to 52.6% (n=16,087) in 2019. Over the same period the proportion of patients receiving CT imaging increased from 20.7% (n=676) to 88.9% (n=27,174). TARN hospital membership doubled from 96 to 179 hospitals, and the annual mean numbers of cases per hospital per annum increased sixfold from 31 to 174. Case ascertainment improved from 42% in 2008 to 95% in 2019. Significant differences were observed in the demographics, injury patterns, presenting physiology, care pathways, and outcomes between the high and low energy cohorts.

Changes in imaging and reporting practices have revealed a previously hidden burden of injury resulting from low energy transfer mechanisms. It is essential that future research recognises this distinct cohort and investigates how trauma systems can be changed to optimise outcomes.

**Aims/Objectives/Background**

Triage is a key principle in the effective management of major incidents. There is currently a paucity of evidence to guide the triage of children. The aim of this study was to perform a comparative analysis of nine adult and paediatric triage tools, including the novel 'Sheffield Paediatric Triage Tool' (SPTT), assessing their ability in identifying patients needing life-saving interventions (LSI).

**Methods/Design**

A ten-year retrospective database review of TARN data for paediatric patients (<16 years) was performed. Primary outcome was identification of patients receiving one or more LSIs from a previously defined list. Secondary outcomes included mortality and prediction of ISS>15. Primary analysis was conducted on patients with complete pre-hospital physiological data with planned secondary analyses using first recorded physiological data. Performance characteristics were evaluated using sensitivity, specificity, under and over-triage.

**Results**

15133 patients met TARN inclusion criteria. 4962 (32.8%) had complete pre-hospital physiological data and 8255 (54.5%) had complete first recorded data. Male patients predominated (69.5%), sustaining blunt trauma (95.4%) with a median ISS of 9. 875 patients (17.6%) received at least one LSI.

The SPTT demonstrated the greatest sensitivity of all triage tools at identifying need for LSI (92.2%) but was associated with the highest rate of over-triage (75.0%). Both the PTT (sensitivity 34.1%) and JumpSTART (sensitivity 45.0%) performed less well at identifying LSI. By contrast, the adult MPTT-24 triage tool had the second highest sensitivity (80.8%) with tolerable rates of over-triage (70.2%).

**Conclusion**

The SPTT and MPTT-24 outperform existing paediatric triage tools at identifying those patients requiring LSIs. This may necessitate a change in recommended practice. Further work is needed to determine the optimum method of paediatric major incident triage, but consideration should be given to simplifying major incident triage by the use of one generic tool (the MPTT-24) for adults and children.
emergency departments (ED) annually. In comparison to other countries, PPS practice in our setting has not been described. We therefore aimed to evaluate PPS practice in UK and Irish EDs.

Methods/Design Online survey distributed through Paediatric Emergency Research in the UK and Ireland (PERUKI) during June 2020. One respondent per ED completed the survey, including questions on indications, agents, staffing and governance. Results are presented using descriptive statistics.

Results/Conclusions 61/72 (85%) sites responded, of which PPS was performed in 50 (82.0%). Intravenous ketamine was the most common agent (43/50; 86%), followed by fixed concentration nitrous oxide (FCNO, 35/50; 70%), and variable concentration nitrous oxide (VCNO, 13/50; 26%). PPS was mostly performed a few times a week (17/50; 34%) or daily (9/50; 18%). The most frequent indications were wound closure (31/50; 62%), orthopaedic reduction (28/61; 56%) and foreign body removal (17/61; 34%). Required sedationist seniority was highest for propofol and ketamine/es-ketamine (requiring consultant, registrar, or ANP), whilst FCNO was widely delivered by nurses and SHOs. Most sites had a guideline (43/61; 70.5%), documentation proforma (39/61; 63.9%) and equipment (36/61; 59.0%) and patient checklists (41/50; 82%). Explicit discharge criteria were required for ketamine/es-ketamine (40/45; 88.9%), midazolam (9/10; 90%), propofol (7/10; 70%) and VCNO (9/13; 69.2%). Databases existed in 24/61 (39.3%).

We have demonstrated wide PPS use, but non-standardised practice, with only two-thirds of sites using a PPS guideline and standardised proforma. This leads to potential issues of risk and variability, highlighting a need for a UK and Ireland sedation package to standardise PPS practice and data collection, informed by international guidance and evidence. We propose development of a prospective ED sedation registry to facilitate data collection to support research within this area.

853 MISSION TO MARS: USING STORY ART TO EASE ANXIETY AND IMPROVE EMPATHY IN A CHILDREN’S EMERGENCY DEPARTMENT (CED)

Aims/Objectives/Background Whilst working in CED one of the most significant challenges has been effective communication with parents and children of all ages. These difficulties can lead to an unclear understanding of a child’s management plan, and specifically its individual steps. This can produce undue anxiety for both parent and child. We decided to focus on creating a tool, to help navigate parents and children through a ketamine reduction of a broken limb. The aims of the digital learning intervention would be to improve patient experience by reducing stress and anxiety and educating them on the plan as it is put into place. This would be in keeping with the Department of Health’s framework for technology enhanced learning as it aims to improve patient outcomes, safety and experience.

Methods/Design We produced a narrated video story using hand drawn artwork, cartoon effects and video making software plus an optional e-book for parents to read to their children to give a more familiar voice to an already anxious