



ED Prescribing: Analgesia Risk vs Benefit

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Tauranga ENP 2017

BAY OF PLENTY
DISTRICT HEALTH BOARD
HAUORA A TOI

Who and what?

- Tauranga Hospital ENP
- 2.8 FTE
- 12 hrs per day
- Streaming/fast track
- Practice out of streaming

Pain, pain, more pain

- 80 % Pain- subjective vs objective
- Triage code
- Anything they can put in fast track, they will
- Brett will sort it out
- or get Brett in to help you

- Oral
- Inhaled
- Topical
- IV
- Nerve blocks
- Joint meds
- PR

Awareness of Risk

metoclopramide hydrochloride

Indications nausea and vomiting; gastro-intestinal pro-kinetic (e.g. in diabetic gastroparesis, gastric stasis in migraine, functional dyspepsia, GORD, post-operative gastro-duodenal dysfunction); gastro-intestinal radiology or duodenal intubation; nausea and vomiting due to chemotherapy or radiotherapy

Patients under 20 years Use restricted to severe intractable vomiting of known cause, vomiting of radiotherapy and cytotoxics, aid to gastro-intestinal intubation, premedication; dose should be determined on the basis of body-weight.

Metoclopramide: risk of neurological adverse effects—restricted dose and duration of use

The benefits and risks of metoclopramide have been reviewed by the European Medicines Agency's Committee on Medicinal Products for Human Use, which concluded that the risk of neurological effects such as extrapyramidal disorders and tardive dyskinesia outweigh the benefits in long-term or high-dose treatment. To help minimise the risk of potentially serious neurological adverse effects, the following restrictions to indications, dose, and duration of use have been made:

- In adults over 18 years, metoclopramide should only be used for prevention of postoperative nausea and vomiting, radiotherapy-induced nausea and vomiting, delayed (but not acute) chemotherapy-induced nausea and vomiting, and symptomatic treatment of nausea and vomiting, including that associated with acute migraine (where it may also be used to improve absorption of oral analgesics);
- Metoclopramide should only be prescribed for short-term use (up to 5 days);
- Usual dose is 10 mg, repeated up to 3 times daily; maximum daily dose is 500 micrograms/kg;
- Intravenous doses should be administered as a slow bolus over at least 3 minutes;
- Oral liquid formulations should be given via an appropriately designed, graduated oral syringe to ensure dose accuracy.

Note This advice does not apply to unapproved uses of metoclopramide (e.g. palliative care)

Contra-indications gastro-intestinal obstruction, perforation or haemorrhage; 3–4 days after gastro-intestinal surgery; concomitant drugs that may cause extrapyramidal adverse effects; phaeochromocytoma

Cautions elderly, young adults (15–19 years old), and children; atopic allergy (including asthma); cardiac conduction disturbances (and concomitant use of other drugs affecting cardiac conduction); may mask underlying disorders such as cerebral irritation; epilepsy; Parkinson's Disease; history of depression; hypertension

Interactions Stockley's alerts: metoclopramide hydrochloride anhydrous; metoclopramide; BNF summary: metoclopramide

Hepatic impairment reduce dose

Renal impairment avoid or use small dose in severe impairment; increased risk of extrapyramidal reactions

Pregnancy A ; not known to be harmful

Breast-feeding compatible eTG complete

Adverse effects extrapyramidal effects (especially in children and young adults (15–19 years old)—see notes); drowsiness, restlessness; *less commonly* nausea, bowel disturbances, insomnia, headache, dizziness, delirium, obsessive rumination, mania, tardiv dyskinesia; *rarely* depression; *very rarely* cardiac conduction abnormalities (following intravenous administration), neuroleptic malignant syndrome; *also reported* asthma symptoms, supraventricular tachycardia, anxiety, agitation, hyperprolactinaemia, urinary incontinence, sexual dysfunction, priapism, methaemoglobinaemia (more severe in G6PD deficiency), agranulocytosis, hyperthermia, visual disturbances, rash

Orals

- Paracetamol
- NSAIDS
- Codeine/tramadol
- Sevredol/oral morph
- SR meds ??
- Norflex (Orphenadrine citrate)
- Amitriptyline / Gabapentin

Inhaled/Nasal

- Nitrous Oxide/ Penthrox

- Intra Nasal Fentanyl (INF) 1.5 mcg/kg
- Continuous Inhaled N2O (up to 70%)

Topical

- Emla/ametop
- Tetracaine/Adrenaline Compress (TAC)

IV meds

- Morphine
- Fentanyl

- Conscious sedation: Ketamine or Ketafol.

- Diazepam (titrated synergistic for joint reduction only)

Nerve blocks/ tissue anaesthesia

- Xylocaine (Max 3 mg/kg)
- Marcain (Max 2 mg/kg)

- Prilocaine (dose of 3 mg/kg) (Max 6 mg/kg)

  - Digital, MCP, Radial, Median, Ulna, Ischemic arm block, Fascia Iliaca.

Joint meds

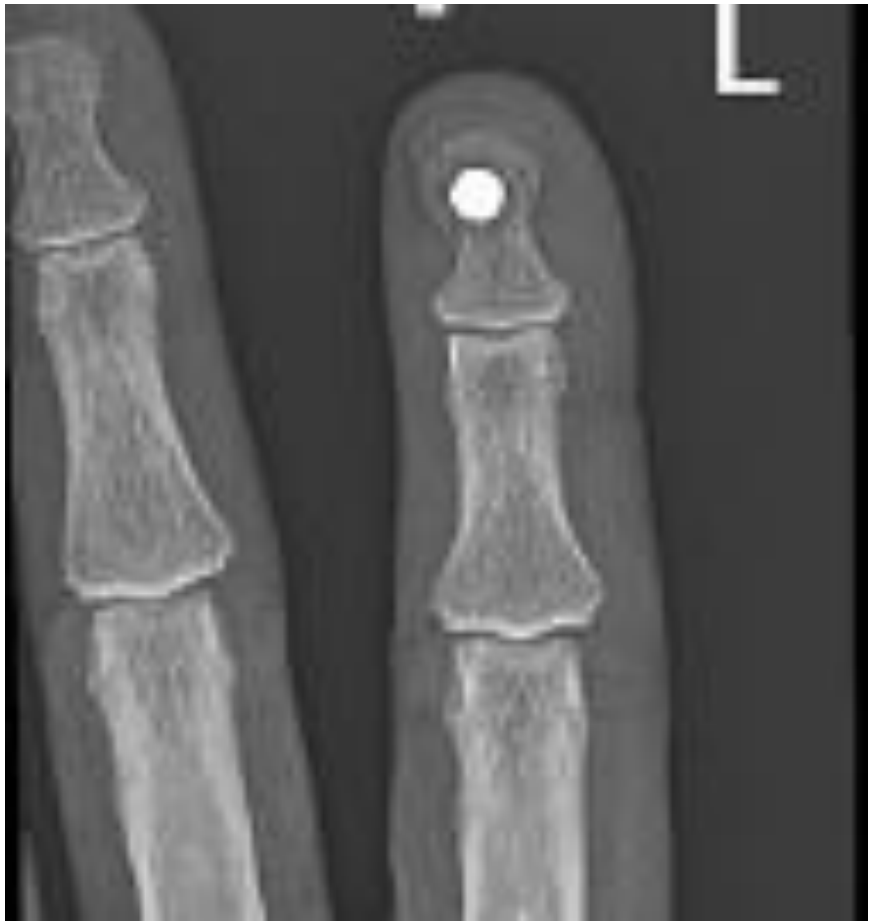
- Xylocaine
- Methylprednisone
  - Ankle subluxation # reduction
  - Sub-acromial block
  - Juvenile RA
  - Arthropathy differential diagnosis

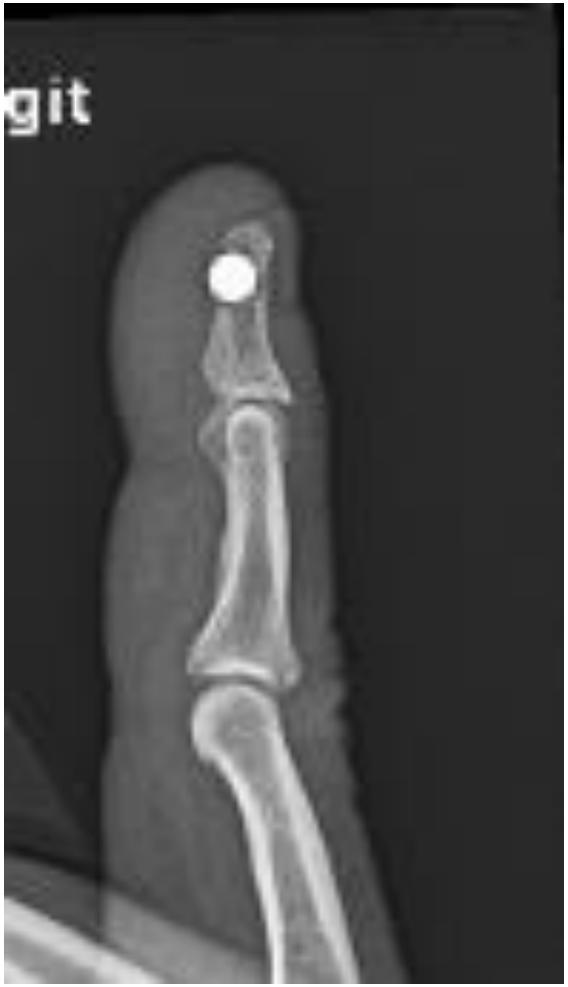
Per Rectal

- Widely absorbed route of administration with nausea/ diabetic gastroparesis or rapid GI transit

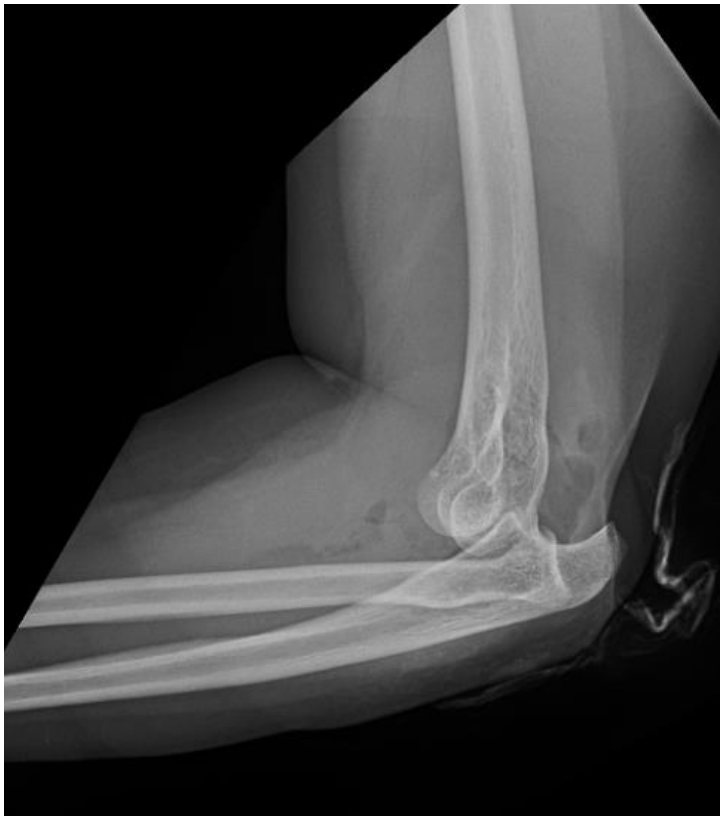
- Voltaren (Diclofenac)
- Paracetamol
- Stemetil (Prochlorperazine)

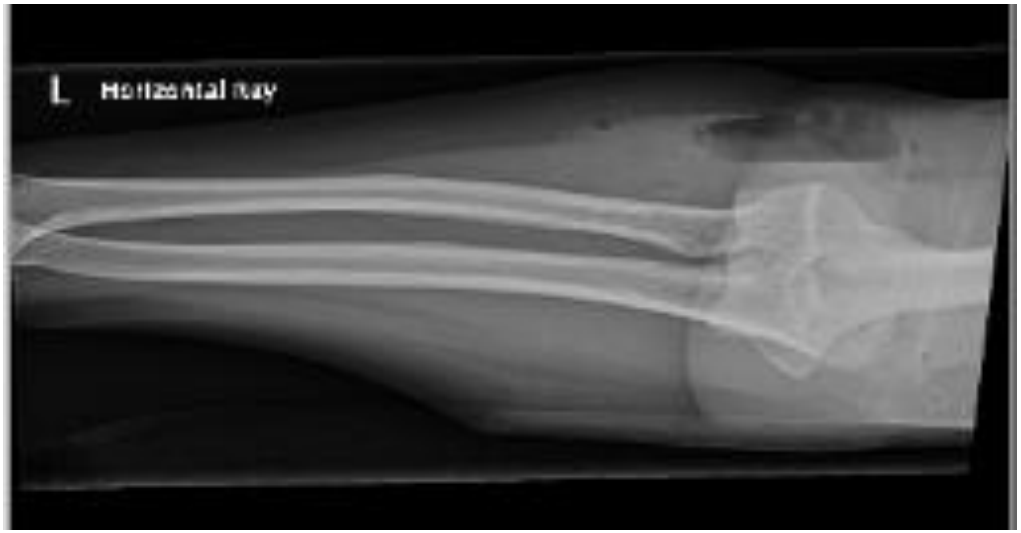
Case one



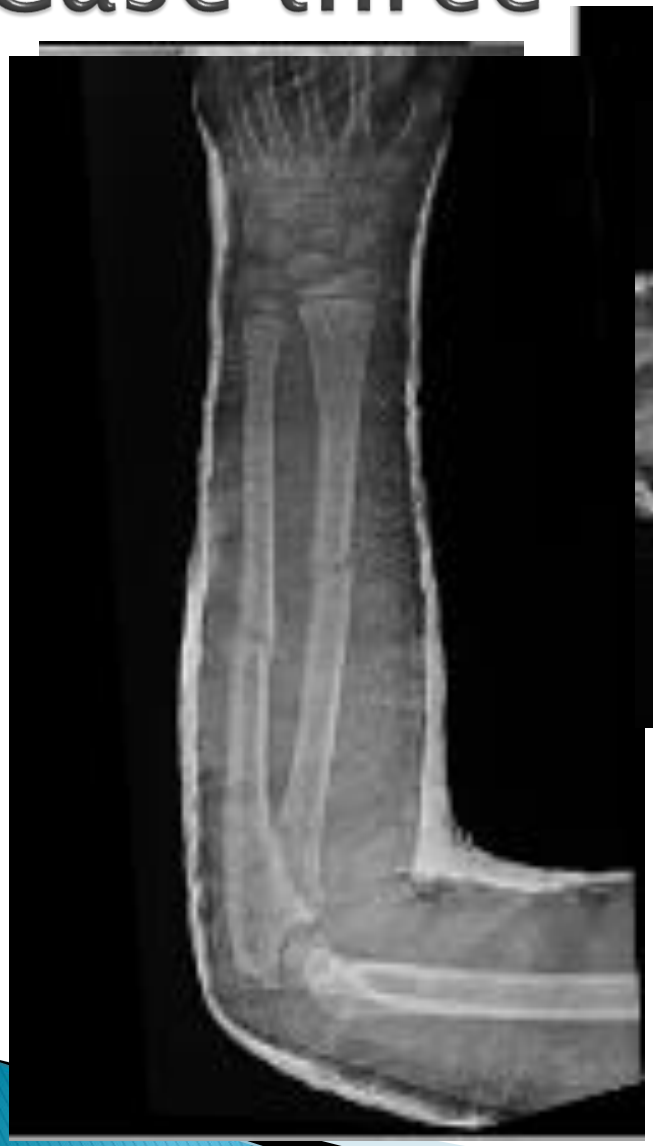


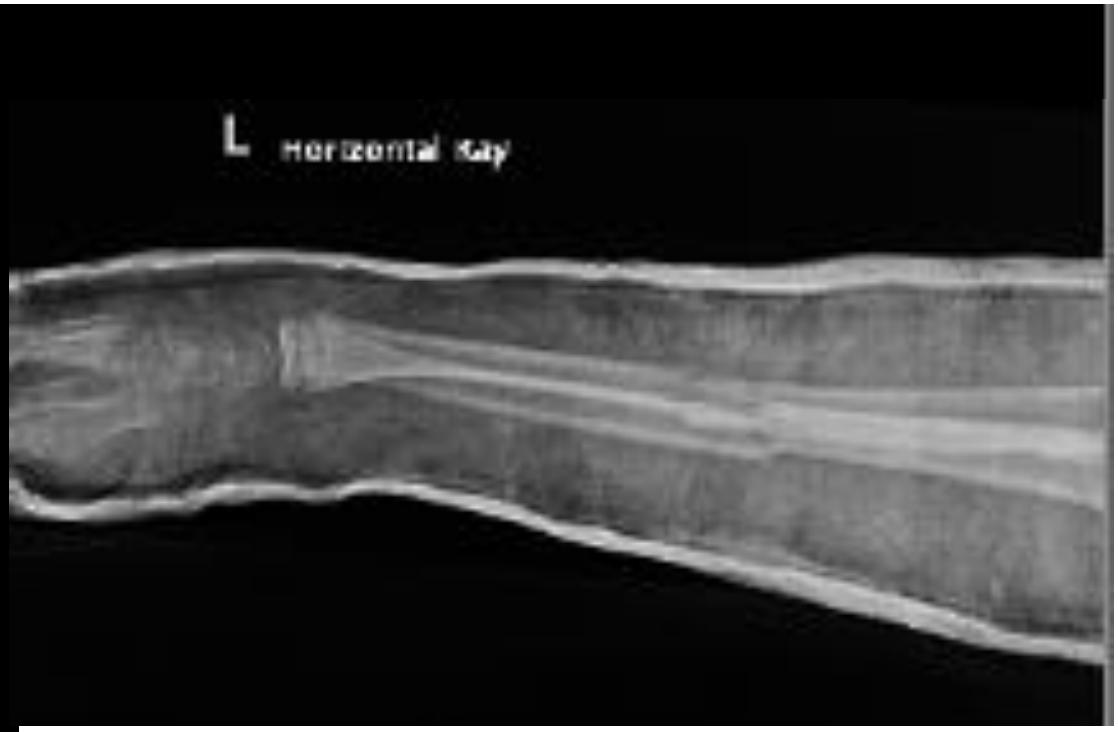
Case two



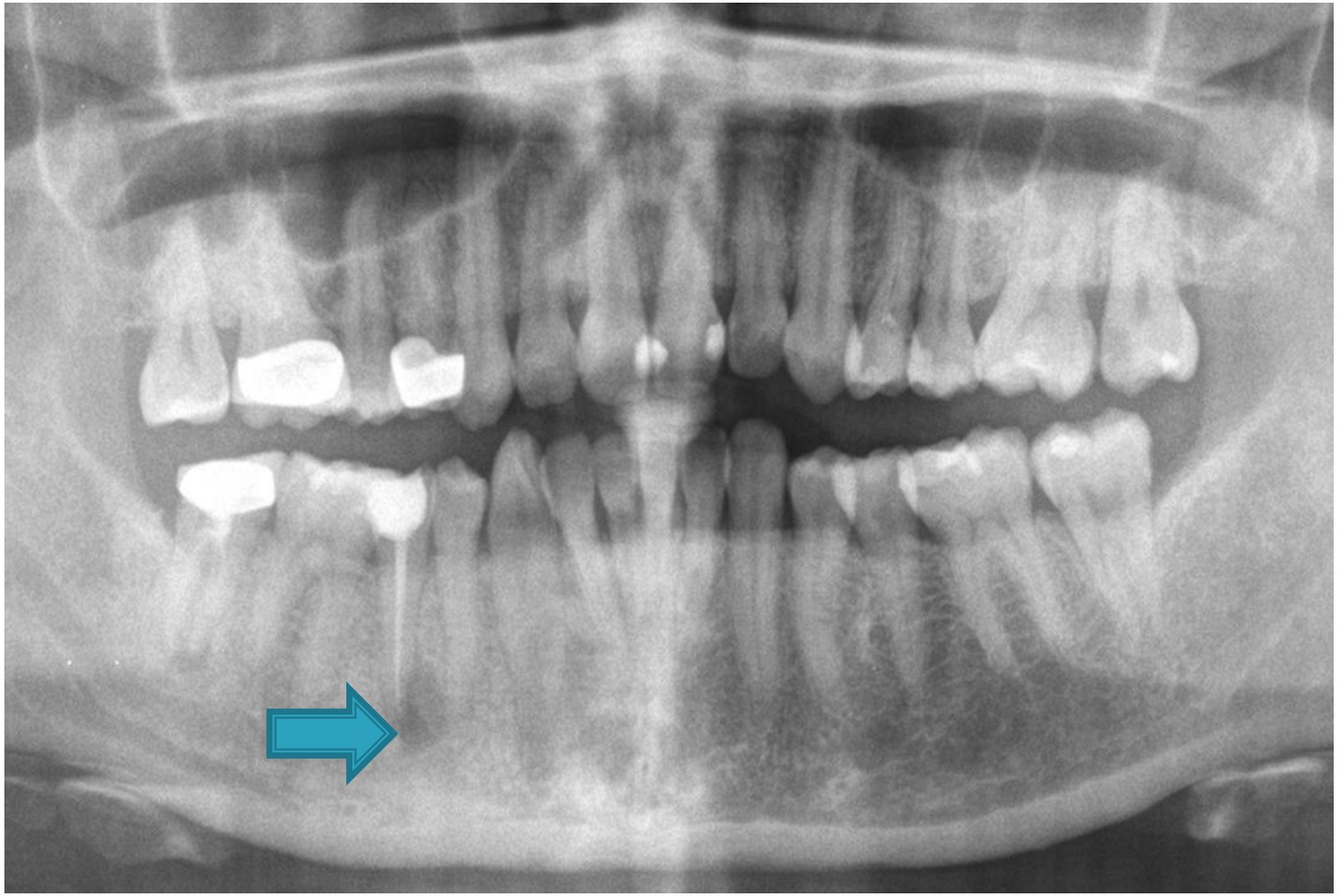


Case three

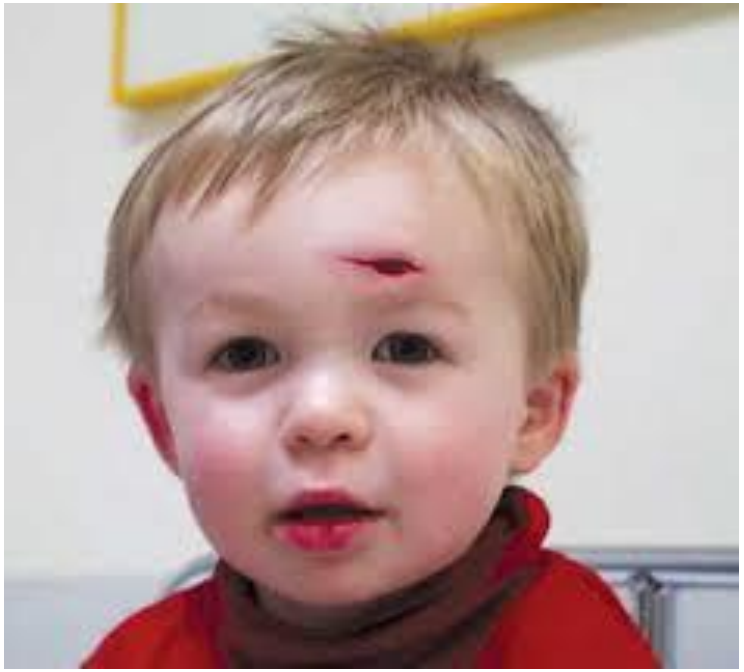


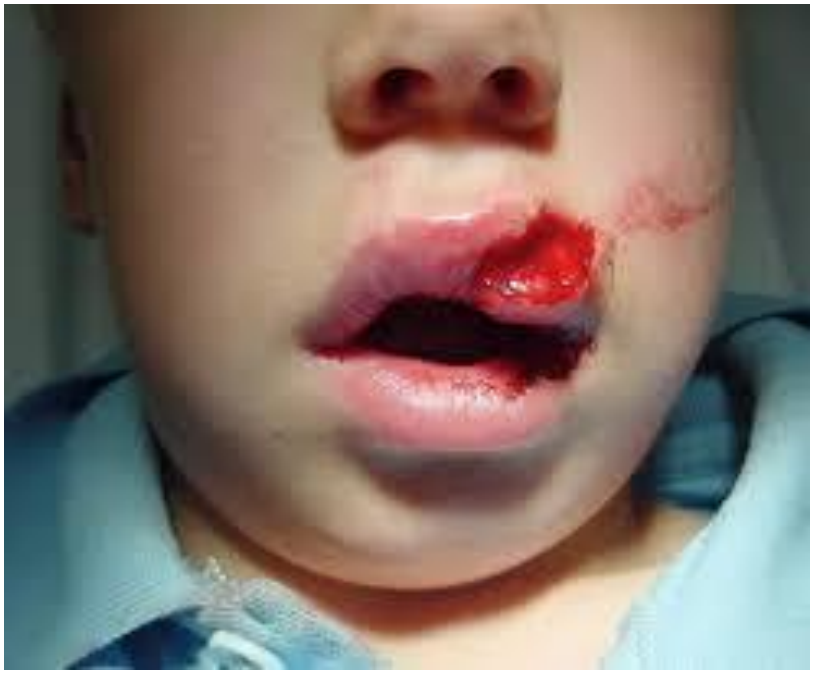


Case four



Case five





Best advice

- NZ formulary
- Medsafe NZ

- Up to date (US)
- Bestbets (UK)

References

- NZ formulary : http://nzf.org.nz
- Starship: https://www.starship.org.nz/for-health-professionals/starship-clinical-guidelines/i/intranasal-fentanyl/
- Google pictures: accessed 24/3/17