opportunities, including a refresher of the skills of effective bag-valve-mask ventilation, application of defibrillator pads and quality CPR. Reviewing emergency processes such as algorithms and protocols, highlighting situational awareness including bedspace preparation, role allocation and clinical decision-making is supported. Furthermore, expertise within the team encourages the staff to explore clinical conditions of patients, giving context to the disease process including support for modified approaches to resuscitation. Increased visibility in the clinical areas, has resulted in increased requests from staff for this training to develop their confidence, supporting the complex and progressive clinical needs of the child requiring a higher dependency.

Results

	Jan 2019-Dec 2019	Jan 2020-Dec 2020
Total 222 calls attended by Clinical Emergency Team	147	125
Cardiorespiratory arrests	13	10
Respiratory arrests	34	48
Unplanned admissions to Critical Care Units	158	168
Number of staff trained	-	384

Conclusions Aside from the earlier escalation and interventions, resulting in a decrease in 2222 calls overall and cardiorespiratory arrests, the positive impact of this additional bedside teaching has been very well received and praised by the staff in clinical areas, especially those caring for complex, high risk patients at the point of care and in context of the specific disease process.

British Society of Paediatric Endocrinology and Diabetes

1692

CONGENITAL HYPOTHYROIDISM WITH GLAND IN SITU: EXAMINING RISK FACTORS, HEALTH, AND EDUCATION OUTCOMES USING LINKED ADMINISTRATIVE DATA

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Background Since the introduction of newborn screening 40 years ago, the birth prevalence of Congenital Hypothyroidism (CH) has doubled in the UK. This appears to be due to an increase in screen-detected congenital hypothyroidism with gland in situ (CH-GIS). It is not clear why CH-GIS prevalence has increased, nor are there recent studies examining the health and education outcomes for children with CH-GIS.

Objectives Study objectives are to 1) establish a research-ready clinical CH database of children who screened positive for CH through the North Thames Newborn Screening Programme and were referred to the Endocrinology Team at Great Ormond Street Hospital (GOSH) from 2006

onwards; 2) investigate the reasons for the increase in screen detection of CH-GIS; 3) examine health and education outcomes for children with CH-GIS compared to children who have other forms of CH and to those who do not have CH-GIS.

Methods To address objective 1, we used REDCap (Research Electronic Data Capture) to collate data on children attending GOSH who had screened positive for CH; data had been stored in a number of repositories/formats: EPIC, Excel, Word and GOSH legacy databases. To address objective 2, we will establish a cohort study of children born in the North Thames region and screened for CH through the North Thames Newborn Screening Programme between 2000 and 2020 (~2.2 million children) to investigate perinatal risk factors for CH. These children will be linked to ONS birth and death registration data and to the CH database. To address objective 3, we will use a case-control design. All children on the CH database between 2006 and 2020 will be linked to Hospital Episode Statistics (HES), the National Pupil Database (NPD), and national community dispensing data. Controls will be selected from a pseudonymised national birth cohort created from linked HES-NPD data. We started the process of applying for ethical and Confidentiality Advisory Group (CAG) approval and negotiating with data providers (NHS Digital, GOSH, Department for Education and Public Health England) in May 2020. Public involvement activities have also been undertaken with parents and children/young people, including the British Thyroid Foundation and GOSH Young Persons' Advisory Group (YPAG).

Results The CH database contains 109 variables on 1928 children, with follow-up information on treatment and diagnoses until December 2020. We received ethical approval in November 2020, however negotiations with data providers and CAG are ongoing. As of early March 2021, it has taken 1 research associate 10 months working full-time to obtain these approvals and we expect it to take a further 6 months before the study is fully approved.

Conclusions We have demonstrated the utility of REDCap for developing a clinical database from which datasets for research can easily be extracted. The process of obtaining approvals for projects using linked administrative and health data in England continues to be complex and time consuming, leading to severe delays for data-focused research projects; this needs to be addressed in order to allow population-based research into rare diseases in children using linked clinical and administrative datasets.

Paediatric Critical Care Society

1693

RISING TO THE CHALLENGE OF COVID-19- HOW OUR PAEDIATRIC INTENSIVE CARE UNIT REFLECTED ON OUR EXPERIENCE CARING FOR ADULTS

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Background During the first wave of the COVID-19 pandemic our Paediatric Intensive Care Unit (PICU) was one of 7 in the UK to care for adults with COVID-19. This strategy allowed the hospital to expand its adult critical care capacity. Towards

the end of the first wave of the pandemic it was clear that PICU staff wanted to know more about the clinical course of the patients they had cared for. This in part reflects the challenges of shift work and also how difficult it was not getting to know patients' families as we normally would. Staff also wanted an opportunity to reflect as a group on this remarkable period.

Objectives Paediatrics as a speciality is well known for its strong principles of multi-professional working. 'Complex patient meetings' and Morbidity and Mortality meetings are well established within our practice. In addition, many paediatric departments offer reflective practice sessions and debriefs for staff following challenging cases. We aimed to gather as a unit and apply these principles of reflective practice to our work caring for critically ill adults with COVID-19.

Methods The PICU junior doctors devised and lead a project to present the work of the unit. We collected demographics about the cohort of 23 patients including age, sex, organ support, co-morbidities, length of stay and outcome. The junior doctors wrote a presentation summarising the care of each patient and sought feedback about the specific challenges faced by each professional team within the PICU. Consideration and care were taken in the lead up to the presentation with staff offered more detailed debriefs about particular cases if they wished, knowing that this presentation could raise distressing feelings for some.

Results We delivered a remotely held 90-minute presentation to over 150 clinical professionals which addressed the care of each of the 23 adults with COVID-19 admitted to the PICU. The Family Liaison Team shared, with consent, photos and letters from families. The Physiotherapy Team discussed the challenges of proning, including proning injuries and also the rehabilitation needs of our patients. The Nursing Team described the challenges of managing pressure areas. Each patient was considered in their family and social context, as we would normally do for paediatric patients. The presentation considered the wellbeing resources available to our team within the hospital and wider community. The feedback from the PICU staff was overwhelmingly positive, with one senior nurse commenting: 'it did really feel like an element of closure has been given'.

Conclusions Some of the best elements of paediatric practice are our ability to work together in a multi-professional team and to reflect on the care we have provided. We took these principles and applied them to the care of our adult patients with COVID-19 offering staff an opportunity to reflect on this remarkably different period on our PICU. We believe this presents an opportunity for us to expand our work and skill set supporting critically ill young adults with complex health needs as they transition from paediatric to adult care.

British Association of Perinatal Medicine and Neonatal Society

1694

COMPARISON OF TWO-YEAR NEURODEVELOPMENTAL ASSESSMENTS OF INFANTS BORN <32 WEEKS GESTATION BY BAYLEY-III AND PARCA-R, PRE AND DURING THE COVID-19 PANDEMIC

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Background NICE guideline 'Developmental follow-up of children and young people born preterm' recommended a two-year face-to-face developmental visit for very preterm infants and the use of the Parent Report of Children's Abilities-Revised (PARCA-R) questionnaire for developmental screening. We offer all infants born below 32 weeks gestation a two-year assessment using Bayley Scales of Infant and Toddler Development (Bayley-III). In September 2018, we implemented the PARCA-R questionnaire alongside Bayley-III assessments. During the COVID-19 pandemic, video consultations and PARCA-R questionnaires were used instead of Bayley-III assessments.

Objectives

1. To assess the concordance of two-year developmental status through Bayley-III and PARCA-R assessments.
2. To evaluate the impact of practice change during the COVID-19 pandemic.

Methods PARCA-R questionnaires were posted to parents before clinic appointments. Pre-COVID-19, completed questionnaires were collected at the face-to-face visit. During the pandemic, PARCA-R questionnaires were reviewed during the video consultation. A Bayley-III trained doctor conducted all two-year assessments.

We extracted Bayley-III and PARCA-R scores for infants born below 32 weeks gestation who completed assessments between September 2018 and January 2021 from clinical notes. A standardised Bayley-III or PARCA-R score below 85 (one standard deviation below mean) was used to categorise children 'at risk of developmental delay'. We compared the concordance of Bayley-III and PARCA-R scores and evaluated the proportions of children with scores below 85 before and during the pandemic.

Results Pre-COVID-19 (September 2018 – March 2020)

42/46 (91.3%) eligible children had a Bayley-III assessment. 34 (73.9%) also had PARCA-R completed. Two PARCA-R questionnaires were completed outside the age window and standardised scores could not be ascertained. Bayley-III and

Abstract 1694 Table 1 Concordance of Bayley-III and PARCA-R in categorising children 'at risk of developmental delay'

	PARCA-R standardized scores							
	Cognition				Language			
Bayley-III standardized scores	<85	≥85	Unknown	Total	<85	≥85	Unknown	Total
<85	1	0	1	2 (4.8%)	3	1	3	7 (16.7%)
≥85	7	26	7	40 (95.2%)	7	23	5	35 (83.3%)
Total	8 (19.0%)	26 (61.9%)	8 (19.0%)	42 (100%)	10 (23.8%)	24 (57.1%)	8 (19.0%)	42 (100%)