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

Dyspnea

Heart Failure Symptom Management Guideline

For adults, age 19 and older in British Columbia

Dyspnea is the most common, recurrent symptom associated with heart failure (HF) and may affect up to 90% of patients. In end stage HF, dyspnea is usually related to volume overload. Patients may, however, experience severe dyspnea without hypoxia, hypercapnea or volume overload. The experience of dyspnea can range from mild to severe and include a feeling of impending doom. A combination of pharmacologic management and self-management strategies are best employed to reduce and control symptoms of dyspnea. As heart failure advances, therapy should be tailored to the patients' subjective experience rather than to physiologic parameters.

Approach to Managing Dyspnea

Assessment

- Ask the patient to describe their symptoms and severity (0–10 scale).
- Ask: "Are you short of breath"?
- Use the Edmonton Symptom Assessment System (ESAS) in the setting of multiple symptoms, and as a useful way to trend burden of the symptom.
- Assess for alternative underlying causes; consider co-morbid conditions such as anemia, and chronic obstructive pulmonary disease (COPD).
- When cause of dyspnea is thought to be due to either HF or for example COPD, measurement of BNP may assist in clarifying the underlying cause. (BNP > 500 pg/ml or NTPro BNP >900 pg/ml- more likely to be related to HF).
- Obtain a full medical history and complete a full physical exam concentrating on symptoms and possible causes (this will lead to accurate diagnosis in two-thirds of cases).

Dyspnea tips

- Treat the subjective symptom of dyspnea with medications.
- A combination of pharmacologic and non-pharmacologic self-management strategies is most effective.
- In advanced disease, it is important to treat constant dyspnea and plan for episodes of breakthrough dyspnea and severe persistent dyspnea.

Non-pharmacologic Approach

- Pace activity to reduce severity of dyspnea episodes.
- Prepare for exertional activities, (take your medication as prescribed before your activity, this includes opioids).
- Pursed-lip breathing can be an effective strategy for relief of dyspnea.
- Movement of air-flow can improve symptom (use fans, open windows).
- Plan ahead about what to do to reduce anxiety which can worsen symptom.
- Ensure family or friends are aware of the strategies to support the patient during incident and crisis dyspnea.
- Noninvasive positive pressure ventilation.
- Relaxation can be an effective strategy for relief of dyspnea.

Initial pharmacologic approach

- Treat volume overload http://www.bcheartfailure.ca/wp-content/uploads/downloads/2012/06/HF-Algorithm-v6-1a-21.pdf
- Combination of loop and thiazide diuretic may improve response.
- Standard heart failure therapies (ACE/ARB, vasodilators, eg. Nitrates).
- Oxygen for hypoxemia only (access the home O2 application through your health authority websites).

Persistent Symptoms (despite optimal medication)

- Initiate and titrate opioid therapy as they are effective in both pain and dyspnea.
- Opioids are safe in cardiopulmonary disease. Start low, go slow.
- Opioids with few/no active metabolites are preferred in renal failure/frailty-avoid Tylenol #3 and morphine.
- Always order a laxative with opioids as constipation is a common reason for non-adherence with opioids.
- Breakthrough pre activity dose can be useful for incident management of dyspnea (usually 10% of total daily dose q1h).
- Consider consultation with palliative care physician if symptoms persistent.

Fentanyl patch should not be used as an initial opioid, but may be a good choice for long term therapy

Addition of Benzodiazepines for management of anxiety or dyspnea may be required in addition to opioid therapy

http://www.bcguidelines.ca/pdf/palliative2_dyspena.pdf

Medication (Generic/Trade)	Available doses forms	Initial Dose and titration
hydromorphone (dilaudid)	IR tabs 1,2,4,8 mg	0.5mg-1mg PO q1h, PRN. Once regular dose is achieved then should adjust to BID or q4hr dosing schedule.
morphine (MOS,MS-IR, Statex)	IR tabs: 5,10,25,30,40,50,60 mg	2.5-5 mg PO q1h PRN
MOS, MS	Injection: 1,2,5,10,15,25,50mg per/ml	Crisis dyspnea: 5 mg SC q15 minutes.
Oxycodone (Oxy IR, Supeudol)	IR tabs: 5,10,20 mg	2.5-5 mg PO, titrate to q4h