Aim To investigate maternal, perinatal, and neonatal outcomes of pregnancies in women with type 1 diabetes in the University Maternity Hospital Limerick, Ireland.

Methods This retrospective descriptive study was conducted from charts identified from the diabetes in pregnancy register from 1st July 2007 to 1st July 2017 at University Maternity Hospital Limerick.

Results 17 women were identified from the register with juvenile onset (<18 years) type 1 diabetes mellitus during the 10 year study period who gave birth to 23 live infants. Maternal diabetes related medical conditions included; diabetic retinopathy (29%), hypertension (11.8%), recurrent urinary tract infections (11.8%), diabetic nephropathy (11.8%), poor hypoglycaemia awareness (11.8%), diabetic neuropathy (5.9%) and cataracts (5.9%). 11.7% women had a past history of illicit drug use. 8.7% women were smoking at the time of booking. Antenatal obstetric complications included polyhydramnios (17.4%), intrauterine growth restriction (17.4%), pre-eclampsia (8.7%), maternal hypoglycaemic seizure (4.3%) and pregnancy induced hypertension (4.3%). 39.1% infants were born to primiparous women. 87% infants were bottle-fed. 73.9% births were unplanned pregnancies. Of n=5 infants born via vaginal delivery there were no cases of shoulder dystocia. 60.9% neonates were male. The mean gestation was 37.2 weeks (range 33.3 to 39.4). The mean birth weight was 3.57 kg (range 2.01 to 5.54). The median APGAR at 1 minute was 9 (range 5–9). The median APGAR at 5 minutes was 10 (range 4–10). 17.4% neonates required free flow O₂ at birth and 8.7% required bag-mask ventilation. 95.7% neonates were admitted to the neonatal unit. Of the n=23 infants studied medical issues included; hypoglycaemia (60.9%), jaundice requiring phototherapy (43.5%), transient tachypnoea of the newborn (39.1%), prematurity (30.4%), macrosomia (17.4%), low birth weight (13%), poor feeding (13%), polycythaemia (8.7%), trisomy 21 (4.3%), respiratory distress syndrome (4.3%) and hyponatraemia (4.3%).

Conclusion Neonates born to mothers with juvenile onset T1DM should be considered a high risk group and clinicians should have a low threshold for admission to the neonatal unit.

P294

CUSHING SYNDROME AND ADRENAL INSUFFICIENCY INDUCED BY HIGH DOSE PROLONGED INTRANASAL BETAMETHASONE

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Iatrogenic Cushing syndrome and secondary adrenal insufficiency due to intranasal steroids is rare in children. A 7 year old boy was referred to the paediatric endocrine clinic with suspected Cushing syndrome. He presented with excessive weight gain, marked striae and hypertension. His GP had performed a morning cortisol <28nmol/L (171–800nmol/L). He had a background history of obstructive sleep apnoea for which he had been prescribed Betnesol 0.1% (Betamethasone

sodium phosphate 1 mg/ml) nasal drops and Montelukast 4 mg daily. Physical examination revealed hypertrichosis on his back, buffalo-humped neck, and purple striae on his legs and inner thighs. He was Tanner stage 1, normal genitalia. Auxology: weight 46.1 kg (>99.6th centile); height 124.6 cm (50th–75th centile), body mass index (BMI) 30 kg/m² (>99.6th centile) and blood pressure was 124/72 mmHg (>99th centile). The drug history was reviewed in detail by our Paediatric Pharmacist and revealed that over the past 20 months, he had been using betamethasone nasal drops continuously, prescribed at a dose of 2 drops, twice daily, into each nostril. A total of 38 repeat prescriptions had been dispensed and he had been taking double the prescribed amount per month. The duration of use (20 months) also far exceeded the recommended indication (4–6 weeks max). Laboratory investigations: blood glucose 4.7 mmol/L, early morning cortisol <28 nmol/L (171–800nmol/L) and ACTH <0.2 undetectable (1.1–13.2pmol/L). Renin and aldosterone, anti-21 hydroxylase antibodies, thyroid function tests, IGF-1, coeliac screen, and renal/liver/bone were all normal. A short synacthen test (250micrograms) confirmed HPA axis suppression for our patient (cortisol concentrations: <28nmol/L at time: 0 mins, 30 mins and 60 mins). This is gold standard diagnostic test when adrenal suppression is suspected. He was immediately commenced on replacement hydrocortisone therapy at a dose of 8–10 mg/m²/day. He was also educated on emergency hydrocortisone administration and stress dosing. He will continue on hydrocortisone until his HPA axis recovers. Betamethasone is a potent steroid 25–30 times more potent than hydrocortisone

Conclusion We describe a case of iatrogenic Cushing syndrome and adrenal insufficiency secondary to administration of long-term high-dose betamethasone nasal drops. Very few cases to date have been reported in the literature in children. Cushing syndrome caused by intranasal steroids is a rare event and more commonly occurs after oral or topical steroid use. Our patient was taking double the recommended dose for more than 20 months. Paediatricians must be aware of the complications of nasal steroid administration and long-term use should be avoided

P295

CHARACTERISTICS OF A POPULATION OF 311 PATIENTS OF BOTH SEXES WITH EARLY ONSET PUBERTAL SIGNS. DESCRIPTIVE STUDY

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Objective To assess anthropometric, biochemical and imaging studies (bone age, pelvic ultrasound and MRI) in patients who consulted the Endocrinology Department of the Hospital de Nens de Barcelona, referred by pediatricians to discard precocious puberty.

Methodology Retrospective descriptive study based on review of medical records, with first consultation between 2010 and 2018. Search from keyword in the diagnosis: puberty. The subjects were separated in 6 groups: involuted precocious breast development, early non-progressive breast development, central precocious puberty (PPC), peripheral precocious