



## QUALITY OF CARE AND OUTCOMES ASSESSMENT

### RELATIVE RISK OF DEATH FROM CARDIOVASCULAR DISEASE

ACC Poster Contributions  
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**Background:** Cardiovascular disease is the primary cause of death in the US. Hundreds of clinical trials have been performed to guide practice to decrease morbidity and mortality in patients with cardiovascular disease. There is scant data comparing various disease states for cardiac and noncardiac mortality.

**Methods:** To determine the relative risk of cardiac, noncardiac, and total mortality in different cardiovascular diseases, we evaluated the control arm in 121 clinical trials with at least 900 patients per arm and a minimum of 1 year of follow-up, published in JAMA, NEJM or Lancet since 1998. We calculated the expected number of deaths for a similarly age and gender matched population and compared these to reported cardiac and total mortality. Results are presented as a percentage of expected.

**Results:** Ten studies had higher than expected noncardiac mortality, primarily in CHF (5/19). The number of deaths was 50% of expected in the primary prevention studies. Hypertension doubled cardiac mortality risk, while having diabetes, stable CAD or stroke doubled the risk again to twice expected. Patients with recent MI's had twice the mortality of patients with stable CAD. Patients with heart failure had an additional 3 fold increase in cardiac mortality. End stage renal patients had the highest mortality.

**Conclusions:** There is a gradation of mortality risk with different cardiovascular processes, though stable CAD, diabetes, and stroke all appear to have similar cardiovascular mortality risk.

Disease State	# of Studies	Mean Age	% Male	Total Mortality	Cardiac Mortality	Noncardiac Mortality
Primary Prevention	15	62.2	35	44%	45%	49%
Hypertension (+1 RF)	15	64.9	55	65%	116%	49%
Diabetes	7	60.6	58	85%	162%	64%
Stable CAD	32	63.9	61	96%	187%	61%
CVA	7	64.7	64	113%	205%	77%
Atrial Fibrillation	4	70.7	60	108%	260%	52%
Acute MI (< 30 Days)	20	62.9	70	208%	406%	68%
CHF	19	65.4	68	404%	1210%	128%
ESRD	2	65.3	81	530%	1740%	710%