

**CLINICAL
PRACTICE
GUIDELINE**

Practice Guideline:

Decanting Formula for the Healthy Term Newborn

Approval Date:

February 17, 2021

Pages:

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Approved By:

□ Professional Advisory Committee

Supersedes:

N/A

PURPOSE AND INTENT

To advance best practice care related to infant feeding cues for the healthy term infant. This guideline should be coupled with additional education from the Baby Friendly Initiative 20 Hour Course.

1. PRACTICE OUTCOME

To ensure infant formula is decanted safely and parents and caregivers are taught to recognize infant feeding cues.

2. BACKGROUND

Historically parents and/or caregivers who have made the informed decision to give their infant formula have been provided a 59 ml bottle to feed their infant regardless of the infant's age and weight. Furthermore, they have not been given instructions on how to implement paced bottle feeding. This is problematic as supplementing inappropriate amounts:

- Promotes overfeeding.¹
- May erode a mother's confidence in her ability to care for her infant.
- May send mixed messaging to parents regarding appropriate feeding amount requirements of the healthy term infant.²

The WRHA is moving towards the implementation of the Baby Friendly Initiative³, a global initiative geared towards promoting best practice care for the mother and infant dyad, specifically related to infant nutrition. A component of Baby Friendly care is to ensure that practices on labour and delivery and mother-baby units, pertaining to feeding infants formula are evidence based. This guideline will provide evidence-based guidance to care providers supporting parents, caregivers, and infants who are formula fed.

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3. GUIDELINES

3.1 Suggested Decanting Amounts^{4,5,6}

***The following table is a GUIDE ONLY. Parents and caregivers should be taught to watch their infant for satiety and hunger cues to determine how much formula to feed at any given time.**

Infant Age	Suggested Decanting Volumes per feed q 2-3 hours
First 24 hours	~ 5 - 10 mls*
24 – 48 hours	~ 10 - 15 mls*
48 – 72 hours	~ 15 - 30 mls*
72 – 96 hours	~ 30 – 60 mls*
Infant Age	Suggested Decanting Volumes per weight per day (8 – 12 feeds per day)
96 – 120 hours	120 - 150 mls/kg/day*
>120 hours	120 - 150mls/kg/day minimum*

The above table should **NOT** be used for infants if they are:

- being supplemented for medical reasons, please follow doctor/midwives orders
 - hypoglycemic. Please see [Hypoglycemia in Newborns Clinical Practice Guideline](#)
 - re-admitted to Child Health
- Decanted formula can be given to the infant in a variety of ways including spoon, cup, finger feeding, simulated supplemental nursing system, or bottle. Parents and/or caregivers should be given specific instruction from the nurse or lactation consultant on how to safely feed the infant with whichever method is chosen.
 - Nurses should teach parents and/or caregivers how to feed an infant with the paced bottle-feeding method to encourage age appropriate feeding amounts and make bottle feeding more like breastfeeding.⁷

3.2 Process

- Ensure that the primary caregiver or nurse has provided parents and/or caregivers with information that has allowed them to make an informed decision to give their infant formula for non-medical reasons.
- Once the primary caregiver or nurse has received informed consent from the parent and/or caregiver, the nurse should document this as a progress note.
- Ensure that parents and caregivers are taught to recognize infant hunger and satiety cues to help inform them of the appropriate feeding amounts for their infant at that particular feed.
- Teach parents and caregivers paced bottle feeding method ([see 3.3](#)).

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3.2.1 Decanting

- Decanting should be performed by a nurse or delegate.
- Decant formula into age appropriate amounts ([see 3.1](#)).
- Recommended decanting amounts **MAY** include: 5mls, 10mls, 15mls, and 30mls
- Decant formula at a specific decanting station.
- The nurse or delegate should ensure a clean worksurface and perform hand hygiene prior to decanting.
- Bottles of decanted formula should be labeled with the following: the date, time of decanting, expiration time, amount decanted, and initials of the nurse/delegate decanting.
- The nurse/delegate should ensure that a label is placed over any advertising on all bottles that may be seen by patients and families.
- Bottles should be capped with sterile bottle lids or nipples.
- A support staff will be assigned to ensure that all decanted formula that has expired is discarded daily.

3.2.2 Storage

Room Temperature

- Decanted formula can be kept at room temperature for up to 2 hours as per the manufacturer's recommendations.
- Decanted formula should be kept at a designated decanting station or in the patient's room.

Refrigerated

- Decanted formula can be kept in the refrigerator for up to 24 hours as per the manufacturer's recommendations.
- Decanted formula may be kept in a refrigerator at a designated decanting station.
- If decanted formula is kept in the patient's room, the refrigerator should be cleaned by housekeeping after the patient has been discharged and prior to a new patient being admitting to the room.
- Fridges should be kept between 1 – 4 °C (35 – 40 °F).⁸ Support staff will be required to monitor temperature of fridges in designated decanting stations/patient rooms if formula or breast milk is being stored there.

3.2.3 Handling

Room Temperature

- Decanted formula kept at room temperature can be fed to the infant as is.
- Parents and/or caregivers should be taught hand hygiene with warm water and soap prior to removing the lid or cover over the nipple.
- Once a decanted bottle has been used, any unconsumed formula must be discarded after one hour from the start of the feed. Plastic bottles should be recycled per standard facility practice.

Refrigerated

- Decanted formula that is kept in the fridge can be fed to the infant as is.^{8,9}
- If a parent and/or caregiver requests that the bottle be warmed, they may do so on their own in their room.

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- Parents and/or caregivers may be instructed to warm a bottle of decanted formula in the following ways:
 - a. Under the Tap
 - Perform hand hygiene with warm water and soap prior to warming the bottle.
 - Place bottle under a warm (not hot) stream of tap water for no more than a few minutes in order to reduce the risk of bacteria growth.¹⁰
 - Ensure that the tap water does not touch the collar of the bottle.
 - Perform hand hygiene with warm water and soap prior to removing the lid or cover over the nipple. Test formula temperature before feeding. A few drops of formula on the inner aspect of the wrist should be cool to slightly warm, not hot.
 - b. Clean Container
 - Perform hand hygiene with warm water and soap prior to warming the bottle.
 - Fill a clean container with warm (not hot) water ensuring that the water will not come in contact with the collar of the bottle.
 - If the bottom of the container comes in contact with the bottom of the sink, a clean towel can be placed under the container when left on the counter or table to warm.
 - Allow the bottle to warm for no more than a few minutes in order to reduce the risk of bacteria growth.¹⁰
 - Perform hand hygiene with warm water and soap prior to removing the lid or cover over the nipple.
 - Test formula temperature before feeding. A few drops of formula on the inner aspect of the wrist should be cool to slightly warm, not hot.
 - c. Bottle Warmer¹²
 - Where available, follow manufacturer and facility approved instructions for use.
 - Test formula temperature before feeding. A few drops of formula on the inner aspect of the wrist should be cool to slightly warm, not hot.

3.3 Paced Bottle Feeding Method¹¹

- Have infant skin-to-skin, if possible.
- Hold infant in an upright position ensuring that the head, neck, and back are supported.
- Touch nipple tip of bottle to the infants' upper lip, to mimic breastfeeding. This encourages the infant to open their mouth wide.
- Allow the infant to take the bottle's nipple into their mouth. **NEVER** force the nipple into the infants' mouth.
- Keep the bottle horizontal so that the nipple is partially full, therefore, slowing the formula flow.
- Reassure parents and/or caregivers that all infants, regardless of feeding method, swallow air while feeding.

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4. Documentation

Documentation of the feeding, on the Newborn Flowsheet, should include the following information:

- Formula type
- Volume given
- Feeding method used
- Date and time given
- If skin-to-skin was performed.

Any additional information can be provided in the “additional information” of the feeding section.

5. REFERENCES:

- (1) Mahrshahi S, Battistutta D, Magarey A, Daniels L. Determinants of rapid weight gain during infancy: baseline results from the NOURISH randomized controlled trial. *BMC Pediatrics*. 2011;11:99.
- (2) Brown A, Raynor P, Lee M. Healthcare professionals’ and mothers’ perceptions of factors that influence decisions to breastfeed or formula feed infants: a comparative study. *Journal of Advanced Nursing*. 2011;67(9):1993-2003.
- (3) World Health Organization. *Baby friendly hospital initiative*. 2016. Available from <http://www.who.int/nutrition/topics/bfhi/en/> [Accessed June 28, 2018]
- (4) The Academy of Breastfeeding Medicine Protocol Committee. ABM clinical protocol #3: hospital guidelines for the use of supplementary feedings in the healthy term breastfed neonate. *Breastfeeding Medicine*. 2009; 4(3):178-182.
- (5) Riordan J, Hoover K. Perinatal and Intrapartum Care. In Riordan J, Wambach K editors. *Breastfeeding and Human Lactation*. 4th ed. Toronto, ON: Jones and Bartlett Publishers; 2010. p. 215-251.
- (6) Mohrbacher N. Breastfeeding and growth: birth through weaning. In Mannel R, Martens P, and Walker M editors. *Core Curriculum for Lactation Consultant Practice*. 3rd ed. Burlington, MA: Jones and Bartlett Publishers; 2013. p. 587-601
- (7) Mohrbacher, N. *Breastfeeding Answers Made Simple: A Guide for Helping Mothers*. Amarillo, TX: Hale Publishing L.P.; 2010.
- (8) Jones, F. *Best Practice for Expressing, Storing, and Handling Human Milk: In hospitals, homes, and child care settings*. 3rd ed. Fort Worth, TX: Human Milk Banking Association of North America; 2011.
- (9) Office of Women’s Health. *Pumping and breastmilk storage*. 2018. Available from <https://www.womenshealth.gov/breastfeeding/pumping-and-breastmilk-storage.html> [Accessed June 28, 2018].
- (10) Slade S, Ther G, Ther M. *Formula feeding: preparation*. The Joanna Briggs Institute. 2017.

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(11) Region of Peel. Paced Bottle Feeding. Available from <https://www.peelregion.ca/health/family-health/breastfeeding/pdf/paced-bottle-feeding.pdf> [Accessed June 28, 2018].

(12) Government of Canada. Recommendations for the preparation and handling of powdered infant formula. 2010. Available from <https://www.canada.ca/en/health-canada/services/canada-food-guide/resources/infant-feeding/recommendations-preparation-handling-powdered-infant-formula-infant-feeding.html>. [Accessed January 1, 2021].

6. PRIMARY AUTHOR (S)

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