Had a stormy post-operative course with two incidents of peri-arrest due to blocked tracheostomy. These two incidents caused significant anxiety and distress for the child, for which he received psychology input. Decannulation done day 5 post-op, discharged home on post-op day 10, with a course oral antibiotics.

Conclusions The present case describes a typical but severe case of Ludwig's angina in a relatively atypical age group. This is a life-threatening condition, which requires early intervention along with a multidisciplinary team input. While relatively uncommon in the paediatric population, clinicians should be aware and understand the urgency of immediate treatment when it does present.

196 BONE PROFILE IN LOW BIRTH WEIGHT BABIES: WHAT WE LEARN

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Background Bone profile in low birth weight (LBW) babies is important for monitoring of metabolic bone disease(MBD). MBD is a clinically heterogeneous group of disease with commonly reversible clinical presentation and manifestation when the underlying defect has been treated.

Objectives This study was aimed to find out biochemical profile in LBW babies and association between bone profile and gestational age of LBW.

Methods A cross-sectional descriptive study was done in all LBW infants at 8 weeks of age within one year period. Infants with less than 28 weeks of gestation, infants with insufficient perinatal records and those with suspicion of renal, hepatic, gastrointestinal and thyroid diseases were excluded.

Results Total 60 LBW (45 preterm and 15 small for gestational age, SGA) babies were included. Biochemical parameters of bone profile were shown in table 1. Sixteen babies (26.7%) were found MBD, comprising 68.7% of preterm and 31.3% of SGA infants. The mean serum calcium level was not statistically significant (table2) whereas mean serum phosphate and alkaline phosphatase levels were significantly different between low birth weight infants with MBD and those without MBD (table 3 & 4).

Abstract 196 Table 1 Biochemical parameters of LBW

Variables	Mean	Standard deviation	Minimum	Maximum
Calcium(mg/dl)	7.12	0.524	8.28	10.96
Phosphate(mg/dl)	2.41	0.722	1.85	11.64
Alkaline phosphatase(IU/L)	400	16	100	700

Abstract 196 Table 2 Association between serum calcium and gestational age of LBW

Calcium	Gestational age(week)				Total (%)	Chi-square	p-value
	28-31(%)	31-34(%)	34-37(%)	37-40(%)			
Low	25	31.25	31.25	12.5	100	3.63	0.727
Normal	12.2	26.82	36.58	24.4	100		
High	33.3	0	33.3	33.4	100		

Abstract 196 Table 3 Association between serum phosphate and gestational age of LBW

Phosphate	Gestational age(week)				Total (%)	Chi-square	p-value
	28-31(%)	31-34(%)	34-37(%)	37-40(%)			
Low	50	12.5	12.5	25	100	35.828	0.000
Normal	27.77	0	72.23	0	100		
High	2.9	44.11	20.59	32.4	100		

Abstract 196 Table 4 Association between serum alkaline phosphatase and gestational age of LBW

Alkaline phosphatase	Gestational age(week)				Total (%)	Chi-square	p-value
	28-31(%)	31-34(%)	34-37(%)	37-40(%)			
Low	0	0	0	0	0	13.918	0.003
Normal	0	0	88.89	11.11	100		
High	19.6	31.37	25.5	23.53	100		

Conclusions MBD is more common in preterm babies than SGA babies. Serum calcium does not correlate well with gestational age of low birth weight infants where as serum phosphate and alkaline phosphatase have significant correlation. Diagnosis of MBD can be suspected on the abnormality of biochemical data, especially serum phosphate and alkaline phosphatase levels. Thus, measurement of biochemical bone profile has been recommended for early detection of MBD in high risk infants.

198 SPECTRUM OF SYMPTOMS IN COVID-19 PAEDIATRIC PATIENTS ACROSS FOUR DISTRICT GENERAL HOSPITALS IN YORKSHIRE

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Background Despite increasing reports and studies about COVID-19 in children over the last nine months, there is still much to be discovered about the true incidence, clinical presentations and transmission rates in children. Fever and respiratory symptoms remain the main clinical presentations in COVID-19 positive children. Symptoms of COVID-19 in the paediatric population appear to be less severe compared to those experienced in the adult population and there is a low case fatality rate for COVID-19 in children. More recently there have been increasing reports of children with Paediatric multisystem inflammatory syndrome temporally associated with COVID-19 (PIMS).

Objectives The objectives of this study were to evaluate the spectrum of clinical presentations and evolution of clinical symptoms, management and outcomes of children with laboratory confirmed COVID-19 who presented to secondary care to help guide future management of these patients. We also describe two cases of Paediatric multisystem inflammatory syndrome temporally associated with COVID-19 (PIMS).

Methods Our study is a retrospective observational study which identified 21 patients aged 1 month to 18 years with positive COVID-19 PCR and 2 patients with PIMS over a 10

week period in 4 district general hospitals within Yorkshire. The main outcome measures included symptoms prior to hospital presentation, length of hospital stay and length of symptoms; investigations including Chest x-ray, CRP and blood culture, and the presence of symptomatic contacts or contacts with positive COVID-19 swab results.

Results Our study demonstrated that fever, cough and reduced oral intake were the three most common clinical presentations of COVID-19 in children. Our results are tabulated for presentation but to summarise our results; 71% of the children required a period of hospital admission and of these, 80% were admitted for between 1 to 3 days. The patients who required prolonged hospital admissions were in the younger age group or had underlying medical conditions. 100% of patients who had blood cultures performed had negative blood culture results. Only 25% of patients had bilateral consolidation on chest X-ray findings. All 21 of the patients in this study were discharged home and did not require admission to intensive care. The 2 patients with PIMS were transferred to a Paediatric Intensive Care (PICU) but have since been discharged home and remain under follow up. Our study is the first to describe photophobia as a presenting feature of COVID-19 in one patient, and chest pain in a second patient. **Conclusions** Fever, cough and reduced oral intake were the top 3 presentations of COVID-19 in the patients included within this study. Paediatric patients who required prolonged hospital admissions (>7 days) were in the younger age group or had underlying medical conditions. This study is the first to describe photophobia as a presenting feature of COVID-19 in one patient, and chest pain in a second patient. Larger studies and more widespread testing are required to ascertain the true incidence in the paediatric population.

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AN AUDIT OF THE DIAGNOSTIC ASSESSMENT PATHWAY FOR AUTISM IN PRIMARY SCHOOL AGED CHILDREN IN GLOUCESTERSHIRE AGAINST NATIONAL AND INTERNATIONAL BEST PRACTICE

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Background Autism Spectrum disorder (ASD) is the most prevalent developmental disorder worldwide, affecting all ethnic backgrounds. The estimated global prevalence of autism is 1%. Existing studies examining prevalence rates suggest lower diagnostic rate in developing countries. Lack of awareness, cultural factors, and access to appropriate professionals, play a role in this. The World Health Organisation (WHO) 'Thimphu Declaration' 2017 emphasizes the need for a whole-of-society and government approach to strengthen national capacities to provide effective support to people with ASD.

In the UK, the National Institute of Clinical Excellence (NICE) has recommended an evidenced based standard of assessment for the diagnosis of ASD. It requires multiple professional involvement; Paediatrician or psychiatrist, Speech and Language Therapist (SALT), Educational or Clinical Psychologist (EP). The NHS Long Term Plan 2019, however, acknowledges the deficiencies in this specialist service provision in the UK. Literature clearly highlights the benefits of early diagnosis and recognition of co-morbidity with ASD.

The RCPCH, State of Child Health report 2020 identifies variations in defining disabilities and learning difficulties and

lack of clinical data recording for these groups. This adds to inequalities in health and educational provision.

Gloucestershire has no formal multi-disciplinary diagnostic pathway for the assessment of ASD in primary school aged children. No clinical data is collected routinely on outcomes for these children or their support needs.

Objectives To audit the process of autism assessment for primary school aged children against NICE guidelines.

To provide data to inform service development and commissioners in developing a NICE compliant autism assessment pathway and post-diagnostic support services

Methods Referrals to a specialist Paediatric neuro-disability clinic over a two month period in 2018 were retrospectively audited. These were manually categorised by reason for referral. For those referred for ASD assessment, clinic letters for up to one year after referral were reviewed. Data retrieved: number with final diagnosis of autism, time taken for diagnosis, frequency and type of co-morbidities and level of multi-disciplinary involvement.

Results 46/199 referrals requested an autism assessment. 25 rejected due to lack of sufficient information. 21 accepted for an assessment for ASD. 6/21 given a final diagnosis of ASD. 7/21 seen by all three of SALT, EP and Paediatrician, in line with NICE guidelines. 3/21 saw EP and no SALT and 3/21 saw SALT and no EP. The average time taken from first appointment to diagnosis was 8.6 months.

Co-morbidities identified in 5/6 children diagnosed with ASD. This included ADHD, tics, developmental co-ordination disorder and learning difficulties. 16/21 not diagnosed with ASD were given alternative formulations; social, emotional and mental health needs being most common.

Conclusions Most primary children in Gloucestershire are not following an assessment process for autism which meets NICE and WHO standards, despite the UK being a developed country with nationalised health care. There was a high frequency of co-morbidity with ASD, within our small sample. Routine clinical data collection for children with additional needs is lacking. These systems need addressing locally and nationally to ensure children have equitable assessments and the right health and educational support

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CHRONIC CO-MORBIDITIES IN CHILDREN AND YOUNG PERSON WITH TYPE 1 DIABETES AND THE IMPACT ON GLYCAEMIC CONTROL

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Background About 36,000 children in the UK have diabetes, 90% is type 1. There are co-morbidities associated with it including autoimmune disorders, vascular complications, and psycho-social conditions.

Objectives

- Evaluate the prevalence of chronic co-morbidities – thyroid disease, coeliac disease and psychosocial co-morbidities in Children and Young Person with type 1 (CYPD T1) in our paediatric diabetic unit (PDU).
- Assess impact of having co-morbidities on glycaemic control.

Methods Our PDU cares for 245 CYPD under 19 years of age. We retrospectively collected and analysed data of mean HbA1c (mmol/mol) for CYPD T1 with and without co morbidities over 18-month period from 1st April 2019 to 30th