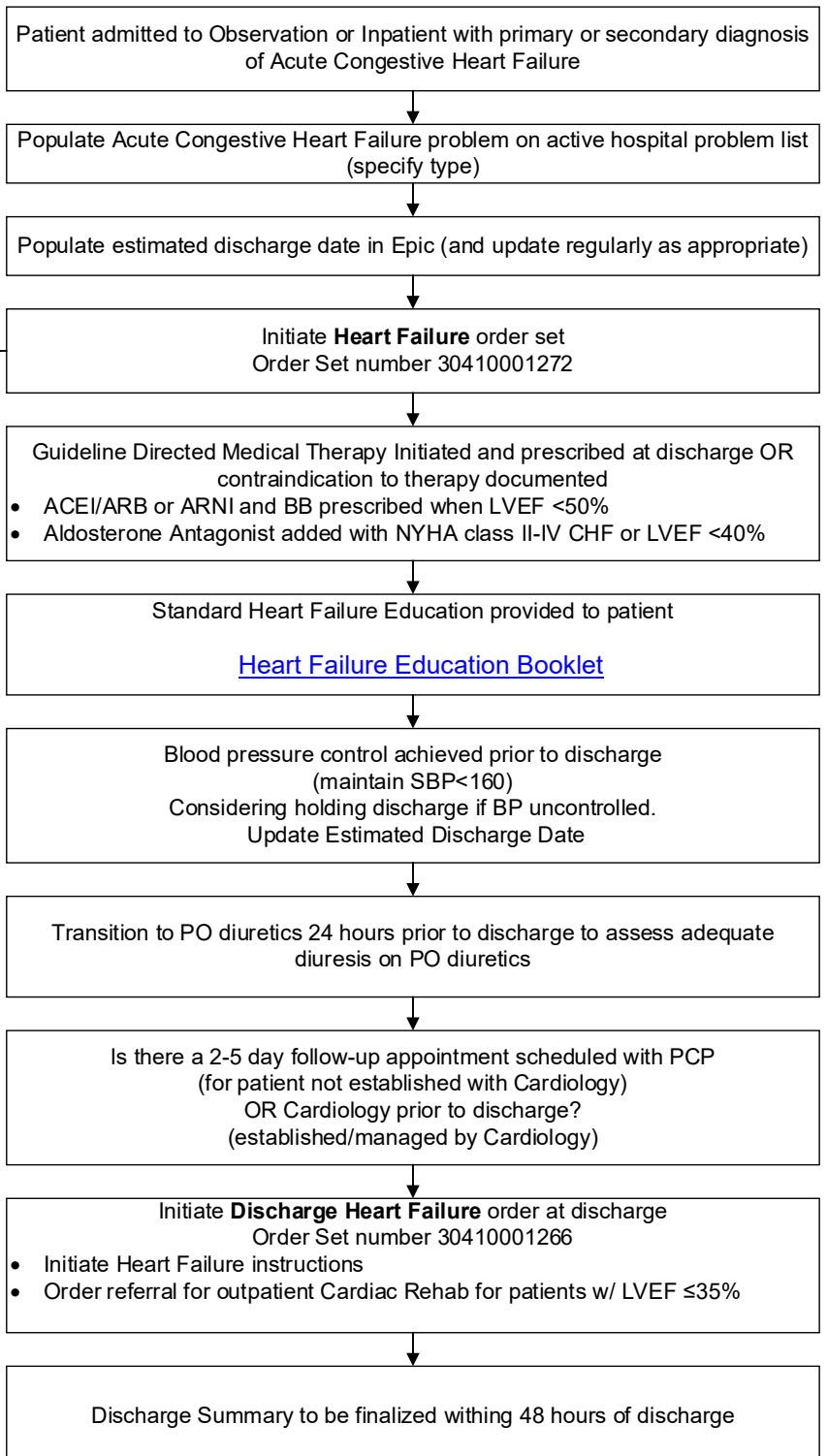


Clinical Pathway: Heart Failure, Adult, Inpatient and Observation

Updated: February 25, 2021

Clinical Algorithm

- 2000 mL daily fluid / 2 gram sodium restriction diet
- Daily Ambulatory SPO2
- Intake and Outpatient measurements every 4 hours
- Daily weights
- Consult to Nutrition for Heart Healthy diet education
- Daily BMP levels
- Evaluation/Management of precipitants to Heart Failure (see extended algorithm for guidance)
- Order Echocardiogram – no echo within last 6 months, new/worsening arrhythmia/murmur, or no clear precipitant identified



For the full Heart Failure Algorithm, please see the following document [Heart Failure Inpatient Algorithms](#)

Clinical Pathway Summary

CLINICAL PATHWAY NAME: Heart Failure, Adult, Inpatient/Observation, Clinical Pathway

PATIENT POPULATION AND DIAGNOSIS: New or existing diagnosis of acute congestive heart failure on the problem list, as primary or secondary diagnosis, for adult patients admitted to Observation or Inpatient units.

APPLICABLE TO: All Spectrum Health West Michigan Hospitals

BRIEF DESCRIPTION: Basic care of patients with new or existing acute heart failure, with a goal of preventing 30-day readmission. Core elements of the clinical pathway include use of Heart Failure Admission and Discharge Order Sets, Guideline-Directed Medical Therapy Best Practice Advisory, Standardized Patient Education BPA, adherence to blood pressure control and diuretic conversion prior to discharge and ensure 2-5 day follow-up appointment is scheduled prior to discharge.

OPTIMIZED CLINICAL DECISION SUPPORT:

Heart Failure order set [30410001272]

Discharge Heart Failure order set [30410001266]

OVERSIGHT TEAM LEADER(S): Dr. Michael Vredenburg and Dr. Michael Dickinson

OWNING EXPERT IMPROVEMENT TEAM (EIT): Heart Failure Expert Improvement Team

MANAGING CLINICAL PRACTICE COUNCIL (CPC): Cardiovascular Health

CPC APPROVAL DATE: 3/8/2021

OTHER TEAM(S) IMPACTED (FOR EXAMPLE: CPCs, ANESTHESIA, NURSING, RADIOLOGY): Acute Health, Cardiology, Nursing, Pharmacy, Nutrition, Care Management

IMPLEMENTATION DATE: 3/30/2021

LAST REVISED: 2/25/2021

FOR MORE INFORMATION, CONTACT: Dr. Michael Vredenburg and Ashly Sweet PA-C

Clinical pathways clinical approach

TREATMENT AND MANAGEMENT:

Heart failure (HF) is a clinical syndrome due to inadequate cardiac performance or adequate performance only with elevated ventricular filling pressures. The primary manifestations of heart failure include dyspnea and fatigue, fluid retention with pulmonary or splanchnic congestion and peripheral edema. While volume overload is common, HF can present without volume overload. The complexity of manifestations and causes for HF presents significant challenges to implementation of uniform treatment programs. This complexity also is the impetus for an organized assessment and treatment program to optimize goal directed therapy and minimize

unnecessary variation, avoidable costs and adverse outcomes from the treatment of heart failure.

Heart failure affects over 6 million people in the US and is the primary or secondary diagnosis in more than 3 million hospital admissions each year. Significant opportunity exists to improve the diagnosis, assessment and management of patients admitted at Spectrum Health. The purpose of the Heart Failure Clinical Pathway is to provide tools that will facilitate improvement in care, reduce adverse outcomes, optimize resource utilization and reduce readmissions for patients with heart failure.

Focus areas principally addressed by the HF clinical pathway include:

- Recognition and accurate documentation of heart failure diagnosis
- Utilization of Heart Failure Admission Order Set
- Proper use of Goal Directed Medical Therapy (GDMT)
- Patient education
- Discharge readiness criteria
- Uniform discharge process
- Documentation of Metrics
- Hospital to Office (H2O) visit scheduled for all at discharge

Recognition of HF as a primary or secondary diagnosis for an admitted patient serves as the entry point for the HF pathway. Proper documentation of HF type (Reduced Ejection Fraction or Preserved Ejection Fraction) and chronicity (acute, chronic or both) and initiation of Heart Failure order sets are paramount to proper management. The HF pathway is based on guidance from the American College of Cardiology Guideline for Management of Heart Failure.

Comprehensive care of HF includes evaluation for precipitant events and concurrent illnesses that contribute to HF onset or exacerbations. Common contributing factors include poorly controlled hypertension, dietary or medication noncompliance, unrecognized valvular heart disease and concurrent renal insufficiency.

For all patients who present with volume overload, adequate diuresis and attention to electrolyte shifts is important. The pathway endorses initiation of therapeutic diuresis with concurrent initiation of goal directed medical therapy (Beta blockers, Ace inhibitors/ARB or ARNI, Aldosterone antagonist for HF with reduced EF, BP control and heart rate control for HF with preserved EF). While beta blockers and ace inhibitors are accepted as appropriate therapy for HF with reduced EF, adoption of Angiotensin Receptor-Neprilysin Inhibitors are now endorsed as first line therapy and Angiotensin Receptor Antagonists are endorsed with Class 1 recommendation for first line use in patients with reduced EF and symptoms.

Optimal transition from inpatient to outpatient care is challenging. Based on guidelines from the ACC, the HF pathway endorses adequate diuresis with transition to oral diuretics and assurance of adequate response prior to discharge. Practice of transition to oral meds 24 hours prior to discharge is encouraged. Short term reassessment is also important to maintain the success of initial treatment into the outpatient environment. A visit with a provider to reenforce education,

reassess status and optimize medical therapy within 5 days of discharge is endorsed as a goal for patients discharged with diagnosis of HF.

References:

[Guideline Hub | Heart Failure - American College of Cardiology \(acc.org\)](#)

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