



Analgesia Bundle in Emergency Paediatric Appendicectomy



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Children's Acute Surgical Abdomen Programme

- ❖ A National Prospective Observational Cohort Study, in collaboration with NIHR
- ❖ Aims to characterise type and quality of care being delivered to children undergoing emergency abdominal surgery from August 2019 to January 2022¹
- ❖ All children aged 12 months to 16 years

Why?

- ❖ As a pilot centre for CASAP, we were able to interrogate early data at our DGH where paediatric appendicectomies are frequently performed
- ❖ Protocol-based care in surgery has been shown to be safe and effective at reducing length of stay and complication rates²
- ❖ This has been successfully applied to post-operative analgesia for emergency appendicectomy in children²
- ❖ The triad of paracetamol, NSAID and PRN oral opioid is highly effective with post-appendicectomy patients rarely reporting high pain scores or needing intervention from the Acute Pain Service³

SMART Aim

By August 2021, 90% of paediatric patients undergoing appendicectomy will have the post-operative analgesia bundle:

- ❖ Intra-operatively: weight-appropriate local anaesthetic infiltration, intravenous paracetamol 15 mg/kg and intravenous or rectal diclofenac 1 mg/kg
- ❖ Post-operatively: regular oral paracetamol 15 mg/kg QDS, regular oral ibuprofen 5 mg/kg TDS with PRN oral morphine liquid or morphine PCA for breakthrough pain in complicated cases (e.g. perforation, peritonitis).

Findings

- ① First cycle data collection June 2020
16 patients
19% prescribed full analgesia bundle
56% at least paracetamol + ibuprofen
- ② Second cycle data collection Sept 2020
15 patients
53% prescribed full analgesia bundle
73% at least paracetamol + ibuprofen

Actions

- ❖ Presented at the monthly trust anaesthetics and critical care audit meeting
- ❖ Displayed posters in the CEPOD theatre
- ❖ Posted frequent reminders to the anaesthetic department via WhatsApp

Future

- ❖ More work needs to be done to progress towards 90% compliance
- ❖ Possible barriers include reluctance of trainees to prescribe strong opioids to paediatric population, long-standing dogma that paediatric nurses prefer to give analgesia PRN rather than regularly
- ❖ Third cycle will involve an education programme that includes our paediatric ward nurses and incoming trainees as well as assigning a trainee lead

REFERENCES

1. Children's Acute Surgical Abdomen Programme [Internet]. Health Services Research Centre; 2020 [Cited 2020 November 11]. Available from: <https://www.niaa-hsrc.org.uk/CASAP-Home>
2. Do-Wyeld et al. Fast-track surgery for acute appendicitis in children: a systematic review of protocol-based care. ANZ Journal of Surgery. 2019 Nov; 89(11):1379-85.
3. Ousley R et al. An audit of patient-controlled analgesia after appendicectomy in children. Paediatric Anaesthesia. 2016 Oct; 26(10):1002-9.

Runchart: Post-Appendicectomy Analgesia Bundle

