

From TIMP to Toddler: Developmental Care from NICU to Home

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Introduction - In September 2013, the 20 bed Level II NICU at South Health Campus was opened. This hospital is unique in Calgary in that the mission statement of the care provided at the hospital is based on Four Pillars which are 1. Innovation 2. Wellness 3. Collaborative Practice and 4. Patient/Family Centered Care. These pillars are well aligned with the principles of NIDCAP care. Most NICU's in Alberta do not have a dedicated FTE for OT or PT services and provide care on a consultation basis only. In accordance with the mission statement of the South Health Campus, pediatric occupational and physical therapy roles were developed and dedicated FTE was allocated to both these allied health professionals. In December 2015, a .6 Occupational Therapist was hired, followed by a .5 Physical Therapist in July 2016. Their role was to provide service to both the NICU and the two outpatient Pediatrics Clinics for consultation including feeding, musculoskeletal conditions and plagiocephaly. In addition, these therapists, in conjunction with the site lead neonatologist, agreed to pilot a program in the NICU where all babies born less than 34 weeks and less than 1500 g would be assessed by the therapists on the Test for Infant Motor Performance (TIMP) prior to discharge around 36 weeks gestation. This initiative was started in November 2016. The NICU therapists also provided service to the outpatient Pediatrics Clinic and some of the NICU graduates are referred to be seen in this clinic by parent choice usually due to proximity to their home. Parents were encouraged to ask for developmental support if needed and the pediatrician also made referrals to OT and PT when indicated. A developmental play group was also developed by the therapists for families who had been receiving individual care. Parents attended sessions every 2 weeks for 6 sessions. The play group allowed for more frequent visits while being more financially and time efficient for the therapists.

Objectives –

- To use the TIMP as a framework for assessing motor development in the NICU and post discharge for babies with increased risk for developmental delay
- To educate parents about typical development and how to promote motor development through play
- To provide a seamless model of developmental care from NICU to home
- To highlight opportunities for developmental play at home

Approach - All babies who were born less than 34 weeks and less than 1500 grams were offered a TIMP assessment. The assessment was done around 36 weeks at the earliest and was typically done in the week prior to discharge home. If the baby was discharged home over a weekend and the assessment was missed, it could be completed in the Pediatric Clinic post discharge if they were referred to the Pediatric Clinic at SHC. If they had a community pediatrician, this was not possible.

Parents were encouraged to be present for the assessment. After the assessment, the age equivalent score was provided to the parents as well as some specific developmental suggestions for play based on the assessment results. A general developmental play handout was developed and provided to the caregiver and reviewed to ensure understanding. Parents were given the therapist contact information and were encouraged to contact therapists if there were further questions or concerns.

Babies who attended the Pediatric Clinic also had the opportunity to be involved with a biweekly play group attended by parents and the babies. All of the allied health professionals were available to consult at the play sessions. The PT and OT were always present for the play sessions. The play group offered not only the opportunity for discussion about motor development but was also helpful to parents in accessing community services, forming relationships and establishing a support network. Parent's evaluations of the playgroups have been very positive.

Data: TIMP results, parent evaluation forms from the playgroup

Conclusion - Initially, there was no defined role for either the OT or PT to participate in daily care in the NICU other than for specific consultations for feeding, musculoskeletal conditions (eg. club foot, brachial plexus injury) or plagiocephaly concerns.

At the SHC site, this program has highlighted the importance of developmental care in promoting motor development not only in the NICU but also after discharge home for preterm and very low birth weight babies. Parents are gaining a greater understanding about the importance of developmental play from a very early age and how to understand the foundational nature of achieving developmental milestones. Parents are also supported in providing developmentally appropriate play opportunities to their children which helps to foster improved parent-child interaction.

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