

Heart Failure Palliative Approach to Care (HeFPAC)

VERSION 4

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

Key Assessments

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

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

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

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

Cardiac Device Therapies

ICD: Implantable Cardiac Defibrillator	<ul style="list-style-type: none"> An implanted medical device that can detect life-threatening ventricular arrhythmias & prevent sudden cardiac death ICD is programmed to deliver special pacing or a shock to terminate life-threatening rhythms 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
CRT: Cardiac Resynchronization Therapy (biventricular pacing)	<ul style="list-style-type: none"> Special type of pacing device, which synchronizes ventricular action to help ↓ HF symptoms Can be used alone or combined with ICD
Pacemaker	<ul style="list-style-type: none"> Pacemakers are implanted to treat bradyarrhythmias when the normal cardiac conduction system is ineffective or damaged. Pacemakers will not interfere with a natural death
VAD: Ventricular Assistive Device LVAD: (Left Ventricular Assistive Device)	<ul style="list-style-type: none"> 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

Issues for Discussion with Patient and Family

- 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.advancerecognition.ca
- 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
- 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:
<http://www.ccs.ca/en/>
<http://www.bcheartfailure.ca/for-bc-healthcare-providers/end-of-life-tools/>
<http://www.hfca.org/hfa-wp/wp-patient-education-modules/>
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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