BCPRA Guidelines and Drug Choices for Chronic Pain in Dialysis Patients

Musculoskeletal/Nociceptive Pain

Pain score 1 to 4 out of 10
Non opioid analgesics are first line of treatment.
Acetaminophen (including acetaminophen extended release formulation): Max. 4 g/day; caution if Hx of ETOH, viral hepatitis, liver disease or other liver enzyme inducer (e.g. rifampin), and heart failure. Follow GGT & ALT Q3 months if dose > 2.6 g/day.
Topical NSAIDs: Apply TID to QID for localized pain (Diclofenac 5 to 25% in Phigilo, diclofenac 1.16% gel (OTC)).
Capsaicin cream 0.025% or 0.075%. Apply BID to QID for localized pain (may take > 2 weeks for onset of action).

Pain is not controlled or initial pain score is ≥5 out of 10
Prescribers are referred to the College of Physicians and Surgeons of British Columbia’s professional Standards and Guidelines - Safe Prescribing of Drugs with Potential for Misuse/Diversion.
Add an opioid to non-opioid analgesic and or adjuvant: AVOID MORPHINE AND MEPERIDINE
Complete opioid abuse risk assessment scale. Dosage can be titrated q3-4 days based on pain assessment. (e.g. QHD for HD patients)
Hydromorphone IR: 0.25 to 0.5 mg PO q3-4 hours PRN (Note: neurotoxic metabolite HS3 accumulates if dialysis D/Ced)
Oxycodone: 1.25 to 2.5 mg PO q3-4 hours PRN
Percocet (acetaminophen 325 mg - oxycodone 5 mg) can be used to reduce pill burden once control is optimized.
Regular opioid dosing (e.g. hydromorphone 0.5 mg PO q3 hours regularly) should be considered for patient with severe pain (pain score of 7 to 10 out of 10).
Once analgesic requirement is stable, consider conversion to long-acting opioid agent. Continue providing short-acting opioid agent for breakthrough pain (1/10th total daily dose q2 hours PRN)
Hydromorphone CR: PO q12 hours (available in 3 mg increments)
Oxycodone CR: PO q12 hours (available in 10 mg increments)
Note: If pain management not optimal before next scheduled SR dose, consider giving 1/3 total daily dose of hydromorphone or oxycodone CR q8 hours.
Fentanyl transdermal patch: Initial dose: 12 μg/h patch q3 days, increase dose to next patch size every 5-7 days. Caution in opioid naive patient. Fentanyl patch strengths available: 12 μg/h, 25 μg/h, 50 μg/h, 75 μg/h, 100 μg/h.

Alternative agents:
Tramadol (Ultram®): Option for moderate pain (5 to 6 out of 10 without opioid). Initial dosing: 25 mg PO daily to bid (max. daily dose 100 mg PO bid) (Tramadol CR (Zytram XL®) is contraindicated for CrCl <30 ml/min.
Acetaminophen 325mg and tramadol 37.5 mg (Tramaset®): 1 TAB PO bid. Maximum daily dose: 2 TAB PO bid.
Buprenorphine transdermal patch: Option for moderate pain (5 to 6/10 without opioid). Minimal renal elimination. Initial dosage: 5 to 10 μg/h patch q7 days, even for patients not naive to opioid. Dose can be increased q7 days. Max dose: 20 μg/h q7 days. Acetaminophen should be used for breakthrough pain. Caution for withdrawal symptoms if switching from other opioids.
Methadone: Option for opioid allergy, adverse effects/refractory pain not controlled by other opioids or if patient taken off dialysis.
Required authorization from CPSCB to prescribe methadone for analgesia. Baseline QTc and repeat EKG if daily dose >60 mg. Many drug interactions (e.g. macrolides, fluoroquinolones, fluconazole etc.).
Initial dose: 1 to 2 mg PO or SL tid and titrate dose gradually every 5-7 days.

OPIOID CONVERSION TABLE (for patients on chronic opioids)*

<table>
<thead>
<tr>
<th>Drug</th>
<th>Parenteral</th>
<th>Oral</th>
</tr>
</thead>
<tbody>
<tr>
<td>Morphine</td>
<td>10 mg</td>
<td>20 mg to 30 mg</td>
</tr>
<tr>
<td>Hydromorphone</td>
<td>2 mg</td>
<td>4 mg</td>
</tr>
<tr>
<td>Oxycodone</td>
<td>N/A</td>
<td>20 mg</td>
</tr>
<tr>
<td>Codeine</td>
<td>120 mg</td>
<td>200 mg</td>
</tr>
<tr>
<td>Fentanyl</td>
<td>100 μg (0.1 mg)</td>
<td>N/A</td>
</tr>
<tr>
<td>Fentanyl Patch</td>
<td>** see below</td>
<td>** see below</td>
</tr>
<tr>
<td>Buprenorphine Patch</td>
<td>** see below</td>
<td>** see below</td>
</tr>
<tr>
<td>Methadone</td>
<td>N/A</td>
<td>variable–start at 1/10th morphine dose</td>
</tr>
</tbody>
</table>

* As per PHC/VCH opioid conversion table (last update Jan 15/2010)
** Recommended conversion from PO daily hydromorphone equivalent to fentanyl & buprenorphine.

Hydromorphone (mg/24hrs) | Fentanyl (μg/hr) | Buprenorphine (μg/h)
-------------------------|------------------|-------------------|
< 6                     |                  |                   |
6 – 12                  |                  |                   |
12 – 26                 |                  |                   |
27 – 35                 |                  |                   |
36 – 44                 |                  |                   |
45 – 53                 |                  |                   |
54 – 62                 |                  |                   |
63 – 71                 |                  |                   |
72 – 80                 |                  |                   |

Pain Management Agents Cost Coverage

Drugs covered under BCPRA
Drugs covered under Pharmacare
Drugs needing a special authority request to be covered under Pharmacare

Neuropathic Pain (Defined by > 4 of the following symptoms: burning pain, pain to cold, electric shocks, tingling, pins and needles, numbness, itchy, increase pain with light touch, decrease sensation)

Pain score 1 to 4 out of 10
Gabapentin: 50-100 mg PO hs and titrate weekly by 50-100 mg/day. Maximum dose: 300 mg/day. Adequate trial duration: 4 to 6 weeks.
Capsaicin cream 0.025% or 0.075%. Apply bid to qid for localized pain (may take > 2 weeks for onset of action).
Pain control is inadequate at target dose for 2-4 weeks or initial pain ≥5 out of 10
Intolerable adverse effects (e.g. sedation, dizziness)
Taper off Gabapentin
Nortriptyline/Desipramine: 10 mg PO daily (give dose at hs for nortriptyline) and titrate weekly by 0.25 to 0.5 mg/day. Maximum dose: 200 mg/day. Should be used with caution in patients with history of cardiac disease. Combination TCA + gabapentin can provide better pain control for diabetic neuropathy and postherpetic neuralgia.
Nabulone: 0.25 to 0.5 mg PO hs and titrate weekly by 0.25 to 0.5 mg/day. Maximum dose: 20 mg/day.
Topiramate: 25 mg PO daily and titrate every 1 to 2 weeks by 25 mg/day. Maximum dose: 200 mg/day (dosed daily or bid).
Venlafaxine: 37.5 mg PO daily, and titrate in 1 week to 75 mg PO daily.
Pregabalin: 25 mg PO hs and titrate weekly by 25 mg/day. Maximum dose: 150 mg/day. Dose to be given post-HD on HD days. No data to support use of pregabalin in gabapentin resistant or intolerant patient.
THC:CBD (Sativex®): 1 spray under tongue or toward inside of cheeks daily to bid. May increase by 1 spray/day q2-4 days. Maximum dose: 12 sprays/day. Limited data in renal failure patients. May worsen orthostatic hypotension.
Additional options (see monographs): clonidine, tizanidine, benzodiazepines, baclofen.

Inadequate Response

<table>
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BC Renal Agency • Suite 700-1380 Burrard St. • Vancouver, BC • V6Z 2H3 • 604.875.7340 • BCRenalAgency.ca
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Chronic Kidney Disease Symptom Management Resource