### Pain Management in Older Adults

#### Common Challenges in Pain Management for Older Adults
- Presence of common comorbidities may eclipse the recognition of pain in older adults.
- Attitudes toward pain & medications may lead to over or under reporting of pain.
- Activity avoidance may result if person, or spouse, believes that “hurt equals harm”. This may lead to physical de-conditioning & an adverse effect on mood & socialization.
- Pain assessment becomes more difficult in those unable to communicate effectively.
- Social & psychological factors, together with limited ability to cope, will contribute to the total pain & suffering experienced. This in turn may lead to worsening social & psychological factor, creating a vicious circle.
- Heightened sensitivity to both the helpful & the harmful effects of medications is seen.

#### Pain Assessment in Older Adults
- If pain is chronic, consider both pain & function! Elimination of pain is often not realistic, & if pursued, may come at a cost of functional impairment & adverse events (e.g. confusion/fall risk).
- **Self Report of Pain:** important due to subjective nature of pain; obtain where possible.
- Physiological/Behavioural: look for objective signs such as ↑ heart rate, grimacing, etc.
- Choose a suitable Pain Assessment Tool (use same tool for initial & ongoing assessment).
  1. Cognitively intact: Numeric Rating Scale (NRS) or Verbal Descriptor Scale (VDS)
  2. Cognitively intact; limited verbal ability: Pain Scale-Revised (FPS-R)
  3. Cognitively impaired: Pain Assessment in Advanced Dementia (PAINAD) – observed behaviour
  4. Cognitively impaired: Pain Assessment Checklist for Seniors with Limited Ability to Communicate (PACSLAC-II) – monitor, over time, behaviours that may be pain related (e.g. activity, agitation, sleep)
- Discuss findings & observations with family to assess what has been “normal” for that individual.
- It is often important to differentiate psychological/emotional suffering – voiced as pain but not responsive to analgesics, from pain that does respond to analgesics. Look for increasing use of pain medications without incremental benefits in pain and/or function.

#### Treatment of Pain in Older Adults

##### Non-Drug Interventions
- Exercise/activity as tolerated, physiotherapy, weight loss may be beneficial for those with arthritis & musculoskeletal pain. (May include activity like Tai Chi.)
- Massage, acupuncture & bathing may be helpful.
- Psychological interventions such as counselling & cognitive behavioural therapy (CBT) may be useful to address psycho-social issues. Spiritual care may also be important.
- Exploring changes in daily routine, visitation times for family & friends, music availability, relaxation techniques, etc., may have profound effects on the total pain experienced.
- **Chronic Pain Self Management Programs - useful.** (E.g. Stanford School of Medicine: [http://patienceducation.stanford.edu/programs/cpsmp.html](http://patienceducation.stanford.edu/programs/cpsmp.html))

### Pharmacologic Therapy

#### General Principles
- Use both drug, & non-drug interventions, together.
- Institute a cautious dosing strategy, starting with a low dose or longer dosing interval, but titrating up based on therapeutic response & tolerability.
- Be alert for potential additive adverse effects when multiple drugs with central nervous system or cognitive side effects are used together.
- Use regular administration of analgesics when pain is continual & ongoing.
- If on NSAID, & also on ASA for antiplatelet effect, give ASA >30min before, or >8h after, Use the least invasive route of administration e.g. oral; sometimes topical or subcutaneous. Allow adequate time for treatment effect for drugs where expected benefit is delayed.
- Counsel individual/family regarding what to expect. Ask for, & address, any concerns.

#### Trial & Assessment of Regular Analgesic
- **Administer regularly:** use or titrate to desired lowest effective dose.
- **Document** baseline status and any change in reported pain, or pain related behaviour.
- **Assess** in ~ 3 days for tolerability and assess over ~ 1 to 4 weeks for any benefit in pain/function as documented. Documentation is key to successful assessment.
  - If benefits & tolerability seen, continue.
  - If no benefit or not adequately tolerated, taper & discontinue.

#### The Analgesic Ladder (adapted from both the WHO & the Canadian opioid in CNCP guidelines)
- **Opioid for Mod to Severe Pain:** Morphine, Hydromorphone, Oxycodone
  - **Fentanyl** Patch**: useful in patients with pain &/or addiction; complex drug & requires special authorization to prescribe
- **Opioid for Mod to Mild Pain:** Morphine, Hydromorphone, Oxycodone, (? Tapentadol)
  - +/− non-opioid +/− adjuvant*
- **Non-opioids:** Acetaminophen ASA, or NSAID oral or topical (e.g. ibuprofen, naproxen)
  - +/- non-opioid +/− adjuvant*
- **Avoid** Meperidine. Poor analgesia, short acting, toxic metabolites, ↑ abuse risk.

*Potential adjuvants in acute pain: TCA, gabapentin, ketamine, local anesthetics spinal epidural, nerve blocks, local freezing, corticosteroids. Includes drugs that treat pain directly, & drugs to manage the side effects of opioids. **Potential adjuvants for chronic pain:** antidepressants e.g. nortriptyline, duloxetine, anticonvulsants e.g. gabapentin, pregabalin.

**NOT for opioid-naive, generally for chronic stable pain, NOT for acute pain.
Pain Management in Older Adults continued

Medications for Pain

Acetaminophen (TYLENOL)

- TYLENOL 325 to 500 mg every 6 hours (or up to 1000mg every 6 hours) & assess for effect after 24 to 48 hours

- TYLENOL Arthritis Pain OR TYLENOL Muscle Aches & Body Pain 650 to 1300 mg-acting formulation every 8 to 12 hours

  - Maximum daily dose ≤4g/day. For chronic dosing consider limiting to ≤3.25g/day.

Monitor: Liver function tests if used long-term OR with high alcohol consumption (≥3 drinks/day)

NSAIDs, Oral **If not contraindicated or potentially inappropriate**

- NSAIDs have a very limited role as older adults become more at risk of adverse events
  - Gastrointestinal (GI) concerns: all NSAIDs ↑ risk of GI ulcers & complications. If using, consider risk & possible need for concomitant PPI or misoprostol for gastroprotection.
  - Renal concerns: all NSAIDs/COXIBs compromise renal function. Avoid if CrCl ≤ 40mL/min.
  - Cardiovascular (CV) concerns: all NSAIDs may ↑ BP, risk of acute HF. Most may ↑ CV risk.

- Lower doses effective for mild to moderate pain; regular administration of higher doses required for anti-inflammatory effect.
  - Naproxen (ADVIL, ANAPROX, NAPROSINT, VIMOCID) 250 to 375mg every 12 hours
    - NSAID with safest cardiovascular (CV) profile.
  - Ibuprofen (ADVIL, MOTRIN) 200 to 400mg every 6 to 8 hours
    - Potential for drug interaction if given with ASA.
  - Celecoxib (Celebrex) 100 to 200mg every 24 hours
    - Coxib NSAID with somewhat less ulcer risk if given without ASA, & antiplatelet effects.

Topicals

- For localized, single joint
  - NSAIDs for arthritis pain only, anaesthetic, capsaicin 0.075%.
  - Topical diclofenac can be compounded – Rx: from 4% up to 10% Diclo in Diffusimax BID to TID

Opioids, Weak

See RxFiles Q&A: Opioids for CNCP – Elderly

- Codeine
  - High risk of constipation, requires conversion to morphine (some individuals may lack this conversion enzyme – CYP2D6. Some debate regarding role.)
  - Tramadol: RAVIG, TRAMACTA, TRUDURAL, ULTRAM, ZTRAM
  - Buprenorphine patches: BUTrans
  - Costly, well tolerated; 5, 10, 20 mcg/hour patch, every 7 days

Opioids, Strong

- Starting with a very low dose of a strong opioid is a reasonable alternative to initiation with a weak opioid. This does NOT apply to the fentanyl patch as it is not to be used in the opioid naïve.

  Oral Agents:
  - Morphine (KADIAN, M-ESLON, MS CONTIN, MS-IR, M.O.S., STATAX)
  - Oxycodone (OXY-IR, OXYNEO, PERCOCET, SUBLmême)
  - Hydromorphone (DILAUDID, HYDROMOREF CONTIN)

  Transdermal Patch: Fentanyl (DURAGESIC) (High potency; not for opioid naïve or those with poor response to codeine. Also not for acute or fluctuating pain.)

Opioid Initiation Strategies for Older Adults Using a Regular-Release Opioid:

- **Start with low doses**: no more than 50% of the suggested initial dose for adults. Consider longer dosing intervals if frail or potentially interacting medications.
  - Morphine regular-release: po: 2.5 to 5mg every 6, 8 or 12 hours in individuals ≥65 years PLUS laxative
    - SENOKOT or SENOKOT-S 1 to 2 tablets at bedtime.
  - Hydromorphone regular-release: po: 0.5 to 1mg every 6, 8, or 12 hours in individuals ≥65 years PLUS laxative
    - SENOKOT or SENOKOT-S 1 to 2 tablets at bedtime.
  - In those with renal function (Stage 3 CKD or CrCl <20 to 30mL/min), hydromorphone may be preferred over morphine. An example of a very cautious initial dose:
    - Hydromorphone IR 0.5mg every 8 or 12 hours PLUS laxative SENOKOT or SENOKOT-S 1 to 2 tablets at bedtime.

- **Recommend: 3 day tolerance check** to catch any signs of confusion, excess sedation, etc.
  - Opioids ↑ risk of falls/fractures & bowel obstruction & possibly CV events in addition to commonly recognized sedation and impairment of cognitive function

  - **Reassess benzodiazepines & other CNS sedatives.**
  - Benzodiazepines ↑ falls, confusion & impairment, & are associated with increased risk if used in combination with opioids. Consider a gradual taper & eventual discontinuation, if possible.

  Use Opioid Manager tool to assist in opioid initiation & monitoring. Use safeguards to protect patient, staff and society (e.g. prevent misuse, abuse and diversion).

Opioid + laxative regimen: Be proactive in preventing constipation e.g. hydration, dietary fibre (not a fibre laxative/supplement), laxative (senna SENOKOT, lactulose, bisacodyl, PEG 3350 LAX-A-DAY)

How to Stop an Opioid (in long-term opioid use)

- Tapers can usually be completed between 2 weeks to 4 months.
- Decrease the dose by no more than 10% of the total daily dose every 1 to 2 weeks.
- Once ¼ of the original dose is reached, decrease by 5% every 2 to 4 weeks.
- Avoid sedative-hypnotic drugs, especially benzodiazepines, during the taper.
- Consider using regular acetaminophen when stepping down from opioids.

Opioid Equivalence Table ² MEQ = Morphine Equivalent

<table>
<thead>
<tr>
<th>Opioid*</th>
<th>Equivalent Dose (mg)</th>
<th>Conversion to MEQ</th>
<th>Comments on Switching Opioids</th>
</tr>
</thead>
<tbody>
<tr>
<td>Morphine</td>
<td>30</td>
<td>1</td>
<td>- switching useful to overcome adverse effects &amp; when switching:</td>
</tr>
<tr>
<td>Codeine</td>
<td>200</td>
<td>0.15</td>
<td>- calculate daily MEQ for current opioid</td>
</tr>
<tr>
<td>Oxycodone</td>
<td>20</td>
<td>1.5</td>
<td>- calculate equivalent dose of desired opioid</td>
</tr>
<tr>
<td>Hydromorphone</td>
<td>6</td>
<td>5</td>
<td>- generally, use 50-75% of the calculated equivalent dose to account for incomplete cross-tolerance when switching opioids</td>
</tr>
<tr>
<td>Meperidine</td>
<td>300</td>
<td>0.1</td>
<td>- initiate new opioid based on desired total daily dose; may allow for additional PRN opioid for breakthrough pain (PRN dose typically = 10% of the total daily regular dose &amp; given q4-6h PRN)</td>
</tr>
<tr>
<td>Transdermal Fentanyl Patch (for switching from other opioid to fentanyl, NOT vice versa.)</td>
<td>60 to 134 mg morphine = 25 mcg/h patch</td>
<td>135 to 179 mg = 37 mcg/h</td>
<td>180 to 224 mg = 50 mcg/h</td>
</tr>
</tbody>
</table>

* for methadone, tapentadol & tramadol: dose equivalents unreliable.

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² For methadone, tapentadol & tramadol: dose equivalents unreliable.
# Pain Management in Older Adults

**What are the potential ADVANTAGES with opioids?**
- Low risk of end-organ damage such as GI (e.g., ulcers), renal or hepatic toxicity, & cardiovascular (e.g., exacerbation of heart failure).

**What are the potential PROBLEMS when using opioids?**
- **CNS effects**: related to recent dosage change, total dose & concomitant drugs with similar effects.
  - Over-sedation, cognitive dysfunction (morphine: may impair for up to 7 days after dose increase).
- **GI effects**: ↑ risk of constipation & bowel obstruction in population where this is common.
- **Fall & Fracture**: rates increased; recent observational cohort trial indicated there were significant ↑ rates of composite fracture for opioids versus NSAIDs (Hazard Ratio: 4.47 [95% CI: 3.12 to 6.41]); fall rate was also elevated (Hazard Ratio: 1.64 [95% CI: 1.09 to 2.47]).
- **Mortality & CV events**: also increased (Hazard Ratio for mortality: 1.87 [95% CI: 1.39 to 2.53]; Hazard Ratio for CV risk: 1.77 [95% CI: 1.39 to 2.24]).

- **Risk of multi-system organ damage**: such as (e.g., cognitive dysfunction (morphine: may impair up to 7 days after dose increase). Exacerbation of hepatic or renal toxicity. (e.g., drowsiness, dizziness, confusion, delirium).
- **Polypharmacy**: often results in both pharmacodynamic & pharmacokinetic drug interactions (DIs).
- **Elderly users**: may unwittingly become targets for those involved in opioid abuse & diversion. Ensure secure storage & use.

## Opioid Agonists: Considerations in the Elderly in Chronic Non-Cancer Pain

### Weak or Partial Opioids

<table>
<thead>
<tr>
<th>Opioid</th>
<th>Initial / Low Dose</th>
<th>Comments</th>
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</table>
| Codeine +/- acetaminophen | 15 to 30mg po every 4 to 6 hours (dose limiting ceiling effect at >60mg/dose) | - Requires conversion to morphine via CYP2D6; less effective in individuals with ↓ metabolism due to genetic factors or if on CYP2D6 inhibitors* (e.g. paroxetine).<sup>26</sup>
- Codeine alone is a weak analgesic with very limited effectiveness. Combination with acetaminophen ↑ analgesic efficacy; however, limit acetaminophen to ≤4g/day (ideally ≤3.25g/day) to reduce hepatic risk.<sup>2</sup> The caffeine content of some products may be problematic (stimulation, diuresis).
- Adverse effects: constipation or GI upset. See RxFiles Q&A: Management of Opioid-Induced Constipation for more information. |
| Codeine CR | 50mg po every 12 hours (may consider low doses of strong opioids if >200mg/day) | |
| Tramadol +/- acetaminophen | 37.5mg po every 6 hours (max 8 tablets/day) | - Metabolized by CYP2D6; less effective in individual with ↓ metabolism due to genetic factors or if on 2D6 inhibitors* (e.g. paroxetine).<sup>26</sup>
- Weak opioid, effect also from ↑ in serotonin & norepinephrine.
- High cost.
- Caution with other serotonergic drugs & drugs that ↓ seizure threshold.
- CNS adverse effects: somnolence. |
| Tramadol CR | 100-150mg po daily (given every 24 hours) Suggested max dose 300mg/day for age >75 years | |
| Buprenorphine patch | 5mcg/hour every 7 days (max 20mcg/hour) | - Partial opioid agonist; metabolized by CYP3A4**. |

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**Note:**
- IR=immediate release
- CR=controlled release
- CYP=Cytochrome P450 metabolic system
- *CYP-2D6 inhibitors include: amiodarone, bupropion, duloxetine, fluoxetine, paroxetine, ritonavir, ropinirole.
- **CYP-3A4 inhibitors include: clarithromycin, diltiazem, erythromycin, grapefruit juice, itraconazole, verapamil.
### Opioid Agonists: Considerations in the Elderly in Chronic Non-Cancer Pain Continued

<table>
<thead>
<tr>
<th>Strong Opioids</th>
<th>Initial / Low Dose</th>
<th>Comments</th>
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</table>
| Meperidine | **DO NOT USE** | • Not an effective oral analgesic in dosages commonly used.  
• May cause neurotoxicity (tremor, seizures, myoclonus), delirium, cognitive impairment.  
• Safer alternatives available.  
• Accumulation of toxic metabolites in renal failure.  
≥65 YEARS OF AGE, ESPECIALLY IN THOSE WITH CHRONIC KIDNEY DISEASE  
with DELIRIUM, or at HIGH RISK OF DELIRIUM |
| Morphine IR | 2.5 to 5mg po every 4, 6, or 8 hours | • Morphine syrup useful for initiating & titrating lowest dosages in older adults.  
• A low dose of a regular-release formulation is usually recommended for initial therapy.  
• In renal dysfunction: use reduced dose, or if severe impairment, avoid use (metabolites M3G & M6G active may accumulate & cause toxicity). Practically, it may be used cautiously, and if it is not tolerated switch to an alternative agent.  
• Various brand choices vary in dosing strengths available & cost. |
| Morphine CR | 10mg po every 12 hours (this dose for M-ESLON only)  
15mg po every 12 hours  
10-20mg po every 24 hours (KADIAN) | • Some CR capsule products (M-ESLON, KADIAN) may be sprinkled onto cold, soft food and still retain the slow release action if not chewed – DO NOT CHEW spheres. |
| Hydromorphone IR | 0.5 to 1mg po every 4, 6, or 8 hours | • A low dose of a regular-release formulation is usually recommended for initial therapy.  
• A low dose of IR given every 8 to 12 hours may often be adequate in the frail elderly.  
• More costly than morphine.  
• Some CR capsule products (HYDROMORPH CONTIN) may be sprinkled onto food and still retain the slow release action. |
| Hydromorphone CR (Contin given q12h; Jurnista given q24h) | 3mg po every 12 hours (HYDROMORPH CONTIN)  
4mg po every 24 hours (JURNISTA) | • A low dose of a regular-release formulation is usually recommended for initial therapy.  
• A low dose of IR given every 8 to 12 hours may often be adequate in the frail elderly.  
• More costly than morphine.  
• Some CR capsule products (HYDROMORPH CONTIN) may be sprinkled onto food and still retain the slow release action. |
| Oxycodeone +/- acetaminophen | 2.5 to 5 mg po every 4, 6, or 8 hours (most tablets scored; allows for lower-dose or titration by ½ tab) | • A low dose of a regular-release formulation is usually recommended for initial therapy.  
• Metabolized by CYP2D6; caution in renal or hepatic dysfunction as plasma concentrations may increase up to 50%. Also a kappa agonist.  
• More costly than morphine. |
| Oxycodeone IR | 2.5 to 5mg every 6-8 hours |  |
| Oxycodeone CR | 5 to 10mg po every 12 hours |  |
| Fentanyl patch | *HIGH- ALERT DRUG* | • High potency; **NOT FOR OPIOID NAÏVE** or those with poor response to codeine or tramadol.  
• ↑overdose risk: heat ↑ absorption, effect & risk; CYP3A4 inhibitors** ↑ risk .  
• Onset of analgesia delayed by 12 to 24 hours. Allow ≥6 days prior to ↑ dose.  
• Relatively high cost. |

** CYP-3A4 inhibitors include: clarithromycin, diltiazem, erythromycin, grapefruit juice, itraconazole, verapamil

IR=immediate release  CR=controlled release  M3G=morphine-3-glucuronide  M6G=morphine-6-glucuronide  CYP=Cytochrome P450 metabolic system

See page 86 for the conversion of oral opioids to a fentanyl patch
### Adjuvant Medications for Neuropathic Pain

#### Antidepressants

- Start low dose, titrate up based on tolerability & effect. Monitor for toxicity & anticholinergic intolerance. Some examples of treatment options include:
  - **Nortriptyline**: 10mg at bedtime; may ↑ to 20 or 25mg after ≥1 week
  - **Duloxetine**: 30mg daily; may ↑ to 60mg after 1 to 2 weeks; avoid if CrCl < 30mL/min

#### Anticonvulsants

- Start low dose, titrate up based on tolerability & effect. Some examples of treatment options include:
  - **Gabapentin**: 300 mg at bedtime; ↑ by 100 to 300 mg weekly; usual geri dose ranges from 300 to 600mg BID to TID (Aggressive: Day 1 to 3: 300mg at bedtime; Day 4 to 7: 300mg BID; Day 8: 300mg TID)
  - **Pregabalin**: 25 to 50mg at BID to TID; ↑ usual geri dose ranges from 50 to 75 to 150mg BID

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### Considerations for Specific Comorbidities and Types of Pain in Older Adults

#### Heart Failure (HF)
- Acetaminophen OK.
- Opioids tolerable & effective.
- Avoid NSAIDs.

#### End-Stage Renal Disease
- Acetaminophen: DOC for mild pain. No dose adjustment.
- Avoid NSAIDs, unless on dialysis. Topical NSAIDs may be an option.
- Opioids: hydromorphone, fentanyl, methadone OK. Initiate with shorter-acting agents & longer dosing intervals; titrate dose. Avoid meperidine!
- Topical options (e.g. lidocaine, capsaicin) may be useful.
- Gabapentin, pregabalin, nortriptyline are all options for neuropathic pain with caution initiation, gradual titration to effect & tolerability.
- Duloxetine generally contraindicated, however, anecdotal report suggests very low doses (~30mg/day) ok, with caution to avoid other serotonergics.

#### Osteoarthritis (OA)

- **topical options may be practical if only 1-2 joints**
- Most common cause of pain.
- Include non-drug treatments e.g. exercise or moderate activity.
- Regular acetaminophen DOC; regular oral opioids an option; BUTrans patch.
- Topical NSAIDs, e.g. diclofenac 1.5% patch, 1.16% TENSANE RENSANE, or 4% compounded.
- Intra-articular options: corticosteroid or hyaluronic acid injections.

#### Neuropathic Pain

- **e.g. diabetic neuropathy, post herpetic neuralgia (PHN)**
- Presents as allodynia, numbness, tingling, burning, radiating, electric.
- Anticonvulsants (gabapentin, pregabalin), TCA or SNRI antidepressants (nortriptyline, duloxetine), topical lidocaine 5%, opioids. Give regularly; low initial doses, slow titration, assess for tolerability; allow ≥7 days for effect. Other options: Lidocaine (patch), capsaicin topical.
- Refractory PHN: intrathecal or epidural corticosteroid + local anesthetic.

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### Other Considerations

- There is debate on codeine's role in older adults. The evidence is lacking, & adverse effects are common.
- Be alert for potential overuse of acetaminophen in combination products.
- Tramadol: effect for pain is small to moderate; effect on function is small. While it avoids some of the potential GI & renal issues with NSAIDs, & has a limited opioid effect relative to strong opioids, it causes more somnolence & CNS adverse events than both placebo &/or NSAIDs. Dis: quite a few. Somewhat high cost. Useful for some, but also some disadvantages.
# Pain Management in Older Adults: STOPP & Beers Criteria

<table>
<thead>
<tr>
<th>Drug or Drug Class</th>
<th>Clinical Concern</th>
<th>STOPP</th>
<th>Beers</th>
<th>RxFiles</th>
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<tbody>
<tr>
<td><strong>NSAIDs: Conventional</strong></td>
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<tr>
<td>ASA (Chronic use)</td>
<td>&gt;75 YEARS OLD</td>
<td>B</td>
<td>&gt;325 mg/day</td>
<td>QE = Moderate; SR = Strong</td>
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<tr>
<td>Mefenamic acid</td>
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<td>Meloxicam</td>
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<td>Nabumetone</td>
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<td>Naproxen</td>
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<tr>
<td>Oxaprozin</td>
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<tr>
<td>Piroxicam</td>
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<tr>
<td>Sulindac</td>
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<tr>
<td>* Denotes a combination product</td>
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Aspirin, ibuprofen & naproxen are all available as over-the-counter products. When taking a medication history, be sure to ask all individuals if they are taking any over-the-counter medications as they may forget to mention these medications & these medications may not be captured on their medical record.

Aspirin, diclofenac topical 1.16%, ibuprofen & naproxen are available in combination products both over-the-counter & by prescription. Be aware of which medications are contained within combination products.

**OTC/Rx Combo Products:**

Aspirin: **222S, ADALAT XL PLUS, AGGRENOX, ALKA-SELTZER, FIORNAL, ROBAXISAL**

Ibuprofen: **ADVIL COLD & FLU, ADVIL COLD & SINUS, ROBAX PLATINUM**

Possible alternatives specifically to indomethacin and ketorolac for mild to moderate pain:

- acetaminophen
- ibuprofen, naproxen, salsalate
  (if no HF, eGFR <30mL/min, and given with a PPI)

For more detailed medication information, see the RxFiles Drug Comparison Charts.
# Pain Management in Older Adults: STOPP & Beers Criteria

<table>
<thead>
<tr>
<th>Drug or Drug Class</th>
<th>When a Medication Could be Problematic for Older Adults</th>
<th>Clinical Concern</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>NSAIDs: COX-2 Inhibitors (Coxibs)</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Celecoxib</td>
<td>S With concurrent <strong>CARDIOVASCULAR DISEASE</strong></td>
<td>• ↑ risk of myocardial infarction &amp; stroke</td>
</tr>
<tr>
<td><strong>Opioids</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Codeine</td>
<td>S Use of <strong>ORAL or TRANSDERMAL STRONG OPIOIDS</strong> (i.e. hydromorphone, morphine, oxycodone or fentanyl) as 1ST LINE for <strong>MILD TO MODERATE PAIN</strong></td>
<td>• WHO analgesic ladder not observed • Adverse events: CNS (over-sedation, cognitive dysfunction), GI (↑ risk of constipation &amp; bowel obstruction), ↑ rates of falls &amp; fractures</td>
</tr>
<tr>
<td>Fentanyl</td>
<td>S Use of <strong>REGULAR (as distinct from PRN) OPIATES WITHOUT CONCOMITANT LAXATIVE</strong></td>
<td>• Risk of severe constipation</td>
</tr>
<tr>
<td>Hydromorphone</td>
<td>S <strong>LONG-ACTING OPIOIDS WITHOUT SHORT-ACTING OPIOIDS FOR BREAK-THROUGH PAIN</strong></td>
<td>• Risk of persistence of severe pain</td>
</tr>
<tr>
<td>Methadone</td>
<td>S With <strong>CHRONIC CONSTIPATION WHERE NON-CONSTIPATING ALTERNATIVES ARE AVAILABLE</strong></td>
<td>• Risk of exacerbation of constipation</td>
</tr>
<tr>
<td>Propoxyphene</td>
<td>B <strong>HISTORY OF FALLS OR FRACTURES</strong> QE = Moderate; SR = Strong</td>
<td>• Avoid unless safer alternatives are not available • If agent must be used, consider reducing the use of other CNS-active medications that increase the risk of falls &amp; fractures (i.e. anticonvulsants, antipsychotics, antidepressants, benzodiazepines, other sedative/hypnotics) and implement other strategies to reduce fall risk • Excludes pain management due to recent fracture or joint replacement.</td>
</tr>
<tr>
<td>*Denotes a combination product</td>
<td>B <strong>WITH ≥2 OTHER CNS DRUGS</strong> QE = High; SR = Strong</td>
<td>• Increased risk of falls • Avoid total ≥3 CNS-active drugs; minimize number of CNS drugs (see above)</td>
</tr>
</tbody>
</table>

*Denotes a combination product |
### Pain Management in Older Adults: STOPP & Beers Criteria

<table>
<thead>
<tr>
<th>Drug or Drug Class</th>
<th>STOPP</th>
<th>Beers</th>
<th>RxFiles</th>
<th>Clinical Concern</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Opioids Continued</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>Fentanyl</strong> (Duragesic)</td>
<td></td>
<td></td>
<td></td>
<td>Risk of overdose when fentanyl is used in the opioid naïve (should be taking at least 60 mg morphine equivalent before initiating a 12 or 25 mcg/hr fentanyl patch)</td>
</tr>
<tr>
<td>Note: The 12 mcg/hour dose fentanyl patch, which allows for smaller dose ↑ than does the 25 mcg/hour patch, is to be used for titration/adjustments of dosage. Product monograph notes that the 12 mcg/hour patch is not to be used as the initiating dose in the opioid naïve; however, in older adults, this may be an appropriate initial dose in someone who is opioid tolerant.</td>
<td></td>
<td></td>
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</tr>
<tr>
<td><strong>Meperidine</strong> (Demerol)</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>&gt;65 YEARS OLD, ESPECIALLY IN THOSE WITH CHRONIC KIDNEY DISEASE</td>
<td>B</td>
<td></td>
<td>RxFiles Long-Term Use</td>
<td>Not an effective oral analgesic in dosages commonly used. Safer alternatives available.</td>
</tr>
<tr>
<td>QE = moderate; SR = Strong</td>
<td></td>
<td></td>
<td></td>
<td>May cause neurotoxicity (tremor, seizures, myoclonus), delirium, cognitive impairment</td>
</tr>
<tr>
<td><strong>Pentazocine</strong> (Talwin)</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>B</td>
<td>&gt;65 YEARS OLD</td>
<td></td>
<td>RxFiles With Delirium, or at High Risk of Delirium</td>
<td>Cause/worsen delirium</td>
</tr>
<tr>
<td>QE = Low; SR = Strong</td>
<td></td>
<td></td>
<td></td>
<td>Causes CNS adverse effects (including confusion &amp; hallucinations) more commonly than other opioids</td>
</tr>
<tr>
<td><strong>Dose &gt; 300 mg/day</strong></td>
<td></td>
<td></td>
<td>RxFiles Dose &gt; 300 mg/day</td>
<td>Increased риск for potential adverse events</td>
</tr>
<tr>
<td><strong>Tramadol</strong> (RAleva, Tramace*, Tridural, Ultram, Zytrax XL)</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>B</td>
<td>With Seizures</td>
<td></td>
<td>RxFiles CrCl &lt;30 mL/Min</td>
<td>Increased risk of CNS adverse events</td>
</tr>
<tr>
<td>QE = Low; SR = Strong</td>
<td></td>
<td></td>
<td></td>
<td>If using the immediate release formulation, reduce the dose. Avoid extended release formulations.</td>
</tr>
<tr>
<td><strong>Adjuvant Analgesics</strong></td>
<td></td>
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</tr>
<tr>
<td><strong>Gabapentin</strong> (Neurontin)</td>
<td></td>
<td></td>
<td></td>
<td>Increased risk of CNS adverse events.</td>
</tr>
<tr>
<td><strong>Pregabalin</strong> (Lyrica)</td>
<td>B</td>
<td></td>
<td>S</td>
<td></td>
</tr>
<tr>
<td>CrCl &lt;60 mL/Min</td>
<td></td>
<td></td>
<td></td>
<td>Multiple potential concerns. ⇒ see page 89</td>
</tr>
<tr>
<td>QE = Moderate; SR = Strong</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>Tricyclic Antidepressant (TCAs)</strong></td>
<td></td>
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<td></td>
<td></td>
</tr>
<tr>
<td>e.g. amitriptyline, nortriptyline</td>
<td>B</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>see page 116 for a full list</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>Duloxetine</strong> (Cymbalta)</td>
<td>B</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>CrCl &lt;30 mL/Min</td>
<td></td>
<td></td>
<td></td>
<td>Avoid due to ↑ risk of GI adverse events (nausea, diarrhea)</td>
</tr>
<tr>
<td>QE = Moderate; SR = Weak</td>
<td></td>
<td></td>
<td></td>
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</tr>
</tbody>
</table>
COMMON ABBREVIATIONS USED IN THE GERI-RXFILES

<table>
<thead>
<tr>
<th>Abbreviation</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>STOPP</td>
<td>Screening Tool of Older Persons’ potentially inappropriate Prescriptions</td>
</tr>
<tr>
<td>QE</td>
<td>Quality of Evidence</td>
</tr>
<tr>
<td>SR</td>
<td>Strength of Recommendation</td>
</tr>
<tr>
<td>B</td>
<td>Medication from the Beers List</td>
</tr>
<tr>
<td>S</td>
<td>Medication from the STOPP Criteria</td>
</tr>
<tr>
<td>♣</td>
<td>Medication that must be tapered upon discontinuation</td>
</tr>
<tr>
<td>♦</td>
<td>Infrequently used medication</td>
</tr>
<tr>
<td>♂</td>
<td>Male</td>
</tr>
<tr>
<td>♀</td>
<td>Female</td>
</tr>
<tr>
<td>BRAND</td>
<td>discontinued trade name</td>
</tr>
<tr>
<td>BRAND</td>
<td>trade name</td>
</tr>
</tbody>
</table>

PAIN REFERENCES


   Opioid Manager Tool: Point of care tool summarizing Canadian Guidelines:
   o From CEP: http://www.effectivepractice.org/index.cfm?pagePath=CEP_TOOLS/Opioid_Manager&id=23515
   o From NPC: http://nationalpaincentre.mcmaster.ca/opioidmanager/

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Geri-RxFiles
Assessing Medications in Older Adults
Alternatives to explore, when less may be more
2nd Edition

www.RxFiles.ca

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