A NEW TECHNIQUE FOR ULTRASOUND-GUIDED CENTRAL VENOUS CATHETERIZATION IN PEDIATRICS (SYRINGE FREE APPROACH)

1,2A Jorya, 1,2M Naem, 1,2M Arab, 1,2A Alshirhi. 1Department of Pediatrics, Ministry of National Guard Health Affairs, Riyadh, Saudi Arabia; 2King Abdullah International Medical Research Center, Riyadh, Saudi Arabia; 3College of Medicine, King Saud bin Abdulaziz University, Riyadh, Saudi Arabia

Background Central line insertion, a very common and invaluable procedure in PICU has undergone a major improvement with the advent of ultrasound assistance. In the process of further refinement, literature shows a comparison of various techniques. For the aim of increasing the safety profile and decrease the time required for CVL insertion, a new technique has been introduced by the author. We tested this technique against the other techniques that have been used in tertiary PICU unit in KSA.

Methods We prospectively monitored all vascular access procedures guided by ultrasound from March 2018 to March 2019. All patients who underwent central line insertion were observed by an independent nurse recorder that was not involved in the procedure. The observer recorded the patient age, gender, weight and BMI, diagnosis, indication for insertion, blood pressure state, insertion time, size of the line, number of pricks and arterial punctures if happened.

Results Central line was inserted in 141 out of 800 total admissions during the study period. The author applied Syringe-free technique in 16 patients while in 125 patients central line was inserted via transverse axis out of plane technique. For the syringe-free group: Mean age was 49 months. Mean weight was 13.6 kg and mean BMI WAS 15.2. The femoral vein was the selected site of insertion in 13 patients 81%. The mean time of insertion was 86 seconds with a mean of attempts was 1.1. For the transverse technique: Mean age was 39 months. Mean weight was 13.9 kg and mean BMI WAS 15.3.

Femoral vein was the selected site of insertion in 74 patients (59%). The mean time of insertion was 304 seconds with a mean number of attempts of 1.38.

Conclusion Syringe free technique is a safe procedure that can decrease the time of insertion by 400% and allow a continuous real time-US monitoring of the CVL insertion procedure.

IMPLEMENTATION OF A CAMHS STICKER FOR IMPROVED DOCUMENTATION OF MENTAL HEALTH PATIENTS PRESENTING TO THE CHILDREN’S EMERGENCY DEPARTMENT

B Currier, R Sunley. Paediatric Emergency Department, University Hospitals Bristol NHS Trust, Bristol, UK

Aims To devise and implement a new documentation sticker to be used by the CAMHS team (child and adolescent mental health services) in the Paediatric Emergency Department medical notes. To clearly document safety plans, diagnosis and follow up to the hospital and community teams co-caring for mental health patients.

Method Twenty sets of notes were taken at random from the year 2017–2018. The documentation of information in the notes, written by the CAMHS team, and quality of the discharge letter, written by the Emergency Department medical team, were assessed. The CAMHS sticker was introduced for the CAMHS team to use to document their assessment. Twenty sets of notes were assessed after the implementation of the CAMHS sticker.

Results There was improved documentation after the implementation of the CAMHS sticker in the notes. Specifically, the CAMHS team documentation of their assessment (Pre 40%; Post 85%), management plan (Pre 70%; Post 100%) and risk assessment (Pre 30%; Post 90%). The quality of the emergency department discharge letter also improved for diagnosis (Pre 90%; Post 95%) and risk assessment (Pre 30%; Post 70%). However, there was a fall in documentation in the management plan in the discharge letter (Pre 90%; Post 55%) for reasons unknown.

Conclusion The introduction of the CAMHS sticker has improved documentation and communication between clinical teams and primary care. This can be seen in all areas in the notes and discharge letter. However, documentation of the management plan in the discharge letter needs to be refined. It was also noted that the name, contact number, date and time of assessment by the CAMHS team could be improved. A new sticker has been designed to include these demographics in order for clearer handover between the CAMHS team and the emergency department.

The introduction and the positive effects the CAMHS sticker has had on the working relationship between the CAMHS team and the emergency department has been noted by the inpatient teams. The CAMHS sticker has now been revised by the inpatient teams in order for them to use for the mental health patients on the wards. A re-audit of the use of the stickers should be done at a later date to ensure compliance is improving as well as documentation.
TO REVIEW THE DEMOGRAPHICS AND POSSIBLE REASONS BEHIND RECURRENT PAEDIATRIC ATTENDANCES TO A TERTIARY LEVEL EMERGENCY DEPARTMENT IN 2017

JTB Baker, RC Clay. Emergency Department, Addenbrooke’s Hospital, Cambridge, UK

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Methods Using data for paediatric attendances to the Emergency Department in 2017, we applied certain selection criteria to our data. We excluded anyone younger than 6 years or older and anyone who reattended twice. We then recorded the age of the patient, the sex of the patient, the total number of attendances the patient made, postcode and GP practice of the patient and also the likely diagnosis of each individual presentation.

Results In 2017, there were a total of 21,646 paediatric attendances to the Emergency Department. Of these, there were a total of 84 patients reattending with primary care issues.

Out of the total 21,646 attendances, 12,074 (55.8%) were male and 9,572 (44.2%) were female. Of the recurrent attenders this number was 43 (51.2%) male and 41 (48.8%) female.

The most common age for patients reattending was one-year-old; this group made up a total of 26.2% of those reattending. Other significant age groups were the two-year-olds who made up a total of 21.4% of those reattending and the three-year-olds who made up a total of 16.7% of those reattending.

Viral upper respiratory tract infections are by far the most common cause of reattendance in the population we studied – accounting for sixty-one total presentations. Head injuries accounted for twenty-two attendances and abdominal pain accounted for seventeen attendances. Other causes for reattendance can be seen in the table below.

Conclusion Most patients who reattended the Emergency Department were young, generally being less than four-years-old.

Viral respiratory tract infections and minor injuries are the most common causes for recurrent attendances. There are clearly many factors that need to be considered in patients reattending the Emergency Department; however, education of parents, particularly focusing on viral illnesses and minor injuries, remains an important step at trying to reduce recurrent Emergency Department attendances.

IMPROVING PAEDIATRIC ASTHMA LONG-TERM MANAGEMENT THROUGH THE EMERGENCY DEPARTMENT

E Dyer, K Viljoen, A Iordanidou, C Sidira, M Butler. Paediatric Emergency Department, Evelina London Children’s Hospital, London, UK

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Aims The UK has one of the worst paediatric asthma mortality rates in Europe. The National Review of Asthma Deaths found that we could prevent many deaths with better basic asthma care and long-term management. We aimed to improve the assessment of children with asthma in the Emergency Department (ED), and their long-term management.

Methods We collected data over three months on those ≥5 presenting to ED with asthma. We subsequently introduced an ED assessment proforma for these children. We re-audited...