#### Navigating Feeds: How to feed?

- 1. What is the best method for offering a Positive Oral Experience? The best method for a newborn infant to learn to feed is at the breast. Newborns are attuned to the breast, instinctually seeking it out through rooting, grasping, and pushing off their feet. Latching at the breast is comfortable and accessible to an infant. A pumped breast provides familiar smells and tastes of milk that are essential for an early feeder's experience, while avoiding a letdown that can fill a baby's mouth with milk before he or she is ready. A full breast provides fresh milk filled with life-sustaining compounds that are often reduced when milk is stored. The more opportunities a baby has to practice feeding at the breast, the higher likelihood that he or she will go home breastfeeding. Without repeated practice, preferably every day, transitioning to breastfeeding can be difficult.
- 2. When do we move from a fully **pumped breast**?
  - Go to ½ pumped at POETrI Stages B and C, as tolerated. This allows a baby to practice coordinating the suck and swallow and offers a reward for the effort of sucking.
  - Go to a **full breast from POETrI Stage D onward**. If the baby has difficulty handling the flow, troubleshoot as per the chart on page 4.
- 3. What about when a mother is not available or not able to breastfeed?
  - A. How do we give the oral feed in POETrI Stages A and B?
    - Offer drops of mother's milk and/or feed with a soother. You can choose to do this by
      dipping a soother into the milk (a small medicine cup works well for this) and then offering
      it to the baby to suck or by placing a 1 mL syringe into the corner of the mouth and gently
      releasing milk one drop at a time. Feed in elevated side-lying position to help the baby
      control the milk in the mouth and safely generate swallows.
  - B. When offering **drops of milk beside the soother**, I am having a difficult time determining if a baby is actually swallowing drops of milk or if these are simply going on to the soother and falling to the other side, never reaching their mouth. Am I doing something wrong?
    - It is okay if a few drops of milk do not make it in the mouth and down to the gut. Remember, the point is to offer pleasant oral experiences. Better coordination of the oral feeding will come with time.
  - C. What about **larger volumes, from stages C** forward? We used an open nipple in the past, is this still recommended?
    - When a baby is ready for larger volumes, the baby is ready to begin to learn to transfer the milk on his or her own. In the past we often used an open bottle nipple as a transition tool. This was revealed as problematic for many as it was difficult to maintain a supportive sidelying position for the baby while holding the open nipple, adding drops of milk, and avoiding spilling. We now recommend using a tiny ultra slow flow, the Dr. Brown's ultra preemie First Feeder for starting at stage C.

## Navigating feeds:

# Assessing readiness to feed, when to progress, and when to stop

- 1. When do we offer the oral experiences, always Q2 or Q3?
  - No. Offer the oral experiences at any time that baby wakes on his or her own schedule and is rooting. If the baby is gently stirring, offer the soother and see if the baby wakes up and appears more alert. If the baby is drowsy or sleeping, do not proceed with the oral experience. As the baby progresses through the stages, it may help the baby to wake more often for feeds if we allow extra time between feeds. This is often written as an order to "allow up to 3.5 hours between feeds" without changing the volume offered.
- 2. How do I assess if a baby, who is stirring a bit in "active sleep" is ready to try a positive oral experience?
  - Offer the soother. If the baby wakes and sucks actively, proceed. If the baby goes into deeper sleep, then record the states and try again next time.
- 3. In order to assess readiness to feed should we be only offering the soother to the baby or doing a diaper change and offering the soother? Often the baby will more likely want to feed after a diaper change especially in the Q3H feeders where you're trying to establish a routine.
  - This will be very individual. Observe from outside: is baby in a deep sleep, then leave. If so, leave the baby. Is baby starting to stir? Babies will often wake to light sleep once an hour. If we catch this moment, we can offer a soother and see if baby will rouse to feed or settle to sleep.
  - Keep in mind that sometimes a diaper change will wear a baby out and he or she will actually shut down and not be in a place for an oral experience. Often, babies feeding in the later stages of POETrI do well with a gentle rousing to feed and tolerate diaper changes better. Knowing the baby is key here—previous nurses or the parents might know what works best for the baby. You may have to adjust your approach throughout your shift based on what you observe and then make sure you pass this information on to others coming on.
- 4. What if a baby **continues to root and does not settle after** an oral feed?
  - Offer a **soother and hold** the baby in your arms or swaddle for containment. If needed, you can offer drops of OIT (a maximum of 0.2 mL) with the soother to help the baby settle.
  - For **POETrI Stage G onward**, if the baby still appears eager and does not settle even with the soother, **you may offer up to 10% more** (of the enteral feed volume) and/or feed for an additional 5 minutes for that feed. This "**POETrI Flex**" is a new aspect of POETrI that has been introduced in response to requests to allow occasional extension of feeding when babies are eagerly cueing and are highly stable while feeding. If a baby does not maintain stability with POETrI Flex, **STOP feeding immediately with the first sign of distress.**

# Navigating feeds:

#### Assessing readiness to feed, when to progress, and when to stop (continued)

- 5. If a baby **starts to desat with a feed**, what do we do?
  - Remove the nipple from the baby's mouth to give the baby a break. If the baby squirms, try
    to burp the baby. If the baby continues to desat or experiences an ABD event, STOP
    feeding and chart the difficulty on the form. Do not continue with the oral experience if it
    is no longer positive (or the baby has had an event).
- 6. What is considered a **SUCCESSFUL "FEED**"?
  - Example: POETrI Stage B If baby is taking drops with a soother and remains stable for the allotted time (i.e. 10 min), is the baby ready to progress?
  - If baby takes drops with a soother and remains stable, then the baby is showing some readiness to feed. If, however, the baby takes longer than 10 minutes to finish the very small volume expected at Stage B, then those experiences are not considered "competent" as the baby is still building efficiency for feeding. The baby is practicing at the appropriate stage, but not yet ready for a bigger challenge.
  - If a baby does not take the allotted volume in the maximum time, record the feed as I/C for Incomplete.
  - For breastfeeding, if a baby latches on the breast and actively sucks, with clear swallowing, that is a successful feed (and Positive Oral Experience with Mom or "POEM").
- 7. How do you determine if the **baby is becoming full** if they show signs of reflux and strain even when they aren't eating?
  - With small amounts, we may not see a large difference in how the baby tolerates the feed. If we see a big change with increasing oral feeds, let the team know and they can troubleshoot.
- 8. Waking and feeding **9/12 times** is a lot for babies born early. What if the baby is waking and taking the full volume <u>without incident</u> fewer times a day?
  - Discuss with your team if it may be appropriate for the baby to progress to the next POETrI stage given our desire to protect deep sleep and balance it with opportunities for oral experiences. Considering a baby only has to wake 6 times a day when fed Q3, the team may agree that waking and taking oral feeds well fewer than 9 times a day is enough to progress.

For more information on *Cues for Engagement or Disengagement,* see the reverse side of the *POETrI Assessment Form: Infant Cues and Interventions Provided* at the back of the yellow POETrI folder. Refer to the chart on the next page for how to troubleshoot signs of feeding difficulties.

| Feeding Difficulties: Things to Try |  |   |  |
|-------------------------------------|--|---|--|
| Difficulty                          | Presentation   | Ways to Correct at<br>Breast  | Ways to Correct on Bottle  |
| Fast flow                           | <ul> <li>Choking</li> <li>Gulping</li> <li>Milk spilling from mouth</li> <li>Coughing</li> <li>Pulling off of the nipple</li> <li>Wet, gurgly voice</li> </ul>   | <ul> <li>Laid back or high football position</li> <li>Pump through letdown prior to latching (pump for 2 min)</li> <li>If above not working contact LC</li> </ul>   | <ul> <li>Try slower flow nipple</li> <li>Swaddle</li> <li>Hold close to body</li> <li>Elevated side-lying position</li> </ul>  |
| Poor Pacing                         | <ul> <li>Sucking without breath breaks</li> <li>Apneic events</li> <li>Gulping</li> <li>Milk spilling from mouth</li> </ul>  | <ul> <li>Pace externally by un-latching</li> <li>Allow babe to recover and try again</li> <li>If above not working contact LC</li> </ul>  | <ul> <li>Pace externally (remove bottle from mouth)</li> <li>Allow babe to recover and try again</li> <li>Try slower flow nipple</li> <li>Swaddle</li> <li>Hold close to body</li> <li>Elevated side-lying position</li> </ul> |
| Poor Latch                          | <ul> <li>Milk spilling from mouth</li> <li>Mouth not sealing on nipple</li> <li>Clicking sounds with suck</li> <li>Shallow latch (not enough breast tissue in mouth, nipple only)</li> <li>Pulling off and on the nipple</li> <li>Baby fussy</li> <li>Discomfort/pain for Mom</li> </ul> | <ul> <li>Breast shaping to ensure deeper latch</li> <li>Repositioning Mom and babe, with supports</li> <li>Ensure proper latch &amp; position: align nose to nipple &amp; ensure wide open gape prior to latching</li> <li>If above not working contact LC</li> </ul> | <ul> <li>Ensure optimal position as above</li> <li>If nipple appears small in mouth trial larger nipple base bottle (family supplied or call SLP for Avent)</li> </ul>   |
| Poor Milk<br>Transfer               | <ul> <li>Baby fussy</li> <li>Pulling off and on the nipple</li> <li>Few/no evident swallows</li> <li>Blanching of lips</li> <li>Poor weight gain</li> <li>Low/decreasing milk supply</li> <li>Refusing to latch</li> </ul>   | <ul> <li>Ensure Mom &amp; babe calm prior to latching</li> <li>Ensure proper latch &amp; position as above</li> <li>Breast compressions with sucking</li> <li>Assess milk supply</li> <li>If above not working contact LC</li> </ul>                                  | <ul> <li>Trial faster flow nipple</li> <li>Ensure optimal position as above</li> <li>Call SLP</li> </ul>   |

# **Navigating feeds:**

#### What to feed?

- 1. When there are **ADDITIVES** in a baby's feed, do we draw up the oral feed separately?
  - No. It is not necessary to draw up oral feeds separately. In fact, it is important to ensure a
    baby receives the full prescribed additive volumes and that any additives given be diluted in
    the full feed volume. There is no longer concern regarding the flavor profile of milk
    additives as more noxious substances (Na, K) are now administered directly by NG/OG tube.
  - OIT administered in POETrI Stage A should still be straight mother's milk.
- 2. Can we round to the nearest mL for POETrI feeds?
  - Yes, for POETrI stages C onward, feel free to round to the nearest mL for oral feeds.
  - For POETrI stages A and B offer the volume indicated. Rounding when oral feeds are only 1-2 mL can make a big difference.

#### Time

- 1. What happens if the baby wakes and it's not feeding time?
  - Offer the oral feed to proceed as usual with the stage's positive oral experience. Adjust the next tube feed accordingly to maintain the TFI.
- 2. How do I know if a baby is **ready to orally feed** at feeding time when they are in light sleep?
  - Offer a soother and assess the response.
- 3. In POETrI Stage B, the **maximum time for active breastfeeding** is 10 minutes. So even if they are vigorous at the 10 min mark, do we stop?
  - Yes. If the baby is at Stage B or C, the maximum active sucking time is 10 minutes, so we stop
    then offer the soother if needed. Overall, babies do better if they have more frequent
    opportunities to feed a small amount rather than one large feed which can be very fatiguing.
    If a baby is waking regularly and seems to want more, bring that up with the team and see if the
    baby can move up a stage for breastfeeding to spend more time at the breast.
- 4. Do we limit how long the baby spends at the breast if the baby isn't always actively sucking?
  - Example If a baby had brief periods of active sucking and was rooting on and off, but he was there for 30mins and still hadn't actively sucked for a full 10 mins.
  - When a baby is just hanging out, whether with the lips on the breast or in K care, we **limit the** time only if the baby shows signs that he or she is not handling it well or if the mother wishes to stop. The maximum allotted time is for "active sucking time" which uses a lot of energy.
- 5. Does a baby have to take the full volume in the time allotted to advance to the next POETrI stage?
  - Yes. In many instances the only difference between one POETrI stage and the next (B to C, E to F, and G to H) is the maximum volume of feed offered by mouth. A baby shows readiness to advance to the next stage when he or she comfortably and successfully takes the full volume in the allotted time for 6/8 feeds Q3 or 9/12 Q2. This shows a baby is ready for a bigger challenge.
- 6. Does prep time (gentle presentation of soother when drowsy) get counted in maximum time?
  - No, just active sucking time
- 7. How do we time tube feeds with POETrI and how can we chart it on the current form?
  - Take the volume taken in an oral experience off the following OG or NG feed (estimate if breastfed) and provide the remainder of the feed by gavage as per baby's feeding schedule.
     This may mean that there are two separate events charted, one for the oral feed and one for the gavage feed.

#### **Measuring amount**

- 1. How important is it to know the amount taken at the breast?
  - We are not concerned with accurately measuring the volume taken at the breast. The emphasis
    of POETrI is to offer opportunities for positive oral experiences. The more opportunities to feed
    at the breast, the better success the baby will have in breastfeeding going home. It is important
    to avoid the focus on volume when discussing breastfeeding with families. This is particularly
    relevant in the early stages as the amounts transferred are quite small.
  - Keep in mind the team keeps a close eye on a baby's growth. If our estimates of volume are inaccurate and a baby does not gain weight well with these estimations, then the team can adjust the TFI accordingly.

#### 2. How do we estimate the amount taken at the breast?

In order to get an idea of how much to take off a baby's tube feed, we can use a variety of methods to estimate what a baby transferred at breast:

- Mothers are often very good at estimating how a breastfeeding went, whether the baby took as much as before, or if it changes drastically.
- If a mother has a highly predictable pump volume at that time of day, she can often determine the volume transferred by comparing the post-feeding pump volume with the typical volume pumped at that time of day.
- If a baby typically takes a particular volume by bottle at his or her POETrI stage before fatiguing, you can estimate that the baby takes the same volume at the breast as a "first guess".
- One can use an estimate based on counting swallows to compare feeds. Babies born preterm
  have an average swallow volume of 0.1 mL while term babies swallow volume is closer to 0.2
  mL per swallow. For e.g.: If a premature baby latches on the breast and actively sucks with 50
  audible swallows counted, then one could estimate that the baby drank about 5 mL.
- If a baby begins to show signs of reflux or discomfort related to "over-feeding", then this is charted, the estimated amount is increased, and the NG is adjusted accordingly.
- All of these methods provide an estimate, clearly, so the catch at the end of the day is if the baby is gaining weight adequately. If not, the TFI is increased by the team to accommodate any discrepancies.

#### Eligibility and Progressing through POETrI:

- 1. What **gestational age** is POETrI designed for?
  - Babies who are born at < 33 weeks CGA can be enrolled in POETrI if they are physiologically stable on their respiratory supports, able to manage their secretions, display hunger cues, and remain stable while sucking on a soother. This often occurs around 30 weeks gestational age.
- 2. What are the **respiratory support guidelines** for babies to begin POETrI?
  - A. Babies who are on a rate (via BiPAP or RAM/NIMV) may continue to nuzzle and be offered OIT with a soother (comparable to POETrI stage A) but will NOT formally start on POETrI
  - B. In order to be eligible for POETrI Stage B, a baby must be displaying hunger cues and physiologically stable on:
    - CPAP pressures less than or equal to 9 with ViaSys or Fabian\*
    - HFNC Any high flow or FiO2\*
    - LFNC Any level of low flow
    - RA Room Air

\*For Fabian, ensure the leak compensation is turned OFF to support coordination while feeding

- 3. Do I need an order to move up a POETrI stage?
  - Yes, this is decided on rounds with families and nurses providing input on current abilities. If the bedside nurse is not present during rounds, the team will use information recorded on the POETrI Assessment Form to assess readiness to advance to the next stage.
- 4. Why do we want the team to write an order to progress to the next POETrI stage on rounds?
  - The decision to progress to a more advanced stage in POETrI is best made when the big picture is taken into account. Team members each offer an important perspective on the baby's current state, past state, and upcoming challenges. Parents and bedside nurses play a vital role in informing the team of how the baby is doing on POETrI and if he/she is demonstrating readiness over that day. The team can then take into account recent or upcoming changes which may interfere with success should the baby be challenged to advance. Recording the POETrI stage and methods of feeing on the cardex and in the chart offers the entire team easy access to track progress and keep track of the current feeding plan.
- 5. What factors do we need to consider when deciding to progress to semi-demand or demand feeds? To set a baby up for success with the challenge of full oral feeding, it is important that we space out changes that can impact a baby's stamina and stability such as:
  - weaning caffeine
  - removing boundaries/nest
  - moving from isolette to open cot
     transfer to other site
- reducing respiratory supports
- placing bed flat

<sup>\*\*</sup> The POETrI working group recommends that the HFNC flow rate NOT be adjusted during oral feeds, but rather be optimized to ensure respiratory stability and maintained across activities.