North Middlesex University Hospital developed the first joint simulation programme with some of the British Airways pilots (Project Wingman) locally.

Objectives The objectives of the joint simulation programme is to develop and improve human factors training amongst staff working the Emergency Department, by tapping on the expertise of the aviation crew in delivering key situation awareness and crisis management skills, integrating it within the relevant clinical environment so as to enhance patient care.

Methods The simulation faculty developed a clinical scenario relevant for the trainees and delivered the simulation in situ (ie within the emergency department) whilst the BA pilots who were briefed on the clinical aims of the simulation beforehand, observed the simulation and provided verbal and written feedback following the simulation. The written feedback with relatable human factor references to the aviation industry was produced but the pilot within a week following the simulation, which enabled learners continue the reflective process after the simulation at their own pace. In addition, pre and post simulation feedback was collected from the participants to better understand and improve further delivery of these simulations training events.

Results To date, Project Wingman has conducted 2 in situ simulations in the North Middlesex University Hospital with plans for further simulation dates. Attendance of the simulation involved the core simulation faculty team, BA pilots and a multidisciplinary team of clinical staff including emergency physicians, anaesthetists, nurses and operating department practitioners. Feedback from these simulations have been overwhelmingly positive, with over 90% of the participants finding it relevant and useful for their training. There is also a shift in attitude as demonstrated in the pre and post simulation feedback where hesitancy amongst participants towards the usefulness of incorporating aviation standards for providing feedback reduced.

Conclusions In conclusion, the North Middlesex University Hospital simulation faculty feel that these joint simulation programmes are beneficial to the emergency department and provides a fresh perspective towards human factors training as well as situational awareness and debriefing methods. The skills learnt from such simulation training enhances the team's ability to work cohesively as a multidisciplinary team even during highly stressful situations. Moreover, the provision of detailed written feedback following each session allows the learner to continue reflecting on the event and for the wider team who could not attend the session learn from it as well. A combined simulation programme will undoubtedly help clinicians to continue developing their skills in delivering the highest standard of patient care through challenging situations.

343 SAFEGUARDING NON-MOBILE BABIES IN THE EMERGENCY DEPARTMENT

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Background Accidental injuries in non-mobile babies are very uncommon, therefore even minor injuries could indicate serious abuse and require appropriate investigation.

In our ED in a large tertiary children's hospital in the UK, any non-mobile baby presenting with a visible injury is considered at risk of abuse and therefore follows a standardised

pathway. This involves a multi-agency approach in which checks are conducted with social care and the police to ensure the clinician can make an informed decision about the safety of the child. However, audits in 2016 and 2017 demonstrated that compliance to the pathway was poor (68.6%) with only half of clinicians completing a background check (54.3%) or passing on these results to the GP (51.4%).

Objectives Our aim was to identify obstacles to the non mobile baby pathway and address them in order to streamline the process for clinicians, social care and families.

Methods A multidisciplinary task group was set up including members from clinical and administration teams. With the assistance of our QI department, we completed process mapping, fishbone analysis and a prioritisation matrix. A questionnaire was then distributed amongst clinicians in order to identify specific obstacles to the pathway, and the results analysed.

Results The questionnaire was completed over two weeks in November 2020 by 27 of the medical and nurse practitioner team ranging in experience from 3 months to over 10 years.

Results identified that although all clinicians were aware of the process and 93% were able to identify patients who needed to undergo it, only 78% were confident in actually undertaking the process.

The time taken to complete the process ranged from 10 to 120 minutes amongst participants and of those who provided numerical responses, over half stated it took over 60 minutes.

Half (48%) of respondents found it difficult to locate the phone number to call when undertaking the checks.

When asked for areas of improvement within the process, participants most commonly identified; the need for a clear guideline, easy access to phone numbers, leaflets for parents and further training for clinicians and social care.

Conclusions We believe that our process for managing injuries in non-mobile babies is fairly unique and has already improved identification of children at risk of significant harm. The feedback gained and subsequent analysis has enabled us to recognise and address specific obstacles which can be targeted for improvement, to ensure a more streamlined process that it is both time efficient and as safe as possible.

A simplified guideline and patient information leaflet has been created and approved, along with a poster for our waiting room to explain the procedure to families. We also continue to improve awareness and understanding of the procedure amongst our colleagues through education. In the near future, we also hope to integrate the procedure within our IT infrastructure to allow a more efficient pathway.

We believe that our changes enable significant improvement of the non-mobile baby pathway for both clinicians and families, in what can be a challenging and stressful process.

346 EVALUATING THE SUCCESS RATES OF RADIOLOGICALLY INSERTED GASTROSTOMY, GASTROJEJUNOSTOMY AND JEJUNOSTOMIES IN PAEDIATRIC PATIENTS AT ST. GEORGE'S HOSPITAL

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Background In the past, gastrostomy tubes had to be inserted laparoscopically, however recently the trend has shifted to favour the use of percutaneous endoscopic gastrostomies,

otherwise known as PEG tubes. Major indications for this procedure include gastric motility disorders, severe reflux as well as an unsafe swallow due to neurological impairment. The PEG tube is also a valuable tool in paediatric care since it can be performed without anaesthetics and provides a viable route for feeding children who are unable to tolerate oral intake.

Objectives To determine the safety of radiologically inserted feeding tubes by assessing outcomes, specifically looking at rates and nature of complications.

Methods A retrospective review was carried out on the hospital records for gastrostomy, gastrojejunostomy and jejunostomy procedures performed between May 1st 2018- May 1st 2019, for all paediatric patients (under 18s) at St. George's hospital, London. Records for the procedures were documented by the operating surgeons. General hospital admissions were also reviewed for any follow up complications post procedure. The final cohort size included 28 procedures performed on 14 children.

Results Between May 1st 2018 and May 1st 2019, 28 gastrostomy procedures were performed on 14 children (mean age 6.07 years, range 1–16 years). 9 out of 14 children had neurological impairment (global developmental delay, cerebral palsy etc.), while the other 5 children had GI disorders. 67.9% (19/28) of procedures were carried out without the use of sedatives, 21.4% (6/28) under general anaesthetic and 7.1% (2/28) using a combination of local and general anaesthesia. No intra-operative complications were observed for any of the 28 procedures, however 2 procedures were noted to be difficult due to intestinal malrotation. Mechanical damage (breakage, leakage and displacement) was the most common complication found (18 cases). Other findings included 4 cases of post-operative weight loss due to intolerance to feeding, and 1 case of post-operative decline. 3 patients are deceased, the cause of death being cardiac arrest unrelated to the procedure.

Conclusions The results show that the technical success rate of PEG procedures was 100%, represented by tube functionality in all 28 cases post-operatively. The only reported major complication was a post-operative decline which subsequently resolved after ICU admission. The rate of minor complications was significantly higher at 24 cases, including tube breakage, leaks and misplacements. Most of these minor complications occur by accident e.g. a child pulling out the PEG tube. PEG tubes also have the advantage of not requiring anaesthesia, and the procedures were well tolerated by the children.

Therefore, radiologically inserted gastrostomies are a safe alternative to outdated laparoscopic techniques. These procedures can be carried out with little difficulty and possess a low rate of major complications.

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VISUAL SUPPORTS TO ENHANCE COVID-19 RELATED HEALTHCARE ENCOUNTERS FOR CHILDREN

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Background Consequent to the COVID-19 pandemic, healthcare visits have heightened infectious disease protocols and COVID-19 testing. These can result in additional

stress and anxiety for children who have limited understanding of the rationale for these changes. Isolation protocols, unfamiliar appearance of healthcare workers with personal protective equipment and the discomfort of nasopharyngeal swabs are among the many new but potentially distressing experiences.

A 'Special Care Kit'¹ was created to provide resources to support children (both neurotypical children and those with developmental needs), as well as their caregivers during their visit to healthcare facilities for COVID-19 related issues. The kit comprises a series of visual supports in the form of visual schedules, social stories, pictorial boards and animated videos with the aim of illustrating and explaining the different COVID-19 processes in a simple and clear manner. The kit was published online, and hard copies were distributed to general practitioner clinics managing COVID-19 suspects, ambulances and hospital emergency departments.

Objectives The objective of the study is to assess the effectiveness of the 'Special Care Kit' in improving the experience of children and caregivers during their COVID-19 related healthcare encounters in an emergency department setting.

Methods The effectiveness of the visual supports was assessed through voluntary, anonymous surveys completed by parents or caregivers who had a COVID-19 related healthcare consult at a tertiary children's emergency department. All children had been shown a relevant aspect of the special care kit prior to or during their medical encounter. Information collected included demographic data, developmental diagnosis, communication method of the children, as well as qualitative feedback. Descriptive statistics were used to analyse results.

Results A total of 46 caregivers took part in the study. The mean age of patients was 5.14 years. Six (13%) patients were known to have developmental difficulties, with half of them being pre-verbal (using pictures or pointing and gestures to communicate).

Almost all (98%, 45/46) caregivers felt that the visual supports helped their child have a better healthcare experience, with 39% (18/46) of them noting that their child was calmer and took the whole experience better than expected. 61% (28/46) of the caregivers felt that their child had a better understanding of what was going to happen during the encounter, and 28% (13/46) felt that the visual supports helped with the communication between the medical team and the family.

The majority (91%, 42/46) would like to have access to other visual supports during their child's future healthcare visits.

Conclusions The use of visual supports in young children is potentially effective in improving their healthcare experience during the COVID-19 pandemic. The supports may allow for better understanding of the processes, reducing the anxiety of the encounter and may improve communication between the medical team and the family. In crisis or acute situations like a pandemic, efforts should be made to communicate in a developmentally appropriate manner to both neurotypical and non-neurotypical children to reduce the stress related to a new healthcare experience.

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