Background/aims We developed a novel, long-term condition-specific Interactive Health Communication Application, the online parent information and support (OPIS) to promote parents’ home-based management ability. We aimed to assess feasibility of a future full-scale randomised clinical trial (RCT) of OPIS in terms of recruitment, retention and data collection procedures; and investigate trends in change on outcomes in a small-scale preliminary RCT in parents.

Methods Parents were randomly assigned to: usual support (control) or usual support plus OPIS access for 20 weeks (intervention). Both groups completed study measures at study entry (T1) and exit (T2). We assessed feasibility between groups.

Results 55 parents of 39 children enrolled in the RCT; 19/26 (73%) of intervention parents and 22/29 (76%) of control parents completed T2 data collection. The overall retention rate was 41/55 (75%). Data collection was judged to be feasible. All intervention parents showed evidence of having accessed OPIS, indicating complete uptake. The intent-to-treat analysis showed greater improvement in self-efficacy to manage their child’s condition for intervention parents when compared to control group parents (3.21 v 1.09, 95% CI -1.27 to 5.51, Cohen’s d = .41).

Conclusion A full-scale RCT of OPIS is feasible. OPIS has the potential to beneficially affect self-reported outcomes including parents’ competence to provide home-based clinical care-giving. Ill-scale RCT that is sufficiently powered to detect the effects of OPIS on outcomes is indicated. Our design and methodology could potentially be transferred to the management of other conditions.

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O-220 EXCESSIVE GROWTH FROM 6 TO 24 MONTHS OF AGE: RESULTS FROM THE PREVENTION OF OVERWEIGHT IN INFANCY (POI) RANDOMISED CONTROLLED TRIAL

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Background and aims Extremely preterm infants have a high risk of moderate to severe long-term neurodevelopmental impairment. Hypoxic or hyperoxic brain injury may be a contributing factor. The SafeBooSCt trial investigated if it is possible to stabilise the cerebral oxygenation of extremely preterm infants.

Methods This was a phase II randomised, single blinded, clinical trial. Infants born before 28 weeks of gestation were eligible. Within 3 h of birth, infants were randomly assigned to either cerebral near infrared spectroscopy (NIRS) oxygenation monitoring in combination with a treatment guideline (experimental) or blinded NIRS monitoring with standard care (control). The primary outcome was the area under the curve of the time series of absolute deviation from the cerebral oxygenation target range of 55% to 85%, expressed in % hours (the burden of hypoxia and hyperoxia). We hypothesised that there would be more than 50% reduction in this burden in the experimental group.

Results 166 infants with a median postmenstrual age of 26.4 weeks were enrolled (Table 1). Two infants were withdrawn. 86 infants randomised to the NIRS group had a median burden of hypoxia and hyperoxia of 36.1% hours (IQR 9.2 to 79.5) (p = 0.892) or extremely rapid growth (p = 0.630) compared to normal growth. Similarly, there was no intervention effect on those classified as overweight at 24 months who also displayed rapid or extremely rapid growth (p = 0.936 for rapid growth, p = 0.485 for excessive rapid growth) from 6–24 months. Our results indicate it is difficult to modify excessive growth.
O-222 EVALUATION OF THE INFLUENCE OF BIFIDOBACTERIUM LACTIS 2011 AND HINDIBA INULIN ON FEEDING INTOLERANCE AND NECROTISING ENTEROCOLITIS IN PREMATURE BABIES

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Aim To evaluate the influence of bifidobacterium lactis 2011 and hindiba inulin on feeding intolerance and necrotising enterocolitis in premature babies.

Material and method 89 premature babies with the diagnosis of feeding intolerance were enrolled in the study. Premature babies were divided into two groups; Study group (group 1) had Bifidobacterium Lactis (5 x 10⁶ CFU) + Hindiba Inulin (900 mg) (Maflor®) liquefied with 10 ml sterile water with the dosage of 3 x 1 ml peroral while control group (group 2) did not have any medication for feeding intolerance.

Results Gender and gestational weeks of the groups were not significantly different. B. Lactis ve Hindiba Inulin was started at mean 9.9 days and continued for mean 11.1 days. Time of start of medication for feeding intolerance.

Conclusions Probiotics and prebiotics may have positive effect due to higher weight gain and not advancing in NEC in study group having B. Lactis and Hindiba Inulin.

O-222 THE VICI-TRIAL: AN INTERNATIONAL MULTICENTER RANDOMISED CLINICAL TRIAL COMPARING HFO AND CMV AS INITIAL VENTILATION STRATEGY IN CONGENITAL DIAPHRAGMATIC HERNIA

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Aim To establish the optimal initial ventilation strategy in CDH.

Methods In a prospective, randomised international multicenter trial initiated by the CDH Euroconsortium (VICI-trial, NTR 1310), prenatally diagnosed CDH neonates born between November 2008 and December 2013, were randomised for either conventional mechanical ventilation (CMV) or high-frequency oscillation ventilation (HFO) as initial ventilation mode.

Results Of the 171 included patients, 91 (53.2%) initially received CMV (median gestational age 38.1 weeks) and 80 (46.8%) HFO (median gestational age 38.0 weeks). In total, 21 (23.1%) patients ventilated by CMV died and 25 (31.3%) in HFO. Of the survivors, 21 (23.1%) had CLD in CMV and 18 (22.5%) in HFO. Primary outcome measure was death or CLD (Jobe and Bancalari, 2001) and 11.5% in CMV compared with 8.8% in HFO. Secondary outcome was corrected for centre, lung-to-head ratio, liver position and side of defect. Secondary outcome was corrected for centre.

Conclusions Although the primary outcome was not statistically significant, CDH patients initially ventilated by CMV were ventilated less days, received inotropics less days, and received less nitric oxide, sildenafil and ECMO compared to HFO.

O-224 TOLL-LIKE RECEPTORS GENOTYPE POLYMORPHISM IN EGYPTIAN CHILDREN WITH CHRONIC VIRAL HEPATITIS C

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Aim To study the influence of TLR4 Thr399Ile polymorphisms among Egyptian children with chronic HCV and to study their relation to clinical data.

Methods An observational case control study was conducted in Mansoura University Children’s Hospital, Egypt including compared with 81.3% hours (IQR 38.5 to 181.3) in the control group (Figure 1), a reduction of 58% (95% CI 35% to 73%) (p = <0.0001). We found no other statistically significant differences between the two groups to term corrected age.

Conclusions Cerebral oxygenation was stabilised using a treatment guideline in combination with cerebral NIRS monitoring in extremely preterm infants.