Abstract 1546 Table 1

Study time point	Initial mean $\pm$ SD weight Z-score	Mean $\pm$ SD weight Z-score at respective time point	Mean difference (95% CI)	P value
1 month (n=21)	-1.92 $\pm$ 1.50	-1.60 $\pm$ 1.46	0.32 (0.07-0.57)	0.01
3 months (n=27)	-1.80 $\pm$ 1.45	-1.28 $\pm$ 1.37	0.51 (0.18-0.85)	0.004
6 months (n=30)	-1.80 $\pm$ 1.41	-1.14 $\pm$ 1.40	0.66 (0.25-1.07)	0.002
1 year (n=32)	-1.82 $\pm$ 1.42	-0.99 $\pm$ 1.21	0.82 (0.35-1.30)	0.001
2 years (n=20)	-2.08 $\pm$ 1.46	-1.32 $\pm$ 1.05	0.76 (0.13-1.40)	0.02
3 years (n=13)	-2.17 $\pm$ 1.43	-1.15 $\pm$ 1.02	1.02 (0.22-1.83)	0.02

reached in a different number of patients at each study time point (table 1).

Conclusions JTF exposes patients to a relatively high risk of complications. At our institution, the vast majority were minor in nature (89.8%). The need for repeated admissions and the possibility of major complications should influence parental discussions and informed consent before the initiation of JTF. Significant improvement to weight Z-scores could be seen at 1 month after the initiation of transpyloric feeds and was maintained at 3 years. We conclude that this form of enteral nutrition can be a moderately safe and efficacious method of feed delivery.

Paediatricians with Expertise in Cardiology Special Interest Group

1548 IMPLEMENTATION OF ROUTINE NEWBORN PULSE OXIMETRY TO IMPROVE CONGENITAL HEART DISEASE DETECTION – A QUALITY IMPROVEMENT PROJECT

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Background Routine pulse oximetry screening for newborns is not currently recommended by the UK National Screening Committee (UKNSC), though the scheme is increasingly being adopted by maternity & neonatal units around the world. The antenatal detection rate of congenital heart disease (CHD) remains as low as 55% in the UK, with approximately 20–30% of CHD cases being undiagnosed at the time of post-natal discharge. Critical CHD affects 2 in 1000 births and accounts for 3–7.5% of infant mortality, with earlier diagnosis being associated with more-favourable outcomes. Furthermore, newborn pulse oximetry screening has been shown to detect cases of critical CHD, that would have otherwise been missed. **Objectives** Utilising quality improvement (QI) methodology, the primary aim of our project was to effectively implement a Routine Pulse Oximetry programme at a large, tertiary London maternity trust, which delivers approximately 9000 babies per year, such that every baby born across the two maternity units would have pre-ductal and post-ductal oxygen saturations recorded at the Newborn & Infant Physical Examination (NIPE) by paediatricians or midwives.

Methods Using electronic systems (Cerner, Smart4NIPE, BadgerNet), data was prospectively analysed for all babies born at the trust in a 2-week study period in May 2020 (*pre-*

intervention phase). Simultaneously, anonymised questionnaires were distributed to all staff trained in performing the NIPE, assessing their understanding and current practice of pulse oximetry (*surveillance phase*). A four-pronged intervention was subsequently carried out over a 1-month period (*intervention phase*). The results of the interventions were studied for all babies born in a 1-week period in August 2020, assessing the performance of pulse oximetry and its short-term outcomes (*post-intervention phase*).

Results During the 2-week pre-intervention phase, 32/298 babies (10.7%) had pulse oximetry recorded at the NIPE; approximately half of these were performed only due to clinical concerns (murmur, tachypnoea or abnormal fetal echocardiogram). Of all NIPEs performed by paediatricians, 6.9% (6/86) included pulse oximetry, compared with 12.2% (26/212) by midwives. This inconsistent performance correlated with the questionnaire results; 7/55 (12%) practitioners reported performing pre/post-ductal saturations routinely, with less than half correctly stating the acceptable saturation threshold and pre/post-ductal gap, according to local guidelines. Based on the responses, four key areas of improvement were postulated, and changes implemented altogether: these included upgrading ICT facilities for documentation, re-writing trust guidelines, widening multidisciplinary education, and improving the availability of neonatal pulse oximeters. In the 1-week post-intervention phase, 151/151 babies (100%) had routine pulse oximetry throughout the trust. One baby in this cohort was admitted to NICU for 48 hours because of post-ductal hypoxaemia; he was diagnosed with mild PPHN, required oxygen therapy and an echocardiogram showed a structurally normal heart.

Conclusions This project has demonstrated an effective implementation strategy for routine pulse oximetry at a large NHS maternity trust, through multi-disciplinary collaboration and careful QI planning. Future directions are to ensure this is maintained over a prolonged period of study, as well as assessing outcomes of babies with 'positive' pulse oximetry screening and its impacts on long-term CHD detection rates.

Children's Ethics and Law Special Interest Group

1549 VARIATION IN REFERRAL OF NEONATAL DEATHS TO CORONIAL SERVICES IN THE UK

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Background Previous, now somewhat historic, data have indicated variation in clinical practice with respect to whether or not a neonatal death is referred to the Coroner or Procurator Fiscal (PF)¹ and variation in how these referrals are managed by the Coroner/PF. From a legislative perspective the duty to refer cases is governed by the Notification of Deaths Regulation 2019.² However, anecdotally there remain concerns about on-going variation in practice. The implications of unnecessary referral include delays in funeral arrangements, family distress and increased workload to an already busy Coroners/PF service. Likewise, non-referral where necessary may have