Results From the start of the first lockdown 23rd March 2020 until the easing of restrictions on 15th June 2020 we discharged 23 long stay patients. The length of stay prior to discharge varied from 19–866 days. The median time to discharge in this group was 22 days from the start of lockdown. The barriers to discharge varied from need for housing and care provision to social care support. Apart from improvement in length of stay we also were able to solve problems innovatively by working together. Cots and white goods were sourced through social care funds and ordered on amazon by our occupational therapists. Donated housing capacity was identified by our covid command structure facilitated families moving there temporarily instead of staying in hospital. A local hospice was able to provide care for the most complex of our patients whilst awaiting onwards placements in social care and carer training. The feedback from stakeholders following discharge was used to refine processes. There were no adverse outcomes or readmissions. **Conclusions** This period of global health crisis has been devastating for many. In amongst the tragedy, there are glimmers of learning that would not have been achieved without this unprecedented challenge. This rapid discharge process is one such glimmer. It demonstrates that by working together across agency boundaries, thinking innovatively and putting the children and families at the heart of what we do, we can effect rapid change. We now need to harness and retain this learning to be able to continue sending children home

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Paediatric Educators' Special Interest Group

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INTRODUCTION TO THE SOFT LANDING PROJECT, THE LAUNCHING EVENT AND PROPOSED FUTURE EVENTS

¹Habab Hassan Ali Easa, ²Nadia Baasher, ³Nadia Audhali, ⁴Rashmi Mehta, ⁵Jaspreet Sokhi, ⁶Bijan Shahard, ³Shorsh Abdullah, ⁷Neelakshi Ghosh, ⁸Naomi Tobj, ⁹Moataz Amer, ¹⁰Stacey Da Atougia. ¹Oxford University Hospital; ²Royal London Hospital; ³Whipps Cross Hospital; ⁴Shrewsbury and Telford NHS Trust; ⁵St George's University Hospital; ⁶Homerton Hospital; ⁷King's College Foundation Trust; ⁸Epsom and St Helier Foundation Trust; ⁹Southmead Hospital; ¹⁰University College Hospital

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Background Many International Medical Graduate (IMG) Paediatricians move to the UK to work and thrive in the NHS. We know from our own experience as IMG paediatricians adjusting to the NHS, that this transition is not always smooth. We face many challenges that can contribute to differential attainment (DA) between IMG and UK trained paediatricians. While there is some support available this can be highly variable. The 'Soft Landing' project arose out of a recognition of this gap, and a desire to share our lived experience to provide the easily accessible support to newly arrived IMGs, that we wish we had had.

Objectives The Soft Landing project is a voluntary UK wide support network, founded by IMG paediatricians. Its objective

is to lead to a smoother transition to work and train in the NHS for IMG paediatricians. We aim to achieve this by providing customised training, mentoring, signposting and peer support, by IMGs who are further established in their UK careers. We expect this to lead to better career satisfaction and retention of IMG trainees.

Methods We launched our project via social media platforms, using our faculties established IMG networks, as well as presenting to RCPCH, London School of Paediatrics (LSP) Trainee Committees, and to the GMC.

Our first day-long course, entitled 'Supporting paediatricians new to the NHS' took place in February 2021. The talks presented during this workshop were designed and tailored to the needs of IMG paediatricians new to the system, highlighting cultural differences and common pitfalls. Our regular courses and webinars include ST1/ST4 interview practice, GRID applications, communication skills, safeguarding, applying to training, wellbeing, smashing ARCPs, revalidation and untangling Kaizen/E-portfolio.

Results Following the launch of Soft Landings there was a lot of interest in engaging with the project from individuals and organisations, as a result of outreach mentioned above.

Our first day long course 'Supporting paediatricians new to the NHS' had a waiting list of >30 candidates. 30 candidates secured slots and attended the course. 33% started working in the NHS recently (<6 months), 30% between 6 months to 1 year, 9% for over 1 year and a further 9% for more than 5 years. 27% were working overseas and planning to move to the UK shortly. The feedback from participants was very positive. Following the course, 100% will signpost their new IMG paediatric colleagues to this resource. 82% rated it as excellent while 17% rated it very good. 100% agreed that they now had a better understanding of the NHS dynamics and expectations from the paediatric doctors in the NHS. 100% thought that they would implement positive changes in their practice. Many said they would benefit from a mentor.

Conclusions IMG paediatric doctors are a valuable part of the NHS workforce. By providing the right support, struggles will be turned into productivity and fulfilled potential, and levels of anxiety and stress in everyday work lives would be reduced. The Soft Landing support can contribute to recruitment and improved retention, better patient care, and reduction of differential attainment.

Paediatric Clinical Leaders: Service Planning, Provision and Best Practice

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PAEDIATRIC TRAINING DURING THE COVID-19 PANDEMIC: THE VOICE OF 638 TRAINEES

Alexandra Perkins, Margot van de Vijver, Katie Ferin, Charlotte Jenkins, Audrey Soo, Thomas Rance, Anna Stilwell, Mariyum Hyrapetian, Constantinos Petrides, Harsita Patel. *London School of Paediatrics*

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Background High quality paediatric training is essential to the provision of excellent child health care both now and in the future. To ensure a high standard of training is maintained within The London School of Paediatrics, an annual trainee

survey has taken place since 2012. The COVID-19 pandemic brought new challenges to paediatric training (and meant that many of the usual metrics to assess training across the region became obsolete) and in September 2020, The School conducted an abbreviated, tailored survey to capture experiences of trainees, and challenges faced in training during a pandemic.

Objectives To ascertain the ways in which London paediatric trainees were impacted by the emergency operational response to the first wave of the COVID-19 pandemic.

To provide rapid feedback to training centres to inform the response to any subsequent surges.

Methods 950 (769 in programme) London Paediatric trainees were surveyed about their March–September 2020 training placement. Online survey was emailed directly, with reminders, and promoted via social media. Five closed questions addressed overall placement satisfaction (excellent to poor), performance areas (morale, educational supervision, teaching and rest/catering facilities), and specific impact of covid-19. Three free text questions addressed the impact of covid-19, positive practices and initiatives, and areas of improvement.

Results There were 638 responses, with 566 from in-programme trainees (74% of in-programme trainees). 83.4% trainees rated their placement excellent/good (2019, 84%) and 5.8% rated it poor/below average (2019, 4%). There was inter-sector variability, with higher number of poor/below average ratings in the sector with most disruption to service.

147 (23%) trainees were seconded from their placement, 102 (16%) to another paediatric department and 45 (7%) to an adult department. 102 (16%) trainees worked additional antisocial hours to cover for seconded colleagues, and 165 (26%) worked additional antisocial hours for other reasons. 38 (6%) trainees had no direct patient contact. Only 125 trainees (20%) reported that their work was not impacted by COVID. Other ways in which work was impacted included: cancelled OOP (11), PICU taken over for adult patients (13), department closed without redeployment (5).

The performance area most impacted by the pandemic was the provision of educational supervision. There was improvement in provisions for rest, food and drink.

Thematic analysis of the free text identified that good team relationships, senior support and a supportive work environment were key to a positive training experience. Challenges faced were around teaching, lack of learning opportunities and poor communication. 8% of trainees highlighted that lack of communication worsened their training experience.

Conclusions The survey shows that overall, the excellent standards of training were maintained during the first wave, despite evidence of significant disruption to services. The highlighted challenges can be used to guide training provision during the ongoing pandemic, and ensure that trainees continue to receive the highest standard of training.

Paediatric Critical Care Society

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RAPID WHOLE GENOME AND EXOME SEQUENCING IN CRITICALLY ILL CHILDREN: A REVIEW OF CLINICAL UTILITY AND CHALLENGES

¹Kestra Dawson, ²Vinod Varghese. ¹Cardiff University; ²Wales Institute of Medical Genetics

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Background Genetic disorders are one of the leading causes of death in children admitted to neonatal and paediatric intensive care units. Genome wide sequencing (GWS), including whole genome sequencing (WGS) and whole exome sequencing (WES), uses child and parent blood samples to diagnose genetic disorders. *Rapid* GWS (rGWS) has a turn-around time of days to weeks allowing early diagnosis and intervention. rWES has become a standard component of early diagnostic workup and screening in critically ill children across the UK.

Objectives This review aims to evaluate the clinical utility and limitations of rGWS services in critically ill children.

Methods Literature was searched using the database *Medline*. Search terms included ‘Children’ and ‘rapid sequencing’. Of 96 papers, 16 primary studies were selected for comparison.

Results Studies evaluated rGWS in cohorts with median ages ranging from 7.5 days to 2.96 years. Patients were selected primarily from neonatal, paediatric or cardiac intensive care units. Diagnostic yield for rGWS, defined by the probability that the test will establish a diagnosis, ranged from 30% to 80% (mean 48%) compared to standard genetic test estimates of 10%. WGS demonstrates superiority over standard genetic tests in detection of pathogenic variants and diagnosing disorders with high genetic heterogeneity. Patients receiving the highest diagnostic yields often presented with congenital anomalies or phenotypes involving neurological, cardiovascular or renal disorders. However, the association between specific phenotypes and diagnostic yield remains controversial. Often the number of phenotypic criteria with which the child presented was positively correlated with successful diagnosis. Diagnoses may be more common in patients with a history of intrauterine growth restriction or failure to thrive.

An average of 81% of patients with successful diagnoses via rGWS subsequently received altered management, compared to 2% of those with standard genetic testing. Common management changes included avoidance of invasive investigation or treatment, targeted investigations and screening, preventative measures, sub-specialist evaluations, definitive treatment or surgery, and palliative care commencement. Genetic and reproductive counselling may constitute the majority of management changes. In those diagnosed by rGWS, 61% avoided morbidity (22% avoiding *major* morbidity) with no prevented morbidities in standard care cohorts. Mortality outcomes were controversial: in those diagnosed, mortality ranged from 11–31% whilst 21–29% mortality was observed in undiagnosed groups.

The median turnaround time to written report was between 7.2 and 50 days (mean 16 days). However, time to blood sample analysis was more rapid and verbal reports were conveyed immediately when diagnosis would change management. rWGS was cost effective across multiple countries compared to standard genetic tests. Service challenges were primarily in optimising work flow, including efficient patient selection and sustained communication between multidisciplinary teams.

Conclusions rGWS is superior to standard genetic testing in critically ill children with regards to sensitivity, rate, diagnostic yield, management outcomes and cost effectiveness. Practical challenges can be managed with effective work flow plans and interdisciplinary communication. Future research is required to investigate the possible benefits of targeting specific phenotypes and a full UK health economics study is required to assess rGWS cost efficiency within the NHS system.