

Expanded Protocol Schema 1: Admission Assessment & Risk Stratification

PATIENT PRESENTS WITH SUSPECTED ACUTE HEART FAILURE

Dyspnea • Orthopnea • Edema • Fatigue • Decreased Exercise Tolerance

IMMEDIATE TRIAGE ASSESSMENT (Within 10 Minutes)

Vital Signs: HR, BP, RR, SpO₂, Temperature | Airway/Breathing: O₂ requirement, respiratory distress |

Perfusion Status: Extremity temperature, capillary refill, mentation |

Rapid Physical: JVD, pulmonary rales, peripheral edema, S3 gallop

COMPREHENSIVE WARD-LEVEL ASSESSMENT

CLINICAL EVALUATION: Detailed History (prior HF, medications, diet) |
Physical Examination (Framingham criteria)

DIAGNOSTIC WORKUP: ECG (12-lead) | CXR (PA/Lateral) |
BNP/NT-proBNP | Troponin | CMP, CBC, Mg | TSH if indicated

IMAGING: Echocardiogram (LVEF determination, diastolic function,
valvular assessment) | Lung Ultrasound (B-line quantification)

ICU ADMISSION CRITERIA:

RR greater than 25 or SpO₂ less than 90%

SBP less than 90 mmHg

Signs of hypoperfusion

Altered mental status

Lactate greater than 2 mmol/L

Need for intubation

SvO₂ less than 65%

Accessory muscle use

HEART FAILURE CLASSIFICATION

STAGE: A (at risk) | B (pre-HF) | C (symptomatic) | D (advanced)

EF: HFrEF (LVEF ≤40%) | HFmrEF (41-49%) | HFpEF (≥50%)

HEMODYNAMIC: Warm-Wet | Cold-Wet | Warm-Dry | Cold-Dry

CONGESTION SCORING

Orthopnea (0-3 points) | JVD (0-3 points) | Rales (0-3 points) |

Edema (0-3 points)

Total Clinical Score: ____/12 points

BNP/NT-proBNP levels | Lung US B-lines |

CXR Index | Weight above dry weight

PROGNOSTIC RISK STRATIFICATION

HIGH-RISK FEATURES: Prior HF hospitalization within 6 months | SBP less than 100 mmHg |

Worsening renal function (Cr greater than 1.5 or increase ≥0.3) | Troponin elevation |

Hyponatremia (Na less than 135) | BNP greater than 500 or NT-proBNP greater than 2000 |

LVEF less than 30% | Advanced age (greater than 75 years) | Diabetes mellitus | Atrial fibrillation with RVR

Overall Risk: Low | Intermediate | High

INDIVIDUALIZED CARE PLAN DEVELOPMENT

IMMEDIATE INTERVENTIONS: Oxygen supplementation to SpO₂ greater than 90% |
Continuous telemetry monitoring | VTE prophylaxis | Fluid/sodium restriction (2L/2-3g) |
Initiate diuretic protocol

CONSULTATION TRIGGERS: Cardiology consult for all admissions | HF specialist if
refractory/Stage D | Nephrology if eGFR less than 30 | Palliative care if appropriate |
Social work for discharge planning