

TRENDS IN CORONARY ARTERY BYPASS GRAFT SURGERY AMONG ESRD PATIENTS, Dipen S Parikh, Madhav Swaminathan, Laura E Archer, Julia K Inrig, Lynda A Szczech, Andrew D Shaw, Uptal D Patel. Duke Univ Med Ctr, Durham, NC, USA.

Peri-operative mortality risks are high among patients with end-stage renal disease (ESRD) who undergo coronary artery bypass graft surgery (CABG). However, the impact of changes in ESRD patient volume and characteristics on operative outcomes is still unclear.

Using the Nationwide Inpatient Sample database (1988-2003), we examined rates of ESRD patients undergoing CABG surgery, burden of comorbidities, operative mortality, and length of in-hospital stay among patients with ESRD. ESRD totals were identified from the USRDS.

Annual rates of CABG among ESRD patients doubled from 2.5 to 5 per 1,000 pt-years. Concomitantly, patient case mix changed to include patients with greater co-morbidities such as diabetes, hypertension, and obesity (all $p < 0.001$). Nonetheless, during the study period from 1988 to 2003, in-hospital mortality rates declined 6-fold from over 31% to nearly 5% (Fig 1A), and the mean length of in-hospital stay dropped in half from 25 to 13 days (Fig 1B).

Since 1988, an increasing number of patients with ESRD have been receiving CABG in the US. In addition, the ESRD patients who undergo CABG are more likely to be sicker. Despite increasing co-morbidities among ESRD patients, operative mortality rates and length of in-hospital stay have declined substantially. Whether such improvements have been due to better surgical techniques, dialysis therapy, or improved patient selection remains unclear. Nonetheless, mortality rates remain almost 3-fold higher than among non-ESRD patients indicating a need for ongoing improvement.

