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*,