

Table 5

Use this table after the patient has undergone clinical stabilization and is being transitioned to oral therapy for discharge. This assessment should help clarify goals and guide plans for longitudinal follow-up after discharge. The integrated risk for discharge includes non-modifiable risk factors from admission, residual congestion or unexpected events during hospitalization, and lack of guideline-directed therapies for chronic heart failure. The transition node offers further opportunity for additional adjustment of these therapies to be continued after discharge. *(Table will continue on the next page.)*

Modification of bolded/italicized items decreases risk. Note that the references for risk factors are provided as examples and are not meant to list all sources of validation.

Chronic History Prior to Admission	
<input type="checkbox"/> Older Age (robust in all models) <input type="checkbox"/> Number of Previous HF hospitalizations <input type="checkbox"/> Comorbidities, especially diabetes, COPD, liver disease, cancer, dementia <input type="checkbox"/> Frailty <input type="checkbox"/> Known low LVEF in HFrEF <input type="checkbox"/> RV dysfunction	
Assessment at Admission	Re-Assessment at Discharge
<i>Class IV symptoms</i>	Effective decongestion improves prognosis.
<i>Non-adherence to medications or salt/fluid restriction</i>	Focused education during hospitalization with increased home and community support may improve adherence.
<i>Progressively higher risk with higher admission natriuretic peptide (NP) levels</i>	Larger % reduction (>30-60%) in NP levels associated with better outcomes. Progressively higher risk with higher discharge NP levels.
Renal dysfunction markers: <ul style="list-style-type: none"> • Elevated serum creatinine or low clearance • Additional risk of high BUN • Low spot urine sodium after first IV diuretic dose • Diuretic resistance with high outpatient doses 	Risk increased, but small increases in creatinine accompanying successful decongestion are associated with better prognosis. High BUN at discharge increases risk. Low total urinary sodium excretion may be a more important marker than total urine output during hospitalization. Diuretic resistance in-hospital associated with longer LOS and worse outcomes. High risk if discharged on high loop diuretic doses.
<i>Degree of congestion at admission not predictive of outcome except longer length of stay with greater excess volume</i>	Residual congestion after treatment confers high risk. <ul style="list-style-type: none"> • High measured filling pressures • Orthopnea • Edema • Composite congestion scores • Lack of hemoconcentration

Table 5 (Continued)

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Assessment at Admission	Re-Assessment at Discharge
<i>Hemodynamic profile of “Cold and Wet” at admission</i>	Discharge with either cold or wet profile associated with higher risk.
Low systolic blood pressure	Low systolic blood pressure at discharge also identifies high risk.
Troponin elevation	Risk if elevated at any time during hospitalization.
Hyponatremia	Lower sodium at discharge predicts higher risk.
<i>Increased risk at admission if:</i> <i>- No RAS therapy</i> <i>- No beta blocker therapy</i>	Discontinuation of ACEI/ARB in hospital for hypotension or kidney dysfunction is associated with poor outcomes. Unknown impact of re-initiation after discontinuation for circulatory and/or renal reasons. Discharge without RAS inhibition or discharge without beta-blocker associated with high risk.

Unexpected In-hospital Events Conferring Additional Risks

- Resuscitation or Intubation
- Intravenous inotropic therapy even if brief

Integrated Risk at Transition to Discharge =
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- Admission Risk
- In-hospital Trajectory
- Unexpected Events

ACEI = angiotensin-converting enzyme inhibitor; ARB = angiotensin receptor blocker; BUN = blood urea nitrogen; COPD = chronic obstructive pulmonary disease; eGFR = estimated glomerular filtration rate; HF = heart failure; IV = intravenous; LOS = length of stay; LV = left ventricular; NP = natriuretic peptide; RAS = renin-angiotensin system; RV = right ventricular.