HEART FAILURE IN THE OFFICE OR HOSPITAL: SHOULD THEY STAY OR SHOULD THEY GO?

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CASE

• 64M DM, CAD with CABG x3, EF 35% with inferior wall akinesis. He returns to office with worsening weight gain after trialing Lasix 40mg po twice daily on top of baseline ACEi and beta blocker. His creatinine has risen from 1.2 to 1.9 and he is beginning to have truncal ascites. His systolic blood pressure has fallen into the normal range, from 150/80 to 110/100. What would you recommend?

• A. Increase oral diuretic as outpatient
• B. Hospitalize and trial iv diuresis
• C. Hold diuretics, renal function is worsening
• D. Admit, start dopamine for pressor support
INTRODUCTION

• It is not always clear to admit or not
• Medicare and reimbursement ramifications
• Prognostic implications
• Epidemiologic relevance
  • Most common diagnosis in the hospitalized patient greater than 65
BACKGROUND

• Very little to no “admission criteria” for heart failure
• Subjectivity
• 1999 Annals of Emergency medicine guidelines for admission
• ACCF/AHA 2013 Guidelines for the Management of Heart Failure
TOO GENERAL, TOO LATE!

• Management of Patients with Congestive Heart Failure—AHCPR* Guideline

• A patient with congestive heart failure should be admitted to the hospital if any of the following criteria are present:

• 1. Respiratory distress (respiratory rate > 40 breaths per minute) or pulmonary edema (determined by radiograph)

• 2. Hypoxia (oxygen saturation < 90%)

• 3. Anasarca or significant edema (≥+2)

• 4. Syncope or hypotension (systolic blood pressure ≤80 mm Hg)

• 5. Congestive heart failure of recent onset (no past history of congestive heart failure)

• 6. Evidence of ischemia (chest pain symptoms)

• 7. Inadequate social support for outpatient management

• 8. Failure of outpatient management

• 9. Concomitant acute medical illness

• *—Now the Agency for Healthcare Research and Quality (AHRQ).
ACCF/AHA HEART FAILURE GUIDELINES
ADMISSION FOR ACUTE DECOMPENSATED HEART FAILURE

• Elderly
• Equally male and female
• Comorbidities, esp. HTN
• Equally HFpEF and HFrEF
• Women tend to have HFpEF and with less HTN and CAD
ACCF/AHA CATEGORIES OF HOSPITALIZED HEART FAILURE PATIENT SUBGROUPS

- Acute coronary ischemia
- Accelerated hypertension
- Decompensated HF
- Shock
- Acutely worsening right HF
CLASSIFICATION OF ACUTELY DECOMPENSATED HEART FAILURE

- Acutely decompensated heart failure

![Diagram showing classification of patients presenting with acutely decompensated heart failure. Adapted with permission from Nohria et al.](image)
NOTES ON HEART FAILURE ASSESSMENT

• CXR of variable value
• BNP useful in in and exclusion of heart failure
• Acoustic cardiography, bioimpedence, noninvasive cardiac output monitoring are not validated
Common Factors That Precipitate Acute Decompensated HF

- Nonadherence with medication regimen, sodium and/or fluid restriction
- Acute myocardial ischemia
- Uncorrected high blood pressure
- AF and other arrhythmias
- Recent addition of negative inotropic drugs (eg, verapamil, nifedipine, diltiazem, beta blockers)
- Pulmonary embolus
- Initiation of drugs that increase salt retention (eg, steroids, thiazolidinediones, NSAIDs)
- Excessive alcohol or illicit drug use
- Endocrine abnormalities (eg, diabetes mellitus, hyperthyroidism, hypothyroidism)
- Concurrent infections (eg, pneumonia, viral illnesses)
- Additional acute cardiovascular disorders (eg, valve disease endocarditis, myopericarditis, aortic dissection)