

Heart Failure Palliative Approach to Care  
(HeFPAC)

VERSION 3

A GUIDE FOR NURSES

The HeFPAC provides key information relevant to the nursing care of patients with advanced (or end-stage) chronic heart failure (HF), including those with multiple chronic conditions (MCC). Use the HeFPAC:

- To inform HF-specific assessments & care
- To communicate with patients, their families and the health team about HF specific issues
- To integrate HF issues into collaborative care plans & goals of care discussions
- In conjunction with other assessment tools and clinical guidelines

A **palliative approach** refers to integrated and optimal symptom management and supportive care to reduce suffering and improve quality of life; **it does not depend on a referral to a palliative care service or program.**

What is Heart Failure?

- Heart Failure is a complex syndrome in which abnormal heart function results in or increases the subsequent risk of reduced cardiac output and/or pulmonary and systemic congestion
- HF is a progressive, life limiting chronic illness that reduces quality of life and exercise tolerance and is associated with high morbidity and mortality
- HF can be classified according to the patient's response to physical activity using the New York Heart Association (NYHA) Classification system. Patients with advanced HF are NYHA 3 or 4
- HF symptoms can fluctuate on a daily basis; as HF progresses, previous symptom management strategies may become ineffective; this will require a reassessment of the patient and approach to care
- Optimal symptom control and comfort is possible even when HF is advanced or end-stage

NYHA Functional Classification of HF

CLASS	DESCRIPTION
1	<ul style="list-style-type: none"><li>No limitation of physical activity</li><li>Ordinary physical activity does not cause fatigue, palpitation or shortness of breath (SOB)</li></ul>
2	<ul style="list-style-type: none"><li>Slight limitation of physical activity</li><li>Comfortable at rest, but ordinary physical activity results in fatigue, palpitations, SOB &amp;/or angina</li></ul>
3	<ul style="list-style-type: none"><li>Significant limitation of physical activity</li><li>Comfortable at rest but less than ordinary activity causes fatigue, palpations, SOB &amp;/or angina</li></ul>
4	<ul style="list-style-type: none"><li>Unable to carry on any physical activity without discomfort</li><li>Symptoms of heart failure at rest</li></ul>

Key Assessments

SYMPTOM/SIGN	SIGNIFICANCE	ASSESSMENT/MONITORING
Fatigue	<ul style="list-style-type: none"><li>Significantly reduces quality of life; Causes include decreasing cardiac output, changes in skeletal muscle metabolism &amp; structure, co-morbidities</li></ul>	<ul style="list-style-type: none"><li>Assess for potentially reversible factors</li><li>Monitor ability to engage in activity</li></ul>
Edema/fluid retention	<ul style="list-style-type: none"><li>Fluid retention causes weight (wt) gain * 1 kg (2.2 lbs) wt = 1 litre fluid</li><li>Wt gain of 3 lbs. overnight or 5 lbs. in a week is fluid</li><li>When muscle mass is lost &amp; fluid is retained, there may be NO obvious wt gain or loss. Therefore, wt can be an unreliable indicator of fluid retention as HF progresses</li><li>High sodium (Na) intake may worsen symptoms even in end-stage illness</li></ul>	<ul style="list-style-type: none"><li>Assess: wt regularly (same time daily or weekly)</li><li>Edema in the extremities/ sacrum</li><li>Ascites: assess for increased abdominal girth (i.e. tight pants)</li><li>Limit Na intake. Note inadvertent intake of high Na foods (i.e. canned soups, any prepared food)</li></ul>
Dyspnea/ breathlessness /orthopnea	<ul style="list-style-type: none"><li>Dyspnea can vary in intensity &amp; is often associated with anxiety</li><li>Lungs may be clear (no crackles) even when fluid is retained and there is volume overload</li><li>Orthopnea may be subtle sign preceding Paroxysmal nocturnal dyspnea (PND); PND is the sudden, panicky waking after hours of sleep; it is caused by increasing venous return due to prolonged recumbent position</li></ul>	<ul style="list-style-type: none"><li>Respiratory assessment: Auscultate lungs</li><li>Ask: Are you (more) SOB than normal?</li><li>Ask about: need for increasing pillows to aid sleeping; orthopnea (SOB lying flat, relief sitting up); sudden waking &amp; feelings of panic at night</li></ul>
Pain: Cardiac & non-cardiac	<ul style="list-style-type: none"><li>Cardiac related pain: Angina - Chest pain is common with volume retention</li><li>Non-cardiac pain: may arise from multiple interacting factors (i.e. musculoskeletal problems, diabetic neuropathy, edema in periphery &amp; GI system, liver congestion, abdominal bloating)</li></ul>	<ul style="list-style-type: none"><li>Assess for presence and nature of chest &amp; abdominal pain</li><li>Ask: Does pain occur with activity or at rest?</li><li>Ask: Is pain relieved by medication (i.e. nitrates, analgesics, diuretics)?</li></ul>
Nausea/ loss of appetite/ anorexia	<ul style="list-style-type: none"><li>May indicate liver congestion or ↓ renal function</li><li>Gut edema can be associated with nausea and/or change in appetite</li><li>Can be exacerbated by breathlessness</li></ul>	<ul style="list-style-type: none"><li>Assess for reversible causes of nausea (i.e. fluid retention, digitalis toxicity)</li></ul>
Hypotension & /or tachycardia	<ul style="list-style-type: none"><li>Systolic BP &lt; 90mmHg is not uncommon and may be normal for some patients</li><li>Over-diuresis may cause dehydration</li><li>HR &gt; 100 may indicate dehydration OR worsening fluid retention</li></ul>	<ul style="list-style-type: none"><li>Know patient's normal ranges for HR &amp; BP</li><li>Assess for postural BP change &amp; symptoms of hypotension – ↓ alertness or change in mental status – postural dizziness</li><li>Assess HR &amp; signs of fluid retention or dehydration</li></ul>
Changes in cognitive function	<ul style="list-style-type: none"><li>Cognitive decline associated with ↓ perfusion/ oxygenation to the CNS; this may impair decision-making (i.e. for medication adherence, dietary intake &amp; decisions about goals of care)</li></ul>	<ul style="list-style-type: none"><li>Assess for:<ul style="list-style-type: none"><li>change in cognitive function, mood &amp; affect</li><li>ability to accomplish ADLs</li></ul></li></ul>

Is there a reversible condition that may be making HF symptoms worse?

CONDITION	EFFECTS
Anemia	<ul style="list-style-type: none"><li>Low haemoglobin (hgb) worsens HF symptoms &amp; makes fluid retention difficult to treat. <b>Consult re: possible transfusion</b> if hgb&lt; 90 mg/dl. Increased blood volume resulting from the transfusion is managed with IV furosemide</li></ul>
Digoxin toxicity	<ul style="list-style-type: none"><li>Causes nausea, cachexia, general malaise, poor appetite</li><li><b>Consult re: serum digoxin level</b></li></ul>
Fluid volume overload	<ul style="list-style-type: none"><li>As the heart pumps less effectively over time, fluid accumulates in interstitial spaces, leading to acute pulmonary edema (acute HF). <b>Consult to consider diuresis</b></li></ul>
Infection	<ul style="list-style-type: none"><li>Any infection (i.e. UTI, pneumonia) worsens HF symptoms</li><li><b>Assess for presence of infection</b></li></ul>
New arrhythmia	<ul style="list-style-type: none"><li>New onset atrial fibrillation or other rhythm issues can worsen HF</li><li><b>Consult re: ECG</b></li></ul>
New medication	<ul style="list-style-type: none"><li>Medication for another illness (i.e. NSAIDs or steroids) will worsen HF</li><li><b>Medication reconciliation</b></li></ul>

HF Medications and Adjuvants

As a comfort measure, discuss discontinuation of cardiovascular medications that are 'disease-modifying' and that have NO effect on symptoms (i.e. ECASA, Plavix, Statins, amlodipine).

MEDICATION	TIPS TO REMEMBER
<b>Angiotensin-Converting Enzyme (ACE) Inhibitors</b> (i.e. ramipril); and <b>Beta-Blockers</b> (i.e. bisoprolol)	<ul style="list-style-type: none"><li>Decreases symptoms and risk of worsening HF</li><li>Consider dose reduction or withdrawal if symptomatic hypotension (+++ fatigue, dizziness)</li><li><b>Withdrawal for asymptomatic hypotension is not recommended</b></li></ul>
<b>Nitrates</b> (i.e. nitroglycerin)	<ul style="list-style-type: none"><li>May relieve breathlessness and or chest pain</li></ul>
<b>Diuretics: Loop</b> (i.e. furosemide)	<ul style="list-style-type: none"><li>Learn patient's 'target' or 'dry' weight (wt. at which no fluid retained)</li><li>Consult to increase furosemide dose for &gt; 3 lbs over target weight or to decrease dose if dehydrated</li><li>Call MD or NP if wt gain does not respond to increased diuretic</li></ul>
<b>Analgesics</b>	<ul style="list-style-type: none"><li>Opioids may be indicated and safely used in patients with HF</li><li>Avoid NSAIDs; they can worsen fluid retention and HF symptoms</li></ul>

Cardiac Device Therapies

<b>ICD:</b> Implantable Cardiac Defibrillator	<ul style="list-style-type: none"><li>An implanted medical device that can detect life-threatening ventricular arrhythmias &amp; prevent sudden cardiac death</li><li>ICD is programmed to deliver special pacing or a shock to terminate life-threatening rhythms</li><li>ICD deactivation will not cause immediate death. Deactivation means the ICD will not deliver a shock in the event there is a life-threatening arrhythmia. Consult with ICD deactivation protocol or electrophysiologist for further information</li></ul>
<b>CRT:</b> Cardiac Resynchronization Therapy (biventricular pacing)	<ul style="list-style-type: none"><li>Special type of pacing device, which synchronizes ventricular action to help ↓ HF symptoms</li><li>Can be used alone or combined with ICD</li></ul>
<b>Pacemaker</b>	<ul style="list-style-type: none"><li>Pacemakers are implanted to treat bradyarrhythmias when the normal cardiac conduction system is ineffective or damaged. Pacemakers will not interfere with a natural death</li></ul>
<b>VAD:</b> Ventricular Assistive Device LVAD (Left Ventricular Assistive Device)	<ul style="list-style-type: none"><li>A VAD is a mechanical pump connected to a power source that is used when ventricular function is severely compromised and unable to support circulation</li></ul>

Issues for Discussion with Patient and Family

- 1. HF trajectory: Are the patient and family aware of the HF diagnosis & pattern of the HF illness trajectory?**

  - Refer to HF as a *chronic, progressive life-limiting illness*
  - Discuss implications of the uncertain HF trajectory: *“hope for the best, plan for the worst”*
  - Consider using patient education aids from web resources listed in this guide
  - Engage in new and re-visit previous discussions re: Advance Care Planning. For resources visit [www.advancecareplanning.ca](http://www.advancecareplanning.ca)
- 2. Have goals of care discussions occurred to:**

  - Optimize symptom relief & management, and quality of life
  - Plan for emergency situations that may occur to avoid hospitalization (if desired) & possible (i.e. managing severe dyspnea)
  - Coordinate care with the patient's specialist health care professionals, teams or clinics (i.e. HF, dialysis)
  - Establish, document and review resuscitation status
  - Discuss possible deactivation of the shock portion of the ICD
- 3. Are home care services optimized? Consider:**

  - Caregiver needs for information, support & /or respite
  - Referral to Long Term Care, Residential Care, Hospice
  - \*Use Palliative Performance Scale score (PPS) and/or Edmonton Symptom Assessment Scale (ESAS) to assist in decisions for support & referral

**Web-Based Resources:** HF facts, medication & symptom guidelines, HF Guidelines and patient education information and videos can be downloaded at:

[www.chfn.ca/professionals](http://www.chfn.ca/professionals)

<http://www.bcheartfailure.ca/for-bc-healthcare-providers/end-of-life-tools/>

<http://www.hfsa.org/hfsa-wp/wp/patient/education-modules/>

[http://www.heartfailurematters.org/en\\_GB](http://www.heartfailurematters.org/en_GB)

This reference guide has been informed by the principles endorsed in the CHPCA Model to Guide Hospice Palliative Care and by HF Guidelines.

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