

**What is Sweet-Ease™?**

- ❖ Sweet-Ease™ is a 24% sucrose oral solution used to decrease pain during painful or stressful procedures. Research has shown significant decreases in crying, grimacing, heart rate and pain relief following the administration of sucrose prior to painful/stressful procedures.
- ❖ Sweet-Ease™ is intended for oral use only. There is no evidence of benefit when administered through NG tube.

**How does sucrose help relieve pain?**

Although not fully understood, the mechanism of action of sucrose is thought to involve the activation of the endogenous opioid system through taste. It is the patient's detection of the sweet taste, not the volume that produces the analgesic effect.

**When is it appropriate for use?**

- ❖ Sucrose is to be used for relief of pain during minor procedures such as, but not limited to, heel stick or lance, venipuncture, IV insertion, naso or orogastric tube placement, intramuscular or subcutaneous injections, arterial punctures, eye exams, bladder catheterization, dressing changes, tape removal, suturing, arterial blood draw, and nasal or endotracheal tube suctioning.
- ❖ Use sucrose for additional pain relief in conjunction with other pharmacologic agents for procedures such as PICC or other line insertions, lumbar punctures, chest tube insertion/removal, circumcision block, and cut-down procedures.
- ❖ Patient must be at least 32 weeks corrected gestational age. Use in patients greater than 6 months post-conceptual age must be evaluated for effectiveness.

**What are contraindications for use of sucrose?**

- ❖ Prematurity (less than 32 weeks corrected gestational age)
- ❖ Critical illness
- ❖ Confirmed or suspected gastrointestinal pathology at high risk for necrotizing enterocolitis (may include premature infants), unrepaired cardiac lesions, history of asphyxia, feeding intolerance, lack of bowel sounds
- ❖ Preoperative sedated patients. For patients NPO for OR, it should be cleared with the anesthesiologist before giving to patient.
- ❖ Paralyzed infants
- ❖ Infants sedated on an opioid and/or other sedative continuous infusions

**Procedure**

- ❖ A physician's order is required before using sucrose (in the future, this order will be included in the order set and prechecked unless unchecked by physician)
- ❖ Sucrose may be administered by RN, LPN, or by other personnel when overseen/instructed by RN
- ❖ Obtain unit dose of 24% sucrose (Sweet-Ease™) from Pharmacy
- ❖ Administer via standard infant pacifier 2 minutes prior to procedure by dipping the pacifier in sucrose and placing sucrose on anterior surface of tongue. Provide non-nutritive sucking throughout procedure
- ❖ The pacifier may be dipped in sucrose solution every 2 minutes, 3 additional times during procedure
- ❖ If the patient cannot or does not use a pacifier, the following is the recommended procedure:
  - 0.3 ml of oral sucrose will be drawn up in a 1 ml oral medication syringe
  - 0.1 ml should be placed on the anterior portion of the tongue 2 minutes prior to the procedure
  - Additional 0.1 ml may be re-administered twice during the procedure
- ❖ Document administration of sucrose on MAR and patient response
- ❖ Discard any remaining sucrose solution after each procedure

- ❖ Optimal dosing and age parameters are not well defined in the literature; however, research shows that volumes of 0.05-2 ml are effective in providing pain relief. The manufacturer recommends a limit of 2 ml per administration. Use the smallest amount that provides relief. For neonates less than 1500g, a daily total dose of 1ml is recommended.
- ❖ Parents are to be educated on the use of sucrose for procedural pain. Additionally, when available, parents are encouraged to assist with administration of sucrose, with RN supervision.
- ❖ **Research has shown that the pacifier alone has significant analgesic effects that are more than sucrose alone. The combination of pacifier and sucrose and been shown to have maximal effects.**

### **What other techniques can be used for comfort during a painful procedure?**

Utilizing environmental, behavioral, and pharmacologic interventions may aide in minimizing recurrent painful stimuli. Interventions may include, but are not limited to, use of swaddling, containment, non-nutritive sucking, music, facilitated tucking, rocking, and skin-to-skin contact with the caregiver (kangaroo). For additional ideas on comforting a child during painful procedures see HFFY 6835: Non-Drug Pain Control for Kids.

### **What are potential adverse effects?**

- ❖ Limited research has been done on risks associated with sucrose administration.
- ❖ Slight transient desaturation may be noted depending on volume of solution utilized and administration technique used.
- ❖ Excessive use of sucrose could cause hyperglycemia in newborn.
- ❖ Use caution during administration of sucrose to avoid gagging or choking.
- ❖ Long-term effects of the use of this medication are not yet studied, so this, as with any other medication, should be used according to guidelines.

### **References**

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