How, why and when?
Glucose as pain relief for infants

Amber Smith

Background
Effective treatment of pain is an important objective of neonatal and infant health care. Evidence exists that early and repeated exposure to painful stimuli shortly after birth when the nervous system is still developing may lead to persistent behavioural changes and a smaller volume of the sensory areas of the brain in infants.

Aim
Sixteen primary research articles were reviewed to explore the different administration techniques of glucose for pain relief with infants undergoing minor procedures.

Methods
A comprehensive literature search was conducted using the electronic data bases was undertaken. Key words that were utilised included infants, pain, glucose, sugar, management and babies in order to identify appropriate articles. Inclusion criteria included English language, primary research articles, published between 2003 and 2009 that relate to the use of glucose for pain relief in infants under 12 months.

Findings
Four major themes emerged in relation to the different ways that glucose can be administered for effective pain relief in infants.

Methods of delivery
1. Syringe
2. Spray
3. With pacifier
4. Accompanying breastfeeding

Procedures it can be useful for
1. Heel lancing
2. Immunisation
3. Venepuncture

Quantities of glucose that are effective
1. 2ml
2. 1ml
3. 0.5ml

Length of time administered before procedure
1. 2 minutes
2. 5 minutes

POLICY ECOMMENDATIONS FOR PRACTICE
1. Administer glucose for infants undergoing a heel lance, venipuncture or immunisation
2. Administered glucose in conjunction with breastfeeding or pacifier
3. 2mls of glucose solution is the optimal dose for administration
4. Administered glucose two minutes prior to the painful stimulus.

“It is an international ‘right of the child’ to not have to endure pain” (UNICEF 2008)

“The goal of infant nursing care should be to ensure a pain and stress free experience” (Currie 2008)

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References
4. Lago et al 2009
5. Unicef 2008

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