

Developing a Family-Informed NG Tube Training Curriculum for the NICU

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Background

- > Nasogastric tubes (NGTs): small, flexible tubes inserted in a patient's nostril that extend to the stomach and may be used to provide hydration and nutrition support.
- > Current discharge planning and NGT training:
 - > Does not fully assess caregiver competence
 - > No content regarding social support and care coordination¹.
- > Project goal: develop a Neonatal Intensive Care (NICU) NGT training curriculum that addresses gaps described by a previous nutrition trainee's project¹, Seattle Children's Home Care RDs, and in caregiver interviews

Methods

- > Conducted literature review on quality of life for caregivers of patients requiring enteral nutrition support
- > Consulted Seattle Children's Home Care RDs and NICU discharge coordinator on current training protocol
- > Interviewed caregivers via Zoom
 - > Participants recruited from Seattle Parents of Premies Facebook group
 - > Inclusion: infant had NGT placed in NICU and was discharged with NGT
- > Developed curriculum based on information gathered from previous steps

Results

Caregiver Demographics

- > 6 families responded with interest. 4 met inclusion criteria.
- > Days in NICU: 98-154 (average: 121)
- > Duration of NGT use in months: 6-14 (average: 9.6)

Current Discharge Protocol

- > One-time education and orientation to home equipment is provided
 - > Delivered days before discharge
 - > Tube placement practice on dummy
- > Discharge checklist indicates training delivery, not caregiver competence

Key Themes from Caregiver Interviews

- > **Returning home from NICU is overwhelming**
 - > *"It felt like such a milestone, but post-discharge life was harder than inpatient. Your kid doesn't have eyes on them all the time and an on-demand nurse. It's just you."* (Interview #3)
 - > *"[The responsibility was] extraordinary to place on a parent... ideally a nurse would do all of this."* (Interview #2)
- > **Inpatient NGT education not reflecting the home environment**
 - > One caregiver expressed that continuous feeds and rigorous schedules work well in the NICU because there is plenty of nurse attention. However, these schedules can be exhausting for parents, especially in the early days back home (Interview #4).
 - > Dummies for practice are helpful
 - > but *"there's no replacement for practicing on your own child"* (Interview #4).
 - > Virtual or in person check-ins to ensure the home was initially set up properly for pumps and tubes indicated as desirable

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Recommendations & Next Steps

Table 1: Proposed NGT Training Curriculum for Families Discharging from NICU

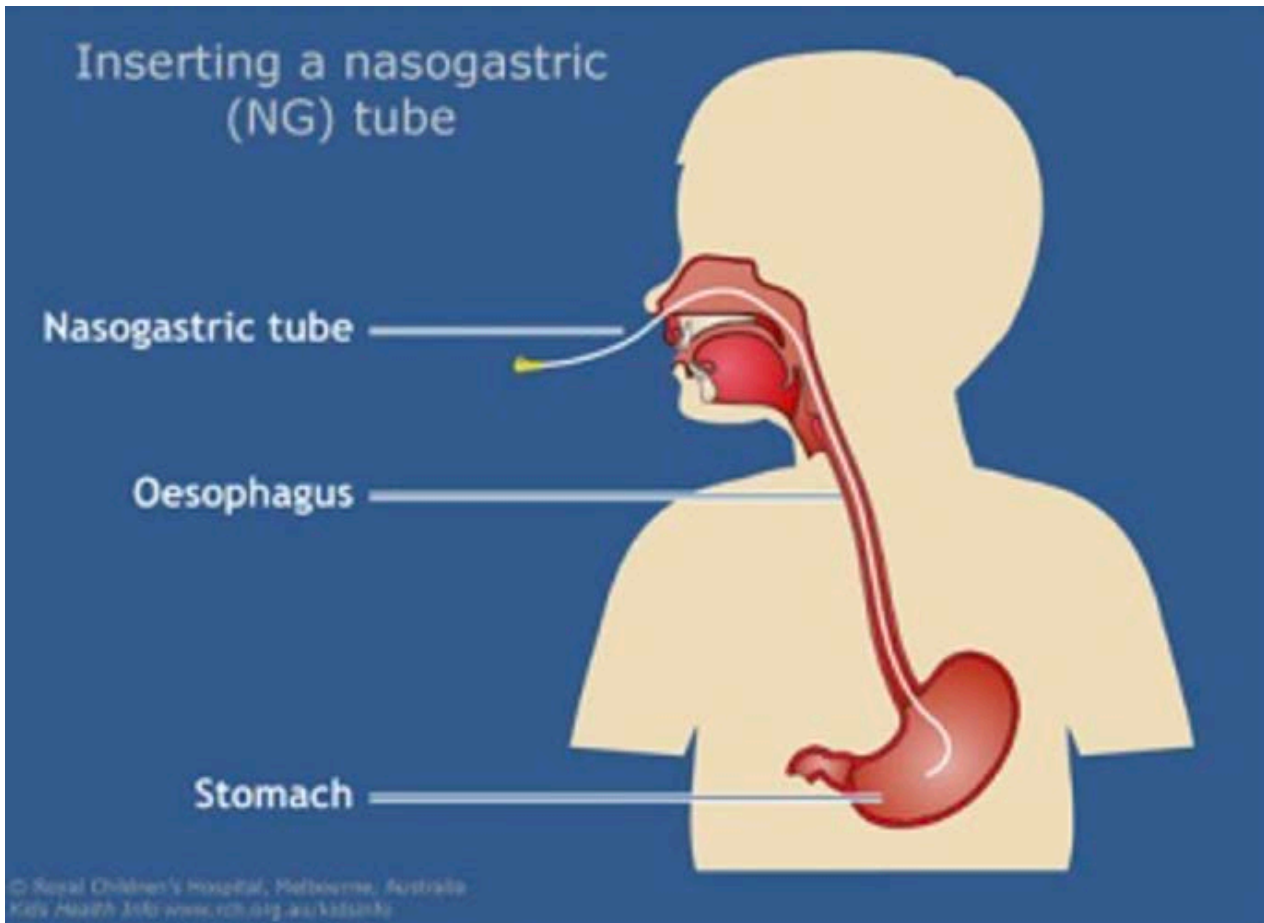
	Title/ Descriptor	Purpose
Module 1	What is a NGT and How can it Help Your Child?	Describe to families why NGT is placed, benefits for child's growth, and potential future options (weaning, GT placement, GJT placement)
Module 2	Equipment Introduction	Familiarize caregivers with all equipment required for NGT use: pump, tube, stylet, tape, marker, tube lubricant (if necessary), pH test strip, syringe. This may help families feel more comfortable with the equipment when the time to learn insertion arrives.
Module 3	How to Place and Check a NGT	<i>To be repeated multiple times.</i> Facilitate caregiver confidence in tube placement and checking. Allow caregivers to practice inserting the NGT on a still dummy, then a wiggly dummy, then the child repeatedly. Allow caregivers to check the placement of with pH test strip each time. Initiate feeds at the end of each session.
Module 4	Discharging with a NGT	Familiarize caregivers with home equipment, SCH Homecare team, and troubleshooting (tube clogs, power outages, tube displacement by child)
Module 5	Additional supports focused on outpatient nutrition and peer support	Provide caregivers with lists of peer support groups, sibling support groups (if applicable), pair with peer mentors. This module would ideally be developed with the aid of a social worker and parent advisory board member. Coordinate outpatient feeding and/or nutrition specialist visits with families.
Module 6	Graduation	Parent teaches back NGT placement and placement checks to staff.



<https://www.mymomcanista.com/verifying-ng-feeding-tube-placement-pediatric-patient/>

Supporting Families beyond NGT Insertion Education

- > Involving caregivers in decision making
- > Connecting families to practical supports
- > Establishing telehealth consultations for initial home setups to accommodate NG feeding
- > Establishing a caregiver advisory board
 - > Board Members: caregivers whose child had discharged from the SCH NICU with NGT and indicated enthusiasm for helping develop this curriculum.
 - > Should include several families of various linguistic, socioeconomic, racial, ethnic backgrounds.



Limitations

- > 10-week timeframe
 - > Only one coder of qualitative data
 - > More coders: more robust picture from data gathered
- > Lack of linguistic, cultural, and economic diversity among caregivers interviewed
 - > More diversity of families: more relevant and accessible curriculum developed

Special Thanks

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1. Portilla, A. *Going Home with a Feeding Tube: A Needs Assessment*. [PPC Capstone Project]. Seattle, WA: University of Washington; 2022