Alternative options to codeine in the pharmacy

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Codeine containing combination analgesics

• Codeine is a weak, short-acting opioid which achieves its analgesic action through conversion to morphine in the liver

• Only 5 to 15% of a dose of codeine is metabolised to morphine.

• Approximately 6 to 10% of Caucasians and 1 to 2% of Asians lack the enzyme which converts codeine to morphine and are unlikely to achieve any pain relief with codeine

• Rarely first line therapies
  – Single ingredient preparations i.e. paracetamol, aspirin or NSAIDs should be trialled first
  – Non-drug therapies for all pain types should be explored
Summary of Cochrane systematic reviews of the medical literature

Number needed to treat (NNT) after a painful operation, for one to get a 50% or more reduction in pain

<table>
<thead>
<tr>
<th>Medication Combination</th>
<th>NNT</th>
</tr>
</thead>
<tbody>
<tr>
<td>ibuprofen 400/paracetamol</td>
<td>1.5</td>
</tr>
<tr>
<td>ibuprofen 400/codeine 25.6-60</td>
<td>2.2</td>
</tr>
<tr>
<td>paracetamol 1000/codeine 60</td>
<td>2.2</td>
</tr>
<tr>
<td>aspirin 1200</td>
<td>2.4</td>
</tr>
<tr>
<td>ibuprofen 400</td>
<td>2.5</td>
</tr>
<tr>
<td>paracetamol 975/1000</td>
<td>3.6</td>
</tr>
<tr>
<td>codeine 60 mg</td>
<td>12</td>
</tr>
</tbody>
</table>

NNT: paracetamol or ibuprofen with codeine, compared with paracetamol or ibuprofen alone

<table>
<thead>
<tr>
<th>Medication Combination</th>
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</tr>
</thead>
<tbody>
<tr>
<td>paracetamol 1000/codeine 60 VS paracetamol 1000 alone</td>
<td>6.1</td>
</tr>
<tr>
<td>ibuprofen 400/codeine 25.6-60 VS ibuprofen 400 alone</td>
<td>7.1</td>
</tr>
</tbody>
</table>
Appropriate questioning

• Location
• Intensity
• Nature
• Duration
• When is it occurring
• Are there other symptoms
• What makes it worse
• What makes it better
• Medications & medical conditions
• Is there anything that indicates referral
Migraine and other headache

- Treat at first sign of symptoms

- Initial treatment for acute migraine
  - Aspirin soluble 900 to 1000mg orally. Wait 4 to 6 hours before repeating dose if needed (maximum dose 4g in 24 hours)
  - Ibuprofen 400 to 600mg orally. Wait 4 to 6 hours before repeating dose if needed (maximum dose 2.4g in 24 hours)
  - Diclofenac potassium 50mg orally. Wait 4 to 6 hours before repeating dose if needed (maximum dose 200mg in 24 hours)
  - Naproxen 500 to 750mg orally. Wait 4 to 6 hours before repeating dose if needed (maximum dose 1250mg in 24 hours)
  - Paracetamol soluble 1g orally. Wait 4 to 6 hours before repeating dose if needed (maximum dose 4g in 24 hours).
Migraine and other headache

• If response is suboptimal an antiemetic may be an option (especially metoclopramide)—the antiemetic can improve treatment response by increasing drug absorption.
  – Metoclopramide 10 mg orally (available OTC in combination with paracetamol)
  – Prochlorperazine 5 to 10 mg orally

• Non-migraine headache
  – Explore underlying cause and address i.e. hydration, injury, stress, eye strain, medication overuse, cough, hormonal
  – Refer if ongoing, no obvious cause, alarm symptoms
Primary dysmenorrhea

• Prostaglandins released by endometrial cells at the start of menstruation cause vasoconstriction, muscle contraction and compression of the spiral arteries, leading to myometrial ischaemia
  – Severity directly related to the prostaglandin concentration in the menstrual fluid

• NSAIDs suppress prostaglandins in menstrual fluid
  – Best given 48 hours before menstruation is expected, or with onset of pain
  – Treatment continued for first 48 to 72 hours of menses when prostaglandin release is maximal
  – Insufficient evidence to favour one NSAID over another

• Secondary dysmenorrhea should be referred for further investigation
Primary dysmenorrhea

• Other options
  – Local heat
  – Transcutaneous electrical nerve stimulation (TENS)
  – Acupressure
  – Acupuncture
  – Spinal manipulation
  – Herbal and dietary preparations (e.g. vitamin E, thiamine, pyridoxine, magnesium, fish oil)

• Pain reduction was demonstrated but the studies were limited in size and quality.

• Chinese herbal medication, exercise and psychological behavioural interventions have shown benefit in small trials
Musculoskeletal injury

- **RICER**

- **Analgesia**
  - First-line treatment is paracetamol.
  - Nonsteroidal anti-inflammatory drugs (NSAIDs) may be used in combination with paracetamol.
    - There is theoretical risk of NSAIDs inhibiting muscle repair
    - NSAIDs should not be used for more than 48 hours for acute muscle injury
    - No single NSAID shown to be more effective than any other, but some patients may respond better to one NSAID than to others
      - If a patient does not respond to the first NSAID trialled, generally one or two other NSAIDs should be trialled before confirming nonresponse to NSAIDs

- **Physiotherapy**
  - Exercise is important for rehabilitation of the injured muscle to prevent recurrence of injury

- **Heat and massage are contraindicated in the first 48 hours following injury.**
Dental pain

- Avoid foods that provoke pain

- Analgesics especially nonsteroidal anti-inflammatory drugs (NSAIDs) if the patient can use them

- Cover any obvious cavity with an inert material (e.g. chewing gum)

- Topical anaesthetics

- Referral to dentist ASAP
Cold & flu

• Provide medication according to symptoms

• Combination products should only be given if meet symptom requirements i.e. if no pain, products with analgesia shouldn’t be given
Chronic pain

- The role of opioids in chronic non-cancer pain management is limited
  - Experience suggests that opioids work in only one in three patients and that they reduce pain intensity by 30% to 50% at best
  - In patients taking opioids for chronic non-malignant pain, about 80% have at least one adverse effect.
Chronic pain

- Educate patient about the role of medications in chronic non-cancer pain
- Discuss lifestyle modifications including diet and exercise
- Discuss non-pharmacological options including heat, massage, psychotherapies, physio, osteo etc.
Pain management plan

• Developing a pain management plan with the patient may be appropriate

Professional Services

• MedsCheck

• Home Medication Review

• Pharmacy Pain Management Programs e.g. Pain Wise
Support groups and patient information

- MOVE – Arthritis Victoria
- NPS
- Pain Australia
- Local pain management programs
Complementary medicines for pain

• Fish oil

• Turmeric – limited evidence

• Glucosamine & chondroitin – limited evidence in OA of the knee
Key messages

- Validate pain
- Remember non-pharmacological options and lifestyle factors
- Give realistic expectations as to what to expect from pain management, especially medications
  - Onset of action
  - Duration of relief
  - Level of relief
- Get them to come back or go to GP if adequate relief not obtained