GUIDELINE: Sucrose (oral) analgesia for simple neonatal procedures

SCOPE: Maternity, Neonatal Unit and Planet Sunshine

AUTHOR: NNU Quality co-ordinator

PURPOSE: To safely and effectively reduce pain response in infants. Neonates feel pain and pain relief is an important part of care. Sucrose solution 25% is recommended for pain relief.

GUIDELINE:
Oral sucrose is safe and effective for reducing procedural pain from a single event. Small amounts of oral sucrose are placed on the infant’s tongue which elicits an orally mediated increase in endogenous opioid. The analgesic effect lasts 5-8 minutes making it an ideal strategy for the management of short term pain. Oral sucrose is more effective if given with a pacifier as this promotes non-nutritive sucking which contributes to calming. There is no evidence to show that oral sucrose for procedural pain affects future teeth development or that it has any long term adverse effects.

Dose and maximum volumes should be adhered to.
Breast feeding or breast milk should be used to alleviate pain in neonates undergoing a single painful procedure. Both breast milk and sucrose have been shown to have an analgesic effect.

The evidence and efficacy of using oral sucrose has been demonstrated in neonates to 12 months of age.

The application of supportive measures such as swaddling, cuddling, warmth non-nutritive sucking and distraction (for older infants) should occur prior to oral sucrose administration.

Painful procedures include but are not limited to:
- Blood tests
- IV insertion
- Heel stick sampling
- Eye examination
- Dressings
- Catheter or NGT insertion
- IM injection

Administration
- Informed parental consent should be obtained
- Breast milk, if possible, should be used for a single painful procedure
- A standing order signed by the Paediatrician ensures that Sucrose is prescribed within the scope of this guideline
- Sucrose is given 2 minutes prior to the procedure
- Dose – see chart
- This dose may be repeated if necessary to maximum event dose
- Offer a pacifier if this is normal part of the infants care
- No more than 4 doses in 24 hours
Dose measured in an oral syringe and administered orally into the front of the mouth

Assessment of pain and response to management should be recorded

Sucrose solution is stored at room temperature and discarded by the expiry date

**Contraindications**

- Parents may decline sucrose administration
- The baby is less than 1500 gm and less than 31 weeks
- The baby has acute respiratory distress
- The baby is NBM or has suspected necrotising enterocolitis

### Oral Sucrose Administration

<table>
<thead>
<tr>
<th>Patient Group (Corrected Age)</th>
<th>&lt;32weeks &amp; NBM</th>
<th>≥32weeks to term</th>
<th>Infants 0 - 1 month</th>
<th>Infants 1 - 18 months</th>
</tr>
</thead>
<tbody>
<tr>
<td>Suggested Incremental doses</td>
<td>0.05mL</td>
<td>0.05- 0.1mL</td>
<td>0.05 - 0.1mL</td>
<td>0.25 - 0.5mL</td>
</tr>
<tr>
<td>Single event maximum dose</td>
<td>0.2 mL</td>
<td>0.2 - 0.5 mL</td>
<td>0.2 - 1 mL</td>
<td>1 - 2 mL</td>
</tr>
<tr>
<td>Suggested 24 hour maximum dose</td>
<td>1 mL</td>
<td>2.5 mL</td>
<td>5 mL</td>
<td>5mL</td>
</tr>
</tbody>
</table>

(RCH Clinical nursing guideline)

**ASSOCIATED DOCUMENTS**

Appendix 1 – Standing order for sucrose administration

**REFERENCES**


Consultant Paediatrician
Head of Dept. Paediatrics

Clinical Care Manager
Women, Child and Youth

Date of Approval: 15/11/2018

Next Review Date: 14/11/2021
APPENDIX 1

STANDING ORDER FOR SUCROSE SOLUTION FOR SIMPLE NEONATAL PROCEDURES

Oral Sucrose Solution 25% may be given in accordance with this guideline by nursing staff on Gisborne Neonatal Unit and Planet Sunshine.
No more than 4 doses should be given in a 24 hour period.

Authorised by:

_________________________
Dr Shaun Grant
Head of Dept. Paediatrics

Date of approval: ________________