ED OBSERVATION UNIT:
ACUTE HEART FAILURE PROTOCOL
NYC H+H KINGS COUNTY HOSPITAL CENTER

General Observation Guidelines apply for all ED observation patients

INCLUSION CRITERIA	*EXCLUSION CRITERIA*
• Prior diagnosis of CHF • Imaging (bedside ultrasound, CXR) or laboratory studies (BNP) suggestive of acute heart failure • EKG normal or unchanged from prior • Initial treatment in the ED	• New onset heart failure is an admissible diagnosis[1] • Evidence of altered mental status • ESRD, cardiorenal syndrome, or severe electrolyte imbalance • Elevated cardiac enzymes (from baseline) • RR >30 • Persistent need for NIPPV, manifested by at least one of: persistent hypoxemia refractory to supplemental oxygen; or severe dyspnea with signs of respiratory muscle fatigue, increased work of breathing, or both

INTERVENTIONS
• Telemetry monitoring for 24 hours • Continuous pulse oximetry and oxygen therapy as indicated • Serial troponins and EKGs • Sublingual nitroglycerin, aspirin, and furosemide • TTE up to date within 6 months • Serial Weight and Urine Output

[1] As per Millman Guidelines (23rd edition), admission is indicated by 1 or more of the following:

- New-onset heart failure
- Acute cardiac ischemia causing or associated with failure. See Anginaclick here to preview Angina ISC or Myocardial Infarctionclick here to preview Myocardial Infarction ISC as appropriate.
- Heart failure with decreased urine output not responsive to attempts to optimize volume status
- Ongoing need for care for primary condition requiring frequent therapy adjustments because of changes in cardiac function (eg, drug dosage changes for drugs that are renally metabolized)
- Complications of heart failure present, including 1 or more of the following: Hemodynamic instability, Pericardial effusion, Symptomatic pleural effusion, Hypoxemia, Tachypnea, Dyspnea, Syncope, Altered mental status, Acute renal insufficiency that is severe (reduction of more than 50% in estimated GFR from baseline) or progressive (reduction of more than 25% in estimated GFR from baseline, with creatinine continuing to rise), Debilitating anasarca (eg, tissue breakdown with infection, inability to void due to edema), Clinically significant metabolic abnormalities due to heart failure (eg, new-onset metabolic acidosis)

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Authored by A. Aurrecoechea MD

Reviewed by T. Ahmad MD, R. Balakrishnan MD, A. Cai, MD, P. Koneru, and S. Brewster MD

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DISPOSITION	
Home: • Stable vital signs • Mental Status at baseline • Ambulatory (or at baseline with ADLs) • Oxygen requirement at baseline • Adequate oral intake • Cardiology follow up within 1 week	**Admission:** • Persistent hypoxemia • Hemodynamic Instability • AMS • Failure to respond to diuresis or adverse event due to medication • Worsening of comorbid conditions • New EKG changes • Elevated cardiac enzymes

Sources

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2. Mebazaa A, Yilmaz MB, Levy P, et al. Recommendations on pre-hospital & early hospital management of acute heart failure: a consensus paper from the Heart Failure Association of the European Society of Cardiology, the European Society of Emergency Medicine and the Society of Academic Emergency Medicine. Eur J Heart Fail. 2015;17(6):544-58.
3. Schrock JW, Emerman CL. Observation unit management of acute decompensated heart failure. Heart Fail Clin. 2009;5(1):85-100, vii.
4. Miró Ò, Peacock FW, Mcmurray JJ, et al. European Society of Cardiology - Acute Cardiovascular Care Association position paper on safe discharge of acute heart failure patients from the emergency department. Eur Heart J Acute Cardiovasc Care. 2017;6(4):311-320.

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