

## Determinants and outcomes of congestive heart failure complicating acute coronary syndromes: observations from the Global Registry of Acute Coronary Events

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**Background:** CAD has replaced hypertension and valvular disease as the leading cause of CHF. Data from the multinational prospective GRACE study were used to study the determinants, and impact on outcomes, of CHF (Killip class II or III) in a large unselected population of patients with ACS.

Predictor	OR
Age (per year)	1.06
Systolic blood pressure (mmHg)	0.99
Cardiac arrest at admission	5.17
STEMI	2.80
Heart rate (per beat)	1.01
Initial creatinine	1.28
Q-waves	1.54
Diabetes	1.54

**Table.** Main predictors of CHF (multivariate analysis)

**Methods and results:** Data from 10,655 patients were analyzed (those with a prior history of CHF or in cardiogenic shock were excluded). Sixteen percent of patients with NSTEMI, 15% with STEMI and 9% with UA had CHF. CHF was associated with older age, diabetes, less frequent use of percutaneous procedures and beta-blockers, a greater than threefold increase in hospital death rate, and an prolonged period of hospitalization.

**Conclusions:** CHF is frequently associated with STEMI, NSTEMI and UA. Patients with CHF tend to be treated conservatively but are likely to benefit from more invasive management.