

## 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 viscous 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
    - ⇒ Breathing, Negative Vocalization, Facial Expression, Body Language, Consolability.
  - 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 out 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://patienteducation.stanford.edu/programs/cpsmp.html>)

## Pharmacologic Therapy

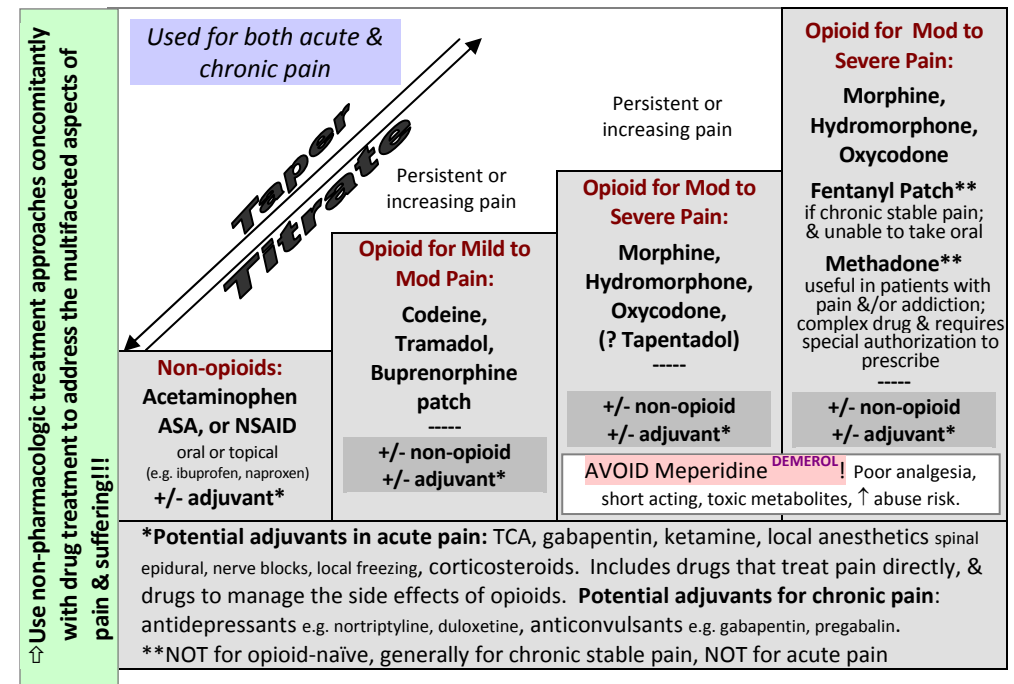
### General Principles

- 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)



**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 long-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** ALEVE, ANAPROX, NAPROSYN, VIMOVO\* **\*\*If not contraindicated or potentially inappropriate\*\*** \* Denotes a combination product

- 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** 250 to 375mg every 12 hours
    - NSAID with safest cardiovascular (CV) profile.
  - **Ibuprofen** 200 to 400mg every 6 to 8 hours
    - Potential for drug interaction if given with ASA.
  - **Celecoxib** 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** \* Denotes a combination product

- **Codeine**
  - High risk of constipation, requires conversion to morphine (some individuals may lack this conversion enzyme – CYP2D6. Some debate regarding role.)
- **Tramadol**
  - Costly, CNS side effects; requires 2D6 conversion; max 300mg/day for >75 years. Also, there are some serotonin & norepinephrine effects.
- **Buprenorphine patch**
  - Costly, well tolerated; 5, 10, 20 mcg/hour patch, every 7 days.

**Opioids, Strong** \* Denotes a combination product

- 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., STATEX
  - Oxycodone** OXY-IR, OXYNEO, PERCOCET\*, SUPEUDOL
  - Hydromorphone** DILAUDID, HYDROMORPH 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:** <sup>1</sup>

- **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** 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** 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** 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, lactulose, bisacodyl, PEG 3350)

**How to Stop an Opioid (in long-term opioid use)** See **Opioid Tapering Template**

- 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 ½ 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.

**Morphine Equivalence Table** <sup>3</sup> MEQ = Morphine Equivalent

Opioid*	Equivalent Dose (mg)	Conversion to MEQ	Comments on Switching Opioids
Morphine	30	1	- switching useful to overcome adverse effects - when switching: ⇒ calculate daily MEQ for current opioid ⇒ calculate equivalent dose of desired opioid ⇒ generally, <u>use 50-75% of the calculated equivalent dose to account for incomplete cross-tolerance when switching opioids</u> ⇒ 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 & given q4-6h PRN) ⇒ reassess within 1-3 days for both pain relief & any adverse effects e.g. cognitive impairment.
Codeine	200	0.15	
Oxycodone	20	1.5	
Hydromorphone	6	5	
Meperidine (Use <b>NOT</b> recommended)	300	0.1	
Transdermal Fentanyl Patch {for switching from other opioid to fentanyl, NOT vice versa.} <b>Not for opioid naïve!</b>	60 to 134 mg morphine = 25 mcg/h patch 135 to 179 mg = 37 mcg/h 180 to 224 mg = 50 mcg/h 225 to 269 mg = 62 mcg/h 270 to 314 mg = 75 mcg/h 315 to 359 mg = 87 mcg/h 360 to 404 mg = 100 mcg/h		

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








**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<sup>4</sup>)
- **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<sub>95%CI 3.12 to 6.41</sub>); fall rate was also elevated (Hazard Ratio: 1.64<sub>95% CI 1.09 to 2.47</sub>).
- **Mortality & CV events** also increased (Hazard Ratio for mortality: 1.87<sub>95% CI 1.39 to 2.53</sub>; Hazard Ratio for CV risk: 1.77<sub>95% 1.39-2.24</sub>) but due to nature of the observational trial, uncertainty if this is a true causation or due to confounding. See [RxFiles Solomon Trial Summary](#)<sup>5</sup>
- **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	Initial / Low Dose	Comments
<b>Codeine</b> +/- acetaminophen   <b>TYLENOL #1,2,3,4</b> <b>222</b> <b>MERSYNDOL</b>	<b>15 to 30mg po every 4 to 6 hours</b>  (dose limiting ceiling effect at >60mg/dose)	<ul style="list-style-type: none"> <li>• 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>PAXIL</sup>).<sup>26</sup></li> <li>• Codeine alone is a weak analgesic with very limited effectiveness. <sup>15</sup> Combination with <b>acetaminophen</b> ↑ 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).</li> <li>• Adverse effects: constipation or GI upset. See <a href="#">RxFiles Q&amp;A: Management of Opioid-Induced Constipation</a> for more information.</li> </ul>
<b>Codeine CR</b>   <b>CODEINE CONTIN</b>	<b>50mg po every 12 hours</b>  (may consider low doses of strong opioids if >200mg/day)	
<b>Tramadol</b> +/- acetaminophen  <b>TRAMACET</b>	<b>37.5mg po every 6 hours</b>  (max 8 tablets/day)	
<b>Tramadol CR</b>   <b>RALIVIA</b> <b>TRIDURAL</b> <b>ULTRAM</b> <b>ZYTRAM</b>	<b>100-150mg po daily</b> (given every 24 hours)  Suggested max dose 300mg/day for age >75years	<ul style="list-style-type: none"> <li>• Metabolized by CYP2D6; less effective in individual with ↓ metabolism due to genetic factors or if on 2D6 inhibitors* (e.g. paroxetine <sup>PAXIL</sup>).</li> <li>• Weak opioid, effect also from ↑ in serotonin &amp; norepinephrine.</li> <li>• High cost.</li> <li>• Caution with other serotonergic drugs &amp; drugs that ↓ seizure threshold.</li> <li>• CNS adverse effects: somnolence.</li> </ul>
<b>Buprenorphine patch</b> <sup>27</sup> <b>BUTRANS</b>	<b>5mcg/hour every 7 days</b>  (max 20mcg/hour)	<ul style="list-style-type: none"> <li>• Partial opioid agonist; metabolized by CYP3A4**.</li> <li>• Skin irritation common.</li> <li>• Long &amp; delayed action; allow ≥3 days for steady state levels &amp; effect.</li> <li>• Hepatic metabolism; not affected by decline in renal function.</li> <li>• High cost</li> <li>• ↓ abuse potential &amp; ↓ withdrawal than fentanyl; may initiate in opioid naïve</li> </ul>

IR=immediate release CR=controlled release CYP=Cytochrome P450 metabolic system<sup>29</sup>

\*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

Strong Opioids	Initial / Low Dose	Comments
<b>Meperidine</b>  <b>DEMEROL</b>	<b>DO NOT USE</b>	<ul style="list-style-type: none"> <li>Not an effective oral analgesic in dosages commonly used.</li> <li>May cause neurotoxicity (tremor, seizures, myoclonus), delirium, cognitive impairment.</li> <li>Safer alternatives available.</li> <li>Accumulation of toxic metabolites in renal failure.</li> </ul> <p><b>B</b> ≥65 YEARS OF AGE, ESPECIALLY IN THOSE WITH CHRONIC KIDNEY DISEASE  <b>B</b> with DELIRIUM, or at HIGH RISK OF DELIRIUM</p>
<b>Morphine IR</b>  <b>M.O.S.</b> <b>MS-IR</b> <b>STATEX</b>	<b>2.5 to 5mg po every 4, 6, or 8 hours</b>	<ul style="list-style-type: none"> <li>Morphine syrup useful for initiating &amp; titrating lowest dosages in older adults.</li> <li>A low dose of a regular-release formulation is usually recommended for initial therapy.</li> <li>In renal dysfunction: use reduced dose, or if severe impairment, avoid use (metabolites M3G &amp; M6G<sub>active</sub> may accumulate &amp; cause toxicity)<sup>20,21</sup>. Practically, it may be used cautiously, and if it is not tolerated switch to an alternative agent.</li> <li>Various brand choices vary in dosage strengths available &amp; cost<sup>23,27</sup>.</li> <li>Some CR capsule products (<b>M-ESLON</b>, <b>KADIAN</b>) may be sprinkled onto cold, soft food and still retain the slow release action if not chewed – DO NOT CHEW spheres.</li> </ul>
<b>Morphine CR</b>  <b>KADIAN</b> (given every 24 hours) <b>M-ESLON</b> } (given every 12 hours) <b>M.O.S. SR</b> } <b>MS CONTIN</b> }	<b>10mg po every 12 hours</b> (this dose for <b>M-ESLON</b> only)  <b>15mg po every 12 hours</b>  <b>10-20mg po every 24 hours</b> ( <b>KADIAN</b> )	
<b>Hydromorphone IR</b> <b>DILAUIDID</b>	<b>0.5 to 1mg po every 4, 6, or 8 hours</b>	<ul style="list-style-type: none"> <li>A low dose of a regular-release formulation is usually recommended for initial therapy.</li> <li>A low dose of IR given every 8 to 12 hours may often be adequate in the frail elderly.</li> <li>More costly than morphine.</li> <li>Some CR capsule products (<b>HYDROMORPH CONTIN</b>) may be sprinkled onto food and still retain the slow release action.</li> </ul>
<b>Hydromorphone CR</b> (Contin given q12h; Jurnista given q24h) <b>HYDROMORPH CONTIN</b> <b>JURNISTA</b>	<b>3mg po every 12 hours</b> ( <b>HYDROMORPH CONTIN</b> )  <b>4mg po every 24 hours</b> ( <b>JURNISTA</b> )	
<b>Oxycodone +/- acetaminophen</b>  <b>PERCOCET</b>	<b>2.5 to 5 mg po every 4, 6, or 8 hours</b> (most tablets scored; allows for lower-dose or titration by ½ tab)	<ul style="list-style-type: none"> <li>A low dose of a regular-release formulation is usually recommended for initial therapy.</li> <li>Metabolized by CYP2D6; caution in renal or hepatic dysfunction as plasma concentrations may increase up to 50%. Also a kappa agonist.</li> <li>More costly than morphine.</li> </ul>
<b>Oxycodone IR</b>  <b>OXY-IR</b> <b>SUPEUDOL</b>	<b>2.5 to 5 mg every 6-8 hours</b>	
<b>Oxycodone CR</b>  <b>OXYNEO</b>	<b>5 to 10mg po every 12 hours</b>	
<b>Fentanyl patch</b>  <b>DURAGESIC</b>	<b>*HIGH-ALERT DRUG*</b>  <i>See page 86 for the conversion of oral opioids to a fentanyl patch</i>	<ul style="list-style-type: none"> <li>High potency; <b>NOT FOR OPIOID NAÏVE</b> or those with poor response to codeine or tramadol.</li> <li>↑ overdose risk: heat ↑ absorption, effect &amp; risk; CYP3A4 inhibitors** ↑ risk.</li> <li>Onset of analgesia delayed by 12 to 24 hours. Allow ≥6 days prior to ↑ dose.</li> <li>Relatively high cost.</li> </ul>

IR=immediate release CR=controlled release M3G=morphine-3-glucuronide M6G=morphine-6-glucuronide CYP=Cytochrome P450 metabolic system<sup>29</sup>

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

**Adjuvant Medications for Neuropathic Pain**

**Antidepressants B**

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

**Anticonvulsants B**

- Start low dose, titrate up based on tolerability & effect. Some examples of treatment options include:
  - **Gabapentin** <sup>NEURONTIN</sup> 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** <sup>LYRICA</sup> 25 to 50mg at BID to TID; ↑ usual *geri dose* ranges from 50 to 75 to 150mg BID

*Caution as gabapentin & pregabalin are drugs that have the potential to be abused. Could possibly make an individual a target for drug abusers, or lead to drug misuse by the individual.*

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

<b>Heart Failure (HF)</b>	<ul style="list-style-type: none"> <li>• Acetaminophen OK.</li> <li>• Opioids tolerable &amp; effective.</li> <li>• Avoid NSAIDs.</li> </ul>
<b>End-Stage Renal Disease</b>	<ul style="list-style-type: none"> <li>• Acetaminophen: DOC for mild pain. No dose adjustment.</li> <li>• Avoid NSAIDs, unless on dialysis. Topical NSAIDs may be an option.</li> <li>• Opioids: hydromorphone, fentanyl, methadone OK. Initiate with shorter-acting agents &amp; longer dosing intervals; titrate dose. Avoid meperidine!</li> <li>• Topical options (e.g. lidocaine, capsaicin) may be useful.</li> <li>• Gabapentin, pregabalin, nortriptyline are all options for neuropathic pain with cautious initiation, gradual titration to effect &amp; tolerability.</li> <li>• Duloxetine generally contraindicated, however, anecdotal report suggests very low doses (~30mg/day) ok, with caution to avoid other serotonergics.</li> </ul>
<b>Osteoarthritis (OA)</b> ⇒topical options may be practical if only 1-2 joints	<ul style="list-style-type: none"> <li>• Most common cause of pain.</li> <li>• Include non-drug treatments e.g. exercise or moderate activity.</li> <li>• <u>Regular</u> acetaminophen DOC; regular oral opioids an option; <b>BUTRANS</b> patch.</li> <li>• Topical NSAIDs, e.g. diclofenac 1.5% <sup>PENNSAID</sup>, 1.16% <sup>VOLTAREN EMUGEL</sup>, or 4% compounded.</li> <li>• Intra-articular options: corticosteroid or hyaluronic acid injections.</li> </ul>
<b>Neuropathic Pain</b> ⇒e.g. diabetic neuropathy, post herpetic neuralgia (PHN)	<ul style="list-style-type: none"> <li>• Presents as allodynia, numbness, tingling, burning, radiating, electric.</li> <li>• 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.</li> <li>• Refractory PHN: intrathecal or epidural corticosteroid + local anesthetic.</li> </ul>

DOC=drug of choice

<b>Dementia</b> ⇒pain contributor to agitation & worsening behaviour	<ul style="list-style-type: none"> <li>• Pain, agitation common; if bedbound, at risk of pressure ulcers.</li> <li>• Pain assessment challenging, requiring corroborative information from caregivers &amp; direct observation. Utilize scales or tools; Options: PACSLAC, PAINAD.</li> <li>• Observe for signs of distress: face, vocal, social, agitation, irritability.</li> <li>• Acetaminophen DOC; trial regular administration &amp; assess for effect.</li> <li>• Regular administration of opioids also option, however start very low dose, titrate gradually &amp; reassess tolerability within 3 days of dose changes.</li> </ul>
<b>Bone pain, metastatic</b>	<ul style="list-style-type: none"> <li>• Bisphosphonates (IV: pamidronate, zoledronate; orals not officially indicated), opioids ± low-dose NSAID, corticosteroids; radiation.</li> </ul>
<b>Excess sedation</b>	<ul style="list-style-type: none"> <li>• Consider whether drug or non-drug cause (e.g. infection, hydration, metabolic).</li> <li>• Review timing, need for &amp;/or dosages of other CNS depressants.</li> <li>• In rare cases, if pain otherwise relieved, may consider psychostimulant such as methylphenidate <sup>RITALIN</sup> or modafanil <sup>ALERTEC</sup> (although this could cause or ↑ hallucinations, agitation, irritability).</li> </ul>
<b>Nausea, pain related</b>	<ul style="list-style-type: none"> <li>• If from pain med, generally resolves within 72 hours of initiation or dose ↑</li> <li>• Opioid cause: consider low dose haloperidol 0.25, 0.5, or 1mg every 12 to 24 hours (less anticholinergic &amp; sedation at such low doses than others), or metoclopramide 5 to 10mg TID to QID.</li> </ul> <p>Caution with metoclopramide: <b>B</b> may cause extrapyramidal effects including tardive dyskinesia, especially if used &gt;3 months. Adverse effects include: drowsiness <sup>(dose related)</sup>, dystonic reaction <sup>(dose &amp; age related)</sup>, lassitude (lack of energy), restlessness, fatigue, headache, dizziness.</p>
<b>Hepatic Dysfunction</b>	<ul style="list-style-type: none"> <li>• Caution with acetaminophen, avoid only if severe dysfunction. May limit dose to ≤2.6g/day &amp; monitor liver function tests.</li> </ul>

DOC=drug of choice

**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

For more detailed medication information, see the RxFiles Drug Comparison Charts

Drug or Drug Class	STOPP	When a Medication Could be Problematic for Older Adults <sup>1-4</sup>	Clinical Concern <sup>1-4</sup>
	Beers		
	RxFiles		

QE = Quality of Evidence  
SR = Strength of Recommendation

## NSAIDs: Conventional

<b>ASA</b> <sup>ASPIRIN</sup> >325 mg/day (Chronic use) <b>Diclofenac</b> <sup>VOLTAREN, ARTHROTEC *</sup> <b>Diflunisal</b> <sup>DOLOBID</sup> <b>Etodolac</b> <sup>ULTRADOL</sup> <b>Ibuprofen</b> <sup>ADVIL, MOTRIN</sup> <b>Indomethacin</b> <sup>INDOCID</sup> <b>Ketoprofen</b> <sup>ORUDIS</sup> <b>Ketorolac</b> <sup>TORADOL</sup> (includes parenteral)	<b>Mefenamic acid</b> <sup>PONSTAN</sup> <b>Meloxicam</b> <sup>MOBICOX</sup> <b>Nabumetone</b> <sup>RELAFEN</sup> <b>Naproxen</b> <sup>ALEVE, ANAPROX, NAPROSYN, VIMOVO *</sup> <b>Oxaprozin</b> <sup>DAYPRO</sup> <b>Piroxicam</b> <sup>FELDENE</sup> <b>Sulindac</b> <sup>CLINORIL</sup>  * Denotes a combination product
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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 <sup>topical 1.16%</sup>, 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 <sup>Beers</sup> 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)

<b>B</b>	<b>&gt;75 YEARS OLD</b> QE = Moderate; SR = Strong	<ul style="list-style-type: none"> <li>↑ Risk of GI bleeding or peptic ulcer disease</li> </ul>
<b>S</b>	<b>LONG-TERM USE (&gt;3 months)</b> for symptom relief of <b>OSTEOARTHRITIS PAIN WHERE ACETAMINOPHEN HAS NOT BEEN TRIED</b>	<ul style="list-style-type: none"> <li>Simple analgesics preferable &amp; often as effective for pain relief if taken regularly</li> </ul>
<b>S</b>	<b>CHRONIC RENAL FAILURE/KIDNEY DISEASE</b> STOPP: eGFR <50 mL/min; Beers: Stage IV & V kidney disease; RxFiles: CrCl ≤ 40 mL/min QE = Moderate; SR = Strong	<ul style="list-style-type: none"> <li>Risk of deterioration in renal function</li> </ul>
<b>B</b>		
<b>S</b>	<b>SEVERE HEART FAILURE or HISTORY OF HEART ATTACK</b> (All NSAIDs & celecoxib should generally be avoided)	<ul style="list-style-type: none"> <li>↑ Risk of exacerbation of heart failure (potential to promote fluid retention)</li> <li>Some agents are associated with ↑ CV risk</li> </ul>
<b>B</b>	QE = Moderate; SR = Strong	
<b>S</b>	<b>SEVERE HYPERTENSION</b>	<ul style="list-style-type: none"> <li>Risk of exacerbation of hypertension</li> </ul>
<b>S</b>	History of <b>PEPTIC ULCER DISEASE</b> or <b>GI BLEED</b> , not receiving PPI or misoprostol	<ul style="list-style-type: none"> <li>Risk of peptic ulcer relapse or GI bleed</li> </ul>
<b>B</b>	QE = Moderate; SR = Strong	
<b>S</b>	With <b>CONCURRENT CORTICOSTEROIDS WITHOUT PPI PROPHYLAXIS</b>	<ul style="list-style-type: none"> <li>↑ Risk of peptic ulcer disease</li> </ul>
<b>S</b>	With <b>CONCURRENT ANTIPLATELET(S) WITHOUT PPI PROPHYLAXIS</b>	
<b>S</b>	In <b>COMBINATION WITH VITAMIN K ANTAGONIST, DIRECT THROMBIN INHIBITOR, OR FACTOR Xa INHIBITORS</b> (i.e. NSAID combined with warfarin, dabigatran, rivaroxaban, apixaban or aspirin)	<ul style="list-style-type: none"> <li>Risk of major GI bleeding</li> </ul>
<b>B</b>	QE = High (warfarin), Moderate (all others); SR = Strong	

# Pain Management in Older Adults: STOPP & Beers Criteria

For more detailed medication information, see the RxFiles Drug Comparison Charts

Drug or Drug Class	STOPP	When a Medication Could be Problematic for Older Adults <sup>1-4</sup>	Clinical Concern <sup>1-4</sup>
	Beers		
	RxFiles		

QE = Quality of Evidence  
SR = Strength of Recommendation

## NSAIDs: COX-2 Inhibitors (Coxibs)


Celecoxib 

S

With concurrent **CARDIOVASCULAR DISEASE**

- ↑ risk of myocardial infarction & stroke

## Opioids

**Codeine** CODEINE CONTIN, TYLENOL #1,2,3,4\*, 222\*, MERSYNDOL\*, OTHERS 

**Morphine** KADIAN, M-ESLON, MS CONTIN, MS-IR, M.O.S., STATEX 

**Fentanyl** DURAGESIC 

**Oxycodone** OXY-IR, OXYNEO, PERCOCET\*, SUPEUDOL 

**Hydromorphone** DILAUDID, HYDROMORPH CONTIN

**Propoxyphene** DARVON-N

**Methadone** METADOL

\*Denotes a combination product

S

Use of **ORAL** or **TRANSDERMAL STRONG OPIOIDS** (i.e. hydromorphone, morphine, oxycodone or fentanyl) as **1ST LINE** for **MILD TO MODERATE PAIN**

- WHO analgesic ladder not observed
- Adverse events: CNS (over-sedation, cognitive dysfunction), GI (↑ risk of constipation & bowel obstruction), ↑ rates of falls & fractures

S

Use of **REGULAR** (as distinct from PRN) **OPIATES WITHOUT CONCOMITANT LAXATIVE**

- Risk of severe constipation

S

**LONG-ACTING OPIOIDS WITHOUT SHORT-ACTING OPIOIDS FOR BREAK-THROUGH PAIN**

- Risk of persistence of severe pain

S

With **CHRONIC CONSTIPATION WHERE NON-CONSTIPATING ALTERNATIVES ARE AVAILABLE**

- Risk of exacerbation of constipation

B

**HISTORY OF FALLS OR FRACTURES**  
QE = Moderate; SR = Strong

- 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 & 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.








B

**WITH ≥2 OTHER CNS DRUGS**  
QE = High; SR = Strong

- Increased risk of falls
- Avoid total ≥3 CNS-active drugs; minimize number of CNS drugs (see above)

# Pain Management in Older Adults: STOPP & Beers Criteria

For more detailed medication information, see the RxFiles Drug Comparison Charts

Drug or Drug Class	STOPP	When a Medication Could be Problematic for Older Adults <sup>1-4</sup>	Clinical Concern <sup>1-4</sup>
	Beers		
		RxFiles	
		<i>QE = Quality of Evidence</i> <i>SR = Strength of Recommendation</i>	
<b>Opioids Continued</b>			
<b>Fentanyl</b>  <small>DURAGESIC</small> <b>Note:</b> 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.	RxFiles	Use of fentanyl in the <b>OPIOID NAÏVE</b>	<ul style="list-style-type: none"> <li>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)</li> </ul>
<b>Meperidine</b>  <small>DEMEROL</small>	B	<b>&gt;65 YEARS OLD, ESPECIALLY IN THOSE WITH CHRONIC KIDNEY DISEASE</b> <i>QE = moderate; SR = Strong</i>	<ul style="list-style-type: none"> <li>Not an effective oral analgesic in dosages commonly used. Safer alternatives available.</li> <li>May cause neurotoxicity (tremor, seizures, myoclonus), delirium, cognitive impairment</li> <li>Accumulates in renal failure ⇒ Possible alternatives for acute moderate to severe pain: tramadol, morphine, oxycodone</li> </ul>
	RxFiles	<b>LONG-TERM USE</b>	
	B	With <b>DELIRIUM, or AT HIGH RISK OF DELIRIUM</b> <i>QE = Moderate; SR = Strong</i>	
<b>Pentazocine</b>  <small>TALWIN</small> ♦ ♦ = INFREQUENTLY USED MEDICATIONS	B	<b>&gt;65 YEARS OLD</b> <i>QE = Low; SR = Strong</i>	<ul style="list-style-type: none"> <li>Causes CNS adverse effects (including confusion &amp; hallucinations) more commonly than other opioids</li> <li>A mixed agonist &amp; antagonist (μ &amp; κ): can cause withdrawal in individuals taking opioids</li> <li>Ceiling to analgesic effect</li> <li>Safer alternatives available ⇒ acetaminophen, etc.</li> </ul>
<b>Tramadol</b> <small>RALIVIA, TRAMACET*, TRIDURAL, ULTRAM, ZYTRAM XL</small>  * Denotes a combination product	B	With <b>SEIZURES</b> <i>QE = low; SR = Strong</i>	<ul style="list-style-type: none"> <li>Lowers seizure threshold (may be acceptable if seizures are well controlled &amp; alternatives can't be used)</li> <li>Increased risk of CNS adverse events</li> <li>If using the immediate release formulation, <small>TRAMACET*, ULTRAM</small> reduce the dose. Avoid extended release formulations. <small>RALIVIA, TRIDURAL, ZYTRAM XL</small></li> </ul>
	B	<b>CrCl &lt;30ML/MIN</b> <i>QE = low; SR = Weak</i>	
	RxFiles	<b>DOSE &gt; 300 MG/DAY</b>	
<b>Adjuvant Analgesics</b>			
<b>Gabapentin</b>  <small>NEURONTIN</small>	B	<b>CrCl &lt;60ML/MIN</b> <i>QE = Moderate; SR = Strong</i>	<ul style="list-style-type: none"> <li>Increased risk of CNS adverse events.</li> <li>Reduce the dose.</li> </ul>
<b>Pregabalin</b>  <small>LYRICA</small>			
<b>Tricyclic Antidepressant (TCAs)</b>	S	see page 116 for a full list	<ul style="list-style-type: none"> <li>Multiple potential concerns. ⇒ see page 89</li> </ul>
e.g. amitriptyline, nortriptyline	B		
<b>Duloxetine</b>  <small>CYMBALTA</small>	B	<b>CrCl &lt;30ML/MIN</b> <i>QE = Moderate; SR = Weak</i>	<ul style="list-style-type: none"> <li>Avoid due to ↑ risk of GI adverse events (nausea, diarrhea)</li> </ul>



## COMMON ABBREVIATIONS USED IN THE GERI-RXFILES

**STOPP** Screening Tool of Older Persons' potentially inappropriate Prescriptions

**QE** Quality of Evidence

**SR** Strength of Recommendation

**B** Medication from the Beers List

**S** Medication from the STOPP Criteria

**⏏** Medication that must be tapered upon discontinuation

**◆** Infrequently used medication

**♀** Female

**♂** Male

**BRAND** discontinued trade name

**BRAND** trade name

## PAIN REFERENCES

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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](http://www.effectivepractice.org/index.cfm?pagePath=CEP_TOOLS/Opioid_Manager&id=23515)

o From NPC: <http://nationalpaincentre.mcmaster.ca/opioidmanager/>

<sup>3</sup> *Canadian Guideline for Safe & Effective Use of Opioids for Chronic Non-Cancer Pain*. Accessed June 2013 at <http://nationalpaincentre.mcmaster.ca/opioid/>

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**Details That Matter**

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