The cranial ultrasound and the fundus eye were normal. Abdominal Doppler ultrasound was showed Compartemntalized cyst of the left kidney. The electroencephalography and the cardiac echography were normal.

**Conclusion** CMTC is a rare skin disease whose determination remains unknown. Other congenital anomalies can be seen. The prognosis depends on the associated anomalies but it is generally good. Some cases have spontaneous resolution.

**P590 INVESTIGATING THE RELATIONSHIP BETWEEN PARENT DIABETES-RELATED DISTRESS AND FAMILY COMMUNICATION IN PARENTS OF ADOLESCENTS LIVING WITH TYPE 1 DIABETES**

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**Aims** Parents of adolescents living with type 1 diabetes often struggle with sharing self-management responsibility with their children as roles change throughout adolescence. Existing evidence suggests that parents’ own emotions may impact how responsibility is shared. Parent diabetes-related distress may lead to ineffective communication between parents and adolescents throughout this developmental period as self-management moves from parent-led to adolescent-led. This study explored the relationship between parent diabetes-related distress, diabetes family responsibility, and parent-adolescent communication.

**Methods** Parents (N = 146; 121 female; mean age = 46.56 years) of adolescents (11–17 years) living with type 1 diabetes completed a questionnaire which included measures of parent diabetes-related distress, diabetes family responsibility, and parent-adolescent communication. Parents were recruited via one national paediatric diabetes and endocrine unit and a national diabetes advocacy organisation.

**Findings** Significant (p <0.05) negative correlations were observed between parent diabetes distress and overall parent-adolescent communication (r = -0.570), as well as open communication (r = -0.453) and problems in communication subscales (r = -0.549). All subscales of the diabetes distress scale (personal distress, teen management distress, parent-teen relationship distress, and healthcare team distress) correlated negatively with overall parent-adolescent communication, open communication, and problems in communication. Most notably, parent-teen relationship distress correlated with overall parent-adolescent communication (r = -0.679), open communication (r = -0.527), and problems in communication (r = -0.664). A significant (p <0.05) positive correlation was observed between parent diabetes distress and parental involvement in diabetes management (r = 0.357).

**Conclusions** Relationships between aspects of parent diabetes-related distress and parent-adolescent communication were observed; higher levels of parent diabetes-related distress indicated less open communication and more problems in communication. Higher parent diabetes-related distress was associated with more parental involvement in adolescents’ type 1 diabetes management. Adolescence is a key time in which diabetes management moves from parent-led to adolescent-led. Understanding the challenges that parents experience when sharing management responsibility and communicating with their adolescent children about type 1 diabetes management may help healthcare professional to provide more effective supports for parents and adolescents during this developmental period.

**P591 NEONATAL DIABETES**

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**Background** Neonatal diabetes mellitus (NDM) is rare, noted in only 1 of every 300 000–400 000 live births. Both transient and permanent conditions have been described (TNDM and PNMD, respectively) which have different clinical, genetic features and outcomes.

**Cases presentation** Three newborns were included, 2 males and 1 female. The mean gestationnel age was: 35.3. All of them had born to consanguineous parents. The mean birth weight was 1506 g. Two patients had a family history of neonatal hyperglycemia. By the first week of life, glucose concentrations increased. Ketonuria and glycosuria were noted in two cases, the third patient had hyperglycemia, glycosuria without ketonuria at the age of 2 months. The serum insulin and C-peptide levels were low. Tests for anti-islet cell and anti-glutamic acid decarboxylase antibodies were all negative. Abdominal ultrasound was normal. The infants were diagnosed with NDM. Genetic testing was performed. Results are not yet available. All patients were managed with insulin therapy (1–2.5 UI/kg/j). During follow up Recurrent hospital admission for diabetic ketoacidosis were noted in two cases, but long term outcome was favorable. One patient had died.

**Conclusion** Neonatal diabetes mellitus is uncommon. It is important to distinguish neonatal diabetes mellitus from other causes of hyperglycemia in newborns. Early recognition and urgent genetic testing are important for predicting the clinical course and raising awareness of possible additional features.

**P592 PAEDIATRIC ECG INTERPRETATION BY NON-CONSULTANT HOSPITAL DOCTORS (NCHDS) WORKING IN AN IRISH TERTIARY PAEDIATRIC CENTRE**

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**Introduction** Paediatric ECG interpretation is a core clinical competence in postgraduate paediatric specialist training. Doctors treating paediatric patients with potential cardiac conditions should be familiar with the principles of ECG interpretation and the diagnoses requiring emergency treatment. Research has shown that paediatric ECG interpretation amongst doctors may be suboptimal and that the most effective method of teaching ECG interpretation is unclear.1

**Aims** This study aims to establish the accuracy of paediatric ECG interpretation by NCHDs working in an Irish Tertiary Paediatric Hospital and to measure the impact of a teaching intervention.

**Methodology** NCHDs working in acute clinical areas in an Irish tertiary paediatric hospital were invited to participate (n=45). Participants were asked to report three ECGs (long
QT, Wolf Parkinson White and normal). This was followed by a 40 minutes lecture. Participants were then asked to re-report the same 3 ECGs. Participants also completed questionnaires pre and post the study, including self-rating their ability to report paediatric ECGs on a Likert Scale from 1 (poor) to 6 (expert).

Results 25 NCHDs completed the study. The pre-teaching accuracy for ECG1 (long QT), ECG 2 (Wolf Parkinson White) and ECG 3 (normal) was 37%, 32% and 24% respectively. Following the teaching intervention these figures rose to 76%, 40% and 44%. There was a statistically significant improvement in the combined before and after accuracy of ECG interpretation (31% v 53%) (p=0.02). There was also an improvement in participant self-rated ability to report paediatric ECG following the study. The mean pre-lecture score on the 1 (Poor)-6 (Expert) Likert Scale was 2.84, the mean post lecture score on was 3.8 with the same scale. All participants found the teaching intervention helpful and reported that they would like further teaching on the topic.

Discussion The initial accuracy of paediatric ECG interpretation amongst participants was lower than reported in the literature. Lectures were shown to be an effective teaching method to improve short-term ECG accuracy rates among participants.

Conclusion There is currently no structured post-graduate teaching for paediatric ECG interpretation resulting in a varied knowledge base. This study shows that further education on ECG’s is required.

REFERENCES

P593 CHILDREN DEPENDENT ON MEDICAL TECHNOLOGY: KNOWLEDGE & CHALLENGES FOR ADVANCED HOMECARE NURSES
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Background In 1981, a child in the US was discharged home dependent on medical technology. Since then, it is widely acknowledged this cohort of children should live at home. However, most countries are still reactive in their approach to technology living at home.

Method As this is an evolving area of paediatric nursing, a survey was sent to advanced home care nurses. This had 10 multiple choice questions about tracheostomy tube and enteral feeding. There was an addition 10 questions that were free text to gain an insight into the challenges nurses face working in the home care setting. These challenges were further discussed in focus groups.

Findings/Results There was 67% return rate on the questionnaires and following 3 focus groups the common themes identified were the ‘nurse parent relationship’, ‘family dependency’ on services and nurses in the home and ‘competency and care planning’.

Conclusion Advanced home care nurses’ find working in the home care setting both rewarding and challenging in equal measures. Education and training is vital to ensure nurses are competent to care for a child who is dependent on medical technology which will help build a trusting relationship with the family.

P594 ‘TWO’S COMPANY’. TRANSITIONING FROM ONE TO TWO ON-CALL REGISTRARS IN AN IRISH PAEDIATRIC TERTIARY HOSPITAL, THE NON-CONSULTANT HOSPITAL DOCTOR’S PERSPECTIVE
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Introduction This study was conducted in a 154 bed Tertiary Paediatric Hospital where the medical on-call NCHD (Non-Consultant Hospital Doctor) team of one Registrar and one SHO both a 25 hour shift. NCHDs had expressed their concerns regarding their workload and fatigue levels on-call, coupled with a significant number coming off the on call rota due to stress and fatigue.

Aims This study aims to assess the impact of introducing a second registrar to the on-call team had on NCHD experience of on-call work.

Methodology NCHDs working the Paediatric medical on-call rota were invited to complete an online survey exploring their experiences of being on-call. These results were discussed with the hospital directorate and a second registrar was introduced into the 25 hour on-call team. Three months following the introduction of the second registrar the same survey was repeated.

Results 18 NCHDs (8 Registrars, 10 SHOs) took part in the initial survey and 16 NCHDs (10 Registrars, 6 SHOs) took part follow up survey. Prior to the introduction of the second registrar, 66% and 33% of NCHDs reported getting less than 1 hour and between 1–3 hours of uninterrupted rest on call respective. Following the introduction of the second registrar, 6% reported less than one hour, 44% reported 1–3 hrs and 50% reported 3–5 hrs of uninterrupted rest on call.

In the initial survey one participant (5%) reported having adequate time to eat on call, this figure rose to 63% (10 participants) following the introduction of the second registrar.

In the initial survey all participants reported fatigue levels as unmanageable or overwhelming by the end of their 25 hour shift. Following the introduction of the second registrar 50% of participants reported manageable fatigue levels by the end of their shift, the remaining 50% reported fatigue levels as unmanageable or overwhelming.

Discussion The introduction of a second registrar on call resulted in marked improvement in the on-call experience of the participants, there was an improvement in uninterrupted rest and lower levels of reported fatigue. Despite the presence of a second registrar 50% of participants still reported fatigue levels as unmanageable or overwhelming by the end of their shift.

Conclusion Paediatrics is recognised as a satisfying speciality albeit a difficult one with a high workload and a high rate of attrition and burnout. Interventions such as addition staff on-call may protect junior staff from burnout and result in higher staff retention in the specialty.