1.0 PURPOSE AND INTENT:

1.1 To provide pain relief for infants undergoing minor procedures.

Note: All recommendations are approximate guidelines only and practitioners must take into account individual patient characteristics and situation. Concerns regarding appropriate treatment must be discussed with the attending neonatologist.

2.0 PRACTICE OUTCOME

2.1 To prevent potential effects of pain experience on the developing newborn brain.

3.0 GUIDELINES

3.1 Sucrose in water solution between twenty percent (20%) and fifty percent (50%) is administered orally for relief of pain caused by minor procedures without a physician’s order to infants up to 12 months of age.

3.2 Use may include but not be limited to the following procedures:

- arterial, venous or capillary puncture
- injections
- tape removal
- lumbar puncture
- suturing or suture removal
- urinary catheterization
- suprapubic tap
- painful occupational or physiotherapy
- dressing change
- eye exam using retractors

3.3 Use sucrose up to 8 doses in a 24 hours period. If a patient has more than 8 procedures in that time frame consider other methods of pain management.

3.4 The amount of sucrose to use is determined based on the following table:

<table>
<thead>
<tr>
<th>Infant Weight / Condition</th>
<th>Oral Dosage of Sucrose in Water</th>
</tr>
</thead>
<tbody>
<tr>
<td>intubated or NPO</td>
<td>0.1 - 0.2 mL</td>
</tr>
<tr>
<td>&lt;1000 gram weight</td>
<td>0.1 - 0.2 mL</td>
</tr>
<tr>
<td>1001 – 2000 gram weight</td>
<td>0.5 mL</td>
</tr>
<tr>
<td>&gt;2000 gram weight</td>
<td>1-2 mL or dip soother</td>
</tr>
</tbody>
</table>

3.5 For optimal effect give some sucrose directly onto the oral mucosa 2 minutes prior to the painful procedure, some immediately upon beginning and some half way through if the procedure lasts longer than 10 minutes. For babies who weight more than 1000 grams this can be partial doses.

3.6 Use a pacifier or skin to skin contact with a parent in conjunction with sucrose to enhance analgesic affect.

3.7 Options for products:

Sucrose solution diluted from simple syrup to 24% is kept for one week in a refrigerator, and when taken to the bedside is used within 4 hours.
Commercial prepared sucrose solution kept at room temperature according to the date on the package. When opened is kept at the bedside in a protective package for up to 12 hours.

3.8 Assess the analgesic effectiveness of the sucrose and need for subsequent administrations during and following the procedure.

3.9 For any infant who demonstrates unexplained nausea, vomiting, abdominal pain and hypoglycemia after exposure to sucrose consult the Metabolic service to investigate the possibility of the infant having Hereditary Fructose Intolerance, a rare enzyme deficiency disorder.

4.0 REFERENCES


3.0 PRIMARY AUTHORS

3.1 Barbara Wheeler RN MN, Clinical Nurse Specialist, NICU St. Boniface General Hospital
3.2 Doris Sawatzky-Dickson RN MN, Clinical Nurse Specialist, NICU, Health Sciences Centre