(OR 1.43, 95%CI 1.39,1.48), adolescents (OR 1.18, 95%CI 1.13,1.23), mothers living above 2,000 meters (OR 1.58, 95%CI 1.55, 1.60), those self-identified as indigenous (OR 1.35, 95%CI 1.32,1.39), and mothers living in very high deprivation (OR 1.23 95%CI 1.19, 1.26). On the other hand, antenatal care shown a protective gradient reducing the risk of SGA by 33% (OR 0.67, 95%CI, 0.64, 0.69), 25% (OR 0.75, 95%CI, 0.71, 0.78) and 23% (0.77, 95%CI, 0.73, 0.82) starting at the first, second and third trimester, respectively.

Conclusions Data mining was useful to demonstrate how maternal education and other social determinants influence the proportion of SGA babies who start their lives under significant disadvantages. This digital profiling would be useful to gain visibility of nulliparous women with delayed education who are at the highest risk of having vulnerable newborn babies. Early contact with health care is the best opportunity to reduce SGA live births. Women's access to health care, schooling, and social security are modifiable factors that are feasible to target by political and financial policies.

Quality Improvement and Patient Safety

648 DELAYED CORD CLAMPING QUALITY IMPROVEMENT PROJECT NEONATAL INTENSIVE CARE UNIT -LEEDS CHILDREN'S HOSPITAL

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Background Delayed Cord Clamping (DCC) in a new born is endorsed by The Resuscitation Council, BAPM,RCOG and WHO. A peri-natal Quality Improvement initiative was carried across the neonatal units at Leeds Children's Hospital.

Objectives The aim of this project was to introduce a delay between birth and clamping of the umbilical cord of 1 minute or more. This allows smoother physiological transition, reducing IVH and mortality in preterm babies. Our target was to achieve 80% of preterm babies having DCC of more than 1 minute.

Methods Quality improvement methodology was applied at various stages. This collectively included brainstorming, creation of a driver diagram with steps to consider, its implementation at various primary and secondary driver levels and writing of a standard operating procedure (SOP) jointly with maternity. Monthly we collected pre and post intervention data from several neonatal databases, progress was reviewed and obstacles tackled. Tools used were multidisciplinary meetings, teaching to healthcare professionals, posters, simulation scenarios and a big push towards documentation of DCC to achieve quality data.

Results Results were analysed and interpreted through run charts and pie diagrams. Pre- intervention data (Jan 2019-Nov-2019) showed nearly 100% of DCC in term babies which completed phase 1 of the QI project. Phase 2 utilised our interventions to aim to achieve 80% DCC compliance in preterm babies. Both subgroups of babies showed significant improvement in DCC post intervention (Dec 2019-November 2020); from median 38% to 65% (32–36 weeks) and 0%

to 50% (<32 weeks). Less variability is noticeable in the 32–36 week group, however there is wide variability in the extreme preterm group which is attributable to small numbers of babies being born and their condition at birth. Phase 3 is to support resuscitation on the cord with a Life start trolley.

Conclusions Introduction of quality Improvement measures in the form of education, communication, promotion and guideline development, our institution showed significant success in the rate of deferred Cord Clamping in a new born. There has been a significant improvement in compliance across both preterm subgroups. We hope the rates of compliance will improve further upon the introduction of a Life start trolley.

Quality Improvement and Patient Safety

651 SURVIVING AND THRIVING – CREATING A CULTURE OF IMPROVEMENT DURING COVID

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Background Staff strive to deliver high-quality care in demanding settings, and though keen and motivated, are often short on time, support, or skills to engage in quality improvement (QI) activities. There is a perceived notion that, though there are QI opportunities for senior medical and nursing staff, these are less accessible to allied health care professionals. Experience and feedback have shown that formal support for developing QI skills is often fragmented, difficult to access and as a result, QI can be seen as a 'tick-box' exercise or undertaken only if mandated as essential for progression.

Objectives Our aim was to develop QI capability amongst multi-professional staff thereby empowering individuals and teams to drive a culture of continuous improvement.

Methods We set up QI Hub in 2018 to enable multi-professional staff to develop QI capability, by providing shared learning, collaboration, and individual mentorship. Hub is multi-disciplinary and open to everyone within the Trust.

The format consists of a structured and comprehensive QI educational programme providing fortnightly, dedicated teaching on key QI methodologies including Model for improvement, Process map, Lean, and patient involvement. Each session is followed by individualised, practical face-to-face workshops with mentors, covering projects, ABCD, and action learning sets. Our faculty come from different specialties, providing effective communication and shared, collaborative QI. Each cohort runs for 4 months.

Due to restrictions during COVID, staff were struggling to undertake or receive support for QI projects. We adapted the program to deliver it remotely since May 2020, with fortnightly sessions of dedicated online QI teaching, mentorship, and virtual workshops.

Surveys were conducted for individual sessions, at end of each cohort and after one year of completion.

Results QI Hub has been running successfully for 2 years and we have supported 70 QI projects with over 80 participants.