

Newborn Critical Care Center (NCCC) Clinical Guidelines

Guidelines for Oral Immune Therapy

Background:

Oral Immune therapy has been shown to be safe and well tolerated, including in ELBW infants. This therapy has been associated with an increase in immune markers (IgA, lactoferrin), reduced inflammatory cytokines, a decreased risk of sepsis, and earlier transition to enteral feedings.

Purpose and Scope:

To standardize the safe and effective administration of oral immune therapy (OIT) using maternal colostrum in neonates admitted to the NCCC with the aim to:

- Enhance mucosal and systemic immunity
- Reduce infection risk (e.g. sepsis, VAP)
- Promote earlier enteral feeding and gut maturation

Applies to all neonates admitted to the NCCC, particularly:

- Preterm infants (<32 weeks gestation)
- Extremely low birth weight (ELBW) infants (<1000gm)
- Infants unable to receive enteral nutrition

Definitions:

Oral immune therapy (OIT): administration of small volumes of colostrum to the buccal mucosa

Colostrum: Breast milk produced within the first 3-5 days postpartum, rich in immunologic factors (IgA, lactoferrin, cytokines)

Oropharyngeal administration: delivery of fluid to buccal mucosa without swallowing

Indications:

OIT is recommended for:

- All NICU infants when maternal colostrum is available
- Infants who are NPO or not yet orally feeding
- Mechanically ventilated or critically ill neonates

Contraindications:

Maternal

- Untreated HIV infection
- Contraindications to breastfeeding

Infant

- Galactosemia

Relative contraindications (provider discretion):

- Severe hemodynamic instability
- Active oral trauma or anomalies

Required Supplies:

1. Fresh expressed maternal colostrum
2. Oral tuberculin syringe (1mL) or sterile swab
3. Gloves
4. Patient identification labels

Procedure:

Preparation

- Verify provider order for OIT is placed in EMR
- Confirm patient identity using 2 identifiers
- Perform hand hygiene and apply gloves
- Obtain freshly expressed colostrum (preferably within 1 hour of expression)

Administration

- Draw up 0.2 mL colostrum into syringe
- Administer 0.1 mL to each buccal mucosa (avoid tongue and posterior pharynx)
- Allow passive absorption (do not suction immediately)
- Maintain infant in neutral or slightly elevated position

Frequency

- Every 2-6 hours or at each care time
- Initiate within 24 hours of birth when possible
- Continue until:
 - Optimal duration is at minimum 8-10 days
 - It is reasonable to provide OIT until effective oral feeding established

Monitoring & Safety:

Monitor during and after administration for:

- Bradycardia
- Apnea
- Oxygen desaturation
- Signs of distress

If instability occurs

- Stop procedure immediately
- Provide supportive care
- Notify provider

Family Involvement:

Educate parents on:

- Benefits of colostrum as "first immunotherapy"
- Pumping within 1-3 hours after delivery
- Pumping frequency (\geq 8 times/day)

Encourage parental participation in administration when appropriate

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