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OPTIMISING ANALGESIA AFTER TONSILLECTOMY USING AUTOMATED SMS FOLLOW-UP

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Background/Context

Adenotonsillectomy is a painful operation with secondary peak of pain between 3 to 5 days postoperatively. Codeine was placed under restricted use for paediatric patients in the UK 2013 by the MHRA.[1] Many hospitals changed to oral morphine after it was found to be a suitable alternative.[2] A local audit of pain after tonsillectomy was carried out in 2017 using the novel approach of an automated short message service (SMS). At this time 67% of patients received morphine on at least one day in the 10 day period after the operation. On this basis we continued to discharge patients with oral morphine for breakthrough analgesia coupled with regular oral paracetamol and ibuprofen.

Problem

The intracapsular coblation (ICC) surgical technique has become more prevalent for tonsillectomy, particularly for children with sleep disordered breathing (SDB) and obstructive sleep apnoea (OSA). ICC is less painful than extracapsular coblation (ECC) or bipolar diathermy (BPD).[3] With this shift in practice we set out to establish whether there had been a change in postoperative pain and if morphine was still justified.

Strategy for change

Written consent was obtained from the parents of 51 children to participate in an automated SMS follow-up for the 10 day period after tonsillectomy. Once a day a series of automated SMS messages was sent asking parents to quantify pain, detail analgesia and benzydamine use and whether their child experienced nausea or vomiting. We obtained useful data from the parents of 45/51 patients.

Measure of improvement

Visual comparison of mean pain scores from 2017 and 2019 for all techniques and indications showed a similar initial score of 4-5. In our more recent audit the pain scores appeared to improve more dramatically after day 5.

Lessons learnt

Parents provided analgesia on all occasions when scores exceeded 2/10. Tonsillectomy remains an analgesic challenge for children and their parents. Breakthrough morphine was used by 48% (12/25) of patients having ICC technique and by 87.5% (14/16) having either ECC or BPD ($p<0.05$ using $\chi 2$ test). Benzydamine oral spray was found to be beneficial by only 38% (14/37) of patients.

Message for others

Through joint consensus between the ENT and anaesthetic departments we have updated our guideline with the recommendation that all patients are discharged with regular simple oral analgesia and breakthrough morphine (0.1mg/kg 6 hourly as required for 12 doses) unless there is a

joint surgical-anaesthetic decision to the contrary. Higher risk patients such as those with OSA or other medical conditions who stay in overnight can have a trial of oral morphine prior to their discharge from hospital. Automated SMS for patient follow up achieves an excellent response rate and is time efficient.

References:

1. Medicines and Healthcare products Regulatory Agency. Drug Safety Update 2013;6(12). Available online at https://www.gov.uk/drug-safety-update/codeine-for-analgesia-restricted-use-in-children-because-of-reports-of-morphine-toxicity (last accessed 02/02/2020)

2. Syed MI, Magos TA, Singh J, Montague ML. A new analgesia regimen after (adeno) tonsillectomy in children: a pilot study. Clin Otolaryngol 2016; 41(6): 660-5

3. Junaid M, Sood S, Walijee H, Dorgham J, De S. Pain scores and recovery post tonsillectomy: intracapsular versus extracapsular coblation. J Laryngol Otol 2019; 19: 1-7