- Process: Qualitative student survey feedback about the quality of placement and ideas for improvement.
- Process: Core clinical knowledge acquisition measured via pre- and post- placement quiz score differential to assess placement impact.
- Balancing: Qualitative feedback from paediatricians to identify barriers to teaching, satisfaction levels and impact of new interventions.

Audit Phase:

- Analysis of 6 months of retrospective UCL student satisfaction data
- Study measures collected for 2 placement cycles without intervention to assess baseline placement impact.

Intervention Phase:

4 PDSA cycles over a 3-month period:

Cycle 1

Formal teaching

- Introduction of our novel 'Themed Ward Round' packs to maximize engagement and curriculum coverage.
- New weekly bleep-free bedside teaching slot created.

Cycle 2

Informal teaching

- Instating 'training to teach' sessions for Doctors
- Student-nominated 'teacher of the month' award created

Cycle 3

Curriculum focus

- Dividing the curriculum between both sites of the placement to ease the burden on educators.
- Dissemination of focused learning outcomes to students and doctors prior to placement.
- Creation of induction and 'out-duction' packs, clarifying the curriculum.

Cycle 4

Student engagement

- Students at team lunch, introductions at MDTs and group photos to encourage involvement.

PDSA cycles were completed every 3 weeks which allowed contemporaneous feedback and facilitated constant, site specific improvement. This included: revisions of the ward round packs, introduction of a new junior doctor teaching rep and addition of supplementary digital resources.

Results

- Likelihood in choosing a Paediatric career Increased by 24% at RFH and 4% at BGH.
- Performance in core topic assessment Improved by 28% at RFH but no improvement at BGH
- University College London (UCL) official student satisfaction ratings Improved to 100% at RFH, and 83% at BGH

Conclusions Our data suggest that a focus on improving the experiences of medical students is an effective way to boost recruitment in paediatrics and hence help tackle future staff shortages.

The initial success of this QIP has had significant implications for the project and its future; there is now scope for applying this new model of ward-based teaching to paediatric departments across the UK.

British Association for Community Child Health

1250

SPEAK UP FOR YOUTH

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Background 'If this is a space for young people then it should be created by young people.' This quote was from our virtual focus group with adolescent service users in our journey to co-create a waiting area for Young People (YP) in the community. The rise in mental health problems in YP, has been amplified by the COVID-19 Pandemic [1]. Community services must become emotionally aware, through minimising anxiety for YP within assessment and treatments pathways to optimise engagement. The 2019 'State of Child health & Us' report states the importance of youth friendly services and clinical environment as key for improving engagement and long-term health outcomes [2]. Specific feedback from YP included being with people of a similar age and having a one-stop shop approach to YP health needs [3].

Objectives

1. Evaluate the YP's experience of the Centre for Child Health with a real-time survey at the point of access.
2. Collaborate with YP who use our service in an online focus group to co-create their vision of a YP's waiting area.
3. Seek funding to co-produce a comfortable, relaxing and educational waiting area based on YP's feedback, decreasing anxiety and improving engagement with the service and hence their long-term health outcomes.

Methods A 10 question online survey asking YP's Likert scaling of their opinions and feelings regarding the waiting room, health promotion materials and understanding of and engagement with their health conditions. Including qualitative descriptions of the waiting area and ideas for improvement.

Results SURVEY:

10 responses collected from users aged 11–18 (03/11/2020 – 15/12/2020). Almost half of respondents found the waiting area 'boring' and 'baby focused', causing them to feel sad before their appointment. Only 1 in 3 respondents reported they understood their health. 50% were not satisfied with the health information provided – over half preferring electronic format, recommending introducing a tablet in a separate YP's area.

VIRTUAL FOCUS GROUP:

(02/12/20) 8 service users participated. They shared feelings of anxiety due to 'long waits' amongst others. They suggested improvements such as, 'less hospitably'/'warmer' colours, circular 'inclusive' seating and a range of activities. Other suggestions included YP inspired artwork and an accessible library of short 'Tik-Tok' style videos to deliver health promotion and appointment information.

Conclusions We successfully collaborated with YP virtually, to co-create a vision of a youth friendly waiting area at the children's centre. We have put in a funding application to make their vision a reality. We will: provide tablets loaded with short videos of appointment overviews and health promotion resources; create a warmer colour scheme and relaxed

seating area for a welcoming environment. We will co-create virtual art-work with local YP for display. We will collate ongoing feedback on our changes from the YP using established methods. We will monitor attendance figures as a proxy for engagement with services and ultimately improve our patients' experience.

British Association of Perinatal Medicine and Neonatal Society

1252 NEONATAL SARS-COV-2 ANTIBODIES AT DAY 14 OF LIFE, 3.5-FOLD HIGHER THAN HER COVID-19 ASYMPTOMATIC MOTHER

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Background Throughout the COVID-19 pandemic, it has been unclear how SARS-CoV-2 infection (by vertical transmission or natural infection) would affect neonates, with a significant number of case reports and series identifying neonates requiring respiratory support. A single report suggests that paediatric multisystem inflammatory syndrome was demonstrated in a 24-day-old.

Together, these concerns justify screening for SARS-CoV-2 RNA and antibodies in unwell neonates without clear infective focus, particularly with high community prevalence. Maternal SARS-CoV-2 antibodies usually match those observed in the neonate.

We present a 14-day-old neonate with SARS-CoV-2 anti-nucleocapsid antibodies at a 3.5-fold greater concentration than her mother.

Objectives To describe differential SARS-CoV-2 antibody titres in a neonate and her asymptomatic mother.

Methods We conducted a retrospective review of clinical notes, with the mother's consent.

Results A female neonate was admitted on day 14 of life with fever and 1 day of jittery movements noted by her mother. She had a history of bilateral aniridia (partially observed in her father and brother, currently under clinical genetics investigations) and haemolytic anaemia (DAT positive at birth, on folic acid treatment). She had no syndromic features and was otherwise well. Born at term, by spontaneous vaginal delivery with an uneventful antenatal history.

Clinical examination was normal, other than a fever up to 39 degrees. She underwent a full septic screen including urinalysis, blood cultures and a lumbar puncture. Bloods demonstrated CRP 106 (maximally 136 at 24 hours), with normal full blood count. CSF microscopy showed significant white blood cells (WBC 347/ μ L with 65% neutrophils, RBC 105/ μ L), and no microorganisms. No microorganisms were demonstrated in CSF by BioFire[®] meningitis/encephalitis panel (including SARS-CoV-2 using BioFire[®] respiratory panel), or subsequent culture. However, admission urine was leukocyte, nitrite and glucose positive (WBC 21/ μ L by microscopy), growing *E. coli* and *Enterococcus*. US KUB was normal. Chest X-ray demonstrated hazy opacification but nil focal.

Given the presentation, the patient was treated with 7 days of IV cefotaxime and amoxicillin, covering for bacterial meningitis, clinically improving by day 2.

Due to presentation at the height of the second-wave of the COVID-19 pandemic, there was initial concern of SARS-CoV-2 infection. Her mother was asymptomatic, with negative nasopharyngeal swabs. Nasopharyngeal swabs for SARS-CoV-2 RNA in our patient were negative on day 0, 2 and 3 of admission. However, SARS-CoV-2 anti-nucleocapsid (1.84 AU/mL, positive threshold ≥ 1.4 AU/mL) IgG was demonstrated. Given the unexpected result, her mother was tested, initially reported as negative, later revised to borderline (0.53 AU/mL). Both were re-tested 10 days from discharge. Anti-nucleocapsid results were reproduced, whereas both mother and patient had significant anti-spike IgG (312.4 and 98.3 AU/mL, respectively, positive threshold ≥ 50 AU/mL), without vaccination.

Conclusions We highlight the need to corroborate SARS-CoV-2 antibodies in neonates with paired maternal samples, and to explore both anti-spike serology with discordant anti-nucleocapsid results. Our case results from an asymptomatic infection, likely close to birth, producing differential active transport of anti-nucleocapsid antibodies across the placenta, producing 3.5-fold higher neonatal titres.

British Association of Perinatal Medicine and Neonatal Society

1253 NONINVASIVE CONTINUOUS STROKE VOLUME MONITORING IN TERM AND LATE PRETERM NEONATES USING WHOLE BODY ELECTRICAL BIOIMPEDANCE: A CLINICAL VALIDATION STUDY

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Background Non-invasive, continuous monitoring of cardiac output (CO) could transform care of sick neonates through earlier detection and improved targeted management of cardiovascular compromise. Whole body electrical bioimpedance (WBEB) has been developed for non-invasive CO measurement but has yet to be validated for use in neonates. WBEB may have significant advantages over intermittent, operator-dependent echocardiography.

Objectives This study aimed to validate WBEB (NICaS monitor, NI Medical, Israel) for use in healthy, term and late preterm neonates, compared to echocardiography.

Methods Well neonates <12 hours old born to healthy mothers at ≥ 35 weeks gestational age were recruited. Two NICaS monitor pads were applied to supine babies in a left wrist-right ankle configuration for two hours; an echo was performed during this time by a consultant neonatologist trained in echocardiography. Left ventricular (LV) stroke volume (SV)