11% whilst there has been an increase in deaths amongst those managed surgically (28.6% to 88.9%).

Conclusions Despite an increasing number of extremely preterm infants receiving survival focused care, the overall number of deaths from NEC has remained relatively static over the last 8 years. Providing surgery on the NICU has enabled intervention in the most premature and unstable infants whose ceiling of care would have previously been limited to medical management.

Paediatric Clinical Leaders: Service Planning, Provision and Best Practice

TREATING BIG PEOPLE- REFLECTIONS FROM A PAEDIATRIC AND ANAESTHETIC REGISTRAR WORKING TOGETHER TO LOOK AFTER ADULT COVID ITU PATIENTS ON A CONVERTED PICU

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Background The world has been turned upside down by COVID19. For so many, working lives have changed, roles have been adapted or learnt at lightning speed and working outside your ‘comfort zone’ has become part of the ‘new normal’.

Conversion of a PICU to an adult COVID ITU allowed both adult teams and paediatricians to work closely together and provide a chance to see how each other functions. And invaluably, an opportunity to learn from each other. This reflective piece looks at the key learning points taken from each team.

Objectives To highlight the main learning points that were gained from both paediatric and adult teams during conversion of a PICU to an adult COVID ITU. Learning points applicable not only to working during the COVID-19 pandemic but that transcend to other aspects of paediatric and adult medical practice.

Methods Reflection from both paediatric and adult medical staff who worked together during the COVID-19 pandemic in a PICU turned adult ITU.

Results Key themes were found after discussion. Handover, communication with patients and relatives, attachment to patients and teamwork were the main areas where the largest learning points were seen. Upon reflection there were ways in which both the adult and paediatric doctors’ practice had changed and influenced their future practice.

Conclusions There is vast amounts of learning that can be taken from joint adult and paediatric working. Not just whilst managing adult COVID ITU patients during a pandemic but practices that can be translated into every day working lives. Perhaps more cross covering and working more closely with our adult colleagues, especially during the teenage transition years can improve not only patient care but working lives of future paediatricians. With ideals for future practice suggesting paediatricians may be looking after young adults very much over the age of 18 perhaps this is the time to be learning from experiences like these and introduce more parallel working between adult and paediatric colleagues.

Association of Paediatric Emergency Medicine

MAKING PAEDIATRIC ECG INTERPRETATION IN THE PAEDIATRIC EMERGENCY DEPARTMENT EASIER AND SAFER BY INTRODUCTION OF AN ECG CHECKLIST

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Background The accuracy of reporting electrocardiograms by trainees in paediatric emergency medicine has been shown to increase with experience. However, most paediatric trainees will only spend 3–6 months in the emergency department with limited opportunity to improve skills in electrocardiogram reporting.

Interpretation in the emergency department has been shown to be relatively inaccurate and additional reporting of emergency department electrocardiograms by a consultant paediatric cardiologist increases the diagnostic accuracy. As a result, in many paediatric cardiac units the burden of electrocardiogram reporting is placed on the cardiology team, resulting in a significant workload. In addition, time taken for electrocardiograms to be reviewed by reporting teams may result in delay to clinic referral for patients with electrocardiogram abnormality.

A previous study has shown that even amongst paediatricians, accuracy at interpreting paediatric ECGs is only around 60%. Although, there are accepted normal ranges and values for paediatric electrocardiograms, these are often presented in busy tables that can be complex and daunting to use, especially in a time pressured clinical environment.

We hypothesised that a diagnostic aid, in the form of an electrocardiogram checklist, could assist in electrocardiogram interpretation, helping to screen for electrocardiograms that needed to be reviewed by a cardiologist and reducing the time to cardiology review for patients with electrocardiogram abnormalities.

Objectives We set out to assess the use of a simple checklist and guideline to aid interpretation of paediatric electrocardiograms in the paediatric emergency department.

Methods An electrocardiogram interpretation checklist and guideline were implemented in the emergency department. Abnormal electrocardiograms identified by the checklist were reviewed by a paediatric cardiologist and patients appointed to a cardiology outpatient clinic. The process was prospectively evaluated over six months to determine the ability of the checklist to detect abnormal electrocardiograms. The emergency department clinicians were sent a questionnaire to evaluate their experience with the checklist.

Results Between May and November 2018, 600 electrocardiograms were performed in paediatric emergency department. 48 electrocardiograms of patients known to cardiology services or discussed with the on-call team
were excluded. Of the remaining 552 electrocardiograms, 30 were identified by the emergency clinicians as abnormal and sent for cardiology review. 13/30 of these were considered normal by the consultant cardiologist and the patients discharged. The other 17 patients were allocated to cardiology outpatient clinic. Only 3/17 required ongoing follow-up. Of the 522 electrocardiograms deemed normal by the emergency department clinicians, cardiology disagreed in 8 (1.4%). In these cases, there was either incorrect lead placement or the checklist had been applied incorrectly. All 8 patients were seen in cardiology outpatient clinic but subsequently discharged. Use of the checklist demonstrated an excellent negative predictive value of 98.47% [CI 97.32% to 99.13%]. Following implementation, time from emergency department attendance to outpatient clinic decreased from a median of 89 to 45 days (p<0.001) and survey respondents reported increased confidence in interpreting paediatric electrocardiograms.

Conclusions The use of a simple checklist and guideline allows confident and accurate detection of electrocardiogram abnormality by emergency department staff and speeds referral to cardiology clinic for patients with electrocardiogram abnormalities.

British Association of Child and Adolescent Public Health

EMERGENCY DEPARTMENT UTILISATION BY HOMELESS CHILDREN IN DUBLIN, IRELAND

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Background Families represent the fastest growing homeless population in Europe. From 2014–2021, a 165% increase was observed in families accessing emergency homeless accommodation in Ireland, causing a 211% increase in child homelessness. In March 2021, there were 913 homeless families in Ireland, with children (n=2,326) accounting for 28% of homeless people. Over-represented vulnerable groups include Irish Travellers, the Roma, and international protection applicants.

Homeless populations are more likely to use emergency departments (EDs) rather than primary care, with higher admission rates and durations. Most literature pertains to lone adult homelessness.

Objectives To compare emergency presentations between homeless and non-homeless children, to investigate differences in demographics, vaccination, service usage, medical acuity, diagnoses and outcomes.

Methods We performed a retrospective review of homeless children attending a tertiary paediatric emergency department in Dublin, Ireland, from 01/01/2017 - 31/12/2020. Homelessness was defined as those with addresses of no fixed abode, government homeless accommodation, direct provision, women’s refuges, drug rehabilitation centres, children’s residential homes, and prison. Those who provided residential addresses but were functionally homeless were also included.

Comparison was made with non-homeless children attending in 2019. Data was extracted from electronic healthcare records, and analysed using SPSS. Hospital ethical approval was obtained.

Results From 01/01/2017–31/12/2020, 3,138 homeless children presented, representing 1.6% of total attendances. Compared to non-homeless (n=1,500), homeless children were younger (29 vs 60 months, p<0.001; proportion ≤12 months: 25.7% vs 16.3%, p<0.001).

Homeless children were less likely to have Irish ethnicity (37.4% vs 74.6%, p<0.001), or have been born in Ireland (82.3% versus 96.2%, p<0.001). Ethnicity varied between homeless and non-homeless (White Irish: 34.5% vs 73.7%; Irish Traveller: 3% vs 0.8%; Roma: 22.5% vs 2.4%; Black: 21.1% vs 4.2%; Asian: 8.6% vs 8.8%; White European 5.9% vs 9%; p<0.001).

Homeless children were more likely to re-present (15.9% vs 10.5%, p<0.001), use ambulances (13.2% vs 6.7%, p<0.001), and have ≥4 ED attendances in 6 months (9.7% versus 5.4%, p<0.001), while being less likely to have registered GPs (89.7% versus 95.8%, p<0.001).

Compared to non-homeless, homeless children were over-represented in lower triage categories (4: 48.5% vs 41.5%; 5: 2% vs 0.8%; p<0.001), ED discharges (93.6% vs 91.1%, p=0.002), and leaving prior to assessment (5% vs 3.7%, p=0.046), while having longer admissions (median duration: 3 vs 2 days, p=0.001).

Vaccination status varied between homeless and non-homeless children (complete: 73.6% vs 81.9%; incomplete 18.5% vs 16.3%, p<0.001). There were no differences in gender or past medical history.

Conclusions Although homeless children were less likely to have Irish ethnicity, 82.3% had been born in Ireland, with over-representation of Irish Traveller, Roma and black ethnicities, which compares with national data.

Homeless children were less likely to have GPs, and be fully vaccinated. They had increased use of emergency services despite having lower triage categories, higher discharge rates, and no differences in past medical history.

Vulnerable groups remain over-represented in the Irish paediatric homeless population. As with adults, paediatric homeless populations rely heavily on emergency services, being less likely to engage with primary healthcare.

British Association for Community Child Health

ROUTINELY USED INTERVENTIONS FOR IMPROVING ATTACHMENT IN INFANTS AND YOUNG CHILDREN: AN UPDATED SYSTEMATIC REVIEW AND COMPREHENSIVE UK SURVEY

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