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15 June 2017

Options for pain relief (analgesic) medication after tonsillectomy in children

DISCLAIMER: The information presented here is NOT intended on being a comprehensive source of drug information. For each drug, a minimum of information is provided, with the MAJORITY of known facts on the drug being OMITTED. For instance, contra-indications, precautions, side-effects/adverse-reactions, breast-feeding and pregnancy information, interactions, and toxicity are not consistently detailed. Treatment recommendations for patients with significant illness (eg. kidney, liver, respiratory, cardiac, or neurological disease) are not detailed. This is simply intended on being an extension or reminder of the information discussed around the time of hospital admission, and further clarification should be sought prior to making a therapeutic decision. Please check website for latest version.

Paracetamol (eg. **Panadol®**)

Dosing in children over 6 months

- 15mg/kg/dose 4 to 6 hourly as required up to a maximum of 60mg/kg/day (ie. a maximum of 4 doses/day). Note:
  - No single dose should ever exceed 1g
  - Never exceed 4g per 24hours

Practice points

- In overweight children, the 'ideal weight' rather than the child's actual weight, is used for calculating the dose of paracetamol. This is to prevent inadvertent over-dosage. Alternatively, an age-based dosing guideline can be used, such as that used by **Children's Panadol®**. Please seek clarification if unsure
- Onset of pain relief is approximately 30minutes after oral administration
- Paracetamol decreases the amount of other stronger pain relievers required by 20-30%
- Paracetamol can be used at the same time as non-steroidal anti-inflammatory drugs (NSAIDs), such as ibuprofen (eg. **Nurofen®**)
- Please be aware that many over-the-counter products and prescription medications contain paracetamol, and the total daily dose of paracetamol taken must include all sources. The daily maximum dose of paracetamol must never be exceeded

Non-Steroidal Anti-Inflammatory Drugs (NSAIDs), including Ibuprofen (eg. **Nurofen®**)

Dosing for oral administration of Ibuprofen in children over 3 months of age: 5-10mg/kg/dose to a maximum of 400mg, 6 to 8 hourly as required, maximum 30mg/kg/day upto 1200mg/day, taken with or shortly after food

Practice points

- NSAIDs such as ibuprofen can be used at the same time as paracetamol and oxycodone
- NSAID use decreases the amount of other stronger pain relievers required
- Initial dose should be the lowest recommended dose, and only increase if pain relief is inadequate
- Guidelines advise that ibuprofen can be used safely for pain control after tonsillectomy. Despite concerns that use of NSAIDs increases the risk of bleeding after tonsillectomy, a Cochrane Review showed that there was no evidence for withholding ibuprofen after this procedure. NSAIDs do not increase clinically significant bleeding after tonsillectomy but reduce nausea and vomiting compared with placebo or other analgesics. Individual surgeons may have specific instructions on the use of NSAIDs such as ibuprofen, so please check with your surgeon

Do not use medicines containing codeine

The use of codeine in children has come under increased scrutiny in recent times. For more information, please refer to the Australian Government's Therapeutic Goods Administration (tga.gov.au), the National Prescribing Service (nps.org.au), or to international sources such as the USA's FDA (fda.gov). Essentially, I follow the Australian guidelines published by the NPS, an independent body funded by the Australian Government's Department of Health. These guidelines recommend codeine:

- Should not be used in children under 12yrs for any reason
- Should not be used in children under 18yrs following tonsillectomy and/or adenoidectomy
- This means that I advise against administering medicines containing codeine to children. Such products include **Painstop for Children Day-Time Pain Reliever Syrup®** and **Painstop Night-Time Pain Reliever Syrup®**. Administering codeine whilst taking oxycodone may cause death and must be avoided
- If codeine is nonetheless administered against my advice, parents or carers must monitor for signs of overdose, such as unusual sleepiness, difficulty being aroused or awakened, shallow, difficult or noisy breathing (whilst simultaneously confirming the child is breathing normally), confusion, small pupils, nausea or vomiting, or lack of appetite, and to seek immediate medical attention if these occur

Oxycodone (**OxyNorm Liquid®**) if prescribed (not all patients will be prescribed this medication)

Dosing

- **OxyNorm Liquid®** (1mg/ml) can be given to children >1year as prescribed

Practice points

- This medicine is a strong morphine-like drug that can cause great harm through stopping the patient's breathing. Specifically, if your child has undergone a *tonsillectomy*, the first 72hrs is the most likely time they will run into problems with their breathing due to residual anaesthetic effects, throat swelling due to the surgery, and changes in their sleep patterns. As such, *it is ideal if you can avoid giving your child **OxyNorm Liquid®** during this first 72hr period*. Note that the at-risk period can last greater than 7days. If you are desperate after paracetamol, ibuprofen, and non-drug methods to comfort your child have failed, then you can administer the **OxyNorm Liquid®** as prescribed, observing your child closely as detailed below for any breathing difficulties or excessive sleepiness
- It is very important to follow the prescribed dose exactly when dealing with **OxyNorm Liquid®**. This is of critical importance when giving **OxyNorm Liquid®** to children as a small error in dosing may have catastrophic consequences. Parents or carers must monitor children for signs of overdose, such as unusual sleepiness, difficulty being aroused or awakened, shallow, difficult or noisy breathing (whilst simultaneously confirming the child is breathing normally), confusion, small pupils, nausea or vomiting, or lack of appetite, and to seek immediate medical attention if these occur
- No other sedative medications, such as the sedating anti-histamines (eg. promethazine - found in **Phenergan®**) should be taken concurrently, as the risk of respiratory depression (ie. the patient's breathing stopping) is significantly increased
- Opioids include drugs such as codeine, oxycodone, and morphine – they are very potent pain relievers but also strongly depress breathing. It is critical that only one type of opioid should ever be taken after the operation. Failure to follow these instructions could have fatal consequences
- Oxycodone is a potent trigger for nausea and vomiting

This is an abridged version of the full 'Post-Op Pain Relief' document found at drgilchrist.com.au – please refer to the full document for more important information, or contact me if you are concerned.

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