**OT in the NICU**

April is Occupational Therapy Month

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An occupational therapist helps people be as independent as possible and maximize their performance of their “occupations,” including the things they do on a daily basis – such as getting dressed, bathing, attending school, eating, playing or driving a car.

But occupational therapy is for more than adults.

At Duke University Medical Center, occupational therapists work in the Neonatal Intensive Care Unit (NICU). Duke is providing current best practice in that it has seen the value in our (OT) services and the important role we play in the development of these premature and fragile infants.

The NICU population includes infants who are acutely ill or premature who are often unstable, fragile and easily compromised by environmental conditions. Their primary “occupations” include sleeping, feeding, interacting with their parents and caregivers and use of their eyes and hands to explore their environment.

OT in the NICU helps protect these fragile babies from excessive or inappropriate sensory aspects of the environment, and assists the families in fostering optimal development for their baby. That includes the development of age-appropriate occupations (i.e., feeding), sensorimotor processes, caregiver-child bonding, and neurobehavioral organization.

To help foster an infant’s neuromotor development (how the brain and muscles work together) occupational therapists assist with optimal positioning of the infant in the isolette and/or crib as well as educating caregivers in supportive ways to hold the infant, including “Kangaroo Care.” Occupational therapists might also fabricate special supports in the form of splints to help manage muscle tone or range of motion.

OT plays a very important role with the premature infant’s sensory system and their ability to organize and regulate the stimuli in the world around them. Often these babies have a difficult time adjusting to being outside the womb. Occupational therapists assist these infants with regulating touch, sound, and light.

Occupational therapy and Speech therapy work together as a feeding team in Duke’s NICU. Feeding is not just about the infant being able to eat enough food to get the nutrients they need to grow. Occupational therapy focuses on the quality of the feeding skills which includes suck-swallow-breathe (SSB) coordination and the ability for an infant to maintain a calm organized state during a feed.

OT’s role in the NICU is probably best described by the recent story of beautiful twin girls. These precious babies were born prematurely at only 25 weeks gestation.

Baby Girl A was born weighing 1.7 pounds and Baby Girl B weighing pounds.

**Salute to Occupational Therapists**

To recognize the invaluable service provided by Occupational Therapists (OTs) and Occupational Therapy Assistants (COTAs), April is recognized as Occupational Therapy Month. Take time this month to recognize them throughout Duke University Health System:

- Acute and Critical Care at Duke University Hospital (Adult and Pediatric services)
- Durham Regional Hospital (Acute Care, Acute Rehabilitation)
- Duke Health Raleigh Hospital (Acute Care, Outpatient)
- Person Memorial Hospital (Acute Care, Outpatient, Skilled Nursing Facility)
- Duke Health Community Care (Home Health)
- Hand Rehabilitation (Duke Clinic)
- Functional Capacity Evaluation/Work Conditioning (Duke Clinic)
- Children’s Health Center (Specialty Clinics)
- Amyotrophic Lateral Sclerosis (ALS) Clinic, Pain Clinic, Muscular Dystrophy Clinic, Movement Disorder Clinic at Moreene Road
- Adult Outpatient Rehabilitation (Duke Clinic, Lenox Baker) including driving evaluations and low vision
- Pediatric Outpatient (Specializing in developmental, feeding and sensory processing disorders at Lenox Baker)
- Ergonomics Division, Occupational and Safety Office (OESO) Ergonomic evaluations, office evaluations, return to work program and safe patient handling.

OT became involved when they had reached the age of 32 weeks.

OT educated the parents on how sensitive these two little ones were to noise, light and touch. Their parents were taught ways to help support their daughters to tolerate being a part of this busy world.

One of the first goals for the girls, when they were big enough, was to tolerate coming out of their isolettes to cuddle with mom and dad and remain stable. Once that goal was achieved we helped them to be able to suck on their pacifiers while outside the isolette and remain stable.

As they achieved these goals we were able to gradually start introducing the bottle and breastfeeding one to two times a day, using a special nipple and certain feeding strategies so that each girl was successful. With each successful feeding experience we were able to progress the girls to attempting to feed more often. Both girls are now taking a majority of their required nutrition by bottle and/or breast, are less reliant on feeding tubes and will be discharging home in the near future.

Occupational therapists in the NICU at Duke do their best to serve the infants and their families by providing the best match or fit between the infant and the NICU environment as well being sensitive to family circumstances, priorities/goals, concerns and cultural beliefs.

Many of these premature infants after discharge continue to require intervention to help assist their development. This continuum of care can be provided through Duke’s Special Infant Care Clinic (SICC), community-based early intervention services, as well as through the outpatient facility at Lenox Baker.