Key Highlights from the Recommended Guideline

Diagnose heart failure when the patient has both
(a) clinical evidence of impaired cardiac output and/or volume overload, and
(b) abnormal systolic or diastolic function by diagnostic imaging

Scope: Health professionals involved in the care of adult patients with suspected heart failure

How do I diagnose heart failure accurately in a patient in whom I suspect heart failure?

- Establish the diagnosis of heart failure and identify modifiable risk factors by clinical examination and laboratory testing. [Level of Evidence: Class I, Level C]
  - The triad of edema, fatigue, dyspnea is not sensitive or specific
  - Patients may have heart failure
    - Without having volume overload
    - With a normal ejection fraction

Some Common Precipitants
- Coronary artery disease, thyroid dysfunction, drugs
- Also consider if appropriate, rarer causes

Signs and Symptoms
- dyspnea, orthopnea, paroxysmal nocturnal dyspnea, cough, weight gain, abdominal distension, nocturia, dependent edema, fluid overload, cool extremities

Uncommon Signs and Symptoms
- altered mentation or cognitive impairment, nausea, abdominal discomfort, oliguria, cyanosis

- Perform transthoracic echocardiography to assess ventricular size and function, or if unavailable, gated radionuclide ventriculography. [Level of Evidence: Class I, Level C]

- Document the patient’s functional capacity using the New York Heart Association (NYHA) or another validated measure. [Level of Evidence: Class I, Level C]

NYHA Classification
- I = No symptoms
- II = Symptoms with ordinary activity
- III = Symptoms with less than ordinary activity
- IV = Symptoms with minimal activity or at rest
  - A 6 minute walk test may be helpful

- Screen first-degree relatives if the patient has a family history of cardiomyopathy or sudden death. [Level of Evidence: Class I, Level C]
What if you suspect that coronary artery disease is contributing to the heart failure?

- Consider coronary angiography. [Level of Evidence: Class I, Level C]
  - Radionuclide imaging, cardiopulmonary exercise testing may also be helpful

What if you are uncertain of the clinical diagnosis?

- Consider testing levels of plasma B-type or brain natriuretic peptides (BNPs). [Level of Evidence: Class IIa, Level A]
- Consider measuring BNP in patients with an established diagnosis of heart failure for prognostic stratification. [Level of Evidence: Class IIa, Level A]
- Consider measuring BNP sequentially to guide the therapy of patients with heart failure. [Level of Evidence: Class IIb, Level B]

Levels of Evidence

<table>
<thead>
<tr>
<th>Class</th>
<th>Description</th>
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<tbody>
<tr>
<td>Class I</td>
<td>Evidence or general agreement that a given procedure or treatment is beneficial, useful and effective.</td>
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<tr>
<td>Class II</td>
<td>Conflicting evidence or a divergence of opinion about the usefulness or efficacy of the procedure or treatment.</td>
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<tr>
<td>Class IIa</td>
<td>Weight of evidence is in favour of usefulness or efficacy.</td>
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<tr>
<td>Class IIb</td>
<td>Usefulness or efficacy is less well established by evidence or opinion.</td>
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<tr>
<td>Class III</td>
<td>Evidence or general agreement that the procedure or treatment is not useful or effective and in some cases may be harmful.</td>
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<td>Data derived from multiple randomized clinical trials or meta-analyses.</td>
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<tr>
<td>Level B</td>
<td>Data derived from a single randomized clinical trial or nonrandomized studies.</td>
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<tr>
<td>Level C</td>
<td>Consensus of opinion of experts and/or small studies.</td>
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The above recommendations were derived from the following GAC endorsed guidelines:


Rating (out of 4): 🍒🍎🍊🍋