

Royal Hospital for Women (RHW)
NEONATAL BUSINESS RULE
COVER SHEET



Health
 South Eastern Sydney
 Local Health District

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SUMMARY	To introduce early colostrum / fresh breast milk into the buccal mucosa. To promote parental involvement and to perform / assist in this procedure following education.
Key Words	ISOC, neonate, mother, EBM, parent, swab

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Within this document we will use the term woman, this is not to exclude those who give birth and do not identify as female. It is crucial to use the preferred language and terminology as described and guided by each individual person when providing care.

1 BACKGROUND

Immuno-Supportive Oral Care (ISOC) is a practice for systemic absorption of cytokines and pancreatic secretory trypsin inhibitor through the buccal cavity, which provides protection against infection as well as protection of the gastrointestinal tract. Human milk is a rich source of oligosaccharides, which are able to destroy bacteria, viruses and fungi. Early implementation of ISOC allows the benefits of colostrum and the immune properties of breast milk to be given orally to the neonate, even if nil by mouth.

2 RESPONSIBILITIES

2.1 Staff

Medical- to support the practice of ISOC for neonates and families within NCC

Nursing- to provide education and support to parents wishing to undertake ISOC. To provide ISOC to neonates in their care

3 PROCEDURE

3.1 Equipment

- Mother's own fresh (never frozen) colostrum and expressed breast milk (EBM)
- Appropriate EBM labels
- Disposable gloves
- 1 x small clean container for decanted milk
- Clean cotton swab buds
- 1 mL feeding syringe and cap

3.2 Clinical Practice points

1. Gather equipment and perform hand hygiene.
2. Dip clean cotton swab in fresh colostrum or EBM.
 - Mother can alternatively express drops of milk at bedside directly onto swab for administration.
3. Ensure the swab absorbs all drops of colostrum or is saturated.
4. Ideally ensure the neonate is arousing or in an awake state.
5. Apply the milk in a developmentally sensitive manner. (Picture 1-4)
 - Rest cotton bud on the middle of the bottom lip. Wait until neonate moves lips or tongue towards the bud.
 - Allow neonate to recognise the stimulus on the lip & allow opening of the mouth.
 - Move the cotton bud slowly towards the cheek in a “Press & Scoop” motion.
 - If the neonate is comfortable continue the action on the upper lip.
 - If neonate becomes unstable stop the procedure and observe closely.



Picture 1



Picture 2



Picture 3



Picture 4

Immuno-Supportive Oral Care (ISOC)**RHW CLIN027**

6. Discard oral swab and gloves into appropriate receptacle.
7. Perform hand hygiene and dispose of waste.
8. Record procedure on neonate's flow chart in comments section.
9. ISOC to be attended to at care times.
10. Continue ISOC until neonate is established on sucking feeds.

3.3 Contraindications

- A neonate whose mother:
 - Is infected with human immunodeficiency virus (HIV)
 - Is taking antiretroviral medications
 - Is using or taking any medication/drug contraindicated in breastfeeding
- A neonate diagnosed with galactosaemia

3.4 Documentation

- eRIC

3.5 Education Notes

- Breast milk contains defence factors that include antimicrobial agents, anti-inflammatory factors, immunomodulators and leukocytes. These protective immune factors coat the gastrointestinal and upper respiratory tracts, preventing invasion of mucous membranes by respiratory and enteric pathogens¹. A randomised controlled trial suggested that oropharyngeal administration of colostrum may decrease clinical sepsis, inhibit secretion of pro-inflammatory cytokines, and increase levels of circulating immune-protective factors in extremely premature infants². Colostrum interacts with lymphoid tissue in the oropharynx and the gut, therefore when the oral mucosa is stimulated a more systemic immune response is developed³. More recently, the pancreatic secretory trypsin inhibitor (PSTI) has been discovered in both colostrum and mature milk⁴. PSTI was shown to have protective effects on gastric mucosa and facilitate gastric repair if the mucosal lining was damaged.
- Initiating oropharyngeal colostrum in extremely low birth weight (ELBW) infants in the first few postnatal days appears to be feasible, safe and may be nutritionally beneficial^{5,6}. It is easy, inexpensive and well tolerated by even the smallest and sickest ELBW infants. The oropharyngeal administration of mothers' milk to ELBW infants may serve to expose the infant's oropharynx to protective immune and trophic biofactors also present in amniotic fluid and may protect the infant against necrotising enterocolitis (NEC)⁷.
- The mouth of a newborn that is breastfeeding is colonised with its mother's bacteria and protective bacteriostatic factors while feeding. By performing ISOC using EBM before oral feeding is commenced, the infant receives the same benefit as breastfeeding newborns.

3.6 CBR Implementation Plan

The revised CBR will be distributed to all medical, nursing and midwifery staff via @health email. The CBR will be discussed at ward meetings, education and patient quality and safety meetings. Education will occur through in-services, open forum and local ward implementation strategies to address changes to practice. The staff are asked to respond to an email or sign an audit sheet in their clinical area to acknowledge they have read and understood the revised CBR. The CBR will be uploaded to the CBR tab on the intranet and staff are informed how to access

3.7 Related Policies/procedures

- NSW Health PD2010_19 Breast Milk: Safe Management
- NSW Health PD2011_042 Breastfeeding in NSW: Promotion, Protection and Support
- Breastfeeding – Risks of delayed onset of Lactogenesis II, Early Intervention and Management
- NSW Health PD2010_058 Hand Hygiene Policy
- Breastfeeding – Protection, Promotion and Support

3.8 References

1. Mount Sinai Hospital NICU/Level II Policy/Procedure. Oral Immune Therapy for Neonates. 2013.
2. Lee J, Kim HS, Jung YH, Choi KY, Shin SH1, et al. Oropharyngeal colostrum administration in extremely premature infants: an RCT. *Pediatrics* 2015;135:357-66.
3. Gephart SM, Weller M. Colostrum as Oral Immune Therapy to Promote Neonatal Health. *Advances in Neonatal Care* 2014;14:44-51.
4. Marchbank T, Weaver G, Nilsen-Hamilton M, Playford RJ. Pancreatic secretory trypsin inhibitor is a major motogenic and protective factor in human breastmilk. *AJPGI* 2009;296:G697-703.
5. Seigel JK, Smith PB, Ashley PL, Cotten CM, Herbert CC, et al. Early administration of oropharyngeal colostrum to extremely low birth weight infants. *Breastfeed Med* 2013;8:491-5.
6. Rodriguez NA, Meier PP, Groer MW, Zeller JM, Engstrom JL, et al. A pilot study to determine the safety and feasibility of oropharyngeal administration of own mother's colostrum to extremely low-birth-weight infants. *Adv Neonatal Care* 2010;10:206-12.
7. Rodriguez NA1, Caplan MS. Oropharyngeal administration of mother's milk to prevent necrotizing enterocolitis in extremely low-birth-weight infants: theoretical perspectives. *J Perinat Neonatal Nurs* 2015;29:81-90.

3.9 Acknowledgements

This document and photographs is a revised approved reproduction courtesy of Annette Wright CNS Neonatal Family Support Liverpool Hospital, NSW.

4 ABBREVIATIONS

EBM	Expressed Breast Milk	NEC	Necrotising Enterocolitis
ELBW	Extremely Low Birth Weight	NCC	Newborn Care Centre
HIV	Human Immunodeficiency Virus	PPE	Personal Protective Equipment
ISOC	Immuno-Supportive Oral Care	PSTI	Pancreatic Secretory Trypsin Inhibitor

5 ABORIGINAL HEALTH IMPACT STATEMENT DOCUMENTATION

- Considerations for culturally safe and appropriate care provision have been made in the development of this Business Rule and will be accounted for in its implementation.
- When clinical risks are identified for an Aboriginal and/or Torres Strait Islander woman or family, they may require additional supports. This may include Aboriginal health professionals such as Aboriginal liaison officers, health workers or other culturally specific services

6 CULTURAL SUPPORT

- For a Culturally and Linguistically Diverse CALD woman, notify the nominated cross-cultural health worker during Monday to Friday business hours
- If the woman is from a non-English speaking background, call the interpreter service: NSW Ministry of Health Policy Directive PD2017_044-Interpreters Standard Procedures for Working with Health Care Interpreters.

7 NATIONAL STANDARDS

- Standard 1 Clinical Governance
- Standard 2 Partnering with Consumers
- Standard 3 Preventing and Controlling Infections
- Standard 5 Comprehensive Care

8 REVISION AND APPROVAL HISTORY

Date	Revision No.	Author and Approval
Nov 2015	1	NSW NICU Lactation Group: Rachel A. Jones, Annette Wright, Shonnett Porter, Katie Vercoe, Deborah Ireland, Eszter Jozsa, Helen Mercieca, Gabrielle Kerlake, Jeanne Faraday, Ulrike Brandenburg, Barbara Jolley, Denise G. McCutchan, Marianne Hennesy, Jane Jones, Catherine Roberts, Mary Daly, Sarah Chugg and Sarah Robinson-Hooke
14.3.24	2	E Jozsa (CNS), Endorsed by NCC CBR Committee Endorsed at 24.4.24 at BRGC