

# Newborn Critical Care Center (NCCC) Clinical Guidelines

## Guidelines for Oral Immune Therapy

### INTRODUCTION

Oral immune therapy is the application of colostrum to the oral cavity. It should be considered for ALL infants admitted to the NCCC. The contraindications for OIT are the same as for breastfeeding (maternal HIV status positive, galactosemia). Colostrum is rich in anti-inflammatory cytokines and has been showed to help prevent infection in preterm and ill neonates. Research has also shown that infants who receive OIT reach full enteral feedings sooner than those who do not receive OIT.

### DEFINITIONS

Colostrum is the first milk that mothers produce. For NCCC purposes, the milk produced in the first five days after delivery will be considered to be colostrum.

### PROCEDURE

1. As soon as colostrum is available, the mother or her designee should bring the milk to the NCCC labeled with infant label. Colostrum will be kept in the Nutrition Room refrigerator.
2. Verify the OIT order in EPIC.
3. Wash hands and put on gloves.
4. Obtain the colostrum from the Nutrition Room.
5. Scan the patient label on the container of colostrum.
6. Use an oral tuberculin syringe to draw up 0.2 mL of colostrum. The syringe should only be dipped in the container ONCE.
7. Using the tuberculin syringe, gently deliver 0.1 mL to each buccal surface. Avoid the gums and tongue.
8. Monitor the infant for any physiologic instability during the application of OIT.
9. After the appropriate education, parents should be encouraged to participate in OIT.
10. OIT should be performed at each care time, unless the infant has successfully latched at the breast. ***This therapy is especially important for ELBW infants.***
11. Duration of therapy will be the first week of life.

## References:

1. Gephart SM, Weller M. Colostrum as oral immune therapy to promote neonatal health. *Adv Neonatal Care*. 2014 Feb;14(1):44-51. PubMed PMID: 24472888.
2. Lee J, Kim HS, Jung YH, Choi KY, Shin SH, et al. Oropharyngeal colostrum administration in extremely premature infants: an RCT. *Pediatrics*. 2015 Feb;135(2):e357-66. PubMed PMID: 25624376.
3. Maffei, D., Brewer, M., Codipilly, C. et al. Early oral colostrum administration in preterm infants. *J Perinatol* **40**, 284–287 (2020). <https://doi.org/10.1038/s41372-019-0556-x>
4. Moreno-Fernandez J, Sánchez- Martínez B, Serrano-López L, et al. Enhancement of immune response mediated by oropharyngeal colostrum administration in preterm neonates. *Pediatr Allergy Immunol*. 2019;30:234–241. <https://doi.org/10.1111/pai.13008>
5. Romero-Maldonado Silvia, Soriano-Becerril Diana Mercedes, García-May Perla Karina, et al. Effect of Oropharyngeal Administration of Colostrum in Premature Newborns ≤32 Weeks of Gestation on the Immune Response and Neonatal Morbidity: A Double-Blind Randomized Clinical Trial. *Frontiers in Pediatrics* (2022). <https://www.frontiersin.org/articles/10.3389/fped.2022.891491>
6. Rodriguez, N.A., Moya, F., Ladino, J. et al. A randomized controlled trial of oropharyngeal therapy with mother's own milk for premature infants. *J Perinatol* (2023). <https://doi.org/10.1038/s41372-022-01589-x>
7. Rodriguez NA, 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 Jan-Mar;29(1):81-90. PubMed PMID: 25633403.
8. Xavier Ramos, Michelle de Santana et al. Oropharyngeal colostrum immunotherapy and nutrition in preterm newborns: meta-analysis. *Revista de Saúde Pública* [online]. v. 55 [Accessed 13 March 2023] , 59. <https://doi.org/10.11606/s1518-8787.2021055003051>