G157(P) A TOOLKIT TO IDENTIFY BARRIERS TO DISCHARGE FOR CHILDREN WITH MEDICAL COMPLEXITY

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Background The Children with Medical Complexities (CMiC) team is a multidisciplinary team working in a tertiary children's hospital. Our aim is to provide a pop up service for children with medical complexity (CMC) tailored to the individual child and family. We describe the co-production, development and implementation of our CANVAS toolkit which captures information about the barriers to discharge to enable us to work to a smoother and earlier discharge.

Aim To develop a mechanism to categorize barriers to discharge faced by CMC to enable working towards a faster and better discharge.

Method Since 2013 we have been part of a weekly meeting where we discuss barriers to discharge for patients with lengths of stay (LOS) over 30 days. This identified a number of areas including housing, care provision and training. In 2014 we started collaborating with colleagues from social care, occupational therapy and community nursing to develop a forum for continued conversation around this group of children. With these stakeholders, parents with lived experience and young people from the Young Persons Advisory Group, we ran a process mapping exercise exploring the themes around barriers to getting home for CMC. We used all these avenues of information to develop the CANVAS categories and expanded toolkit.

Results CANVAS categories were identified as follows. We have also developed specific data points in each category. 1. Care and commissioning 2. Allied health professionals and equipment 3. Medical Needs 4. advocacy and education 5. Accommodation 6. Safeguarding.

Discussion The CMiC team has been working to improve how we support this group of children since its creation in 2014. The categories above enable us to capture all the challenges that we have faced as a team in supporting discharge for CMC. Together they enable us to provide an easily captured and communicated view of the palette of colour-coded care each child and family needs at any given point in time. We hope that prolonged data capture may enable early recognition of potential blockers for the individual as well as larger scale system issues.

G158(P) HUMAN FACTORS FACULTY DEVELOPMENT IN A TERTIARY CHILDREN'S HOSPITAL

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Aim Human factors and ergonomics (HFE) is the discipline examining the way humans interact with systems. It is a key consideration when understanding safety. Within the healthcare sector there is a growing recognition of its importance. Cross-pollination of learning especially from the aviation industry has led to increased awareness and integration into health settings. This has been facilitated by the Clinical Human Factors

Group¹ in addition to more recent guidance from the Chartered Institute of Ergonomics and Human Factors.²

Methods Within our tertiary children's hospital recognition of its importance led to training of senior leadership teams. In 2015 we obtained funding to expand this training. 55 senior medical and nursing staff were trained in a 2-day master-class by Terema. 11 went on to attend a 3-day Training the Trainer Course. Through mentorship faculty began delivering a bespoke HFE single day training course. We have delivered approximately 26 courses over this 4-year period to over 400 staff. Each course has comprised of varied personnel from administrative and laboratory staff to frontline health care workers and managers.

Results Qualitative feedback following the courses has been overwhelmingly positive. This reflects the overarching aim of maintaining psychological safety. Attendees appreciated a different perspective on why things go wrong. In addition to direct teaching, many levels within our organisation across professional and physical boundaries have been influenced by ergonomic principles. Aspects of the training are being taught to all newly qualified nurses, trainee doctors and new consultants as well as new theatre staff. Additionally, we have taught at simulation courses, departmental audit and ward away days. Understanding the systems aspect of ergonomics has led to quality improvement (QI) initiatives such as briefing and debriefing boards, the hydration bundle, the extravasation project, and a recent ergonomic redesign of our early warning score.

Conclusion The spread of ergonomic awareness into different areas has been organic and unplanned. The natural alignment with QI is well recognised.³ The challenge ahead is to provide data rich evidence of its impact.

REFERENCES

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G159(P) NEO-TRAIN QUALITY IMPROVEMENT INITIATIVE TO IMPROVE EOSIN (EARLY ONSET SEPSIS IN NEONATES) CARE AS PER NICE RECOMMENDATION

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Background Sepsis in neonates is a common occurrence and can be difficult to detect in the early stages.

NICE (National Institute of Clinical Excellence) had produced guidelines on neonatal sepsis (NICE CG149, 2012). The aim of the project was to ensure adherence to the guidelines and improve quality of care.

Aim 100% compliance with NICE Sepsis standards (antibiotics administration within 1 hour of suspecting sepsis being the primary objective)

Prescription sheets and patient notes review and if 100% compliance with NICE guidance CG 149 (2012) was achieved.

An environmental restructuring, education and training of staff and persuasion of stakeholders.

Methodology PDSA cycles: Four PDSA (Plan-Do-Study-Act) cycles with formative rapid approach were run in two six monthly blocks with between the 02/2017 to 07/2017 and 08/2018 to 01/2019.

Quality improvement methodology included tools such as process mapping, cause and effect analysis using Fishbone diagram, Driver diagram to identify focus aim and evaluation, Pareto chart, survey questionnaire to maximize focused QI efforts, neonatal pharmacist and microbiologist involvement.

An educational initiative 'Neo Train' posters (1&2) in clinical areas, implementation of structural changes such as Sepsis Screening Pit-stop, example drug charts and sepsis booklet were created as a reminder to follow protocol.

Results

Cycle 1: Baseline issues and QI strategy defined. Issues identified: delay in time to treatment, second CRP, No blood culture reporting within 36 hours.

Cycle 2: Significant delay in transport and processing of blood culture were leading to delay in reports.

Cycle 3: Improved documentation overall but time of decision to treat not well documented.

Administrative issue: Time of 36 hours blood culture reports only in neonatal inpatients. But, the majority of babies were based on postnatal ward.

Cycle 4: Average time treatment decreased from 120 minutes to 90 minutes.

Conclusion

- The outcome improved the average time of antibiotic administration from 120 minutes to 90 minutes.
- Systematic use of QI tools can help to focus in right areas. Pareto chart based staff survey identified areas for delay.
- Key feature for the success of the Neo-train Quality Improvement initiative was its use of a multidisciplinary team approach to strategically design and deliver the implementation program.

G160(P) TRANSITION OF YOUNG PEOPLE WITH EPILEPSY – ARE WE DOING IT RIGHT?

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Aims

- Young people with epilepsy have an agreed transition period during which their continuing epilepsy care is reviewed jointly by paediatric and adult services
- The need for continuity of care during transition from paediatric to adult services is particularly important for young people managing the physical and mental transition from adolescence to adulthood
- To study the current transition service in paediatric epilepsy against NICE quality standards
- To identify good practice, gaps and develop a more comprehensive transition pathway and to set targets to achieve the desired results

Methods Electronic case notes and clinic letters of 43 patients were reviewed over a period of 4 years between 2015 to 2018.

Conclusions

- All children and young people seen in Paediatric epilepsy clinic have been appropriately transitioned to adult services except 2 (one completely discharged and not on treatment, the other one – care transferred to local epilepsy service/GP)
- Age range when seen in transition clinics – 16 yrs 5 months – 18 yrs 10 months

- Compliant with NICE guidance quality standards of transition of Paediatric epilepsy patients
- We are the only Paediatric Unit in the region with appropriate Transition Service for children with epilepsy apart from an adult regional neurosciences centre and a tertiary children's centre

Recommendations

- Earlier Transition to be planned if possible so that they are transitioned before 18 and possibly to do more transition clinics
- Patients seen at peripheral epilepsy clinic to be encouraged to attend teenage epilepsy clinics
- To move patients from General Epilepsy clinic to Teenage Epilepsy clinics where appropriate
- Improve documentation about who was present in the clinic which will help when re-auditing

G161(P) INTUBATION-SKILL TRAINING AND RECORD-KEEPING (I-STAR)- TO IMPROVE INTUBATION IN NEONATES IN A DGH

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Aim and Objectives

- To assess the quality of intubation
- To assess confidence of junior doctors in intubation and opportunity for training
- To assess Record keeping of Intubation procedure on NICU

Methods Initial retrospective data collection done in February 2019, for the practice of intubation which happened over previous 6 months. Subsequently an action plan was formulated and strictly followed. The changes brought by this new action was studied prospectively over 4 months from April 2019 till July 2019.

Action plan included:

- Implementing updated guideline for intubation
- Availability of airway adjuncts
- Weekly consultant led simulation training for junior doctors and nurses.
- Change of practice was constantly encouraged with encouragement of junior doctors to do procedures.
- Pre-checklist for intubation and documentation sheet were introduced and everyone in the team educated to use those.

Results In the initial retrospective study 28 intubations were analysed and subsequent prospective study included 13 intubation.

- ETCO2 use to confirm ETT position had increased from 57% to 100%
- Registrars succeeding in intubation became 100% (previously 84%)
- Only 57% neonates were intubated in 1st attempt earlier which improved to 85%
- Earlier we required anaesthetic help in 7% but in the repeat study none required
- Premedication use during intubation had increased from 61% to 100% with the use of pre-checklist
- With improvement in practice around intubation, there was no accidental extubation, which was earlier noted to be around 14%