Heart Failure and Cardiomyopathies

POPULATION ATTRIBUTABLE RISK FOR 30-DAY READMISSION FOLLOWING HEART FAILURE HOSPITALIZATION FROM A LARGE MULTI-STATE HEALTHCARE COST AND UTILIZATION PROJECT STATE INPATIENT DATABASE

Poster Contributions
Poster Hall B1
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Background: 30-day risk-standardized readmission following Heart Failure (HF) hospitalization is linked to quality measures and reimbursement, yet the proportion of preventable readmissions remains unclear.

Methods: Adults aged ≥ 18 years hospitalized with a primary HF diagnosis between 2007-2011 were identified in the California, New York, and Florida Healthcare Cost and Utilization Project State Inpatient Databases (index hospital (IH) cohort). Characteristics were examined between patients with and without readmission ≤ 30 days of discharge. Population Attributable Risk percent (PAR%) and relative risk were calculated.

Results: 132,495/603,563 patients (22%) were readmitted ≤ 30 days. The IH cohort was 50.4% female, mean age 73.9 years; 64.1% were White, 14.5% Black and 12.9% Hispanic. Comorbidities present within 2 years prior to IH with the highest PAR% were fluid/electrolyte disorders, deficiency anemia, and previous diagnosis of HF. The recent acute illnesses within 90 days of IH with the highest PAR% were supraventricular tachycardia (SVT), acute kidney injury (AKI), and pneumonia. The acute secondary diagnoses coded during the IH with the highest PAR% were AKI, SVT and acute exacerbation of chronic lung disease.

Conclusion: Electrolyte disturbances, AKI, SVT, anemia, and pneumonia/chronic lung disease exacerbation represent the highest PAR% for readmission ≤ 30 days of discharge from HF hospitalization. Interventions to reduce readmission should focus on these conditions.

Table 1: Top Population Attributable Risk percent (PAR %) variables by acuity.			
Variable Acuity	Variable	PAR %	RR
Acute Secondary Diagnoses Coded on Index Hospitalization (IH)	AKI	3.76%	1.27
	SVT	2.19%	1.06
	AECLD	1.74%	1.14
Acute Illnesses coded as Primary or any Secondary Diagnosis within 90 days before IH	SVT	4.60%	1.39
	AKI	3.92%	1.58
	PNA	2.85%	1.53
Medical Comorbidities coded at any point within 2 years before or during IH	FED	15.95%	1.42
	Deficiency Anemia	14.73%	1.41
(RR = Relative Risk; AKI = Acute Kidney Injury; SVT = Supraventricular Tachycardia; AECLD = Acute Exacerbation of Chronic Lung Disease; PNA = Pneumonia; FED = Fluid and Electrolyte Disorders)	Prior HF Admission	14.37%	1.44