Oral Immune Therapy in Newborn Intensive Care Unit (NICU)

Procedure Responsibilities and Authorisation

Department Responsible for Procedure	NICU
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Target Audience	Registered Nurses, Nurse practitioners, Clinical Nurse Specialist, registrars, Senior Medical Officers
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Procedure Review History

Version	Updated by	Date Updated	Summary of Changes
01	Jill Meiring	Oct 2019	New Procedure

Oral Immune Therapy in Newborn Intensive Care Unit (NICU)

1 Overview

1.1 Purpose

To provide guidance to clinical staff for the administration of Oral Immune Therapy to babies who have not yet been introduced to suckle feeds, to ensure that risks such as the transmission of infections, are identified, minimised and managed.

1.2 Scope

Staff working in the Newborn Intensive Care Unit (NICU) at Waikato District Health Board (DHB).

1.3 Patient group

Babies in NICU**.**

1.4 Exceptions

Any baby whose mother is:

- On any medication contra-indicated in breastfeeding (including recreational drugs but not Including Methadone)
- Infected with Human T-cell lymphocytic virus Type 1 or 2
- HIV positive
- Infected with active untreated tuberculosis

1.5 Indications

Every baby, whether term or preterm, who is not yet feeding by mouth and for whom breastmilk is not contra-indicated.

Nil by mouth is NOT a contra-indication

1.6 Benefits

Colostrum and breast milk have many beneficial properties including antimicrobial agents, anti-inflammatory factors, immunomodulators and leukocytes. These properties coat the upper respiratory and gastro-intestinal tracts and can prevent the mucosa from being invaded by pathogens. Unwell babies in NICU may have extended periods with no oral feeds or they may be fed by means of gastric tubes. This deprives these babies of this beneficial coating of the oral mucous membranes.

1.6 Definitions

Oral Immune Therapy (OIT)	OIT is the utilization of fresh colostrum or breast milk (never frozen) to coat the inside of the baby's mouth during mouth cares. This is then sublingually absorbed
EBM	Expressed breast milk

2 Clinical Management

2.1 Competency required

- Registered nurses who have completed Level 2 orientation
- Enrolled nurses under the direction and delegation of a Registered Nurse who has completed a Level 2 orientation.
- NICU Medical staff: registrars and senior medical officers
- Neonatal Nurse Practitioners (NNP) and Clinical Nurse Specialists (CNS)

2.2 Equipment

- Sterile containers of colostrum or breastmilk that has never been frozen, labelled with the baby's name and NHI number and the date & time that the milk was expressed.
- Cotton bud applicators
- If no EBM, sterile water for injection (10ml vial)

2.3 Procedure

- Encourage mothers to express as soon after the birth as possible.
- Give mothers sterile containers and infant hospital labels.
- Freshly expressed and sequentially labelled containers of colostrum/breastmilk with the date and time of expression are to be delivered by the mother, partner or midwife to the nurse caring for the baby.
- Label the colostrum/breastmilk "OIT" and place in the fridge, NOT the freezer.
- Before administering OIT, check the name and NHI number on the container as per NICU Nursing Procedure Labelling, handling, storage, transport and administration of human milk in NICU.
- For mouth cares, dip a sterile applicator into the colostrum/EBM to ensure that it is properly saturated.
- Gently coat the entire buccal mucosa and discard the applicator after use. Repeat this action with a second sterile applicator.
- Administer OIT 4-6 hourly and continue until suckle feeds are commenced
- If no colostrum or EBM is available, use sterile water for mouth cares
- Document procedure for each administration of OIT, including patient response and any parent education that may have been given.

2.4 Potential complications

- Transmission of the abovementioned infections if the mother has not been adequately screened during pregnancy.

3 Audit

- Staff performing OIT are fully trained as per section 2.1
- Expressed breast milk (EBM) from mother under the Exceptions section 1.4 is **never** used for OIT
- All EMB for OIT is clearly labelled as per NICU Nursing Procedure Labelling, handling, storage, transport and administration of human milk in Newborn Intensive Care Unit

4 Evidence base

4.1 References

- John Hunter Children's Hospital (2015). Oral Immune Therapy for Neonates in NICU/SCN. *John Hunter Children's Hospital NICU Guideline*. Retrieved on April 20, 2016 from http://www.hnehealth.nsw.gov.au/john-hunter-hospital/Pages/Home.aspx
- Sohn, K. et al (2016). Buccal administration of human colostrum: Impact on oral microbiota of premature infants. *Journal of Perinatology*, 36, 106 111;doi:10.1038/jp.2015.157. Retrieved on April 29, 2017 from http://www.nature.com/jp/journal/v36/n2/full/jp2015157a.html
- BC Women's Hospital + Health Centre (2015). Oral Immune Therapy. *BC Women's Hospital + Health Centre Guideline NN.08.09*. Retrieved on April 29, 2017 from http://www.bcchildrens.ca/Contact
- Pletsch, D. (2013). *Mothers' "Liquid Gold": A quality improvement initiative to support early colostrum delivery via oral immune therapy (OIT) to critically ill newborns.* Retrieved April 20, 2016 from http://www.longwoods.com/content/23356

4.2 Associated Waikato DHB Documents

- Waikato DHB NICU Protocol: Standardisation of enteral feeding in Newborn Intensive Care Unit (6171)
- Waikato DHB Women's Health Guideline: Management of perinatal infections (2617)
- Waikato DHB NICU Nursing Procedure: Labelling, handling, storage, transport and administration of human milk in Newborn Intensive Care Unit (2771)