accepted. 6 of these 8 patients showed full recovery of thyroid function, with a lower levothyroxine dose evident in 5 cases. 2 of these patients had associated co-morbidities – Down syndrome and Deletion 1q21.1 syndrome. Overall, 4 patients with CHD had associated co-morbidities, whereas no other forms of CH had any.

Conclusion The incidence of CH in the local area is approximately 1 in 1200, much higher than the UK average of 1 in 4000. Dyshormonogenesis accounts for the greatest proportion of CH (40%) compared to established literature where it is shown to be 10%–20%. Further investigation, therefore, is required to see why CHD is more common in this area. There is insufficient information available to draw conclusions with regards to likelihood of recovery. However, the study is suggestive of recovery being more likely with a lower dose of levothyroxine, and for those patients with associated syndromes. In order to test this hypothesis, a larger study needs to be undertaken.

G237(P) EFFECTIVENESS OF THE SENSOR AUGMENTED PUMP IN MANAGING TYPE I DIABETES MELLITUS

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Aim Type I Diabetes Mellitus is a chronic metabolic disorder with an incidence of 24 000 children in the UK. NICE has recommended the use of the sensor augmented pump (SAP) in managing short and long term diabetes related complications. Limited literature is available in the paediatric population. SAP is designed to allow continuous glucose monitoring, with real-time adjustment of insulin; making it superior to other pump systems. SAP was assessed in a trial of children; that were previously on insulin pumps with limited success in managing hypoglycaemic episodes. The aim of the audit was to identify how effective SAP was in reducing HBA1c and preventing hypoglycaemic episodes.

Method 14 children were commenced on SAP between 2016–2017 March. Evidence was collected from electronic records; which, summarised clinic letters from both the consultant and diabetic nurse team. Date of diagnosis and initiation of SAP following that was dictated. The number of hypoglycaemic episodes causing admission to hospital and HBA1c was compared before and after SAP was started.

Results There were equal number of males and females. The average age of Type I DM diagnosis was 6 years 2 months. The average age when SAP was commenced was 8 years 1 month.

Average HBA1c prior to SAP was 63.1 and showed 5.3% improvement following SAP with 59.8. 21.4% of children showed deterioration in HBA1c. These were males and belonged to an older age group (>5 years). 14.3% of children did not show any change in their HBA1c.

29% of children had a severe hypoglycaemic episode prior to SAP. Following SAP, 7.1% of children had a severe hypoglycaemic episode.

Conclusion NICE 2016 has recommended the use of SAP in improving the quality of life for people with Type I DM. The audit highlighted improvement in glucose control with positive

effect on HBA1c and reduction in hypoglycaemic episodes. This can be explained with increased adherence to treatment with the use of automatic insulin monitoring and delivery. Ultimately, NHS resource and cost saving is achieved; with the quicker target blood glucose and reduced hospital admissions related to Type I DM disease complications.

G238(P) ABSTRACT WITHDRAWN

G239(P) A REVIEW OF CHILDREN PRESENTING WITH A NEW DIAGNOSIS OF DIABETES

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Introduction Diabetic ketoacidosis (DKA) can be a life threatening presentation of Type 1 diabetes in children and young people. Data had previously been collected (from January 2007 – August 2009) that demonstrated that 30% of newly diagnosed diabetics presented in DKA. Following these results and using the Parma study, a public health awareness campaign was completed using (P)s designed by local school children to try and improve public awareness around presentations of diabetes.

Aims To review whether children presented in DKA as their first diagnosis of Type 1 diabetes and whether they had presented to health services on more than one occasion prior to diagnosis.

Methods A list of patients was collected from the Diabetic Team caseload and SCI diabetes database to identify children and young people diagnosed between January 2014 and July 2017. Case notes were retrospectively reviewed using a pro-forma that was developed in consultation with the diabetes team. 33 patients were included.

Results The majority of patients continued to be diagnosed by GP (58%), while out of hours (OOH) made 18% of diagnoses, 12% were made by the emergency department (ED) and 12% by paediatrics. Previously 55% of diagnoses were made by the GP, 10% by ED and 20% by paediatrics. Six of the thirty three patients presented in DKA (19%) with the remaining 81% (27/33) presenting 'walking wounded'. In comparison to the previous data collection which had demonstrated 30% (6 of 20) presented with DKA. 42% of patients were diagnosed at their first presentation, with a further 21% on their second presentation, 9% presented on three or more occasions before they were diagnosed.

Conclusion There has been a reduction in percentage of new diabetic children presenting in DKA to services. This may suggest a greater awareness in the community and could be related to a previous public health campaign. It is still concerning that almost 20% (1 in 5) new diabetics present with DKA and that only 42% of patients were diagnosed at initial presentation. On some occasions diabetes was suspected but the patients were asked to return with a urine sample before referral to paediatric services was made.