Methods We created a working group with the postgraduate clinical tutor, the postgraduate team and doctors interested in supporting the well being of trainees to brainstorm ideas on location and necessary provisions.

An appropriate space that was easily accessible and centrally located was high on our priority list. Our central education centre contains many rooms which remained unused overnight which provided an ideal space to create our 'snooze' rooms.

We used funding from our postgraduate budget to purchase essential items to create rest rooms that promoted rest and relaxation

Results We have created 2 identical 'snooze' rooms for our trainees working the hospital at night rota. Each room contains a single sofa which can be pulled out to a single bed and easily wipeable to comply with infection control standards. Linen is provided and replaced by our domestics team daily. To promote a relaxing and restful atmosphere we included plants, a bedside lamp, lavender essence, hot drink facilities, phone chargers, blackout blinds and 'please do not disturb, doctor resting' door displays.

Our rest rooms have been launched since Wednesday 3rd March 2021, and we will be seeking feedback from the trainees to assess their experience and see if further improvements for their well being can be made.

Conclusions Despite the current COVID 19 pandemic, the well-being of our trainees remains paramount. Although space is limited, we have demonstrated that it is possible to adapt already used spaces to overnight rest facilities, even in a busy tertiary hospital. Using this model, we hope to work with our local Trainee Committee and School Board to develop rest facilities in each of our district general hospitals for our paediatric and neonatal departments.

We also intend to appointment trainee well being representatives without our Trust to work on other well being projects like catering facilities and engagement with managers.

Quality Improvement and Patient Safety

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AN ASSESSMENT OF THE AGREEMENT BETWEEN LABORATORY AND POCT BLOOD GAS ANALYSIS MEASUREMENTS OF HAEMATOLOGICAL INDICES ON THE NICU: A SERVICE EVALUATION

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Background Accurate biochemical monitoring is an essential component of neonatal care and fluid management. Point of care testing (POCT) offers a rapid, low blood volume alternative to laboratory testing, reducing the risk of iatrogenic anaemia in neonates and potentially improving patients' prognoses.

If the blood gas analyser (BGA) can act as a reasonably accurate proxy for laboratory analyses, this will enable more rapid biochemical analyses, accelerating clinical decision making. **Objectives** To assess the agreement of haematological indices (sodium, potassium, chloride, and bilirubin concentrations, and haemoglobin levels) when measured by BGA and laboratory testing.

Methods This service evaluation took place in the neonatal intensive care unit (NICU) at Liverpool Women's Hospital (LWH). The BGA used on the NICU at LWH is the Siemens

Rapidlab 1265 and the Abbott Alinity analysers are used at Alder Hey Children's Hospital Laboratory.

Temporally paired sets of results from POCT blood gas analysis and laboratory testing were identified from the historical NICU Badger database to allow comparison of agreement. The blood gas sample taken within the closest proximity to the biochemistry or haematology sample was used, with samples taken within two hours of each other regarded as adequately paired.

Statistical analyses were undertaken using the SPSS software version 26.0 and within Excel 2010. The data were processed using the method outlined by Bland and Altman, for the calculation of Bland Altman plots where repeated measures have occurred.

Grubb's test for outliers was performed on the data to identify and remove obviously aberrant values.

Results Paired samples for analyses were available from 99 patients over a two-month period. Following the application of Grubb's outlier test and considering the matched pairs for which not all data were available, there were 195 paired samples for sodium analyses, 186 paired samples for potassium, 185 paired samples for chloride, 135 paired samples for bilirubin and 124 paired samples for haemoglobin.

The mean difference for sodium measurements between the laboratory and blood gas measurements was +1.72 mmol/L (95% confidence interval (95%CI) -4.95 mmol/L to 8.40 mmol/L); for potassium measurements +0.29 mmol/L (95%CI -0.88 mmol/L to 1.46 mmol/L); for chloride measurements +1.93mmol/L (95%CI -3.74mmol/L to 7.60 mmol/L) for bilirubin measurements +5.39 µmol/L (95%CI -42.57µmol/L to 31.80 µmol/L) and for haemoglobin measurements -1.89 g/L (95%CI -15.89 g/L to 12.12 g/L).

Conclusions Assessment of some of these measurements (namely bilirubin concentration and haemoglobin levels) by POCT may be acceptable for intermittent monitoring of haematological parameters in neonates, providing that the extremes of the estimated true value (indicated by the range of the 95%CI) would not mandate a different treatment course. The relatively wide 95%CI for some of the electrolyte levels (namely sodium and potassium concentrations), which exceeds the normal range of those values, limits the value of these measurements as independent measures, without laboratory corroboration, although trends may still be inferred. It may be necessary to explain these caveats to clinical staff interpreting the results and provide further education regarding reference ranges.

British Paediatric Allergy Immunity and Infection Group

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PIMS OR NOT? ALTERNATIVE DIAGNOSES IN THE FEBRILE CHILD DURING THE COVID-19 PANDEMIC

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Background The majority of children and young people affected by COVID-19 have remained asymptomatic or suffered mild illnesses. However throughout the pandemic

patients with a novel rare but severe disease phenotype, Paediatric Inflammatory Multisystem Syndrome Temporally associated with SARS-CoV-2 (PIMS-TS)¹ continue to need hospital admission. The importance of considering the wider differential such as malignancies should be highlighted.

Objectives To establish the range of diagnoses of children admitted to a tertiary London children's hospital presenting with a history of fever and high CRP, in whom PIMS-TS was considered as a diagnosis, during the COVID-19 pandemic.

Methods Clinical records from 1st March 2020 to 30th June 2020 (inclusive) were retrospectively analysed to identify patients under the age of 18 years admitted to a tertiary London children's hospital with a history of fever and CRP >60. Electronic notes were reviewed to determine final diagnosis.

Results 140 patients were admitted with a history of fever and CRP >60 during the study period. 58% (n=81) had PIMS-TS and 42% (n=59) had alternative diagnoses. Of those with an alternative diagnosis 81% (n=48) had infective diagnoses and of these 46% (n=22) had upper or lower respiratory tract infections; 25% (n=12) had sepsis; 13% (n=6) had urinary tract infections or pyelonephritis; 10% (n=5) had gastroenteritis; 4% (n=2) had lymphadenitis and 2% (n=1) had meningitis. 10% (n=5) had surgical diagnoses most commonly appendicitis (n=3). 5% (n=3) had inflammatory diagnoses; 2 with an exacerbation of Crohn's disease and 1 with vasculitis. 3% (n=2) had autoimmune diagnoses, 1 with juvenile idiopathic arthritis and 1 with Still's disease who developed macrophage activation syndrome. 2% (n=1) had Burkitt leukaemia.

Conclusions In the midst of a pandemic there is a high suspicion of PIMS-TS in unwell febrile children. The high numbers of patients with PIMS-TS admitted to this hospital reflects the regional referrals pathway for the PIMS-TS patients during the first wave of COVID-19. However infections remain a major cause of children presenting with fever and a high CRP. The range of alternative diagnoses outlined in our cohort is not surprising, when one considers that PIMS-TS is a disease with a subjective and broad case definition, with signs and symptoms overlapping with other serious diagnoses – infectious, surgical, inflammatory, autoimmune and malignant.

The wider differential diagnoses should always be considered when children present with fever and a thorough history and examination is paramount. Alternative diagnoses may have indolent or more chronic symptoms. Our experience has shown that discussion within a multidisciplinary team has helped to ensure alternate diagnoses are not missed.

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British Paediatric Neurology Association

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TICS AND THE COVID PANDEMIC-OBSERVATION FROM A TERTIARY CARE SEIZURE CLINIC

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Background The SARS-CoV-2 pandemic has had a notable negative impact on the overall mental well-being of children

and young adults. Those with Tourette syndrome have had worsening of both tics and associated co-morbidity such as obsessive behaviours along with sleep disturbance. Social isolation is likely to have not helped this vulnerable population.

Objectives The current study aims to document the impact of COVID 19 on tic exacerbations, frequency, severity and type of tics, incidence of Tourette syndrome and child and parent-perceived change in the pattern of tics among a cohort of children attending seizure clinic.

Methods This observational study reviewed patient numbers of tics/tic-like functional neurological symptoms in a cohort of children attending a seizure clinic at the department of paediatrics, Oxford University Hospitals NHS Foundation Trust, United Kingdom. The data was reviewed for a one year period (March 2020 to March 2021) and compared to the pre-pandemic numbers over a similar duration. Feedback given by children having tics and their parents were considered in documenting specific observations.

Results There was over four-fold increase in the number of children presenting with tics over the observation period compared to the preceding year. Tic-like functional neurological presentations also had increased dramatically (both vocal and motor phenomena) and a small proportion of these children mentioned seeing videos of popular personalities with tics on a social media platform. New diagnosis of Tourette syndrome saw a three-fold increase in this set-up. On the positive side, home schooling had helped some children with pre-existing tics with regards to the perceived severity. These parents reported that their children felt no necessity to suppress their tics all day (unlike whilst in school) and hence they observed a steady pattern of tics rather than significant troublesome outbursts in the evenings. A third had associated sleep disturbance.

Conclusions Ours is an interesting observation and discussions with colleagues in the wider set-up revealed similar patterns. Documenting this will help inform healthcare providers with a view to expanding available mental health expertise for this challenging cohort of children and young adults.

Paediatric Special Interest Group: British Society of Haematology

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THE IMPACT OF THE COVID-19 PANDEMIC ON ACUTE AND ELECTIVE PAEDIATRIC SICKLE CELL SERVICES: EXPERIENCE FROM A DISTRICT GENERAL HOSPITAL IN A HIGH PREVALENCE AREA

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Background Children with sickle cell disease (SCD) may not be at increased risk of developing severe illness from COVID-19, but their health services could be indirectly affected by the consequences of the pandemic.