

DRUG-ELUTING STENTS ARE ASSOCIATED WITH DECREASED MORTALITY AMONG MEDICARE BENEFICIARIES ADMITTED WITH ACUTE CORONARY SYNDROMES.

i2 Oral Contributions

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Background: Randomized clinical trials have failed to show a mortality benefit of drug-eluting stents (DES) in the setting of acute coronary syndrome (ACS) despite markedly reduced rates of restenosis. Elderly patients have been underrepresented in most large clinical trials comparing DES to bare metal stents (BMS).

Methods: Analysis of Medicare Provider Analysis and Review files from 2003 and 2004 identified 180,672 coronary stent procedures among beneficiaries >65 years admitted with ACS using diagnosis and procedure codes. We developed a logistic regression model for outcomes incorporating demographics (including Medicaid buy-in, zip-code level median household income, and rurality as categorized by Rural Urban Commuting Area), and patient comorbidities. End points were assessed separately for patients with STEMI and non-STEMI/unstable angina (NSTEMI/UA) populations. Endpoints included death, recurrent MI and repeat revascularization.

Results: Mean age was 76.0 years; 51% were male. DES alone was used in 49.2% of cases. STEMI diagnosis codes were identified in 27.9%. At baseline, DES patients were younger, had increased incidence of diabetes and were less likely to have a history of CHF, stroke or chronic lung disease. After adjustment for demographic variables and comorbidities, DES use was associated with a decreased risk of mortality at 3 years compared to BMS for patients with STEMI (OR 0.72, 95% CI 0.68-0.76, $p < 0.001$) and non-STEMI/UA diagnoses (OR 0.77, 95% CI 0.74-0.80, $p < 0.001$). For a combined endpoint of death, MI, or repeat revascularization, DES was again associated with a significant reduction in endpoints at 3 years for STEMI (OR 0.72, 95% CI 0.68-0.76, $p < 0.001$) and non-STEMI/UA (OR, 0.79, 95% CI 0.77-0.81, $p\text{-value} < 0.001$).

Conclusions: Among elderly patients admitted with ACS, DES use is associated with decreased mortality and decreased rates of a composite endpoint of death, MI, and repeat revascularization compared to BMS. It is possible that BMS are selectively used in patients with poor prognosis, and unmeasured variables account for the differences noted here. However, these results suggest a possible benefit of DES among elderly patients with ACS.