Which Opioid is Best in the Elderly?

The World Health Organization recommends a graduated approach to pain control starting with non-narcotics, then changing to weak opioids and non-steroidal anti-inflammatory drugs (NSAIDs) and subsequently progressing to stronger medications as needed, depending on side-effects or inefficacy. This stepwise ladder approach is not always possible in practice, particularly in elderly patients. Many have contraindications to the use of NSAIDs for example. Polypharmacy, potential drug interactions and co-morbid conditions present challenges to the selection of the optimum medication and dosage for pain management.

The table below lists common opioids and their relative properties.

<table>
<thead>
<tr>
<th>Opioid</th>
<th>Indication(s)</th>
<th>Metabolism</th>
<th>Comments</th>
<th>Contraindications/ Precautions</th>
</tr>
</thead>
<tbody>
<tr>
<td>Codeine</td>
<td>mild pain; may be used to step-down from a stronger opioid</td>
<td>metabolized to morphine by the liver</td>
<td>-Some people lack the enzyme to metabolize codeine making it ineffective -weak opioid</td>
<td>-may be more constipating than other opioids</td>
</tr>
<tr>
<td>Morphine</td>
<td>moderate to severe pain</td>
<td>renal</td>
<td>-6 x more potent than codeine; metabolites may accumulate in the renally compromised -oral or parenteral route</td>
<td>-avoid in patients with decreased creatinine clearance</td>
</tr>
<tr>
<td>Hydromorphone</td>
<td>moderate to severe pain</td>
<td>renal</td>
<td>-5 x more potent than morphine; thereby smaller dose needed for equianalgesia -oral or parenteral route</td>
<td>-avoid in patients with decreased creatinine clearance</td>
</tr>
<tr>
<td>Oxycodone</td>
<td>moderate to severe pain</td>
<td>&lt; 15% renally excreted</td>
<td>-twice the potency of morphine; moderate side effect profile; good choice in older adults -only available orally</td>
<td></td>
</tr>
<tr>
<td>Fentanyl</td>
<td>moderate to severe chronic pain in patients taking ≥ 60 mg/day Morphine Equivalents</td>
<td>takes 48 hours to clear upon discontinuation</td>
<td>-transdermal patch for patients with stable pain; good choice in patients unable to swallow or are intolerant to oral meds</td>
<td>-not for patients with fluctuating pain levels -takes 48 hours to reach steady state -start with conservative initial dose &amp; monitor closely for a few days -medication for breakthrough pain needed</td>
</tr>
</tbody>
</table>

Combination products introduce further complicating factors in the management of pain. Codeine and oxycodone are available in combination with acetaminophen or acetylsalicylic acid (ASA). It is important to monitor and limit the total daily acetaminophen amount ingested from all sources (see box on back of this newsletter). In the case of ASA-containing formulations, care must be taken to make sure that there are no adverse renal or gastrointestinal effects. It may be preferable to avoid combination products, where possible, and prescribe the components separately to simplify the monitoring of the total daily dose of each agent.
**Duragesic Mat** 25, 50, 75 & 100 mcg/h fentanyl transdermal system

Janssen-Ortho (not currently a benefit of ODB)

Janssen-Ortho has introduced a new matrix formulation of fentanyl transdermal patch which will eventually replace Duragesic, the original reservoir patches. The reservoir patch contains fentanyl gel in a polymer membrane which controls the rate of drug release into the skin. This design has some disadvantages:

- Leakage of the gel has occurred in some products resulting in potential unintentional absorption of the drug and consequent overdose.
- The reservoir gel has a greater potential for abuse by ingestion, inhalation or injection.

In the matrix patch design the drug is combined with the adhesive (which allows the patch to stick to the skin). By embedding the fentanyl with the adhesive it is considered to be less attractive for illicit use (because the active drug is not easily extracted) and is less likely to leak. Duragesic Mat is thinner than the reservoir patch.

Duragesic Mat is bioequivalent to Duragesic, therefore no dose adjustments are needed when transferring patients between systems. It is expected to perform with the same efficacy and the warnings and precautions are unchanged. As with the reservoir patches the manufacturer states that the patches should not be altered in any way (e.g. by folding or cutting) prior to application.

**Aleve® 220 mg caplet (naproxen sodium)**

Bayer HealthCare (not currently a benefit of ODB)

Aleve is now available in Canada for over-the-counter sale. It is indicated for the treatment of pain in adults (age 12 to 65 years) dosed as one 220 mg caplet every 8 to 12 hours. In adults over 65 years of age, the recommended dose is one caplet every 12 hours. The maximum recommended dose is 2 caplets over a 24 hour period. A full glass of water is recommended with each dose.

**Coversyl Plus HD® 8 mg / 2.5 mg perindopril erbumamine 8 mg & indapamide 2.5 mg (Servier Canada)**

New Strength ... This new high dose formulation of Coversyl Plus is in addition to the formerly introduced formulations Coversyl Plus LD 2 mg/0.625 mg and Coversyl Plus 4 mg/1.25 mg. (not currently a benefit of ODB)

**Lumigan 0.01% ophthalmic solution bimatoprost (Allergan)** New Strength ...

Lumigan 0.01% is the new optimized version of Lumigan 0.03%. Lumigan 0.03% introduced for the treatment of glaucoma. Lumigan 0.03% continues to be available. (not currently a benefit of ODB)

**OxyContin® 15 mg, 30 mg & 60 mg oxycodone controlled release tablets**

Purdue Pharma (not currently a benefit of ODB)

New strength ... These new strengths are in addition to the existing 5 mg, 10 mg, 20 mg, 40 mg and 80 mg tablets.

**Seroquel XR® 150 mg tablets quetiapine fumarate extended release**

Astra Zeneca (not currently a benefit of ODB)

New strength & Indication ... Seroquel XR is now approved for the symptomatic relief of major depressive disorder when current available approved antidepressant drugs have failed either due to lack of efficacy and/or lack of tolerability. The adult dose is 50 mg on days 1 and 2 and 150 mg on day 3 (may be titrated to a maximum dose of 300 mg on day 4 if necessary). In the elderly the recommended dosing is 50 mg daily on days 1 to 3, increase to 100 mg on day 4 and increase to 150 mg on day 8. Lower doses may be effective in the elderly. Caution is advised in renal and mild hepatic impairment. Lower doses and careful titration are advised. If necessary it should be used with great caution in moderate to severe hepatic impairment.

(Refer to product monographs for complete information)

Maximum recommended daily dose of acetaminophen, from all sources, is 4g/day in acute dosing. Best Practice Guidelines suggest a lower maximum of 3.2g/day in chronic dosing, and 2.6g/day for elderly with other risk factors for renal or hepatic toxicity.