(range 7–25 days). In 52% (n=24) of cases, a genetic cause for the patient's presentation was identified. Of these 24 cases, 96% (n=23) resulted in a change in management. The most common change in management was referral to a specialist (52%; n=12).

Conclusions The R14 service for acutely unwell children heavily relies on effective collaboration between Neonatal and Clinical Genetics teams, as both teams are involved in the referral process. It is important that we improve our documentation – particularly around consent for testing – and ensure request forms are fully completed before submission. In over half of our cases, a genetic cause for the patient's presentation was identified; in all but one of these cases, this affected some aspect of patient management. This audit has helped us to identify strategies to ensure equitable access to the R14 service across our region.

Paediatric Critical Care Society

1375

SURVEY OF THE EXPERIENCES OF STAFF WHO CARED FOR ADULT PATIENTS WITH COVID-19 ON PAEDIATRIC INTENSIVE CARE UNITS DURING THE FIRST WAVE OF THE PANDEMIC

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Background As the first wave of COVID 19 pandemic was gripping the nation and patient numbers on adult intensive care (AICU) were increasing rapidly, Paediatric Intensive Care Units (PICUs) across the UK offered to admit adults on PICUs.

Objectives To collect data regarding personal reflections, emotional well-being and stresses on staff who managed adults with COVID-19 on PICU.

Methods An anonymous online survey, comprised of eleven fixed response and four free text questions, conducted between May and June 2020.

Results A total, 211 responders from six English PICUs included 134 nurses, 56 physicians and 21 allied health practitioners (AHPs). Two third had > 5 years PICU experience and 47 (22%) had previous adult ICU (AICU) experience.

A majority, 113 (54%) reported that required to take care of adults was most concerning whereas only 58 (28%) were concerned due to COVID 19. Those with previous AICU experience were much less likely to report concerns about caring for adults (10/47 (21%) v 103/164 (63%) $p<0.001$).

119 (56%) staff reported burnout - nurses (92/134 – 69%) and AHPs (12/21 – 57%) reported higher burnout than doctors (15/56 (27%) - $p<0.001$). Sleep difficulties were reported by 137 (65%) - nurses affected more than their colleagues (102 (76%) v 10 (48%) AHPs and 25 (45%) doctors, $p<0.001$). Staff with previous AICU experience reported lower rates of burnout (16 (34%) v 103 (63%), $p<0.001$) and sleep difficulties (16 (34%) v 121 (74%), $p<0.001$).

Fear of spreading infection was reported by 139 (66%) and the need to be extra vigilant by 128 (61%), with no significant differences found between professions. A third 76 (36%), were concerned that their patients had received sub-optimal care and 29 (14%) felt that the care they had provided had

been compromised by their personal concerns, with this response being more common in those without previous AICU experience (27 (16%) v 2 (4%), $p=0.032$).

Staff found it difficult not being able to communicate face to face with patients' families; having to care for people that were their own age or their parents' age; working in full PPE; absence of clear guidelines and staff shortages. Their main methods of coping were relying on existing team relationships; obtaining support from friends and family; maintaining personal resilience and accepting they were doing their best. Positive aspects included networking with AICU colleagues, a feeling of enhanced comradeship and pride in learning new skills eg proning, but there were requests for greater visibility of managers, better communication and more training.

Conclusions The finding that so many staff in this survey reported burn out and sleep problems suggests that the provision on the management of traumatic stress symptoms and sleep hygiene may be helpful.

Although several PICUs managed adult patients, there were paediatric staff redeployed to adults' units as well. This survey suggests that staff with previous AICU should be used first and that extra support may be needed for others redeployed later, to maintain their connection with their base team in the interests of minimising the psychological repercussions which they may be at increased risk of experiencing.

British Inherited Metabolic Disease Group

1376

SUPPLEMENTARY FEEDING IN CHILDREN WITH MITOCHONDRIAL DISEASES

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Background Mitochondrial diseases are the most common group of neurometabolic disorders in childhood affecting all age groups. It can present with isolated organ involvement or as multi-system disease. Growth is commonly affected. Short stature and a progressive reduction in body mass index are recognised features of mitochondrial disease. Those children with complex neurodisability may particularly need supplementary feeding due to increased metabolic requirements associated with seizures and movement disorders, and those with cardiomyopathies commonly have increased calorific requirements. Supportive therapies are the mainstay of management for mitochondrial disease, which is currently an incurable condition. Adequate nutrition is essential to support metabolic demands, encourage growth and development, and enhance quality of life.

Objective To determine the number of children with mitochondrial disease who receive supplementary feeding and the reasons why supplementary feeding is required.

Methods Both authors reviewed the medical records of children aged 1–16 years with known or suspected mitochondrial disease currently attending the NHS Highly Specialised Service for Rare Mitochondrial Diseases in Oxford with evidence of receiving supplementary feeding.

Results 45 children aged 1–16 years were included (25 male: 20 female) of whom 35 had confirmatory genetic diagnoses of mitochondrial disease, 8 had biochemical diagnoses only and 2

had suspected mitochondrial disease based on phenotype alone. 12 had a gastrostomy in situ, 3 had a nasogastric tube in situ, 10 were receiving oral supplementation. Reasons for supplementary feeding via gastrostomy or nasogastric tube included growth faltering (73.3%) and unsafe swallow (26.7%). Those children with complex neurodisability were more likely to require nasogastric tube or gastrostomy feeding. **Conclusion** Children affected by mitochondrial disease have increased metabolic requirements and consideration for supplementary feeding should be made early in order to support growth and development, and enhance quality of life.

British Association of General Paediatrics

1377 CHANGING PATTERNS IN PAEDIATRIC ATTENDANCES DURING THE COVID-19 PANDEMIC

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Background The WHO declared COVID-19 a pandemic on 11 March 2020. Irish schools closed on 12 March and a nationwide stay-at-home order was issued on 27 March. A 34–76% decrease in paediatric ED presentations has been reported during the pandemic.

Objectives This study aims to assess the impact of the pandemic on attendances and admissions to a regional paediatric unit.

Methods A single-centre retrospective review of presentations to the paediatric assessment unit (PAU) and admissions to the paediatric ward from April-July 2019 and 2020 was performed. Data was obtained from the PAU attendance diary and HIPE reporting database. Unscheduled PAU attendances included GP/self-referrals with medical or surgical complaints, excluding injuries. Data was analysed using descriptive statistics.

Results There was a 40% decrease in unscheduled PAU presentations in April-July 2020 (n=747) compared with 2019 (n=1244). The most common presenting complaints in 2020 were gastrointestinal symptoms (33.2%), rashes (12.2%), unwell child <1 year including pyrexia (7.4%) and respiratory symptoms (7%).

There was a 67.2% decrease in admissions in April-July 2020 (n=170) compared with 2019 (n=519). Discharge diagnoses were categorised for admitted patients in May-July 2019 and 2020. There was a reduction in most categories in 2020 including dermatological (–80.7%), respiratory (–80%), cardiovascular (–75%), neurological (–62.2%), gastrointestinal (–61.3%), surgical (–60%), musculoskeletal (–57.1%), injury & poisoning (–45.2%) and mental health/safeguarding (–33.3%) cases. There was an 11.1% increase in genitourinary cases in 2020.

Conclusions The COVID-19 pandemic has resulted in a drastic decrease in paediatric clinical activity. Not surprisingly, we have seen a reduction in presentations relating to viral transmission (wheeze, gastroenteritis, rashes) and school-related stress (headaches, abdominal pain). Despite the anticipated negative effects of the pandemic on mental health, psychiatric admissions did not increase. The number of surgical cases, comprised largely of acute appendicitis, was 60% lower during the pandemic, supporting the possibility of a viral trigger. Other factors which may have influenced presentations include

greater parental supervision at home, fear of contracting or spreading COVID-19, reduced outdoor/sporting activities and reduced vehicular pollution.

Whilst SARS-CoV-2 infections in children have been relatively mild, the pandemic has had a profound impact on paediatric services. Reflecting on these shifts may provide insight into the aetiology of paediatric diseases, the factors influencing a parent's decision to present to hospital, the factors influencing a clinician's decision to admit patients and the effect of the pandemic on the health of children in general.

Association of Paediatric Emergency Medicine

1378 A RETROSPECTIVE STUDY OF MRI BRAIN FOR HEADACHES IN THE ABSENCE OF 'RED FLAGS' SIGNS AND SYMPTOMS FOR SPACE OCCUPYING LESIONS

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Background Headaches are a common and concerning symptom that frequently presents to the paediatric emergency department.¹ While the vast majority of these headaches represent benign processes (viral headaches, migrainous headache and sinus headaches), there is considerable worry from both parents and emergency department practitioners that they may represent a sinister malignant process or space occupying lesion.²

Headsmart, the UK brain tumour charity, have published guidelines on which children should be imaged in the context of headaches that may represent a brain tumour³

Objectives To examine the yield of non-urgent MRI brain requested in Childrens health Ireland at Temple Street emergency department (CHI@TS ED), a tertiary paediatric centre with national paediatric neurosurgery service on site. Specifically we wished to examine how many MRI brains without red flags as set out in the gold standard clinical guidance on the topic (Joint Headsmart-RCPCH guidelines) demonstrated a significant intracranial abnormality (such as Space Occupying lesion/Brain tumour).

Methods MRI Brain scans ordered from CHI @TS ED were examined from May 2017-May 2019. Included studies were performed for the primary presenting complaint of 'Headache'. Studies that were for a primary presenting complaint in the absence of headache were not included (i.e seizures, gait disturbance, eye movement problems, vomiting). Additionally cases which had demonstrated an abnormality prior on CT were also excluded. Case notes were reviewed retrospectively and symptoms compared to the joint RCPCH-Headsmart guidelines.

Results 93 studies were included, 30 studies had any radiological findings. 53% demonstrated sinusitis (n=16). 3 (3.03%) scans demonstrated an intracranial mass (2 posterior fossa, 1 middle fossa tumour). All 3 of these met joint RCPCH- Headsmart guidelines for scanning for suspicion of intracranial mass clinically. The remaining studies showed Chiari/Tonsillar herniation (n=1), and other incidental findings (such as T2 hyperintensity) (n=12) In total 38 studies met headsmart criteria for scanning (39.7% of total included studies, 29.4% of