completion rate) in the subsequent survey. During the first survey, 14 invitations for participation were sent to nursing team, with 3 collected responses (21% completion rate). Following on from the 2019 survey, a 6-step plan of change was implemented from September 2019 and this formed the basis of subsequent evaluation in 2020.

Conclusions The initial survey revealed a lack of structured medical handovers within the department. As well as causing a reported negative impact on individuals, and the team as a whole, patient safety was being compromised as a result. The second survey, following the introduction of certain new hand-over practices, demonstrated increased satisfaction amongst the medical team, however, the lack of a formal patient lists remained a great cause for concern.

British Association of Perinatal Medicine and Neonatal Society

1641

EVALUATION OF THE KAISER PERMANENTE RISK CALCULATOR TO MANAGE NEWBORN BABIES AT RISK OF EARLY ONSET NEONATAL SEPSIS: A PROSPECTIVE COHORT STUDY

Alexander Cleator, Karl Holden, Debora Freitas, Helen Auger, Rajkumar Dhandayuthapani, Kristian Whalley, Jill Harrison. *Liverpool Women's Hospital*

10.1136/archdischild-2021-rcpch.765

Background Early onset neonatal sepsis (EONS) is rare but associated with significant mortality and morbidity. Most post-natal units assess risk and treat for suspected EONS using the NICE guideline (CG149) based on pregnancy and peri-partum risk factors. This sees many clinically well babies receive empirical antibiotics, before investigations rule out any evidence of infection. This process usually involves separating baby and mother and exposure to the risks associated with intravenous antibiotic therapy. As such, there is a clear mandate to validate a tool that can safely risk stratify and identify which babies should receive empirical antibiotics. The Kaiser Permanente Risk Calculator (KPRC) combines peri-partum risk factors with the clinical status of the neonate, resulting in a stratification to low, medium or high risk of EONS. Application of the KPRC in some centres has been shown to reduce antibiotic administration by 50–75% without missing any cases of culture positive sepsis.

Objectives To evaluate the performance of the KPRC in comparison to the NICE guideline in identifying babies at risk of developing EONS in a large UK maternity hospital.

Methods In this prospective single-centre cohort study, we identified all neonates born at 34 weeks' gestation who were commenced on empirical antibiotics, as per the CG149 guideline. We prospectively collected data on these babies including peri-partum risk factors and the clinical status of the baby at the time the decision was made to treat. This data was inputted into the KPRC, a risk score was calculated and the suggested management plan recorded. Our primary outcome measure was to observe for any babies who became significantly unwell with infection (defined as unwell as per KPRC criteria, maximal CRP > 50mg/L, raised CSF white cell count or positive blood or CSF culture) that would not have been started on empirical antibiotics had the KPRC been used.

Results Over a 4-month period we identified 94 babies born at 34 weeks' gestation receiving empirical antibiotics for

suspected EONS as per CG149. One baby had a positive blood culture and one had a positive CSF culture. Of these 94 babies, only 19 (20.2%) would have been commenced on empirical antibiotics by the KPRC. Those 19 babies were more likely to have a CRP >20mg/L ($p<0.05$) and need a longer course of antibiotics ($p<0.05$). Interestingly, 27 out of the 94 babies (28.7%) were classed as significantly unwell (as defined above) and of these, only 15 (55.6%) would have been identified by the KPRC as needing antibiotics. 6 babies with a CRP >50 were not identified for antibiotics by the KPRC, including a baby with a CRP of 155.

Conclusions Application of the KPRC to this cohort would have significantly reduced antibiotic administration rates. The safety and appropriateness of the KPRC for our population needs further assessment though, as some babies with significant evidence of infection went undetected by the calculator. In particular, the role of the KPRC in identifying clinically well babies with a very high CRP needs further consideration.

Quality Improvement and Patient Safety

1642

BARRIERS TO ACHIEVING QUALITY NEONATAL CARE IN LOW RESOURCE SETTINGS: PERSPECTIVES FROM A UNIQUE PANEL OF NEONATAL HEALTH EXPERTS

¹Eshkeerat Kaur, ²Michelle Heys, ²Emma Wilson, ²Mari Evans, ²Caroline Crehan, ³Anthony Costella, ⁴Msandeni Chiume. ¹Royal College of Surgeons in Ireland; ²UCL Great Ormond Street Institute for Child Health, UK; ³UCL Institute for Global Health, UK; ⁴Department of Paediatrics, Kamuzu Central Hospital, Lilongwe, Malawi

10.1136/archdischild-2021-rcpch.766

Background In 2019 there were 2.4 million newborn deaths worldwide, accounting for nearly half of all child deaths under 5 years of age. Despite increasing rates of facility based deliveries, neonatal mortality rates remain persistently high in low resource settings (LRS). This has catalysed international focus on understanding and enabling quality newborn care in order to achieve global targets to end preventable newborn deaths by 2030. Digital interventions are a promising tool that may accelerate progress towards achieving quality improvement goals.

The WHO quality improvement standards for maternal and newborn care provide a blueprint for Quality of Care (QoC). Yet in many LRS, this agenda has yet to be operationalised and refined at the national and facility level to respond to country-driven priorities. We carried out a qualitative study to understand persistent barriers to QoC, and to identify quality improvement priorities from the perspective of a unique panel of neonatal experts with first-hand experience of delivering inpatient newborn care in LRS. We also sought expert views on the role of digital health as a vehicle to improve QoC.

Objectives The study aim was to identify barriers to quality inpatient neonatal care in LRS from the perspective of experts experienced in delivering and overseeing frontline neonatal care in these contexts.

Methods This study was part of a larger DELPHI study, carried out in 2018 to refine clinical diagnostic algorithms for the NeoTree platform. The Neotree is a digital quality improvement system combining immediate data capture, education and clinical diagnostic and management support. Physicians and nurse practitioners from high income and low income countries with clinical and research expertise in neonatal health were invited to participate. Additional inclusion criteria included

having over ten years of neonatal experience (at least three years in LRS), neonatal postgraduate training, fluency in English and internet access. We conducted 13 semi-structured interviews via Skype. All interviews were recorded and transcribed verbatim. Transcripts were analysed using a thematic content analysis. Ethical approvals were not required.

Results Twenty-two experts were invited to participate, of whom 16 responded and 13 agreed to take part (5 neonatologists, 6 paediatricians and two advanced nurse practitioners). Participants had a mean of 13 (± 7 SD) years working in LRS. Lack of physical resources including equipment, funding, infrastructure; combined with limited human resources, education and specialist neonatal training were cited as key barriers to QoC. In addition, poor leadership at the community, local and national level hindered progress and left experts feeling excluded from defining QoC priorities. Poor communication within clinical teams, limited documentation and lack of standardised and locally appropriate guidelines were also identified as challenges.

Digital technologies, such as the NeoTree, were perceived to have potential for data capture and enabling standardised care. However, some highlighted that unreliable internet access may hinder implementation.

Conclusions Digital technologies may alleviate some barriers to QoC. However, systemic change involving local actors and policymakers is required to address entrenched QoC challenges and accelerate progress towards achieving global neonatal survival goals.

British Association of Child and Adolescent Public Health

1643

EXPLORING THE EXPERIENCE OF ADOLESCENTS IN A PAEDIATRIC EMERGENCY DEPARTMENT – *TOO OLD OR TOO YOUNG?*

Kathryn Mullan, Elizabeth Dalzell, Rosaleen Manning, Stephen Mullen. *RBHSC*

10.1136/archdischild-2021-rcpch.767

Background In paediatric emergency medicine (PEM), the age of transition from paediatric to adult emergency care is variable across countries. The UK has no agreed national standard on ED age limits and this arbitrary upper age limit is often set locally by commissioning groups reflecting service capacity and the population in which it serves. In Northern Ireland, adolescents often fall into the adult domain, with the regional paediatric emergency department (PED) catering for children up to fourteen years of age.

However, in response to Covid-19 surge planning, the PED age limit increased to age sixteen. This decision marked significant progress in the regional strategy to shift paediatric services to 'a target transition stage of sixteen' as well as coinciding with the NHS Long Term Plan to move towards 0–25 service models. Our retrospective survey aims to explore the experience of young people in the PED during this time and their preferred setting to receive care.

Objectives To determine the satisfaction reported by adolescents when visiting a PED and elicit the acceptability of both paediatric and adult services in this age group.

Methods A prospective 10-point survey was developed to assess adolescents' overall satisfaction with their PED

experience as well as their views on the waiting room setting, clinical treatment areas and staff. Data was collected over an eight-week period from adolescents aged fourteen and fifteen attending PED. The survey was administered at point of discharge or admission to hospital and completed anonymously. A 5-point likert scale was used to gauge the experience of adolescents with the addition of a free text response to allow for further comments on patient experience.

Results Fifty-three patients completed the survey with 99% rating their overall experience as good or better. The majority of participants were not known to paediatric services (85%). 43% of respondents had attended an ED in the previous twelve months of which eleven had previously attended an adult ED. Over half of these patients (55%) preferred the paediatric setting. Conversely, 70% of those who previously attended a PED wished to continue to be seen in this setting. Common themes included reduced fear and anxiety in PED, as well as the perception that paediatric staff have a better understanding of needs. Additionally, adolescents with specific needs expressed a lack of readiness to attend adult services with concerns surrounding lack of familiarity and challenging sensory environments.

Conclusions The majority of adolescents surveyed showed preference for the PED with environment and communication approaches identified as influencing factors. Our study highlights the importance of considering the needs of the adolescent as distinct from those of young children and adults. Wherever emergency care services are delivered to young people, providers should strive to provide an 'adolescent friendly' environment to meet physical, emotional and psychological needs. Clinical need, service capacity and individual choice should be considered in future decision-making tools to determine the setting in which emergency care is delivered.

Quality Improvement and Patient Safety

1644

ADHERENCE TO THE RCPCH TRAINEE CHARTER IN WALES AND THE IMPACT OF THE COVID-19 PANDEMIC OF TRAINING. A PERSPECTIVE OF TRAINEES

¹Gareth Davies, ²Thomas Cromary, ²Ceri Haddon. ¹NHS; ²Wales deanery

10.1136/archdischild-2021-rcpch.768

Background the RCPCH published a charter in 2019 outlining the what a trainee should expect from their training across 7 domains:

- Educational supervision.
- Rota
- Fatigue, rest facilities, breaks.
- Less than full time training (LTFT)
- Training environment
- Training programme's.

The Wales deanery has signed up to comply with this charter. Until this study adherence to this charter has not been evaluated.

The Covid-19 pandemic has had an impact on training in Wales. Many trainees have been redeployed within paediatrics or moved to support adult services under pressure.

Aims To evaluate adherence to the trainee charter from the perspective of trainees in wales across domains 1–5.