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 CYPDT1 with and without co morbidities over 18-month period from 1st April 2019 to 30th

Abstract 201 Table 1 Prevalence of co-morbidities in CYPDT1

Comorbidities	Percentage (%)
All	53.53
Thyroid disease	8.40
Psychosocial co-morbidities	35
Coeliac disease	3.98
Nephropathy	0.04
Retinopathy	8.4
Others	

Abstract 201 Table 2 Mean HbA1c in CYPDT1 with co-morbidities

Co-morbidity	Mean HbA1c(mmol/mol)
None	66.14
All	73.65
Thyroid Disease	72.93
Psychosocial Co-morbidities	72.82
Coeliac Disease	66.66

September 2020. Data was collected from our database File-make Pro. It consisted of multiple validated point of care HbA1c tests and laboratory results. The psycho-social co-morbidities were anxiety, depression, eating disorders, behaviour disorders, adjustment difficulties, anger management issues and autistic spectrum disease. We also looked at prevalence of retinopathy and nephropathy. Some CYPDT1 had more than one co-morbidity.

Results

- 232 have T1 and 13 have non-T 1 diabetes. 6 moved out of our service during the period of study. CYPD with T1 included were 226.
- 121 (53.53%) had associated co-morbidities versus 105 (46.4%) who had none.
- Thyroid disease was noted in 19 (8.40%), coeliac disease in 9 (3.98%) and psycho-social co-morbidities in 80 (35%). 1 (0.04%) had nephropathy, 19 (8.4%) retinopathy (grade 1) and 15 (6.4%) had others.
- Mean HbA1c for all CYPD T1 with co -morbidities was 73.65 mmol/ml versus 66.14 for CYPD without (Difference of means 6.81, 95%CI [4.44, 9.17], $p < 0.0001$).
- Mean HbA1c for thyroid disease was 72.93 mmol/mol (Difference of means 14.4, 95%CI [5.23, 25.37], $p 0.002$).
- Mean HbA1c for psycho-social co-morbidities was 72.82 mmol/mol (Difference of means 8.49, 95%CI [3.666, 13.24], $p 0.0006$).
- Mean HbA1c for coeliac disease was 66.6 mmol/ml (Difference of means 2.09, 95%CI [-12.03- 16.21], $p 0.77$).

Conclusions

- Having a chronic comorbidity worsens glycaemic control as it adds to the burden of care.
- CYPDT1 have high prevalence of co-morbidities as previously reported.
- CYPD with associated psychosocial co-morbidities had poor glycaemic control as it negatively affects disease management also seen in other studies.
- CYPD with thyroid disease had poor glycaemic control.

- CYPD with coeliac disease had glycaemic control similar to CYPD with no co-morbidities, which is likely due to protective effect of gluten free diet.

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IMPROVING ACCESS TO PAEDIATRIC LIFE SUPPORT GUIDELINES AT A PAEDIATRIC EMERGENCY DEPARTMENT

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Background Paediatric emergencies can be challenging, time critical and often stressful situations. Recall of protocols and treatments from memory, including correct drug dosages, is fraught by human error. Although paediatric guidelines are available in printed or web-based format, quite frequently these are not available immediately. Consequently, there can be treatment delays, sub-optimal protocol adherence and drug errors, leading to patient harm. Studies have shown that in a simulated environment, the accuracy of emergency drug dosing is <20% without using a dosing guide; this was improved to 47% by providing an aid.¹

Mobile applications commonly used in emergency departments has been showed to reduce the drug preparation time and time to delivery.² But this is dependent on internet signal and availability or restrictions placed by hospitals.³ The use of convenient portable cards has been useful in both paediatric and adult medicine settings^{4,5,6}.

Objectives

- Develop 6 lanyard flashcards featuring common paediatric life support protocols and emergency drug calculations.
- Describe clinicians' views on the potential benefit of using flashcards for accessing paediatric life support guidelines quickly and accurately.

Methods A pre implementation survey was conducted in the paediatric emergency department. Using a Likert scale, staff ranked emergency topics in order of importance for inclusion on the flashcards.

Cards were designed based on these suggestions, and approved by senior paediatricians and the pharmacy team. These featured emergency algorithms, common emergency drug dosages in cardiac arrests, endotracheal intubation and maintaining cardiovascular support, age-based vital sign ranges and WETFLAG calculations. These flashcards could be worn conveniently on lanyards together with identity badges. These were distributed within the paediatric emergency department and wards to act as aide-memoire cards during emergencies.

A post implementation survey was completed 1 month after distribution.

Both surveys were completed by a range of junior and senior doctors and paediatric nurses.

Results The pre-implementation survey (responders=36) showed that staff accessed local guidelines from a variety of sources: memory (n=10), the internet (n=7), the trust intranet (n=21), printed booklet guidelines (n=12), other (n=6); with many using more than one of these.

Prior to introducing the flashcards, only 9% of participants (n=3) were able to locate guidelines in <1 minute, with a further 63% (n=22) locating this information in <3 minutes. The remaining 28% (n=10) took >3 minutes.