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Standardizing Family Education in a Pediatric Respiratory Care Unit

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THE PEDIATRIC RESPIRATORY care unit (PRCU) is a 6-bed unit for infants and children with a tracheostomy tube who may or may not also be ventilator dependent. The primary goal of the PRCU is to support these patients and their caregivers through education by utilizing evidence based multi-disciplinary care. In planning for these patients' discharge to home the most critical piece is caregiver education and skills training for tracheostomy and ventilator care. Discharge requirements for home include two caregivers who have completed our training program in tracheostomy and ventilator care, so they can safely manage the child during times when there is no nursing support in the home. The program has been in place for more than 20 years however we found that over time, caregiver education and skills training became unstructured among the nursing staff resulting in prolonged training time, length of stays, and varying levels of competency of caregivers.

Purpose

The model of care (MOC) committee was established in 2009 following a survey of caregivers, nurses, and physicians that identified several areas that needed improvement. Some of the responses described nursing care and skills education as inconsistent. The MOC committee was composed of a lead pediatric respiratory physician and nurse practitioner as well as representatives from nutrition, care coordination, staff nurses, child life, respiratory therapy, physical and occupational therapy, religious ministries, and several parents of previous patients who had "graduated" from the PRCU. Four sub-committees were established based on the identified needs in the surveys: education, communication, transition, and developmental care. The education sub-committee included staff nurses, pediatric respiratory nurse practitioner, nurse educator, and nurse care coordinator. The education subcommittee had six main goals: evaluate the current practice of the PRCU, standardize caregiver education, develop a timeline to decrease the length of training time, establish consistency in teaching and determining competence with each skill learned, establish discharge expectations and requirements, and develop written scenarios to help assess and improve the critical thinking skills of the caregivers.

Skills checklists were created to standardize teaching and determine proficiency.

Getting Started

The education sub-committee started with a query of other institutions that discharge similar patient populations to determine what protocols and guidelines they used for training and discharge planning. We found widespread variation among institutions; some had no formal training program in place, some had an otolaryngology nurse perform all the caregiver education within a few days to a few weeks, and others had no expectations for caregiver return demonstration. Using this information, our original tools for educating and documenting caregiver competency were evaluated and revised. Resources and processes were then developed based on the American Thoracic Society's consensus statement "Care of the Child with a Chronic Tracheostomy" (Sherman et al., 2000). The resources and processes developed emphasized a multi-disciplinary approach.

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Timeline

The education sub-committee established a timeline for caregiver education based on past experience with this patient population, as well as the number and complexity of skills that were required for a safe discharge. It was determined that the complete training process should be completed in 12 weeks. Caregivers were expected to be at their child's bedside for a minimum of 4 hours a day, 3 days a week, complete a 12 hour day and 12 hour night stay, and participate in comprehensive care days to maintain their skills if the child was not medically ready for discharge after the training was complete. A step by step guide, called Stepping Stones to Home, was developed to help families manage the 12-week program (Figure 1). The steps helped reinforce weekly goals by breaking down the training program into 1 week intervals.

Establishing a Sequence

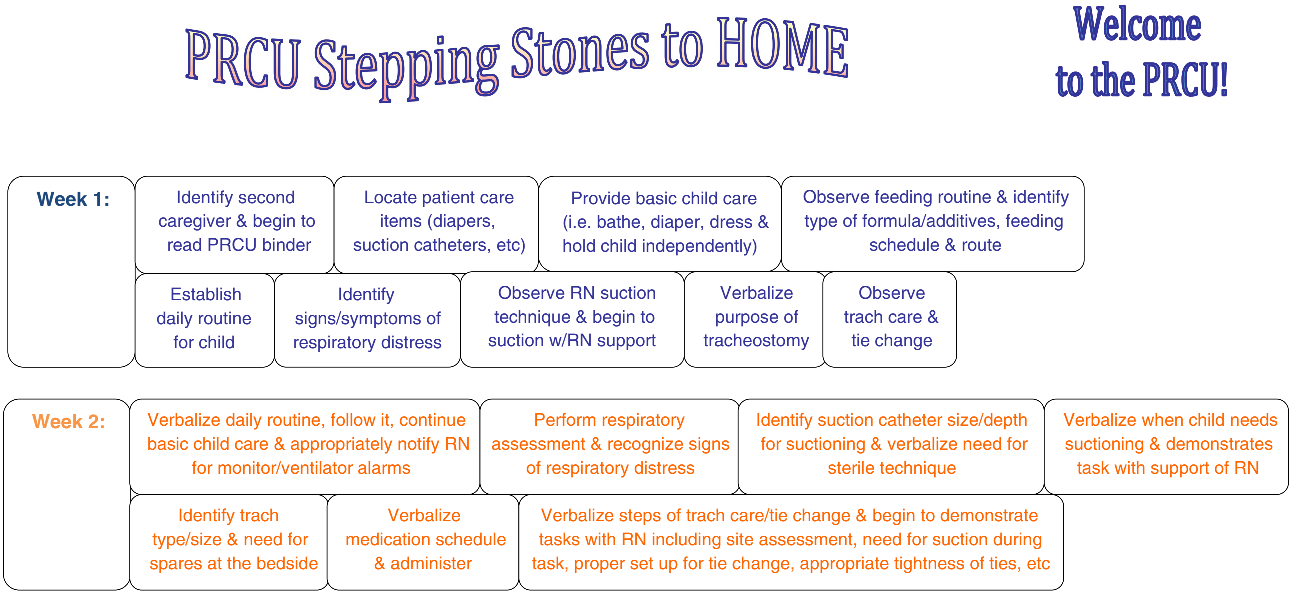
A sequence was established for caregivers to learn the skills they needed for a safe discharge home. This included basic infant care, safe handling of the infant or child with a tracheostomy tube and ventilator, and respiratory assessment. Once these skills were mastered, the caregiver could advance to suctioning, changing tracheostomy ties, changing the tracheostomy tube, and home ventilator training. A caregiver could not become proficient in a new skill until they mastered the previous one. The Stepping Stones to Home helped the nursing staff adhere to the sequence of skills training.

Calendar

In rooms, calendars were posted to encourage communication between caregivers and nursing staff during the training process. Caregivers were expected to write their training appointments on the calendar ahead of time and identify what skills they were preparing to work on, such as tracheostomy tie change. Utilizing the calendar allowed the nursing staff to plan ahead and know when they could expect to spend blocks of time in the patient's room for teaching. Caregivers also used the room calendar to schedule their 12-hour stays and comprehensive care days.

Determining Competency

Skills checklists were created to standardize teaching and determine proficiency. Checklists with pictures were made available in both English and Spanish and were given to caregivers as part of their welcome binders (Figures 2 and 3). The committee developed skills checklists for respiratory assessment, tracheostomy tie change, suctioning, saline lavage (note: according to the American Thoracic Society Consensus Statement, saline lavage should not be performed routinely but parents should be taught the indications for when it is appropriate to use lavage), tracheostomy tube change, feeding (by mouth, nasogastric, or gastrostomy tube), and nasogastric tube placement based on established hospital policies. Each skill had an itemized checklist so that every nurse could follow the same sequence of directions and steps. An added benefit of the checklist was the fact that they made the process for determining proficiency less subjective. When determining whether a caregiver "passed or failed" a task, the nurse could refer to the checklist and use it as an educational tool with the family to remind them of the steps they missed. The checklist also gave the family something concrete to review before they would have to repeat the skill and master it without missing a step. A caregiver was deemed proficient in



PRCU Stepping Stones to HOME

Welcome to the PRCU!

Week 1:
- Identify second caregiver & begin to read PRCU binder
- Locate patient care items (diapers, suction catheters, etc)
- Provide basic child care (i.e. bathe, diaper, dress & hold child independently)
- Observe feeding routine & identify type of formula/additives, feeding schedule & route
- Establish daily routine for child
- Identify signs/symptoms of respiratory distress
- Observe RN suction technique & begin to suction w/RN support
- Verbalize purpose of tracheostomy
- Observe trach care & tie change

Week 2:
- Verbalize daily routine, follow it, continue basic child care & appropriately notify RN for monitor/ventilator alarms
- Perform respiratory assessment & recognize signs of respiratory distress
- Identify suction catheter size/depth for suctioning & verbalize need for sterile technique
- Verbalize when child needs suctioning & demonstrates task with support of RN
- Identify trach type/size & need for spares at the bedside
- Verbalize medication schedule & administer
- Verbalize steps of trach care/tie change & begin to demonstrate tasks with RN including site assessment, need for suction during task, proper set up for tie change, appropriate tightness of ties, etc

Figure 1 Selections from Stepping Stones to Home.