Paediatric Regional Anaesthesia (PRA) in the Emergency Department.

A nationwide survey, audit of Major Trauma Centre patients & responsive Quality Improvement project.

D. Braunold, M Roberts, Royal London Hospital, Barts Health, London.

The 38th Annual ESRA Congress, Bilbao, Sept. 2019.

Background

Effective analgesia for injured children in ED is always challenging.
Intranasal opioids work well, but have short duration and side effects.
In the current climate of an “opioid crisis”, most addictions are medically initiated.
Alternatives desirable, to avoid unquantified addictive effects of opioids in children.

Survey

16 Paediatric Trauma Centres in the UK.
Most (14/16) have no structure to deliver PRA in ED.
A minority (2/16) can deliver fascia iliaca block in ED.
Ad-hoc training, no organised programme.

Audit

Conducted at the Royal London Hospital, a Major Trauma Centre
A comprehensive audit of Paediatric Orthopaedic Trauma activity.
Over 12 months, 157 upper limb fractures & 100 lower limb fractures seen in ED.
Some treated conservatively.

Challenge

PRA is most commonly performed under full General Anaesthesia, in operating theatres.
Achieving PRA on awake, injured and distressed children much more challenging
Requires more preparation than simply knowing where to “needle”.

Quality Improvement Programme

1. Ultrasound PRA course for ED Doctors.

We designed and delivered a course teaching how to perform ultrasound-guided, lower limb blocks. Pre-course reading, lectures, live demonstrations, small-group ultrasound and needling stations.

2. Practical block experience.

Elective theatre lists, refresher sessions and pop-up teaching in the department.

3. Integration and Governance.

ED Sedation was adapted for PRA. Patient selection criteria were agreed with specialties.
A Patient + parent information leaflet (reading age 7) was produced, to involve older children and non-English parents in informed consent.
Data collected by the Pain Team on results and processes will be assessed at 6 months.

4. Multidisciplinary teaching.

Collaborative education of Orthopaedic teams, Inpatient ward & ED nurses, the Pain Team, Physiotherapists of what to expect, monitor and adapt to.

“Driver diagram”

References

1. “Applications of regional anaesthesia in paediatrics”. Shah RD, et al. BJA, Dec 2013. doi.org/10.1093/bja/aet372
2. “Regional Anesthesia in the Pediatric ED.” Wathen J., Clinical Pediatric EM, Dec 2017. doi.org/10.1016/j.cpen.2017.10.001