

Results This study has provided preliminary data on the perception of Saudi mothers who have a child with CP. It was found that mothers reflected a good understanding about the medical terminology of the CP. However, most of the mothers did not accept that their child had this diagnosis. There was also a strong belief that the children were experiencing developmental delay. Mothers expressed their trust in God, and relying on God for their child cure and health and for giving them the courage to care for the child.

Conclusions This work has allowed mothers to express their beliefs about the term CP. The data yielded information regarding mothers' beliefs surrounding the meaning of the CP term. These ranged from traditional and cultural beliefs to medical explanations, and to frank confusion between the two.

1754 ASSESSMENT OF DATA RECORDING OF KEY FACTORS RELATING TO DIAGNOSIS, INVESTIGATION, TREATMENT AND MULTI-PROFESSIONAL INPUT FOR PATIENTS WITH CEREBRAL PALSY

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Aims To assess the quality and availability of data recorded within clinic letters regarding diagnosis, classification, investigation and management of Cerebral Palsy (CP).

Methods A retrospective review of case notes on the most recently reviewed (n=50) patients within community paediatric catchment area with a diagnosis of CP, assessing quality of data recorded in the last clinic letter.

Results Mean age at first referral was 2.06 years. 64% had Spastic CP, with 74% having bilateral symptoms. GMFCS score was recorded in 54% and MACS score in 0%. Specific areas of management varied dramatically: input recorded physiotherapy 70%, psychological 6%.

30% of letters noted cognitive skills, 34% visual assessment, 12% hearing status, 36% presence of epilepsy, 32% MRI findings, 14% hip-x-ray, 22% SALT involvement and 32% OT involvement.

Conclusion The data suggests that there is currently poor written communication of functionality and involvement of multiple professional groups in this sample of children with CP, although diagnostic elements are better recorded.

The information required may be elsewhere not readily apparent within the notes. Therefore it would not be safe to assume that absence of details signifies lack of professional involvement or normal functionality.

This information is critical to understanding patient needs, especially since patients may be seen by different healthcare professionals with limited handover. Lack of such clear communication makes it difficult to audit sub-groups of patients and identify the quality of care being provided.

Subsequent to this audit outcome documentation template for clinic reviews for children with CP has been developed.

1755 PARENTS' EXPERIENCES WITH A PREVENTIVE INTERVENTION FOR VERY LOW BIRTH WEIGHT INFANTS AND THEIR PARENTS AFTER DISCHARGE FROM HOSPITAL

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Background and Aims The ToP programme is a preventive, neurobehavioral intervention for very low birth weight infants and their parents. It is provided at home by a specially trained paediatric physical therapist from discharge until 1 year. The aim was to investigate parents' experiences with the ToP programme.

Methods All parents participating in the ToP programme were asked to fill in two questionnaires at the end of the intervention: the Measure of Processes of Care (MPOC-20), a measure of parental perception of the extent to which the services they received were family-centered and a questionnaire on the satisfaction of the parents with the ToP programme.

Results From the 124 parents who completed the intervention, 74 returned the questionnaires (60%). Children had a mean (SD) birth-weight of 1287 (377) grams and a mean (SD) gestational age of 29.8 (2.6) weeks. Mean age (SD) of mothers at birth was 31.5 (5.2) years. The mean (SD) domain scores (scale 1–7) of the MPOC were high and ranged from 5.5 (1.4) for providing specific information to 6.3 (0.5) for coordinated and comprehensive care. Even though 27% reported not to have known what to expect from the intervention, the parents rated the ToP programme a mean (SD) of 9.0 (1.0) on a scale from 0–10. Parents were positive about the knowledge of the therapist, the suggestions they received, and the number of visits (mean (SD) 9.3 (2.0)).

Conclusions Parents were very positive about the ToP programme. It was perceived as respectful, supportive, and well coordinated.

1756 CAN CHILDREN WITH DISABILITIES BE TRANSPORTED SAFELY? THE CHALLENGE AND SOLUTIONS

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Background and Aims Children with diverse medical problems are transported daily to school, medical appointments and family events. One-in-ten children worldwide have conditions that may require special consideration to ensure optimal transportation safety. How to safely transport this population is poorly understood. This initiative enhances understanding of correct occupant protection for children with disabilities.

Method Positioning problems and physiologic stability of children with developmental, skeletal, and physiologic abnormalities and behavioral concerns were reviewed and where needed special restraints were identified. Biomechanical principles were investigated and applied where possible. Solutions were sought for each condition involving a unique concern. A literature review was conducted and resources identified, many of which were developed by the authors.

Results Many infants and children with low birth weight or born prematurely, cerebral palsy, hypotonia, or spina bifida, and skeletal problems including children in casts following injury or surgery frequently cannot be safely transported in conventional car seats. Even within developed nations children with disabilities are suboptimally restrained. Solutions for difficult transportation problems have been developed and identified. Some problems remain unresolved and safety remains suboptimal for some conditions.

Conclusions Motor vehicle crashes are a leading cause of mortality and morbidity worldwide and children are often severely injured or killed. Appropriate use of child restraints has been shown to save lives and reduce injury. Solutions exist for many conditions and families benefit from assistance in identification and access to these solutions. Transportation options will be explained and care improved by the information in this presentation.

1757 MECHANICAL VIBRATIONS DURING SIMULATED NEONATAL TRANSPORT

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Background Newborns frequently need to be transferred to level-III-centers shortly after birth. Especially in very low birth weight infants, these postnatal transports are correlated with increased risk for intra-ventricular hemorrhage. Despite specifically designed incubators, infants are exposed to a considerable amount of mechanical vibrations (MV) that are presumed to be one of the major risk factors.

Aims The objective was to investigate the extent of MV and the frequency spectrum occurring during neonatal transport.

Methods Two types of incubators (ITI-5400 (INC1), Air-Shields-Isolette-TI-500 (INC2), both DRÄGER, Lübeck, Germany) were tested during simulated neonatal transport by ambulance vehicle on various road types. MV were recorded by highly-sensitive accelerometers (LIS331DL, STMicroelectronics, Geneva, Switzerland) and analyzed by using Fast-Fourier-Transform and Continuous-Wavelet-Transform.

Results MV occurring in INC1 during transport had peak accelerations up to 0.91 g (8.93 m/s²) and a dominant frequency range of 10–14 Hertz. Measurements with INC2 showed significantly higher peak accelerations with values up to 1.60 g (15.70 m/s²) and further a distinct peak in the frequency spectrum at approximately 15 Hertz. Total detected MV within the investigated frequency band of 1–50 Hertz were up to 8 times higher in INC2 compared to INC1.

Conclusions We were able to demonstrate that during neonatal transport newborns might be exposed to almost twofold gravitational acceleration, whereby accelerations and vibration frequencies differed distinctly between incubators. On the basis of these data implementation of vibration analysis in approval procedures of transport incubators has to be considered.

1758 NEONATAL OUTCOMES OF VERY PREMATURE INFANTS BORN AFTER IN VITRO FERTILIZATION

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Advances in assisted reproductive technology such as in vitro fertilization (IVF) is known to be associated with a high rate of multiple pregnancy and prematurity. However reliable data on neonatal outcomes of infants born preterm after IVF are lacking.

A cohort study was conducted to compare neonatal outcomes of 90 very premature infants born after IVF at University of Miami/Jackson Memorial Hospital between 2005 and 2011, with a control group born after natural conception, matched by gestational age. The IRB approved the study.

Mothers of infants born after IVF were older (34 vs 28 yrs $p<0.001$) and had lower parity (0 vs 1 $p<0.001$). Gestational age and birth weight were not different between groups. More IVF infants were females (56% vs 40% $p<0.01$) and were born by C-section (94% vs 88% $p<0.03$). The only difference between groups was a higher 1 minute Apgar score in IVF infants (6.2 vs 5.1 $p<0.002$). No differences in 5 and 10 minutes Apgar's score, need for surfactant, duration of mechanical ventilation and need for O₂ were found. There were no differences in the incidence of major morbidities, IVH, BPD, NEC, sepsis, and PDA ligation. Mortality and LOS were similar in both groups.

These results demonstrate that when compared with infants of similar gestational age outcomes of IVF premature infants are not different from naturally conceived infants. The reported higher risk for poor outcomes in IVF infants is most likely related with the higher risk of multiple gestation and prematurity.

1759 REDUCTION IN CENTRAL LINE ASSOCIATED BLOODSTREAM INFECTIONS BY INTRODUCING A QUALITY IMPROVEMENT PATHWAY 'CLEAN LINE'

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Background Central lines (umbilical arterial/venous catheter, central venous catheter) are commonly used for NICU patients.

The most common complication is the Central Line Associated nosocomial Bloodstream Infection (CLABSI).

Reducing CLABSIs improves short and long term outcome for premature newborn.

Implementing bundles of care may reduce CLABSIs.

Aim Does implementation of "bundles of care" reduce CLABSIs/1000 catheter days?

Methods In 2010 a task group 'Clean Line' (neonatologist, Nurse Practitioner, hygienist, NICU nurse and ward manager) defined five bundles of care:

1. optimal insertion conditions,
2. handhygiene,
3. daily line care,
4. daily review of line necessity and
5. daily inspection of insertion site.

For each care bundle the procedures were evaluated on an evidence-based manner and changed where needed. Video demonstrating best practice, multidisciplinary education and short checklists for monitoring compliance were used for implementation.

In 2011 the pathway started with the first two bundles of care. Data of CLABSIs and catheter days were compared with a historical cohort (2007). CLABSI is defined as clinical sepsis >72 hours after birth with a positive blood culture without other focus.

Results

Abstract 1759 Table 1

Number	2007	2011
Patients (catheters)	75 (124)	206 (345)
Catheterdays (no.)	795	1727
CLABSI (no)	16	11
CLABSI/1000 days	20, ¹	6.3 ¹

¹Difference 13.8 (CI 3.2–24.3).

Conclusion A NICU quality improvement pathway with implementation of bundles of care can reduce the number of catheter-related infections/1000 catheter days.

1760 NEONATAL RE-ADMISSIONS WITH FEEDING DIFFICULTIES IN A LARGE DISTRICT -GENERAL HOSPITAL IN UK: MORE SUPPORT NEEDED FOR BREASTFEEDING MOTHERS?

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Background and Aims Readmission of neonates due to weight loss and feeding difficulties to hospital following discharge continues to be a concern. This audit was done to study the incidence, clinical characteristics and laboratory markers of neonates admitted with feeding difficulties and weight loss.

Methods Clinical notes and discharge summaries of babies ≤ 28 days old admitted to hospital over a period of ten months from June 2011 to March 2012 were reviewed. Information was recorded regarding age at admission, weight loss, final diagnosis and feeding method.

Results A total of 114 neonates were re-admitted to hospital during this period. Of these 34 (30%) were due to feeding difficulties ± jaundice. 29/34 of these were due to weight loss related to breastfeeding. Other 5 neonates were bottle fed and needed treatment for jaundice ± supervision of feeding in hospital. Among the 29 breast fed babies, 19 (65%) had significant weight loss of >10%, 9 had