Preterm infants transition from tube feedings to nipple at approximately 32-34 weeks postmenstrual age, when the infant's neurodevelopmental status becomes more organized. This transition requires coordination of the suck-swallow-breath reflex, an organized state, and regulation of the autonomic system. However, the feeding practice in our 26-bed Level III Neonatal Intensive Care Unit (NICU) was based on a medically-driven feeding model (MDFM), which prescribes when to initiate feeds and the frequency of nipple feedings (NF) for preterm infants.

It was noted our practice related to feeding varied considerably and many NF were initiated prior to 33 weeks. Feeding techniques were based on rote and old practices passed down from nurse to nurse. It was common practice to encourage infants to take the prescribed volume, which equates to the nurses' success, rather than focusing on a quality driven NF.

Areas of staffs' concern:
- When to discontinuing a feeding attempt
- Type of nipple to use for bottle feeds
- Positioning of infant during feeds
- Techniques to promote intake
- Evaluation of feeding readiness (cues)
- Objectively rating the quality of feeding

An inter-professional "Chow Down Team" (nurse practitioner, nurses, clinical educator, occupational therapist, speech therapist, and physicians) initiated an evidence-based project to identify feeding methods, which would support the infant's developmental needs, minimize negative oral stimulation, and decrease the number days to full oral feedings.

Evidence was obtained from:
- Pub Med
- Cumulative Index to Nursing and Allied Health
- Cochrane Review
- National Clearinghouse for Clinical Guidelines
- Professional organizations from entire team

Keywords: cue-based, infant-driven, feeding cues, feeding readiness, behavioral cues, demand-feeds, with related words neonatal and preterm.

Level | Articles | Summary Findings | Quality |
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RCT | I 4 | Behavioral hunger cues can guide feedings progression without negative outcomes. In the RCT, they initiated assessing cues at 32 weeks. | 3 – A |
| III 1 | Delphi study validated the Infant-Driven Feeding Scales®, which identify and rates feeding readiness, the quality of nipple feeding attempts, standardizes feeding interventions, and documentation. | A |
| IV 4 | Recommends feedings are to be safe, pleasurable, developmentally appropriate, and allows the infant to drive the feeding. Utilizes standardized tools or algorithm to assess feeding readiness, promotes consistency in practice, and teaches staff and parents about the method. | A |
| V 7 | A breastfeeding quality tool can be used to rate breastfeeding attempts. Recommends monitoring infant’s sucking bursts, behaviors, and signs for disengagement cues. | A |

Recommendations
- Initiate assessments for feeding cues at 33 weeks, 34 weeks for infants with CLD, & develop algorithm
- Standardize the use of slow-flow nipples
- Use side-lying position, external pacing, swaddling infant
- Remove infant from incubator for nipple and gavage feedings to promote nurturing
- Use rating tools to score the quality of breastfeeding and bottle feeding attempts
- Develop bedside tools to educate parents so they can assess their infant for feeding cues
- Revise electronic documentation to reflect practice change
- Perform a Pre & Post Survey of feeding practices
- Perform a prospective chart review to determine infant outcomes before and after practice change to determine days to full oral feedings

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