Pain, nausea and vomiting
Acute pain

HMP Acute pain - adult/child

1. May present with
   - Acute pain

2. Immediate management
   - If chest pain, go to Chest pain assessment, p. 103
   - If severe pain:
     - get rapid history + check for allergies
     - contact MO/NP urgently
     - adult - insert IVC + give IV morphine or fentanyl
     - child - MO/NP may consider intranasal fentanyl
   - If severe pain + looks sick/’worst I’ve ever felt’ - screen for Sepsis, p. 64
   - If sudden onset severe headache/’worst headache of life’ - go to Headache, p. 127
   - If abdominal pain still give analgesia. **Note:** will not mask physical signs/hinder diagnosis

3. Clinical assessment
   - The most useful diagnostic approach to acute pain is to take a detailed and systematic history
   - Ask about:
     - **Site** - where is it
     - **Onset** - when did it start:
       - sudden or gradual
       - result of trauma/activity/cold/stress
     - **Characteristics** eg sharp, throbbing, aching, burning, stabbing
     - **Radiation** - does it spread anywhere else
     - **Associated symptoms** eg nausea, vomiting, sweating, fever
     - **Timing** - duration, constant or intermittent:
       - has anything changed the pain
       - ever had this pain before, how often does it occur
     - **Exacerbating or relieving factors:**
       - eg rest, medicines, eating, position changes, ice/splinting
     - **Severity** - at rest, on movement:
       - mild, moderate, severe
       - scale from 0–10 (0 = no pain, 10 = worst pain imaginable)
       - if child consider FLACC or FACES°
   - Ask about:
     - any pain relief already given/taken prior to presentation eg by carer, self, ambulance staff:
       - when, what, dose, how effective
     - pain relief used in past - what worked/did not work, side effects
   - Get past history, including:
     - current medicines, over-the-counter medicines
     - opioid use (if any)
   - Do vital signs
   - If child - do weight, bare weight if < 2 years
# Pain assessment scales

**FLACC pain scale** - 2 months–7 years (or non-verbal person)

<table>
<thead>
<tr>
<th></th>
<th>0</th>
<th>1</th>
<th>2</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Face</strong></td>
<td>No particular expression or smile</td>
<td>Occasional grimace or frown, withdrawn, disinterested</td>
<td>Frequent to constant quivering chin, clenched jaw</td>
</tr>
<tr>
<td><strong>Legs</strong></td>
<td>Normal position or relaxed</td>
<td>Uneasy, restless, tense</td>
<td>Kicking or legs drawn up</td>
</tr>
<tr>
<td><strong>Activity</strong></td>
<td>Lying quietly, normal position, moves easily</td>
<td>Squirming, shifting, back and forth, tense</td>
<td>Arched, rigid or jerking</td>
</tr>
<tr>
<td><strong>Cry</strong></td>
<td>No cry (awake or asleep)</td>
<td>Moans or whimpers, occasional complaint</td>
<td>Crying steadily, screams, sobs, frequent complaints</td>
</tr>
<tr>
<td><strong>Consolability</strong></td>
<td>Content, relaxed</td>
<td>Reassured by touching, hugging or being talked to, distractable</td>
<td>Difficult to console or comfort</td>
</tr>
</tbody>
</table>

**Calculate score**: 0 = relaxed + comfortable, 1–3 = mild discomfort, 4–6 = moderate pain, 7–10 = severe discomfort/pain

**FACES 4–12 years**

“These faces show how much something can hurt. This face [point to left-most face] shows no pain. The faces show more and more pain [point to each from left to right] up to this one [point to right-most face]. It shows very much pain. Point to the face that shows how much you hurt [right now]”

Clinician to say ‘hurt’ or ‘pain’ (language child understands) - not words like ‘happy’ or ‘sad’

## 4. Management

- Consult MO/NP if:
  - severe pain even if settled after initial analgesia
  - fever, persistent tachycardia or tachypnoea, or hypotension
  - analgesia is not effective
  - unable to find cause of pain
  - recurrence of pre-existing condition
  - suspected opioid seeking
Analgesia

- Consider medicine(s) already given
- Use step wise approach (below)
- Some causes may require alternative treatment/considerations eg:
  - Head injuries, p. 143 - only give opioids as per MO/NP
  - Headache, p. 127
  - Renal colic, p. 206 - give ketorolac
  - bites and stings - hot water immersion may be effective
  - pregnant woman in Labour 1st stage, p. 400
  - eyes - oxybuprocaine may be indicated. See FB in eye, p. 281
  - Managing injection pain, p. 563
  - if Abdominal pain, p. 196 - still give analgesia (will not mask physical signs/hinder diagnosis)
  - suspected fractures or severe soft tissue injuries immobilisation can ↓ pain significantly

Step wise approach to acute pain management

<table>
<thead>
<tr>
<th>Severity</th>
<th>Analgesia - if not allergic</th>
<th>Practice points</th>
</tr>
</thead>
<tbody>
<tr>
<td>1–3 Mild</td>
<td>Non-pharmacological options AND/OR paracetamol</td>
<td>• The paracetamol content of all medicines must be considered. Advise max. dosing to take at home</td>
</tr>
<tr>
<td>4–6 Moderate</td>
<td>As for step 1 AND/OR Ibuprofen AND/OR Oxycodone (adults only)</td>
<td>• Combination of paracetamol + ibuprofen is more effective than the use of either alone • Consider oxycodone only if pain is not adequately relieved by paracetamol ± ibuprofen</td>
</tr>
<tr>
<td>7–10 Severe</td>
<td>As for step 2 AND/OR Further dose of oxycodone OR Morphine or fentanyl</td>
<td>• Check/monitor sedation score • Consider intranasal fentanyl for child • Note: IM/subcut absorption may be impaired if poor perfusion eg hypovolaemia, shock • Preferably titrate via IV route</td>
</tr>
</tbody>
</table>

Also consider - Methoxyflurane (eg Penthrox®) or Nitrous oxide (eg Entonox®) for quick procedures < 10 minutes eg laceration repair, trauma eg while transferring in ambulance etc

Non-pharmacological options

- Ice, massage, heat pack
- Elevation + splinting of injuries
- Repositioning, distraction, imagery
- Reassurance - explain cause of pain + expected outcome to relieve anxiety
- If infant/young child - breastfeeding, low lighting, sucrose, bubbles, cuddling carer/parent

Monitor effect of analgesia

- Repeat pain scale:
  - mild/moderate pain - 30–60 minutely as clinically indicated
  - severe pain - 10 minutely for 1st 30 minutes, then as required
- Do vital signs as appropriate + give antiemetic if Nausea and vomiting, p. 40
- Note: if given subcut, monitor for at least 2 hours due to delayed absorption/adverse effects
Sedation score

- Patient must be woken to assess sedation

<table>
<thead>
<tr>
<th>Score</th>
<th>Description</th>
<th>Action</th>
</tr>
</thead>
<tbody>
<tr>
<td>0</td>
<td>Awake</td>
<td>• Nil</td>
</tr>
</tbody>
</table>
| 1     | Mild - easy to rouse, able to keep eyes open for 10 seconds | • Increase monitoring of vital signs, sedation + pain score  
• Recheck score before giving potentially sedating medication |
| 2     | Moderate - rousable but unable to keep eyes open for 10 seconds | • Give O₂ to maintain SpO₂ ≥ 94%  
• Stay with patient  
• Do not give further opioids/sedating medications  
• Do 15 minutely vital signs, sedation + pain score until sedation score < 2  
• Contact MO/NP promptly |
| 3     | Severe - difficult to rouse or un-rousable | • Stay with patient + call for help  
• Support airway/breathing + give O₂ to maintain SpO₂ ≥ 94%  
• Give naloxone, p. 39 if opioid was given  
• Contact MO/NP urgently  
• 5 minutely vital signs, sedation + pain score until sedation score < 2 |

**Ibuprofen**

**Form** | **Strength** | **Route** | **Dose** | **Duration**
---|---|---|---|---
Tablet | 200 mg 400 mg | Oral | Adult and child ≥ 12 years  
200–400 mg | stat  
Then 6–8 hourly as needed |
Oral liquid | 100 mg/5 mL | Oral | Child > 3 months–11 years  
5–10 mg/kg (max. 400 mg) | Max. 48 hours supply  
(or 1 bottle of liquid) |

**Offer CMI:** Do not take if dehydrated eg due to vomiting or diarrhoea. Take with a glass of water. If upsets stomach take with food. May cause nausea, indigestion, Gi bleeding, diarrhoea, headache, dizziness, fluid retention or hypertension

**Note:** If renal impairment, taking diuretics, ACEIs, or ARBs consult MO/NP. Use with caution if asthma, cardiovascular disease or ↑ cardiovascular risk, taking lithium or anticoagulants

**Pregnancy:** May ↑ rate of miscarriage. Seek specialist advice for use in the 2nd half of pregnancy; do not use during the last few days before expected birth

**Contraindication:** Dehydration, active peptic ulcer disease or GI bleeding, severe renal, heart or liver failure, coagulation disorders

**Management of associated emergency:** Consult MO/NP. See Anaphylaxis, p. 82
### Paracetamol

<table>
<thead>
<tr>
<th>Form</th>
<th>Strength</th>
<th>Route</th>
<th>Dose*</th>
<th>Duration</th>
</tr>
</thead>
<tbody>
<tr>
<td>Tablet</td>
<td>500 mg</td>
<td>Oral</td>
<td>Adult and child ≥ 12 years</td>
<td>stat</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>500 mg–1 g (max. 8 tablets/4 g in 24 hours)</td>
<td>Then 4–6 hourly as required</td>
</tr>
<tr>
<td>Oral liquid</td>
<td>120 mg/5 mL 100 mg/mL</td>
<td>Oral</td>
<td>Child &gt; 1 month–11 years</td>
<td>Max. 48 hours supply (or 1 bottle of liquid)</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>15 mg/kg (max. 1 g)</td>
<td>Round down to nearest measurable dose (max. 60 mg/kg in 24 hours. Do not exceed 4 g in 24 hours)</td>
</tr>
<tr>
<td>Suppository</td>
<td>125 mg</td>
<td>PR</td>
<td>Adult and child ≥ 12 years</td>
<td>stat</td>
</tr>
<tr>
<td></td>
<td>250 mg</td>
<td></td>
<td>500 mg–1 g</td>
<td>Further doses on MO/NP orders</td>
</tr>
<tr>
<td></td>
<td>500 mg</td>
<td></td>
<td>Child &gt; 1 month–11 years</td>
<td>Round down to nearest strength</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>15 mg/kg (max. 1 g)</td>
<td></td>
</tr>
</tbody>
</table>

**Offer CMI:** Too much paracetamol can cause liver damage. No more than 4 g should be given to an adult patient in 24 hour period. Doses should not be given more frequently than 4–6 hours. Check paracetamol content of other medicines being taken eg over-the-counter medicines, cough + cold products

**Note:** If hepatic impairment consult MO/NP. *Reduce dose if risk factors for toxicity ie Adult:* (dehydration, alcohol use, under-nutrition, anticonvulsants, elderly/frail) · if ≥ 50 kg, ↓ max. dose to 3 g/24 hours; if ≤ 50 kg, give 15 mg/kg (max. 4 doses/24 hours). **Child:** (fever, dehydration, under-nutrition) · ↓. max. dose to 45 mg/kg/24 hours (do not exceed 3 g/24 hours). Further information [https://www.health.qld.gov.au/__data/assets/pdf_file/0030/147666/qh-gdl-415.pdf](https://www.health.qld.gov.au/__data/assets/pdf_file/0030/147666/qh-gdl-415.pdf)

**Management of associated emergency:** Consult MO/NP. Recognise + treat suspected Paracetamol toxicity, p. 218 without delay. Contact Poisons Information Centre ☎️ 131 126

### Oxycodone

<table>
<thead>
<tr>
<th>Form</th>
<th>Strength</th>
<th>Route</th>
<th>Dose</th>
<th>Duration</th>
</tr>
</thead>
<tbody>
<tr>
<td>Tablet</td>
<td>5 mg</td>
<td>Oral</td>
<td>Adult only</td>
<td>stat</td>
</tr>
<tr>
<td>(immediate release)</td>
<td></td>
<td></td>
<td>5 mg</td>
<td>Repeat after 4 hours if needed</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td>Further doses on MO/NP order</td>
</tr>
</tbody>
</table>

**Offer CMI:** May cause nausea, vomiting, itch, drowsiness, dizziness, headache, constipation, low BP when moving to standing, indigestion or dry mouth

**Note:** If elderly/frail, renal or hepatic impairment, acute alcoholism or delirium tremens seek MO/NP advice. Monitor sedation score + RR

**Pregnancy:** One dose is safe. Consult MO/NP if ongoing need

**Contraindication:** Acute or severe bronchial asthma or other obstructive airways disease, head injuries, raised ICP, respiratory depression

**Management of associated emergency:** Consult MO/NP. See Anaphylaxis, p. 82. Give naloxone if overdose
### S8 Morphine

<table>
<thead>
<tr>
<th>Form</th>
<th>Strength</th>
<th>Route</th>
<th>Dose</th>
<th>Duration</th>
</tr>
</thead>
<tbody>
<tr>
<td>IM/Subcut</td>
<td>10 mg/mL</td>
<td>Adult only</td>
<td></td>
<td>stat</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Age (years)</td>
<td>mg</td>
<td>Further doses on MO/NP order</td>
</tr>
<tr>
<td></td>
<td></td>
<td>&lt; 40</td>
<td>7.5–10</td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td>40–60</td>
<td>5–10</td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td>60–70</td>
<td>2.5–7.5</td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td>70–85</td>
<td>2.5–5</td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td>&gt; 85</td>
<td>2–3</td>
<td></td>
</tr>
<tr>
<td>IV</td>
<td>Dilute with 9 mL water for injections to make a concentration of 1 mg/mL</td>
<td>Adult only</td>
<td></td>
<td>stat</td>
</tr>
<tr>
<td></td>
<td></td>
<td>0.5–2 mg increments (max. 10 mg)</td>
<td>Give lower dose if &gt; 70 years</td>
<td>Further doses on MO/NP order</td>
</tr>
</tbody>
</table>

**Note:** IM/ Subcut: start at lower end of dose range, titrate to response + sedation score

**Note:** IV: IHW + ATSIHP may NOT administer IV

### Extended authority

ATSIHP/IHW/MID/RIPRN

**ATSIHP, IHW and RN must consult MO/NP**

**RIPRN may proceed EXCEPT for pregnant women**

**MID may proceed for intrapartum use only. IM/subcut routes only**

**Offer CMI:** May cause nausea, vomiting, itch, drowsiness, dizziness, headache, constipation, low BP when moving to standing, dry mouth, sweating or dysphoria

**Note:** Monitor sedation score + RR. Use with caution in > 70 years + significant renal or liver disease (reduce dose). Fentanyl is more appropriate in renal disease

**Contraindication:** Acute or severe bronchial asthma or other obstructive airways disease, head injuries, raised ICP

**Management of associated emergency:** Consult MO/NP. See Anaphylaxis, p. 82. Give naloxone if overdose

---

6,13,14
**Fentanyl**

<table>
<thead>
<tr>
<th>Form</th>
<th>Strength</th>
<th>Route</th>
<th>Dose</th>
<th>Duration</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Injection</strong></td>
<td>100 microg/2 mL</td>
<td><strong>Subcut</strong></td>
<td>Adult only</td>
<td>stat</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>Age (years)</td>
<td>microg</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>&lt; 40</td>
<td>100</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>40–60</td>
<td>75–100</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>60–70</td>
<td>40–100</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>70–85</td>
<td>40–75</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>&gt; 85</td>
<td>30–50</td>
</tr>
<tr>
<td><strong>IV</strong></td>
<td>Use undiluted or add sodium chloride 0.9% to facilitate slow injection</td>
<td>Adult only</td>
<td>10–20 microg increments (max. 100 microg)</td>
<td>stat</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>Inject slowly over 3–5 minutes</td>
<td>Repeat every 5–10 minutes if needed based on response + sedation score (max. 100 microg)</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td>Further doses on MO/NP order</td>
</tr>
<tr>
<td></td>
<td><strong>Intranasal</strong>*</td>
<td>Use mucosal atomiser device (MAD)</td>
<td>Child 1–12 years</td>
<td>1.5 microg/kg (max. 100 microg)</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>Note: add 0.1 mL to initial dose to accommodate MAD dead space</td>
<td>Divide dose between nostrils to minimise swallowing + effects eg sneezing</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td>May repeat after 5–10 minutes on MO/NP order</td>
</tr>
</tbody>
</table>

**Offer CMI:** May cause rash, bradycardia, drowsiness, dizziness, headache, low blood pressure when moving to standing or dry mouth

**Note:** Monitor sedation score + RR. *Intranasal is off-label use - ensure documentation + evaluation is undertaken as per CATAG guiding principles for the quality use of off-label medicines [www.catag.org.au](http://www.catag.org.au). Use with caution if > 70 years

**Contraindication:** Acute or severe bronchial asthma or other obstructive airways disease, concurrent use with MAO inhibitors, head injuries, raised ICP

**Management of associated emergency:** Consult MO/NP. See Anaphylaxis, p. 82. Give naloxone if overdose 6,15,16

---

**ATSIHP, IHW and RN must consult MO/NP**

**RIPRN may proceed for adult. If child - must consult MO/NP**

---

**ATSIHP/IHW/RIPRN**
<table>
<thead>
<tr>
<th>S₄</th>
<th>Nitrous oxide + oxygen (Entonox®)</th>
<th>Extended authority</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
<td>ATSIHP/IHW</td>
</tr>
</tbody>
</table>

ATSIHP, IHW, RIPRN and RN must consult MO/NP

<table>
<thead>
<tr>
<th>Form</th>
<th>Strength</th>
<th>Route</th>
<th>Dose</th>
<th>Duration</th>
</tr>
</thead>
<tbody>
<tr>
<td>Premix gas</td>
<td>Nitrous oxide 50% + oxygen 50%</td>
<td>Inhalation</td>
<td>Adult + child &gt; 4 years self administered as needed</td>
<td>short-term use only</td>
</tr>
</tbody>
</table>

**Offer CMI:** Patient must self administer ie hold the mouthpiece or mask (not clinician or parent). Pain relief after 5–8 breaths + wears off quickly. May cause dizziness, nausea and brief disinhibition

**Note:** Use with caution if opioid given

**Contraindication:** Heart failure, severe cardiac impairment, may worsen/cause myocardial depression. Air containing cavities eg middle ear occlusion, abdominal distension, pneumothorax - risk of ↑ pressure ± volume in cavities

**Management of associated emergency:** Consult MO/NP. Give oxygen if overdose

<table>
<thead>
<tr>
<th>S₄</th>
<th>Methoxyflurane</th>
<th>Extended authority</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
<td>ATSIHP/IHW/RIPRN</td>
</tr>
</tbody>
</table>

ATSIHP, IHW and RN must consult MO/NP

RIPRN may proceed

<table>
<thead>
<tr>
<th>Form</th>
<th>Strength</th>
<th>Route</th>
<th>Dose</th>
<th>Duration</th>
</tr>
</thead>
<tbody>
<tr>
<td>Inhalation solution</td>
<td>99.9%</td>
<td>Inhalation</td>
<td>Adult + child ≥ 6 years 3 mL</td>
<td>Can repeat after 20 minutes (max. 6 mL/day)</td>
</tr>
</tbody>
</table>

**Offer CMI:** Pain relief after 6–10 breaths + continues for several minutes after stopping. May cause mild dizziness, drowsiness or headache

**Note:** Self-administered with supervision. Only use if conscious + cooperative. Use in well ventilated area to minimise non-patient exposure. Do not use on consecutive days or exceed 15 mL/week

**Contraindication:** Susceptibility to malignant hyperthermia

**Management of associated emergency:** Consult MO/NP. See Anaphylaxis, p. 82

<table>
<thead>
<tr>
<th>S₃</th>
<th>Naloxone</th>
<th>Extended authority</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
<td>ATSIHP/IHW</td>
</tr>
</tbody>
</table>

ATSIHP and IHW may proceed for IM/IV one dose only (max. 400 microg). Must then consult MO/NP

RIPRN and RN may proceed

<table>
<thead>
<tr>
<th>Form</th>
<th>Strength</th>
<th>Route</th>
<th>Dose</th>
<th>Duration</th>
</tr>
</thead>
<tbody>
<tr>
<td>Injection</td>
<td>400 microg/mL</td>
<td>IV</td>
<td>Adult 100–200 microg</td>
<td>Can repeat every 2 minutes (max. 10 mg)</td>
</tr>
<tr>
<td>IM</td>
<td>Adult 400 microg</td>
<td>Child 10 microg/kg (max. 400 microg)</td>
<td>Can repeat in 5 minutes/as per MO/NP</td>
<td></td>
</tr>
<tr>
<td>Nasal spray</td>
<td>1.8 mg/actuation</td>
<td>Intranasal</td>
<td>Adult + child 1.8 mg (1 spray into 1 nostril)</td>
<td>Can give 2nd dose (using new device) into other nostril after 2–3 minutes</td>
</tr>
</tbody>
</table>

**Note:** Repeat doses until patient is more awake and breathing adequately. Patient should improve in 1 minute. Failure to respond may indicate another cause of unconsciousness. The duration of naloxone is short (15–30 minutes) compared to opioids. Continue observation + monitor RR. May cause an acute withdrawal syndrome in those with opioid dependence ie anxiety, agitation, tachycardia, confusion, seizures, pulmonary oedema or arrhythmias

**Pregnancy:** Do not use in opioid dependent women, risk of withdrawal in fetus

**Management of associated emergency:** Consult MO/NP. See Anaphylaxis, p. 82
5. Follow up

- Patients needing morphine/fentanyl will likely need evacuation for further management
- If not evacuated, follow up as per MO/NP + likely cause of pain
- If supplied with paracetamol or ibuprofen + further pain relief is needed after 48 hours, consult MO/NP

6. Referral/consultation

- Consult MO/NP if further analgesia is needed + max. dose has been given

---

**Nausea and vomiting**

**HMP Nausea and vomiting - adult/child**

**Recommend**

- Always consider life-threatening causes eg bowel obstruction, mesenteric ischaemia, acute pancreatitis + myocardial infarction
- Offer antiemetic for aeromedical retrieval prophylaxis

**Background**

- In the absence of abdominal pain, significant headache or recent initiation of certain medicines, nausea + vomiting is usually caused by self-limiting viral gastroenteritis

**1. May present with**

- Nausea ± vomiting

**2. Immediate management**

- If related to chest pain, go to Chest pain assessment, p. 103

**ALERT** suspect Button battery, p. 80 in all children if vomiting blood. A button battery lodged in the oesophagus can burn a hole through to the aorta causing catastrophic haemorrhage

**3. Clinical assessment**

**Check for red flags**

- Prolonged vomiting
- Looks very unwell/very drowsy
- Significant weight loss
- Abdominal distension or tenderness
- Rectal bleeding
- Green, bile or blood/coffee grounds vomit
- Fever, neck stiffness, confusion
- Severe headache, altered LOC
- Isolated vomiting, lack of nausea
- History of head trauma/injury
- Bulging fontanelle - infant/young child
- Child - T > 39 or 38 if < 3 months of age
- Projectile vomiting if 3–6 weeks of age. See Pyloric stenosis, p. 544
- ↑BGL

- Always try to identify the cause of the nausea/vomiting
- Get history, including:
NAUSEA AND VOMITING

Section 2: Pain, nausea and vomiting

• Frequency of vomiting
• Timing in relation to eating
• Food eaten in last 24 hours - could it be food poisoning
• Similar symptoms in family members/close contacts
• Pregnancy
• Exposure to toxins/poisons/bites/stings
• Recent illicit drug use, alcohol/hangover related
• Recent travel

• Ask about other symptoms eg:
  • Chest pain, heartburn
  • Headache, vertigo or dizziness
  • Last bowel motion, any diarrhoea
  • Related to motion/travel
  • Dysuria or frequency of urine
  • Fever

• Get past history, including:
  • Current medicines, over-the-counter medicines, previous antiemetics
  • Recent initiation of a new medicine(s)
  • Diabetes
  • Abdominal surgery

• Do vital signs

• BGL if cause unknown or history of diabetes:
  • ↑BGL with nausea ± vomiting - may indicate DKA, p. 89
  • ↓BGL consider Hypoglycaemia, p. 91 as cause

• Do physical examination, including:
  • Hydration assessment - adult, p. 200 or child, p. 535
  • Plus as determined from history taking eg:
    • Abdominal examination, p. 197
    • Urinalysis. Note: Urinalysis cannot reliably exclude UTI in infants + young children
    • Pregnancy test if female of reproductive age
    • If child do weight, bare weight if < 2 years

4. Management

• Urgently contact MO/NP if:
  • Any red flags

• Contact MO/NP if:
  • Child/infant, also see Child with vomiting, p. 492
  • No obvious cause/unsure
  • Suspected poisoning
  • Patient has re-presented

• If pregnant - seek advice from midwife/MO/NP - avoid antiemetic if possible:
  • Severe vomiting that starts in late pregnancy may indicate Preeclampsia, p. 386
  • If hyperemesis gravidarum (extreme morning sickness) MO/NP may order ondansetron

• Otherwise, treat cause if known - be guided by relevant topic

• If probable gastroenteritis ± dehydrated, see Gastroenteritis - adult, p. 200 or Gastroenteritis - child, p. 535
• Offer antiemetic as needed for initial symptom relief of nausea + vomiting:
  – monitor effect - contact MO/NP if not effective

<table>
<thead>
<tr>
<th>S4</th>
<th>Metoclopramide</th>
<th>Extended authority</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
<td>ATSIHP/IHW/MID/RIPRN</td>
</tr>
</tbody>
</table>

**ATSIHP, IHW and RN must consult MO/NP**

**MID and RIPRN may proceed**

<table>
<thead>
<tr>
<th>Form</th>
<th>Strength</th>
<th>Route</th>
<th>Dose</th>
<th>Duration</th>
</tr>
</thead>
<tbody>
<tr>
<td>Tablet</td>
<td>10 mg</td>
<td>Oral IM</td>
<td>Adult ≥ 20 years</td>
<td>10 mg stat Inject IV dose slowly over at least 3 minutes Further doses on MO/NP order</td>
</tr>
<tr>
<td>Injection</td>
<td>10 mg/2 mL</td>
<td>IV</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

**Offer CMI:** May cause drowsiness, dizziness or headache. Avoid driving or operating heavy machinery if affected. Report uncontrolled or repeated body movements eg face, mouth or tongue

**Note:** If renal impairment seek MO/NP advice

**Contraindication:** Parkinson’s disease, phaeochromocytoma + conditions where ↑ GI motility may be harmful eg GI obstruction or perforation

**Management of associated emergency:** Consult MO/NP. See Anaphylaxis, p. 82. If extrapyramidal adverse effects + acute dystonic reaction (within minutes to days) **treat with benzatropine**

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<table>
<thead>
<tr>
<th>S4</th>
<th>Ondansetron</th>
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**ATSIHP, IHW, MID and RN must consult MO/NP**

**RIPRN may proceed for child only. Must consult MO/NP for adult**

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<th>Strength</th>
<th>Route</th>
<th>Dose</th>
<th>Duration</th>
</tr>
</thead>
<tbody>
<tr>
<td>Orally disintegrating tablet</td>
<td>4 mg</td>
<td>Oral</td>
<td>Adult 4–8 mg</td>
<td>stat</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>Child &gt; 6 months–16 years</td>
<td>Inject IV dose slowly over at least 5 minutes, or 15 minutes if &gt; 75 years Further doses on MO/NP orders</td>
</tr>
<tr>
<td>Injection</td>
<td>4 mg/2 mL</td>
<td>IV</td>
<td>8 – &lt; 15 kg: 2 mg</td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>15–30 kg: 4 mg</td>
<td></td>
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<tr>
<td></td>
<td></td>
<td></td>
<td>&gt; 30 kg: 8 mg</td>
<td></td>
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<tr>
<td></td>
<td></td>
<td></td>
<td>IV</td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>0.15 mg/kg (max. 8 mg)</td>
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</tbody>
</table>

**Offer CMI:** Put tablet on top of tongue to dissolve, then swallow. May cause dizziness or headache

**Note:** If child - useful if related to gastroenteritis/unable to tolerate oral fluids. If adult - use for non-specific nausea + vomiting is off-label. Ensure documentation + evaluation is undertaken as per CATAG guiding principles for the quality use of off-label medicines [www.catag.org.au](http://www.catag.org.au). Seek MO/NP advice if hepatic impairment, phenylketonuria, prolonged QT interval or risk factors for prolonged QT interval

**Management of associated emergency:** Consult MO/NP. See Anaphylaxis, p. 82
# S4 Benzatropine

<table>
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<th>Dose</th>
<th>Duration</th>
</tr>
</thead>
<tbody>
<tr>
<td>Tablet</td>
<td>2 mg</td>
<td>Oral</td>
<td><strong>Adult only</strong></td>
<td>1-2 mg stat Further doses on MO/NP order</td>
</tr>
<tr>
<td>Injection</td>
<td>2 mg/2 mL</td>
<td>IM</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

**ATSIHP, IHW and RN must consult MO/NP**

**RIPRN may proceed. MID may proceed with oral dose only**

**Offer CMI:** May cause drowsiness, dizziness or blurred vision. May increase effects of alcohol

**Contraindication:** GIT or urinary obstruction, myasthenia gravis

**Management of associated emergency:** Consult MO/NP. See Anaphylaxis, p. 82

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### 5. Follow up
- As per MO/NP + cause of nausea/vomiting

### 6. Referral/consultation
- As above
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