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EARLY MEDICAL TREATMENT OF GENDER DYSPHORIA: BASELINE CHARACTERISTICS OF A UK COHORT BEGINNING EARLY INTERVENTION

^{1,2}HM Gunn, ¹C Goedhart, ^{1,2}G Butler, ^{1,2}SN Khadr, ³PA Carmichael, ^{1,2}RM Viner.
¹Department of Paediatrics, University College Hospital, London, UK; ²Institute of Child Health, University College London, London, UK; ³Gender Identity Development Service, The Tavistock and Portman, London, UK

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Aims To describe characteristics of patients referred early (<16 yrs) medical treatment for gender dysphoria (GD). GD is a rare condition in which individuals experience clinically significant distress due to incongruence between their psychological perception of, and their natally assigned, sex.

Methods We collected data prospectively on all patients referred from May 2010–July 2014 for early pubertal suppression using gonadotropin – releasing hormone analogue (GnRHa) therapy.

Results 61 young people (34 natal males; 55.7%) were referred for early intervention to the national GD service endocrine liaison clinic at mean age of 13.1 years (range 9.8–15.3). All patients had a karyotype consistent with their natal sex. More natal males were in early puberty (32.4% Tanner 1/2; n = 11) than natal females (11.1% Tanner 1/2; n = 3).

Baseline endocrinology and physical examination were normal for natal sex in all patients. All females who had standard synacthen tests to exclude adrenal dysfunction (77.8%; n = 21) had normal cortisol and 17OHP. 38.2% (n = 13) males had low bone mineral density compared with 11.1% of females (n = 3).

50 patients (81.9%) elected to receive GnRHa following full explanation and informed consent at Tanner stage 3, following international guidelines. GnRHa could not be commenced immediately if pre-pubertal (10/61), having very low bone mineral density (3/61) or low body mass index (BMI) (2/61). All who began GnRHa achieved full gonadotropin suppression. No young people withdrew from GnRHa treatment in the first 2 years.

Many GPs were unwilling to prescribe GnRHa (56.0%; n = 28/50) therefore local hospitals (8.0%; n = 4) or the tertiary centre (36.0%; n = 18) issued prescriptions.

Conclusion Early medical intervention in GD with GnRH suppression of puberty is effective and well-tolerated. Assessment of growth, bone health and psychological outcomes will be important to assess the medium-and long-term safety and effectiveness of early intervention for GD.

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THE RENAL STATUS OF THE UK JUVENILE – SLE COHORT

^{1,2}L Oni, ²E Richards, ^{2,3}E Smith, ^{2,3}MW Beresford. ¹Department of Paediatric Nephrology, Alder Hey Children's Hospital, Liverpool, UK; ²Department of Women's and Children's Health, University of Liverpool, Liverpool, UK; ³Department of Paediatric Rheumatology, Alder Hey Children's Hospital, Liverpool, UK

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Systemic lupus erythematosus (SLE) is a life-long severe disease; juvenile-onset (JSLE) patients experience more lupus nephritis

(LN) and progression to chronic kidney disease (CKD) occurs in some patients. Earlier detection of CKD in other conditions provides an opportunity to delay the rate of renal deterioration. Using a cross sectional analysis of participants recruited to the UK JSLE Cohort Study, the aim of this study was to assess the current renal function status and the presence of CKD associated factors (hypertension, proteinuria, hypercholesterolaemia, anaemia) in a cohort of JSLE patients.

The study cohort (n = 250) was aged 12.6 (10.2–14.3) years at diagnosis and 217 (87%) were female. The latest American College Rheumatology SLE score was 5 (4–7). The patients had JSLE for 3.8 (2.1–6.2) years, and a global British Isles Lupus assessment group index score of 2 (1–4). Seventy-nine (32%) patients had abnormal renal function; 43 (17%) had hyperfiltration (eGFR >140 ml/min/1.73m²), 24 (10%) had an eGFR 60–89 ml/min/1.73m², 8 (3%) had an eGFR 30–59 ml/min/1.73m², no patients had an eGFR 15–29 ml/min/1.73m² and 4 (2%) had an eGFR <15 ml/min/1.73m². Hyperfiltration was associated with the presence of proteinuria (>500mg/day), seen in 32% (p = 0.03). With regards to CKD associated factors, hypertension was common in all renal function groups (26% of patients) and associated with reduced eGFR (p = 0.03) and proteinuria (p = 0.01). Hypercholesterolaemia only occurred in 10 patients (7%). Proteinuria correlated with the presence of hypertension (p = 0.014). Anaemia was not associated with renal function but with global disease activity.

This large UK wide inception cohort has demonstrated the burden of renal disease in JSLE. Recent studies have suggested renal hyperfiltration may have clinical significance, as it is independently associated with later renal function decline and cardiovascular disease in other conditions. This study may have identified JSLE patients at high-risk of CKD progression and it highlights three key findings; children with JSLE may have impaired renal function, CKD associated factors are common and shared care between Paediatric Rheumatology and Nephrology is required. Further confirmatory studies are required as early identification, combined with aggressive blood pressure management and reduction of proteinuria, may slow the rate of renal function decline in this population.

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THE PATHWAY TO DIAGNOSIS OF TYPE 1 DIABETES IN CHILDREN: ANALYSIS OF FREE TEXT RESPONSES FROM A QUESTIONNAIRE STUDY

¹H Zhu, ²F Walter, ³M Thompson, ²J Usher-Smith. ¹Paediatrics, King's College Hospitals NHS Trust, London, UK; ²The Primary Care Unit, University of Cambridge, Cambridge, UK; ³Department of Family Medicine, University of Washington, Seattle, USA

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Aims Distinguishing the rare child presenting with new onset type 1 diabetes (T1D) from the large number with similar symptoms and minor undifferentiated illness is challenging for both primary care physicians and families. This study analyses free text responses from a questionnaire completed by parents of children recently diagnosed with T1D to explore the parents' perspectives of the pathway to diagnosis of T1D in children.

Methods A questionnaire about the pathway from first symptom (s) to diagnosis was completed by the parent (s)/guardian (s) of children aged 1 month to 16 years diagnosed with T1D within the previous three months in the East of England. The free text questions asked what they felt symptoms were due to, what factors contributed to their decision to seek medical advice and whether they felt there was anything that delayed reaching the

Abstract G472 Table 1 Parents' explanations for the 10 most common symptoms

Symptom	n	Number with explanation for symptom n (%)	Most common explanations n (%)
Polydipsia	85	58 (68.2)	Hot weather 19 (32.8) Infection 13 (22.4) Activity/Travel 10 (17.2)
Polyuria	73	47 (64.4)	Drinking more 29 (61.7) Urine infection 6 (12.7) Diabetes 4 (8.5)
Tiredness	66	44 (66.7)	School related 12 (27.3) Infection 5 (11.9) Nocturia 4 (9.5)
Nocturia	64	40 (62.5)	Drinking more 26 (65.0) Diabetes 4 (10.0) Urine infection 3 (7.5)
Weight loss	56	33 (58.9)	Growth related 15 (45.5) Decreased appetite 4 (12.1) Increased activity 3 (9.1)
Changes in behaviour/mood	48	31 (64.6)	Tiredness 10 (32.3) Age related/puberty 7 (22.6) Infection/illness 6 (19.4)
Change in appetite	45	28 (62.2)	Growth related 14 (50.0) Infection 5 (17.9) Holiday related 2 (7.1)
Abdominal pain	37	19 (51.4)	Infection 4 (21.1) School related 3 (15.8) Period pains 3 (15.8)
Nocturnal enuresis	33	23 (69.7)	Drinking more 13 (56.5) Tired 4 (17.4) School related 3 (13.0)
Different smelling breath	31	14 (45.2)	Poor dental hygiene 4 (28.6) Infection 3 (21.4) Diabetes 3 (21.4)

diagnosis. Responses were grouped into similar categories and coded.

Results 88/164 (54%) of invited families returned the questionnaire. The time from symptom onset to diagnosis ranged from 2 to 315 days (median 25 days). Most of this was the appraisal interval from symptom onset until perceiving the need to seek medical advice (median 25 days (interquartile range 14–50)). Most parents found alternative explanations for their child's symptoms (Table 1). For example, polydipsia was attributed most commonly to hot weather (19/58, 33%) or infection (13/58, 22%), polyuria and nocturia were frequently explained by drinking more (29/47, 62% and 26/40, 65%) and tiredness was thought to be school related (12/44, 27%) or secondary to infection (5/44, 12%) or nocturia (4/44, 10%). Worsening or persistent symptoms was the most common reason parents mentioned for seeking medical help (n = 20) and their main concern at presentation was most commonly polydipsia (n = 40), followed by polyuria (n = 24). Finding alternative explanations for symptoms (n = 24) was the most common reason cited by parents for prolonging the time before diagnosis.

Conclusions The appraisal interval for T1D is complex for parents. Most parents find reasonable alternative explanations for their child's symptoms, which contributes to the time to diagnosis. Future interventions should recognise these difficulties and will need to include more than just a list of symptoms.

G473 OUTCOMES OF ABO INCOMPATIBLE KIDNEY TRANSPLANTATION IN CHILDREN

¹J Stojanovic, ²N Mamode, ²A Adamusiak, ¹K Knapp, ³C Barton, ³HE Jones, ³J Taylor, ¹SD Marks. ¹Department of Paediatric Nephrology, Great Ormond Street Hospital for Children NHS Foundation Trust, London, UK; ²Department of Transplantation, Guy's and St Thomas' NHS Foundation Trust, London, UK; ³Department of Paediatric Nephrology, Evelina London Children's Hospital, London, UK

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Objective ABO blood group incompatible transplantation (ABOi) has become increasingly common over the last decade, in part due to a shortage of suitable deceased donor allografts. Whilst encouraging data is emerging on short and medium term graft outcomes in adults, ABOi in children is rare; pre-transplant conditioning in paediatric patients remains challenging and concerns persist about an increased risk of rejection. Encouraged by good results in a large number of adult ABOi transplants, we extended our programme to paediatric recipients, and here report the largest European cohort.

Methods A retrospective analysis of all ABOi paediatric renal transplant recipients in the 2 largest centres in the UK sharing the same tailored desensitisation protocol. Patients with pre-transplant titres 1 in 8 or above received rituximab one month prior to transplant; tacrolimus and mycophenolate mofetil were started one week pre-op. Antibody removal was performed to