a soother for non-nutritive sucking. Follow with the remaining amount as needed.
- Discard any remaining/unused solution

NOTE:

Do not administer sucrose via a nasogastric or gastrostomy tube or via nipple. Sucrose is to be used in conjunction with (developmentally appropriate) non-pharmacological and/or pharmacological pain reduction methods per nursing judgment.

Recommended Dose Chart

	Newborn – 6 months	NPO (physician approval)
Dose	1-2 mL	0.2 mL
Maximum dose	6 doses/day	6 doses/day

Pharmacokinetics:

Onset: 10 seconds
Peak: 2 minutes
Duration: 5-10 minutes

Documentation:

- Sucrose to be entered on the PRN portion of the MAR
- Document on MAR all doses with actual amount of solution administered with each dose
- Pain assessment (FLACC) prior to and following administration of sucrose to assess effectiveness

Approved by:

Carolyn Gray, BSP original copy signed

Date: May 14, 2012

Head of the Department of Pediatrics

Dr. J. Soper original copy signed

Date May 24, 2012

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