primary teeth) index (WHO, 1987). For the purposes of our study, a single, calibrated examiner (EMcG) carried out clinical examination and recorded the dmft score in the dental record of each child.

Results The dmft of the 33 children aged between 13 months and 8 years of age attending the NPCC was obtained, compiled in a dataset, and analysed. For all children in the cohort ($n = 33$), the average dmft was 1.2. Of the 33 children evaluated, 75.8% were caries free ($dmft = 0$) and 97% were dentally fit ($dt = 0$). The overall treatment index for this cohort was 94.7%.

To compare to national values, the same parameters for 5-year olds were evaluated ($n = 12$). The mean dmft for this group was 1.3. Of this group, 66.67% were caries free, 91.67% were dentally fit and the overall treatment index was 87.5%. According to the National Survey, the dmft of 5-year-olds in the general population was 1.3.

Conclusion Children with craniofacial conditions may be at higher risk of dental caries than the general child population for a variety of reasons. The present study details the caries experience of children attending a single centre, the NPCC, across a broad age range. Our findings suggest that although the overall dmft of 5-year-old children in the study was equivalent to children of the same age in the National Survey, the treatment index of the children attending the NPCC far exceeds that of the general population (Whelton et al., 2002). It is reassuring to observe that across all age groups studied, a high proportion of the children in our cohort were dentally fit.

GP130 ABSTRACT WITHDRAWN

GP131 **HEALTH CARE TRANSITION FOR ADOLESCENTS AND YOUNG ADULTS WITH LONG-TERM CONDITIONS: QUALITATIVE STUDY OF PATIENTS, PARENTS AND HEALTHCARE PROFESSIONALS' EXPERIENCES IN IRELAND**

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Transition of adolescents and young adults within healthcare services has become increasingly important as more children are surviving into adulthood with long-term conditions. Yet limited empirical evidence exists regarding transition experiences. Transition is not simply about a physical transfer to another service as involves multiple components and medical, psychosocial, developmental, educational and vocational needs. Successful transition to adult services requires a person-centred, developmental, psychosocial, flexible, multidisciplinary, coordinated approach.

We undertook the first Irish study to examine needs and perspectives in relation to healthcare transition for adolescents and young adults with the following long-term conditions: diabetes, cystic fibrosis, and congenital heart disease. Using a qualitative inductive approach we carried out semi-structured interviews with adolescents and young adults aged 14–25 years ($n = 47$), parents ($n = 36$) and health professionals ($n = 34$) which was part of a larger mixed-methods

study on transition. We accessed adolescents before transition and then a different sample who had made the transition within same disease group. The sample was obtained from two children's hospitals and four general hospitals in Ireland. Ethical approval was obtained from relevant ethics committees.

Findings revealed that transition occurred between the ages of 16 and early 20s depending on the service. None of the hospitals had a transition policy and transition practices varied considerably. Adolescents worried about facing the unknown, communicating and trusting new staff and self-management. Transition process was smooth for some young adults, whilst others experienced very abrupt transfer. Parents desired greater involvement in the transition process with some perceiving a lack of recognition of the importance of their role. In paediatric services, nurses made great efforts to engage adolescents who struggled with treatment adherence and clinic attendance. Whereas after transfer, little effort was made to engage young adults if there were lapses in care, as this was generally considered the young person's prerogative.

This study has revealed that transitioning to adult care is challenging for many AYAs, irrespective of their condition, due to unmet needs in relation to information, transition preparation, and development of self-management skills. The degree to which the shift in responsibility had occurred prior to transition to adult services appeared to influence successful transition to new roles for adolescents and young adults and their parents. Interventions need to address the renegotiation of responsibility between AYAs and parents using a developmental framework over a period of time rather than a one-off 'chat'.

GP132 **DEVELOPING RESEARCH CAPACITY: BASELINE SURVEY IDENTIFYING RESEARCH ACTIVITY, SKILLS AND SUPPORTS FOR NURSES IN CHILDREN'S HOSPITALS IN IRELAND**

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Background Children's healthcare in Ireland is currently undergoing radical transformation with the build of a new National Children's Hospital to integrate services delivered by three existing children's hospitals. The new Model of Care for Irish Paediatrics endorses research-led enquiry and translation as critical to providing excellence in clinical practice. This brings its challenges with a recognised critical deficit in the number of individuals with the skills, ambition and time to lead major research projects. The aim of this study was to identify baseline data on research activity, skills and supports for nurses in children's hospitals.

Methods A cross-sectional survey was conducted in 2018 across three children's hospitals in Ireland using a clinical nursing research questionnaire developed through adaptation of two previous established questionnaires investigating research activities, skills/abilities and supports among health care providers. All registered nurses employed in the three paediatric hospital study sites were eligible to participate.

Data were analysed using descriptive statistics and thematic analysis.

Results In total 355 respondents completed the survey (overall response rate 25.1%). Statistical analysis of survey data revealed that n=100 respondents (28.2%) had been involved in a research study but only n=24 (6.8%) had been a lead investigator. Twenty-one (5.9%) respondents had a publication within the last five years and n=85 (23.9%) had presented a poster at a local (n=61, 17.2%), national (n=34, 9.6%) or international (n=22, 6.2%) conference. Just over a fifth (n=74; 20.8%) had given an oral presentation at a local (n=59, 16.6%), national (n=26, 7.3%) or international (n=15, 4.2%) conference. On a whole, respondents self-rated their research skills as weak or average across all stages of research (with overall research competence rated as weak/average n=236, 66.5%). Thematic analysis of qualitative data revealed six themes including; time for research; incentives to engage in research; awareness and promotion of research; research training needs; supports required to enable research; and perceived challenges impacting on nurses' ability to undertake research.

Conclusions There is the need for a clearer strategic vision and political commitment to establish a research supportive environment for nurses working in children's hospitals to conduct research. Particular recommendations focus on additional time, mentorship, communication, information and education. This survey is one aspect of a number of activities informing the development of a research capacity building strategy for children's nursing at a time of reconfiguration of paediatric health services in Ireland.

GP133 MOBILE PHONES FOR FOLLOW UP IN PAEDIATRIC CLINICAL STUDIES IN AFRICA

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Background Pneumonia remains a major cause of childhood morbidity and mortality in Africa. Accessing healthcare is also a major issue with only half of the children with cough and fever taken to a trained healthcare provider in Malawi. Mobile phone use is rising rapidly in Africa with over 46% of the population on the continent estimated to have a mobile phone. This study sought to determine the feasibility of using mobile phones for follow up of children presenting with pneumonia in primary care in Malawi.

Methods This study was undertaken as part of the BIOTOPE project which evaluated children aged 2–59 months presenting with pneumonia to primary care in Mzuzu, Northern Malawi. Parents' or caregivers' mobile phone numbers were obtained by a study nurse during study enrolment. Those who provided a telephone number were contacted by the study team to establish symptom status, re-consultations or hospitalisations of the child at 7 days and 30 days following enrollment.

Results 494 children were recruited to the study. Median age was 18 months (Interquartile range (IQR) 9–30 months) and 55% were male. 76% of the homes owned at least one mobile phone (270 of the mothers/primary care givers and 349 of the fathers). Mothers had completed an average of 8.5

years formal education and 8% of them we fluent in English. On day 7 of the study, 225 of parents/primary care-givers were contactable and a follow up consultation was completed. All children were alive within first 7 days of diagnosis. 83% of those admitted had been discharged from hospital within first 7 days. 6.3% of children had presented to another health provider in the 7 days. On day 30 of the study 195 guardians were contactable. Two children had died during this follow-up period and 14% had presented to another healthcare worker since initial enrollment. The time to travel to the nearest health facility from home was a median of 50 min [IQR 30,90 minutes]

Conclusion With continued expansion of cellular network coverage and mobile ownership in Malawi, mobile phones may facilitate collection of patient outcomes and health data and aid in the follow up and treatment of conditions such as childhood pneumonia. They may also serve as tools for education of health-workers and reporting of clinical trial results in remote areas.

GP134 CONFIRMATION OF PATHOGENETIC HETEROGENEITY OF DIABETES MELLITUS IN CHILDREN USING WHOLE-EXOME SEQUENCING

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Background In the conditions of dynamic development diagnostic capabilities and understanding of the pathogenetic mechanisms of diabetes, the main task of clinicians is the earliest possible verification of the type of diabetes. New diagnostic methods such as whole-exome sequencing allow to finally verify the type of diabetes mellitus and are of special interest.

Aim Determine the frequency of occurrence and molecular-genetic characteristics of monogenic diabetes in children - residents of St.Petersburg.

Methods We examined 99 patients with suspected hereditary variants of diabetes: MODY, diabetes as a part of genetic syndromes and diabetes occurrence before 6 month. All patients have chronic hyperglycemia, detectable of C-peptide level, negative autoimmune markers for diabetes type 1 (except IPEX-syndrom) and absence of signs of metabolic syndrome for older children.

In our study of DNA of patients with suspicion of monogenic diabetes was performed by whole-exome sequencing. Genetic variants were screened in a total of 35 genes: 13 genes causative of MODY (*HNF4A*(MODY1), *GCK*(MODY2), *HNF1A*(MODY3), *PDX1*(MODY4), *HNF1B*(MODY5), *NEUROD1*(MODY6), *KLF11*(MODY7), *CEL*(MODY8), *PAX4*(MODY9), *INS*(MODY10), *BLK*(MODY11), *ABCC8*(MODY12), *KCNJ11*(MODY13), and 22 genes causative of transient or permanent neonatal diabetes, including the ones related to specific syndromes (*EIF2AK3*, *RFX6*, *WFS1*, *ZFP57*, *FOXP3*, *AKT2*, *PPARG*, *APPL1*, *PTF1A*, *GATA4*, *GATA6*, *GLIS3*,