Conclusion Massage therapy could be an effective adjuvant to PT in order to reduce the PT duration. However, it does not appear to reduce the requirement for PT.

GP238 SOCIO-DEMOGRAPHIC FACTORS RELATED TO PARENT ENGAGEMENT IN THE NEONATAL INTENSIVE CARE UNIT (NICU)

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Objectives To determine 1) socio-demographic factors related to parent engagement in the NICU, and 2) determine if the Supporting and Enhancing NICU Sensory Experiences (SENSE) program increased parent engagement.

Background Preterm birth results in significant health complications, necessitating infant hospitalization. This alters early sensory experiences which are further impacted by challenges parents face engaging in care¹. Parent participation in appropriate sensory activities can improve infant developmental outcomes².

Methods Sixty-four infants born ≤ 32 weeks gestation were randomized to SENSE or standard of care. SENSE included parent education and specific amounts of age-appropriate sensory exposures for parents to conduct each day of hospitalization. Bedside logs were used to record parent engagement in providing sensory exposures to their infants.

Results Being married ($p=0.02$) and having private insurance ($p=0.003$), a college degree ($p=0.046$) and fewer children ($p=0.02$) related to more parent engagement. The SENSE intervention was related to increased engagement for young mothers ($p<0.001$) and those living farther from the NICU ($p<0.001$) with trends toward more engagement among African-American parents ($p=.07$).

Conclusion Those with high social risk are less likely to engage in the NICU, but the SENSE program increased engagement among some high-risk groups.

GP239 CASE REPORT: AN IRISH MALE WITH BILATERAL FIBULAR APLASIA TIBIAL CAMPOMELIA AND OLIGOSYNDACTYLY (FATCO) SYNDROME

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Introduction FATCO (Fibular Aplasia, Tibial Campomelia and Oligosyndactyly) syndrome is a rare descriptive diagnosis first defined by Courtens et al. in 2005, who recognised a comparable pattern of malformations with his own case and 4 others described in the literature.¹ Aetiology remains unknown, however defects involved in *SHH* (Sonic hedgehog) gene expression have been proposed.²

Case description We report on a term male infant born with severe malformations. On examination, there was absence of the left radius and ulna, bilateral anterior angulation of

lower limbs with skin dimpling overlying. Both ankle joints were dysplastic and there was oligosyndactyly of both feet. Right upper limb was normal. X-rays of the limbs revealed dysplastic tibiae, absence of both fibulae, a right foot containing 3 ossified metatarsals with 2 formed digits, and a left foot with a single ossified metatarsal and two soft tissue digits with small bony elements. The infant had no other associated anomalies, and is developmentally appropriate at 1 year. Management included Symes amputation, prosthetics and following genetic referral, FATCO syndrome was suggested as the best fitting diagnosis. Whole genome sequencing of infants blood is currently being performed.

Discussion This is an important case to report as there are very few descriptions in the literature.¹⁻⁵ In keeping with the majority of reports, this case appears to be sporadic and development is normal.^{1,3,4} Our case is male, keeping with preponderance.^{1,3-5} Treatment aims at optimising functionality of limbs and stabilisations of joints.¹⁻⁵

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GP240 VITAMIN D SUFFICIENCY AND CYTOKINES LEVEL IN NEWBORNS BORN BY MOTHERS WITH OBESITY

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Introduction Presence of obesity in mothers negatively affects antenatal life and decreases the sufficiency of Vitamin D in newborns. Recently, cytokines role in the regulation of the condition of the immune system during the development and in the course of infectious diseases was actively studied.

Work objective Vitamin D and cytokines level (interleukin-1 β (IL-1 β), interleukin-6 (IL-6)) analysis in newborns, born by mothers with obesity.

Methods during the first 3 days of life a laboratory study of 78 newborns was conducted: 54 (69.2%) were born by mothers with obesity, control group (CG) – 24 (30.8%) children.

Results Mean gestational age of children, born by mothers with obesity – 37.7 ± 0.3 weeks, CG – 39.3 ± 0.2 weeks ($p<0.001$). Body weight of newborns – 3345.0 [2600.0–3980.0] grams and 3350.0 [3060.0–3785.0] grams respectively. In children of mothers with obesity the level of Vitamin D was 7.7 [4.0–14.5] ng/ml, which is 1.3 times