value judgements on the institution's work in this field by comparing it to successes and failures of other systems.

Results Following considerable lobbying against institutionalised childcare, the NCH retreated to a temporary refuge, rather than a permanent residence for children. A new national emphasis on 'home-life' caused the NCH to expand its community work, particularly with regards to placing children in foster-homes using its Boarding-Out Department.

The NCH emphasised the importance of rural environments, a concept rooted in the miasmatic theory of disease, ('bad air' caused illness) and eugenic theories (that physical and moral degeneration was caused by urban filth). By sending children away from the city to rural homes, they would grow up morally and physically superior.

To distance itself from the charges of neglect against some foster-care organisations, the NCH devised measures which would ensure continuity of care. After children were placed in homes, nurses made regular visits, inspecting the environment, as well as examining children for signs of neglect or abuse.

Conclusions The role of institutions in the foster-care movement is an underexplored chapter in the evolution of social services. Future research is still needed and would ideally be achieved through accounts of the boarded-out children to reveal possible stories of neglect and abuse.

The NCH recognised foster-care as a replacement for institutional care and a weapon against infant mortality. It reacted specifically to contemporary criticism of other foster-care systems, creating a novel model which saw thorough follow-up of each child by a team of nurses conducting inspections and examinations regularly.

Quality Improvement and Patient Safety

959

IMPLEMENTING A TEMPORARY DOCTOR DELIVERED BLOOD CLINIC

Ruth Allam. *University Hospitals Plymouth NHS Trust*

10.1136/archdischild-2021-rcpch.304

Background In November 2020 the paediatric outpatient department saw a large increase in the waiting time for a blood clinic appointment from a previous 2 weeks to approximately 6 weeks. This resulted in patients being inappropriately booked for bloods onto one of the children's wards and numerous complaints from families. Therefore, it was deemed necessary to quickly find a solution to the backlog.

Objectives To implement a temporary doctor delivered blood clinic to increase training opportunities and confidence in paediatric venepuncture, whilst meeting demand for a clinic appointment and reducing waiting times during COVID-19 by creating 56 extra slots within a 7 week period.

Methods Firstly, we collected data for the number of GP referrals between November 2019 to January 2020, and compared it to the number of GP referrals between November 2020 to January 2021 to see whether there had been a substantial increase likely attributable to COVID-19. When starting the quality improvement project we also answered the question: 'What are we trying to accomplish?', and looked at the five key areas we wanted to achieve. This formed the basis of a questionnaire that was circulated to the trainees after each clinic they had attended. The questionnaire included the key areas identified such as confidence in venepuncture

both before and after the clinic, how often the trainees required additional help, and whether they felt supported throughout the clinic.

Results Although there was felt to be a perceived increase in GP referrals to blood clinics within the department, our results did not support this conclusion. The number of referrals before and during COVID remained almost the same. The trainees who undertook this clinic ranged from F1s to ST1s and GP trainees. Two-thirds of the trainees felt their venepuncture had improved after the clinic, and all felt this clinic was a good training opportunity and should be continued in future. On average, the trainees asked for assistance with one to two patients and we received very useful feedback in the comments section on the questionnaire. Furthermore, we discovered a few issues which arose throughout the clinic. This primarily involved the IT system and difficult patients being inappropriately booked into this junior-led clinic. This was addressed in a half-way meeting and measures put in place to resolve those issues. This included the creation of a booking guide for the outpatient department and a handbook for the doctors undertaking the clinic.

Conclusions Overall our results showed an overwhelming positive response to implementing this clinic. It allowed the doctors to improve on their venepuncture skills, but also ensured there were appropriate staff available should they require help. As it was set out to do, it reduced our waiting times from 6 weeks to 3 weeks, and therefore helped to clear a backlog that had been developing before its introduction.

British Association of Perinatal Medicine and Neonatal Society

960

'HOSPITAL AT HOME' ANTIBIOTIC TREATMENT FOR EARLY ONSET NEONATAL SEPSIS

Matthew Crawley, Lucy Fullerton, Anne Opute. *Barts Health NHS Trust*

10.1136/archdischild-2021-rcpch.305

Background Early onset neonatal sepsis (EONS) is defined as a culture-proven bacteraemia within 72 hours of delivery and is a significant cause of morbidity and mortality in newborn babies. The incidence of EONS in the UK is 0.7–1.0/1000 live births, but many more babies are screened and treated with intravenous antibiotics based upon antenatal risk factors. These babies can remain in hospital for antibiotic treatment lasting five days or more due to raised serum inflammatory markers. The majority of these babies remain clinically well. The Covid-19 pandemic has unfortunately resulted in the forced distancing and separation of families at such a crucial time for bonding. A 'Hospital at Home' service could provide a safe and effective means of delivering antibiotic treatment in the community setting thereby reducing inpatient stay and reuniting families together sooner.

Objectives We present a prospective service evaluation of a newly established *Hospital at Home* service for newborn babies undergoing treatment for EONS in the postnatal department of a large tertiary teaching hospital. We evaluate the demographics of the babies referred to the service including treatment parameters, the number of inpatient treatment days saved and qualitative measures of parental experiences.

Methods Prospective data analysis of all babies born between 25th April and 31st July 2020 with confirmed or suspected EONS who were referred to the *Hospital at Home* service. Data collected included demographic information such as gestation and birth weight, C-reactive protein measurements, blood and cerebrospinal fluid culture results, timing of discharge and the total number of intravenous antibiotic doses given at home. A post-treatment questionnaire was undertaken to assess parental feedback.

Results In total, 41 neonatal patients were referred to the *Hospital at Home* service over the study period. On average, babies received four doses of intravenous cefotaxime at home, resulting in a reduction of two inpatient treatment days per patient, and 85 inpatient treatment days across the study period. One patient required a trip to hospital for repeat cannulation. No patients required re-admission to hospital during the study period. A post-treatment questionnaire was universally positive with parents evaluating the service as 'efficient, professional and so much easier being comfortable at home.' There were no negative comments.

Conclusions A neonatal *Hospital at Home* service is effective in reducing the length of inpatient stay for babies undergoing treatment of EONS. With an average reduction of two inpatient days per patient, the service not only provides an improved maternal and family experience, but also reduces the inpatient workload on postnatal wards and is a significant cost-saving initiative. More research is required to formalise the referral criteria and assess whether additional neonatal services such as phototherapy could also be provided in the home setting.

British Association of Perinatal Medicine and Neonatal Society

961

OUTCOMES AND RISK FACTORS FOR PULMONARY HYPERTENSION IN INFANTS WITH BRONCHOPULMONARY DYSPLASIA

¹Fahad Muhamed Shareef Arattu Thodika, ²Mahesh Nanjundappa, ²Theodore Dassios, ³Anne Greenough. ¹Department of Women and Children's Health, Faculty of Life Sciences and Medicine, King's College London; ²Neonatal Intensive Care Unit, King's College Hospital NHS Foundation Trust; ³Department of Women and Children's Health, School of Life Course Sciences Faculty of Life Sciences and Medicine, King's College London

10.1136/archdischild-2021-rcpch.306

Background Premature infants are at risk of developing bronchopulmonary dysplasia (BPD). Pulmonary hypertension (PH) is a recognised complication of BPD.

Objectives To identify the risk factors and outcomes of pulmonary hypertension in infants with BPD in a tertiary neonatal intensive care unit.

Methods An electronic data recording system (Badgernet) was used to identify all infants born at or prior to 32 weeks of gestation with a birth weight equal to or less than 1500 g between January 2017 to December 2020. Those who subsequently developed BPD (oxygen dependency at 28 days after birth) were noted. Echocardiograms were reviewed to identify infants who developed early PH $\leq$ 28 days, late PH $>$ 28 days or had PH at death or discharge from neonatal care.

Results Two hundred and eleven of the 428 premature infants in the study period (49.3%) developed BPD. One hundred and eighty-two infants were included in the study and 29

infants were excluded as they did not have echocardiography report, were admitted for surgical procedures or had major respiratory or cardiac congenital anomalies. The included infants had a median (IQR) gestational age of 25.9 (24.9–27.7) weeks and birthweight of 796 (667–930) grams. Nineteen (10.4%) infants had early PH and 22 (12.1%) had late PH. Amongst the 22 infants with late PH, the PH resolved in ten before discharge, five continued to have PH at discharge and seven died before discharge.

Compared to BPD infants without late PH, the infants with late PH had a greater median duration of mechanical ventilation (53.5 versus 27.5 days, $p=0.02$ after adjusting for gestational age and Apgar score at 10 minutes). The risk of mortality was higher in infants with late PH (odds ratio, OR: 13.5, $p=0.03$) as was the risk for prolonged mechanical ventilation (OR: 1.04, $p=0.001$). Similarly, infants with PH who died before discharge or had PH at discharge had a higher incidence of early PH (OR: 4.4; $p=0.04$) and a longer median duration of mechanical ventilation (60.5 versus 30.5 days, $p<0.001$ after adjusting for gestational age and Apgar score at 10 minutes).

There were no significant differences in the incidence of patent ductus arteriosus requiring treatment, retinopathy of prematurity requiring treatment, surgically treated necrotising enterocolitis, Grade 3 or 4 intraventricular haemorrhage, periventricular leukomalacia or total length of stay between infants with or without late PH. The incidences of oxygen dependency at 36 weeks and requirement for home oxygen were not significantly different between infants with late PH and infants without late PH.

Conclusions Late PH in infants with BPD was associated with increased mortality. Infants with late PH had a longer duration of invasive ventilation compared to infants without late PH. Early occurrence of PH in infants who subsequently developed BPD was associated with an increased risk of pulmonary hypertension at death or discharge home.

Association of Paediatric Emergency Medicine

963

PAEDIATRIC EMERGENCY DEPARTMENT USAGE DURING THE APRIL 2020 COVID19 LOCKDOWN

Tim Sell, Jiske Steensma, Sahana Rao. Oxford University Hospitals NHS Foundation Trust

10.1136/archdischild-2021-rcpch.307

Background On March 23, 2020, the UK prime minister declared a public lockdown to decrease the spread of the SARS CoV 2 virus. This led to a change in health care organization and utilization, with GP surgeries and outpatient clinics changing to predominantly telephone or online consultations, and altered presentations to emergency departments.

Objectives We aimed to understand the impact of the lockdown on the presentation of medical conditions in children presenting to our paediatric emergency department (PED).

Methods We retrospectively analysed the Electronic Patient Records (EPR) for all children (aged 0 to 16 years) presenting to our PED in the first month of lockdown (April 2020) and looked at the number of discharge diagnoses within clinical groups (surgical, medical, trauma, mental health, other) and specific subgroups. We then compared the attendance in each