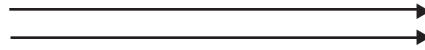


## Acute Decompensated Heart Failure: Hospitalist Checklist

Acute management



Self management

Palliative care

Admission	Daily Inpatient Evaluation	Discharge
<ul style="list-style-type: none"> <li>▶ Are you sure this is Left-sided or Biventricular Heart Failure?</li> <li>▶ Is this Isolated Right-sided Heart failure?</li> <li>▶ Is there an Alternative Diagnosis?</li> </ul>		Is the patient ready to be discharged?

ETIOLOGY OF HEART FAILURE	VOLUME MANAGEMENT	MEDICATIONS TO TREAT SYSTOLIC HEART FAILURE	FACTORS RELATED TO DISCHARGE READINESS
<input type="checkbox"/> Ischemic <input type="checkbox"/> Non-ischemic <ul style="list-style-type: none"> <li><input type="checkbox"/> Hypertension</li> <li><input type="checkbox"/> Valvular</li> <li><input type="checkbox"/> Alcohol use</li> <li><input type="checkbox"/> Thyroid disease</li> <li><input type="checkbox"/> Viral</li> <li><input type="checkbox"/> Anemia</li> <li><input type="checkbox"/> Congenital</li> <li><input type="checkbox"/> Chemotherapy- related</li> <li><input type="checkbox"/> Other:</li> </ul>	Dry weight: _____ Today's weight: _____  GOAL DISCHARGE WEIGHT: _____  <input type="checkbox"/> 2 gram sodium diet <input type="checkbox"/> Fluid restriction <input type="checkbox"/> Daily weight ordered <input type="checkbox"/> Strict I/O <input type="checkbox"/> Diuretic ordered IV/oral <input type="checkbox"/> 24-hour diuresis goal: _____	<input type="checkbox"/> ACEI and/or ARB (or document contraindication) <input type="checkbox"/> Beta-blockers (Bisoprolol – not FDA- approved for heart failure, but has evidence to support its use in heart failure; Carvedilol; Metoprolol XL) <input type="checkbox"/> Aldosterone antagonists <input type="checkbox"/> Hydralazine/nitrates <input type="checkbox"/> Loop diuretics <input type="checkbox"/> Digoxin	<input type="checkbox"/> Stable creatinine <input type="checkbox"/> Near target weight or plan for on-going diuresis outlined <input type="checkbox"/> Daily lab work not needed <input type="checkbox"/> Self-management reviewed <input type="checkbox"/> Follow-up plan established <input type="checkbox"/> Red flags reviewed <input type="checkbox"/> Medication (acquisition and adherence) reviewed
<b>SEVERITY OF HF</b>  P CONGESTION E Warm/Dry Warm/Wet R F U S Cold/Dry Cold/Wet I O N	<b>PHYSICAL EXAM</b>  <input type="checkbox"/> Presence of 3rd heart sound <input type="checkbox"/> Assess JVP/HJR <input type="checkbox"/> Oxygen requirement <input type="checkbox"/> Presence of rales/crackles	<b>MEDICATIONS TO TREAT DIASTOLIC HEART FAILURE</b>  <input type="checkbox"/> Loop diuretics <input type="checkbox"/> Thiazide diuretics <input type="checkbox"/> Anti-hypertensive medications	<b>MEDICATION LIST:</b>  <input type="checkbox"/> Pruned (unnecessary meds eliminated) <input type="checkbox"/> Reconciled <input type="checkbox"/> Explained
<b>NYHA CLASS: 1 2 3 4</b>  <b>HEART FAILURE STAGE: C D</b>  <b>TYPE OF HEART FAILURE</b>  <input type="checkbox"/> Systolic Dysfunction <input type="checkbox"/> Diastolic Dysfunction <input type="checkbox"/> Right Ventricular Dysfunction	<b>DIAGNOSTIC EVALUATION</b>  <input type="checkbox"/> LVEF assessment <input type="checkbox"/> Assessment for valvular heart disease  <input type="checkbox"/> Stress testing <input type="checkbox"/> Nonischemic work-up (Fe studies, ceruloplasmin, thyroid studies, HIV testing)  <input type="checkbox"/> Bio-impedance measurement (intrathoracic or transthoracic)	<b>SPECIAL CIRCUMSTANCES</b>  <input type="checkbox"/> Parenteral inotropes <input type="checkbox"/> Parenteral vasodilators <input type="checkbox"/> Amlodipine for HTN in patients not at goal with ACEI/ARB and Beta Blockers	<b>HIGH-RISK MEDICATIONS THAT NEED CLOSE FOLLOW-UP AND MONITORING</b>  <input type="checkbox"/> Warfarin <input type="checkbox"/> Electrolyte-disturbing medications (diuretics) <input type="checkbox"/> Corticosteroid <input type="checkbox"/> Hypoglycemic agents <input type="checkbox"/> Narcotic analgesics
<b>TRIGGERS</b>  <input type="checkbox"/> Dietary indiscretion <input type="checkbox"/> Medication non-adherence <input type="checkbox"/> Chest pain/coronary artery disease <input type="checkbox"/> Other respiratory problems <input type="checkbox"/> New or worsening arrhythmia <input type="checkbox"/> Infection <input type="checkbox"/> Anemia <input type="checkbox"/> Uncontrolled hypertension <input type="checkbox"/> Other		<b>MEDICATIONS TO AVOID</b>  <input type="checkbox"/> NSAIDs (including COX-2 Inhibitors) <input type="checkbox"/> Thiazolidinediones <input type="checkbox"/> Steroids <input type="checkbox"/> Disopyramide <input type="checkbox"/> IV Antibiotics requiring large fluid volumes to administer <input type="checkbox"/> Calcium Channel Blockers	<b>LAB MONITORING WITHIN 72 HOURS OF DISCHARGE</b>  <b>Electrolytes, BUN/creatinine (GFR)</b> 1. Patients with ongoing diuresis 2. Patients on ACEI/ARB with newly added aldosterone (spironolactone and eplerenone)
			<b>INR</b> 1. Patients newly started on warfarin 2. Patients with variable in-hospital INR values 3. Patients started on medications that interact with warfarin

### PREVIOUS STUDIES

- LV function assessment
  - Echo \_\_\_\_\_
  - MUGA \_\_\_\_\_
  - LV-gram \_\_\_\_\_
- Cardiac catheterization
- Electrophysiology studies
- Bio-impedance measurement (trans thoracic or intrathoracic)
- Baseline BUN/creatinine

### PRE-HOSPITAL MEDICATIONS

Name(s):

Dosage(s):

Frequency:

Contraindications or allergies to medications:

\*Integrate with medication reconciliation process

### ED COURSE

- Vital signs (blood pressure, HR, temp, oxygen saturation)
- Lab work (electrolytes, Mg, BUN, creat/GFR, BNP, cardiac enzymes, hemoglobin)
- Imaging – CXR
- EKG (ischemia and QRS duration)
- Bio-impedance monitoring (if available)
- Therapies received and response to therapies

### ADVANCE CARE PLANNING AND ADVANCE DIRECTIVES

- Code status
- Advance directives and DMP/A

### PREVENTION OF NOSOCOMIAL PROBLEMS

- VTE prophylaxis
- Discontinue foley catheter
- Immobility
- Contrast-induced nephropathy
- Polypharmacy

### DAILY COMMUNICATION

- Diuresis plan
- Patient education goals
- Triggers requiring call to physician
- Patient-specific red flags

### OUTPATIENT CLINICIAN(S)

- Patient becomes critically ill
- Shift to hospice care
- Patient to be discharged
- Information for patient management incomplete

### ME DICATIONS WITH SIGNIFICANT DRUG INTERACTIONS

- Amiodarone
- Warfarin
- Digoxin
- Antibiotics
- Dofetilide
- Digitalis

### CONSULTS

#### CONSIDER CARDIOLOGY CONSULT

- New onset HF
- Acute MI complicated by HF
- Non-responsive HF (requiring parenteral inotropes/ vasodilators/ mechanical support devices)
- Uncontrolled arrhythmias
- 2 or more hosp. in 6 mos.

#### CONSIDER NEPHROLOGY CONSULT

- Increasing uremia and pre-renal azotemia
- Inadequate diuresis despite maximal parental diuretics

#### NUTRITION

#### PHYSICAL THERAPY

#### SOCIAL WORK/CASE MANAGEMENT

#### PALLIATIVE CARE/HOSPICE

### PRESENCE OF CO-MORBIDITIES THAT EXACERBATE HEART FAILURE

- Diabetes mellitus
- Obstructive sleep apnea
- Hypertension
- Renal insufficiency
- Anemia
- Chronic Obstructive Pulmonary Disease
- Thyroid disease
- Malnutrition
- Depression
- Other: \_\_\_\_\_

### DISCHARGE SUMMARY

Reason for hospitalization:

Hospital course by problem – include tests/consultants/medication changes:

### HEART FAILURE

- Etiology of heart failure
- Triggers
- Ejection function
- In-hospital interventions (IV inotropes, revascularization, devices)
- Consultations
- Follow-up sleep study indicated (y/n)
- Discharge weight
- In-hospital diuresis
- Discharge creatinine/GFR
- Target weight range
- New medications started

### CO-MORBIDITIES PRESENT AND PLAN OF ACTION:

### DISCHARGE DESTINATION

- Home
- Home with home care
- Extended care facility/ Rehab
- Hospice

### IMPORTANT PENDING TESTS AND FOLLOW-UP

- Laboratory tests
- Follow-up appointments

### DISCHARGE MEDICATIONS

ACEI/ARB for all patients with LVEF < 40% or contraindication documented

Beta Blocker (Carvedilol, Metoprolol XL or Bisoprolol) initiated or with plan to initiate. Other medications with name, dosage, frequency and any red flags requiring prompt follow up physician notification.

## ACUTE MANAGEMENT

- Volume management
- Medication titration
- Identify and treat reversible causes and precipitants of HF
- Assess need for advanced therapies\*
- Assess advance care planning
- Manage co-morbidities

## COMMUNICATION

- Patient (goals for hospitalization)
- Family
- Outpatient primary heart failure clinician (physician, NP, PA)
- Nurse

## BARRIERS TO DISCHARGE

- Triggers for re-hospitalization
- No scale
- Medication costs
- Transportation
- Access to outpatient care
- Social support
- Non-adherence to therapy
- Home environment assessment needed

## PATIENT EDUCATION

- Patient has scale at home
- Daily weights
- 2000 mg sodium diet
- Fluid restriction (if indicated)
- Med adherence
- Signs and symptom recognition and follow-up
- Progressive activity
- Smoking cessation (for patients who have smoked in the past one year)

## PATIENT COMMUNICATION

Ensure communication is in the patient's primary language whenever possible, and is culturally appropriate

- Goals for the day
- Goals for discharge
- Family member to primarily communicate with
- Heart Failure action plan
- Questions or concerns

## FOLLOW-UP CLINICIAN RECORD IN SUMMARY

- Contact and communicate immediate follow-up issues
- Discharge weight
- Dry weight (target weight)
- Amount of in-hospital diuresis
- Discharge creatinine/GFR

## PATIENT INSTRUCTIONS

- Provide instructions that are culturally appropriate and in the patient's primary language that are written at 6th grade level
- Any anticipated problems(s) and suggested intervention(s)
- 24/7 call-back number
- Teach-back to confirm patient understanding
- Lab tests needed within 72-hours of discharge

## HF INSTRUCTIONS

- Daily weights
- 2 gm sodium diet
- Fluid restriction
- Med adherence
- Follow-up activity
- Smoking cessation (for patients who have smoked in the past one year)

## FOLLOW-UP PLAN:

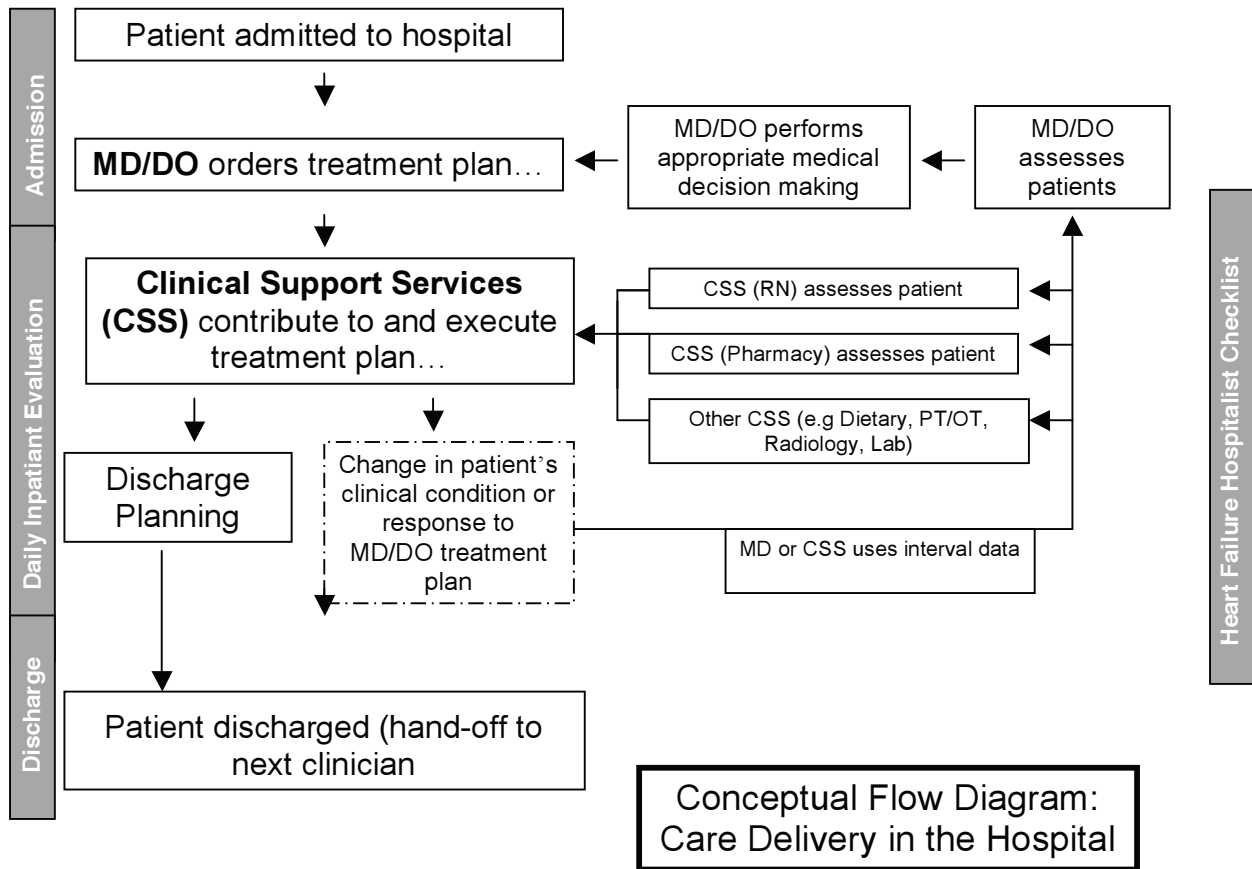
1 week generally, or sooner if hazardous medication or fragile clinical condition.

Include any testing and/or provider visit appointments

- Date
- Name
- Address
- Phone number
- Visit purpose
- Responsible person to whom a pending test will be sent

\* Referral for evaluation of Cardiac Resynchronization Therapy (CRT) – for patients with persistent HF symptoms despite optimization of medication/education/lifestyle interventions and QRS duration > 120 ms

\* Referral for Implantable Cardiac Defibrillator (ICD) placement for patients with ischemic or non-ischemic cardiomyopathy with EF < 35% at least 30 days after MI; 90 days after coronary revascularization; 9 months after diagnosis of non-ischemic cardiomyopathy.



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