

Association of Paediatric Anaesthetists of Great Britain and Ireland

### 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 2022<sup>1</sup>
- 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 rates<sup>2</sup>
- This has been successfully applied to • post-operative analgesia for emergency appendicectomy in children<sup>2</sup>
- 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 Service<sup>3</sup>

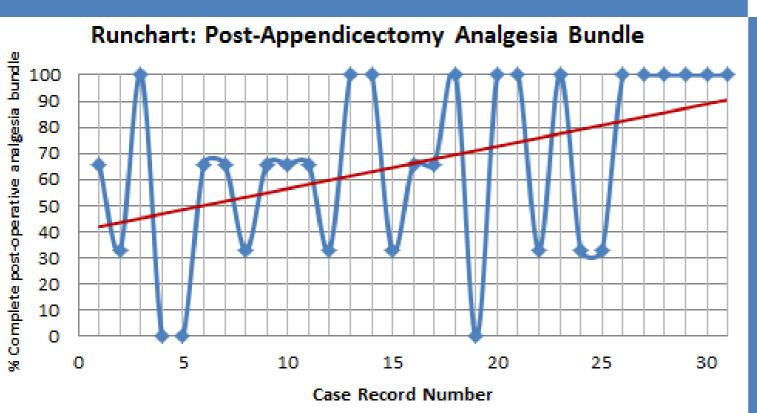
# 🐐 SMART Aim

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

- Intra-operatively: weight-appropriate local anaesthetic infiltration, intravenous paracetamol 15 mg/kg and ••• intravenous or rectal diclofenac 1mg/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

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

- 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
- 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
- Ousley R et al. An audit of patient-controlled analgesia after appendicectomy in children. Paediatric Anaesthesia. 2016 Oct; 26(10):1002-9