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

<table>
<thead>
<tr>
<th>CONDITION</th>
<th>EFFECTS</th>
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<tr>
<td>Anemia</td>
<td>Low haemoglobin (Hgb) worsens HF symptoms &amp; makes fluid retention difficult to treat. Consult re: possible transfusion if Hgb &lt; 90 mg/dL. Increased blood volume resulting from the transfusion is managed with IV furosemide</td>
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<td>Dignosis toxicity</td>
<td>Causes nausea, cachexia, general malaise, poor appetite</td>
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<td>Fluid volume overload</td>
<td>As the heart pumps less effectively over time, fluid accumulates in interstitial spaces, leading to acute pulmonary edema (acute HF). Consult to consider diuresis</td>
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<tr>
<td>Infection</td>
<td>Any infection (i.e. UTI, pneumonia) worsens HF symptoms</td>
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<tr>
<td>New arrhythmia</td>
<td>New onset atrial fibrillation or other rhythm issues can occur causing suffering and improve quality of life. It does not depend on a referral to a palliative care service or program.</td>
</tr>
<tr>
<td>New medication</td>
<td>Consult re: ECG</td>
</tr>
<tr>
<td>Medication reconciliation</td>
<td>Medication for another illness (i.e. NSAIDs or steroids) will worsen HF</td>
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**Cardiac Device Therapies**

- **ICD Implantable Cardiac Defibrillator**
  - 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 on line for further information
  - Special type of pacing device, which synchronizes ventricular action to help HF symptoms
  - Can be used alone or combined with ICD

- **Pacemaker**
  - Pacemakers are implanted to treat bradycardia rhythms when the normal cardiac conduction system is inefficient or damaged
  - Pacemakers will not interfere with a natural death

- **VAD: Ventricular Assist Device**
  - 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**

1. HF trajectory assessment and family awareness of the HF diagnosis 
   - 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.

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 ICD deactivation
   - Coordinate care with the patient’s specialist health care professionals, teams or clinics (including Psychiatric, Social Services, etc.)
   - 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 & change
   - Home care services and supports: transition care, in-home care, etc.
   - Referral to Long Term Care, Residential Care, Hospice
   - Use Palliative Performance Scale score (PPS) 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.hfb.ca/wp-wp/patient/education-modules/**
- **http://www.heartfailurematters.org/en_GB**

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This information has been guided by the principles endorsed in the **CPCHA Model to Guide Hospice Palliative Care and by HF Guidelines**

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CPY BS N. CHFPCN: Palliative Care Nurse Specialist at Home & Hospital, St. Joseph’s Healthcare, Narvall, ON. (April 2015)
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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. ECA, Plaxit, Statins, amiodipine).

- Nitrates (i.e. nitroglycerin) may relieve breathlessness and chest pain
- Diuretics: Loop (i.e. furosemide) may increase furosemide dose for >3 lbs over target weight or to decrease dose if dehydrated
- Opioids may be indicated and safely used in patients with HF
- Avoid NSAIDs; they can worsen fluid retention and HF symptoms
- May relieve breathlessness and chest pain
- Withdrawal for asymptomatic hypertension is not recommended

Cardiac Device Therapies

- An implanted medical device that can detect life-threatening ventricular arrhythmias & prevent sudden cardiac death
- CRT: Cardiac Resynchronization Therapy (biventricular pacing)
- ICD: Implantable Cardiac Defibrillator
- VAD: Ventricular Assist Device
- LVAD (Left Ventricular Assist Device)

Issues for Discussion with Patient and Family

1. HF trajectories: what does and does not help and familiarize the HF diagnosis & pattern of the HF illness trajectory?
   - Refer to HF as a chronic, progressive life-limiting illness
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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 life-sustaining measures
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   - Establish, document and review resuscitation status
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