All aspects of the transfer process were examined and adapted where necessary, from screening questions at point of referral, minimising equipment, and communication using 2 way radios. Simulation and feedback provided the opportunity to assess if these interventions were practical and could ensure a safe transfer.

102 THE IMPACT OF COVID-19 ON THE GOSH NEWBORN SCREENING SERVICE

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10.1136/archdischild-2020-gosh.102

The outbreak of COVID-19 stalled most clinical and non-clinical services across the country, however the Newborn blood-spot screening (NBS) was rated a 'critical service' because the early detection and treatment of 'at-risk' babies helps to reduce mortality and morbidity. NBS is a national public health programme where babies are screened in the first week of life for 9 conditions; 6 Inherited Metabolic Diseases (IMDs), Congenital Hypothyroidism, Cystic Fibrosis and Sickle Cell Disease. The NBS laboratory at GOSH is the largest in the UK, screening approximately 125,000 babies yearly.

Since the start of the pandemic, the NBS service has witnessed many challenges but the team always responded with remarkable resilience and flexibility. Our staffing level was reduced by 21% due to shielding regulations imposed during lockdown. Apart from donning masks and other forms of PPE, COVID-19 forced the laboratory to embrace safer and more sustainable ways of service delivery while ensuring the wellbeing of its staff. We piloted remote working across all laboratory processes and conducted risk assessments to mitigate against any impending risks while actualising established failsafe.

As a pioneer for R&D, GOSH NBS laboratory was fully engaged in activities to support the SCID pilot (a rare condition of the immune system) before the first COVID-19 wave struck. The project discussions continued virtually and our laboratory is now set to commence the SCID pilot following the initial postponement.

The GOSH Newborn screening laboratory has delivered an uninterrupted service with no delays in the reporting of positive results including reviewing of IMD results at weekends. Our laboratory processes have been adapted and some members of our team have completed training as Peer Support Workers to enable participation in early wellbeing discussions among their colleagues. This has provided us with much needed resilience in the likely emergence of a second-wave.

103 GREAT ORMOND STREET HOSPITAL DIGITAL GRAND ROUNDS

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10.1136/archdischild-2020-gosh.103

Background Previously attendance for face -to- face Grand Round (GR) at GOSH was 20–50. Numbers were limited by location (offsite from the main hospital), publicising the events, and perceived relevance to staff.

Methods We introduced our first digital Grand Round on 28th April 2020 as Zoom based webinars. The topics were carefully chosen to cover a wide range of subjects related to COVID-19, and we were fortunate to have speakers internally who were experts in the fields. The Q and A session was via Slido and moderated by the GR chair. Diary invites were sent to all GOSH staff in addition to the previous advertising strategies: emails and screen savers. All GRs were recorded and published on the GLA YouTube channel with consent.

Results The digital GR was met with substantial enthusiasm by GOSH staff, the attendance for the first four sessions was: 290, 501, 397 and 203. It was then between 85 and 147 in June. We did notice a considerable drop once trust email became unavailable on personal mobiles. From July, the attendance was around 35 -70. A steady increase in online viewing via GLA YouTube has been observed, with 400 views for one GR. In addition an international speaker was able to present online.

Discussion We were forced into hosting GR on a digital platform, but soon realised it could be a positive transformation in delivering trust-wide education. It has removed the geographic barrier so international presenters can attend. It does come with challenges such as maintaining interaction; the moderator's value for digital sessions is paramount. Furthermore, we should always actively look for new topics for continuous staff teaching engagement and ensure teaching information is widely accessible but secure.

104 SIMULATION TO SUPPORT SYSTEM SAFETY IN A TERTIARY PAEDIATRIC HOSPITAL

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10.1136/archdischild-2020-gosh.104

Background The Clinical Simulation Centre (CSC) at GOSH, now provide one of the largest in-situ simulation programmes in the region. Prioritising advancement of the patient safety agenda, we work closely with our Quality and Safety teams to embed key safety themes within our trust wide in-situ curriculum. A key objective of delivering simulation in-situ in the clinical setting; is to identify and mitigate against hidden risks or 'latent safety threats' in the clinical environment; which could cause unintended harm to patients or staff.

Method Over the past year, the CSC team have begun to expand the applications of the pan-trust in-situ programme to deliver a number of Systems Safety exercises. These simulations focus purely on rehearsal and refinement of process and systems, towards uncovering and mitigating against latent safety threats or gaps in practice. A reporting tool has been developed by the team; to capture risks |identify mitigating actions.

Results In recent months, the Covid-19 pandemic presented our teams with many new or unfamiliar working practices. This context further shifted our focus towards Systems Safety Simulations; with the aim of enabling our clinical teams to focus on rehearsing and preparing for new ways of working. These exercises delivered in partnership with clinical teams across the trust; successfully supported the development of 5 new clinical guidelines during the pandemic. In one exercise alone; 11 latent safety threats (LSTs) were captured and managed with the appropriate teams. LST themes included; availability of resources |Communication and co-ordination in PPE

| Infection Prevention & Control risks | Environmental preparedness.

Conclusion These recent exercises have demonstrated the potential applications of simulation to support process improvement. Beyond the Pandemic, we aim to continue to deliver Systems Safety Simulation exercises to help make our clinical systems and spaces safer for patients and the teams who care for them.

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THE USE OF A HIGH FIDELITY SIMULATOR TO FACILITATE COACHING IN THE IMPLEMENTATION AND MANUAL TITRATION OF NON-INVASIVE VENTILATION (NIV) DURING A CARDIORESPIRATORY SLEEP STUDY IN A CONTROLLED AND SAFE ENVIRONMENT

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10.1136/archdischild-2020-gosh.105

Introduction The aim of this programme was to pilot a simulation to help develop practitioners' confidence in decision making and implementation of NIV in set scenarios whilst having the support of senior practitioners' in debrief.

Methods Using a high fidelity simulator candidates were exposed to an immersive simulation which accurately obtained physiological data within the sleep recording system as expected in clinical practice. The level of immersion was hugely increased with the utilisation of Simulation Technicians' knowledge in the capabilities of the high fidelity manikin, together with subject matters and experts enabling an authentic environment. Trialling this over a 6 month period was required to create complex paediatric respiratory sleep patterns which are commonly seen in clinical practice when CYP are treated with NIV, such as apnoeas, hypopnoeas and changes in gas exchange parameters including oxygen saturations and carbon dioxide measurements.

Two half day sessions were built around 2–3 scenarios allowing for substantial debrief to identify any human factors or gaps in clinical knowledge. Further, a pre and post confidence survey was conducted.

Results As previously discussed, a pre and post confidence survey was conducted. The questions were focused and specific to match the learning objectives and the needs identified in the initial educational needs analysis. The overall increase in confidence averaged 2.1 and all candidates discussed the direct impact this would have on their clinical practice.

Discussion The use of simulation for paediatric sleep studies with manual titration of ventilation has not been undertaken before in the UK. The pilot study identified the need to progressively increase the complexities of each scenario, whereby candidates feel comfortable to make appropriate clinical decisions in a safe controlled environment. Furthermore, it highlighted a necessity for the manufacturers to develop instant paediatric respiratory pattern and gas exchange alteration packages within the manikin software.

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SUPPORT FOR INTERNATIONAL MEDICAL GRADUATES (IMG) IN PANDEMIC AT GREAT ORMOND STREET HOSPITAL (GOSH)

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10.1136/archdischild-2020-gosh.106

Background They are overseas trained doctors. In 2013 GMC declared that 37% of medical workforce in the UK are overseas trained. GOSH has the highest number of overseas trainee in the UK. In June 2020 we had 116 IMGs. Key challenges faced while settling are knowing the NHS, Governance, communication skills and cultural expectation in the UK. PGME at GOSH works with IMGs to overcome these challenges.

The Pandemic Due to COVID 19 outbreak, IMGs faced many new challenges. With most IMG's living away from their families, major concerns during the pandemic were sickness, social support, personal transport, accommodation, health of family members back home, travel restrictions, financial difficulty, visa renewal and many more. A targeted approach was devised to resolve the day by day emerging unique challenges. IMG support team made assessment of situation at the start of pandemic and existing IMG specific social media platforms were utilized in gathering information and providing customized support. Early recognition of IMGs as vulnerable group and establishing good communication channel by including IMG members in bronze meetings were the major steps that helped us to provide essential support.

Support GOSH provided – arranging accommodation for isolation, care during sickness, supply of food, emotional support for the sick ones, nursery support letters, staff testing, liaison with HR and pensions, liaising with home department to resolve visa renewal issues, helping in visa extension, training and support to the new recruits, raising the concerns to medical bodies like RCPCH and BMA.

Conclusion It was possible to address these issues in a timely fashion as GOSH had a pre-existing robust IMG support team. Ongoing challenges like travel to see family abroad, quarantines in both countries, impact on training still remains to be addressed and requires continued work towards improving the stay of IMG in the UK.

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THE EXTENDED SISTRUNK PROCEDURE FOR THYROGLOSSAL DUCT CYSTS: A REVIEW OF 168 CASES

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Objectives Thyroglossal duct cysts are the most common paediatric midline neck mass. Recurrence reported in literature following classical Sistrunk's operation remains a problem for 10% of patients, up-to 20% if there has been previous surgery.

We have previously published a short series advocating the extended Sistrunk's procedure: comprehensive removal of a block of midline infrahyoid tissue to the level of the thyroid isthmus, incorporating the tract remnant, medial adjacent strap muscles, mid-portion of the hyoid, and superiorly to the submucosal tongue base. We present a large, patient series from a single institution to describe outcomes of this procedure which we perform routinely for thyroglossal duct cyst excision.

Method A retrospective, single centre case series is described, analysing clinical outcomes of patients treated with an extended Sistrunk's procedure between 2003 – 2020.

Results 168 patients underwent an extended Sistrunk's procedure during the study period. 32 patients were referred for