Pain

BC's HEART FAILURE NETWORK
Quality care for quality life.

Heart Failure Symptom Management Guideline
For adults, age 19 and older in British Columbia

Patients with end-stage heart failure may experience pain from cardiac or non-cardiac causes. Common causes of cardiac pain include angina and edema (peripheral), while non-cardiac pain commonly results from comorbidities and medical interventions. Research concludes, pain is reported to be often severe and occurring at multiple sites, and is significantly associated with degenerative joint disease, arthritis, neuropathy, depression, shortness of breath, and angina.
Regardless of the cause, uncontrolled pain can lead to worsening heart failure symptoms, reduced quality of life, and poor outcomes.
A holistic approach to treating 'total pain' should be considered by addressing concerns beyond physical pain, and including the psychosocial, spiritual and emotional needs of the patient.

Approach to Managing Pain

Assessment

- Assess pain by taking careful history and physical examination and using standardized tools such as Edmonton Symptom Assessment System (ESAS), OPQRSTUV acronym.
- Assessments should include identifying the type, cause and characteristic of the pain symptoms, and determining its correlations to the heart failure, comorbid conditions, medical interventions, other symptoms and/or pain medication.
- Physical exam includes looking for signs of disease progression, trauma or neuropathic etiologies.

Pain Tips

- Treat the underlying cause of pain using both non-pharmacological and pharmacological approaches and taking into account the context of the patient's overall condition, prognosis and goals of care.

Non-pharmacologic Approach

- Physical therapy, massage, acupuncture, heat/cold, ultrasound.
- Repositioning, relaxation, distraction and alternative approaches including pet therapy, music therapy and aromatherapy.
- Psychosocial interventions, spiritual counseling, patient education.

Pharmacological Approach

- The severity of pain determines the required strength of analgesics as specified by the World Health Organization (WHO) Analgesic Ladder.
- Select adjuvant analgesics based on the type and cause of pain (e.g., nociceptive, neuropathic, bone pain), concomitant disease, drug therapy and side effects and interactions experienced. Adjuvant analgesic should be trialed starting with initial low doses, optimize as tolerated and discontinue if ineffective.
- Tailor drug dosage and route of administration as appropriate.

Types of Pain	Treatment Options
Mild	Start with non-opioids like acetaminophen
Moderate to severe	Start with short-acting opioids, given regularly and with breakthroughs, and titrate to patient's comfort. Treat intermittent pain with intermittent medications, and persistent or chronic pain with around-the-clock or long acting opioids. Use short-acting opioids for breakthrough pain.
Angina and/or Persistent angina	Standard therapy: beta blockers, calcium channel blockers, nitrates, morphine, intracoronary stenting should be considered in the appropriate patient
Uncontrolled pain Even with opioids	Consult palliative care

General principles of opioid prescribing (BC Heart Failure Network: iPALL)

- Opioids are usually agents of choice for pain (including dyspnea) refractory to cardiac medications.
- Opioids are safe and evidence based in cardiopulmonary disease. Use lowest possible dose to achieve comfort, however, there is no ceiling dose.
- Opioids with few/no active metabolites preferred in renal failure/frailty – avoid Tylenol #3 (due to codeine) or morphine.
- Treat persistent or chronic pain with around-the-clock or long acting opioids.
- Consider increasing regular opioid dose when 3 or more breakthroughs are used in 24 hours.
- Use short-acting opioids for breakthrough pain.
- Breakthrough doses must always be available (10% of total daily dose and dosed at q1h).
- Consider switching from short -acting opioids to long acting when the symptom is well controlled with minimal breakthrough usage and when total daily dose of short- acting reaches a starting dose for long- acting opioid.
- Always order a regular laxative with regular opioids (stimulant and + or – osmotic laxative).
- If side effects are intolerable consider rotating to a different opioid.

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Patients who are **elderly, cachetic, debilitated or with renal or hepactic dysfunction** may require **low dosage**		
Generic/Trade Name	**Standard Adult Dose**	**Comments**
NON-OPIOIDS and OPIOID COMBINATIONS		
acetaminophen, Tylenol®	325 to 650 mg PO q4-6h 650 mg PR q4-6h	• Max: 4 g PO/PR per day for short term use; 3.2 g per day for long term use. • Max: 2.6 g PO/PR per day for elderly clients/liver impairment.
NSAIDs		• Usually **contraindicated in heart failure** because they antagonize the effects of diuretics and ACE inhibitors, promoting fluid retention resulting in edema and volume overload (Adler, et al., 2009).
Tylenol #3, **traMADol, OxyCODONE**		• Combination agents are generally not recommended; the adjuvant agents may prevent dose escalation (Adler, et al., 2009). • Use caution with caffeine as it may cause tachycardia. Consider using EMTEC 30. • Tramadol should be avoided, there are drug interactions with neuropathic agents as it lowers the seizure threshold.
OPIOIDS		
morphine M.O.S.®, MS-IR®, Statex®, G	Start with 2.5 mg-5mg PO then reassess q 4h	• There is no limits to OPIOIDS • Meperidine (Demerol®) should not be used for the treatment of chronic pain. • Morphine is the ***least*** preferred in renal failure because of renal cleared active metabolites. • Use caution in starting long acting- short acting agents should be trialed before rotating to long-acting. • The total daily dose of short acting preparation must be at least 20 mg per day, before you switch to the long acting preparation. • The lowest dose of a long acting preparation is 10 mg and is given twice daily q12h.
M-Eslon®, M.O.S. SR®, MS CONTIN®, G	Start with 10mg PO q12h	
Injectable: 10 mg per ml (remember, injection route usually has twice the potency as the PO doses)	2 to 25 mg SC q4h	
oxyCODONE (1.5 as potent as morphine) oxy.IR®, Supeudol®, G	5 to 20 mg PO q4h	• Injectable oxyCODONE is not available in Canada.
HYDROmorphone Dilaudid®, G,	2 to 8 mg PO q3h	• HYDROmorphone is the opioid of choice (comment: not necessarily better than oxyCODONE or methadone) in renal impairment. • Immediate release formulations should be used before slow release preparations to facilitate dose adjustment and reduce the potential risk of toxicity.
HYDROmorph CONTIN®,	3 to 30 mg PO q12h	
Injectable: 2,10, 20, 50, 100 mcg per ml (Reminder- Injectable is TWICE AS POTENT AS PO)	2 to 10 mg SC q4h	
fentaNYL Patch Duragesic, Mat®, G	12 to 100 mcg per hr applied to skin every 72hours	• FentaNYL is primarily (75%) cleared as inactive metabolites by the kidney. Risk of delayed absorption and overdose potential. • Should not be started on opioid naive patients who are taking less than 50 mg PO morphine equivalent daily.
Inj: 50 mcg per ml	25 to 100 mcg sublingual per dose PRN	
SUFentanil®, G Inj. 50 mcg per ml	For incident pain: 12.5 mcg sublingual dose PRN; incremental doses titrated q2h PRN up to 75 mcg	• SUFentanil is a potent opioid- (refer to your local health authority protocol). • SL SUFentanil may be considered for patients receiving at least Morphine PO 60 mg equivalent over the last 7 days. Palliative Care Consult is recommended.
NEUROPATHIC PAIN		
methadone, (to prescribe a methadone license is required)	Dosing: Consult palliative care	The dose ratio of morphine: methadone is highly variable- eg. from 1:1 with lower doses to as high as 12: 1 in high doses- caution in switching from one medication to the other is recommended. Once a stable dose is reached, the dosing interval may be extended to every 8 to 12 hours, or longer
gabapentin, Neurontin®	100 to 1200 mg PO TID	Use lower doses for patients with renal impairment.
pregabalin, Lyrica®	75 mg PO BID	Increase q 7 days up to 300 mg BID- use lower doses for patients with renal impairment.