Authors: Gwen Bernacki, Emil Fosbol, Dadi (David) Dai, Eric Peterson, Karen Alexander, Duke Clinical Research Institute, Durham, NC, USA

**Background:** Octogenarians are expanding at a greater rate than the general population and frequently have coronary artery disease (CAD). Coronary artery bypass grafting (CABG) is often used to treat severe CAD, yet comorbidities and limited life expectancy may deter its use in the elderly.

**Methods:** Using Medicare claims data, we identified all CABG patients age ≥ 80 years from 1991 to 2009. Annual time trends in CABG use in octogenarians were assessed among patients with isolated CABG and CABG with valve surgery by using all those age ≥ 65 years as the denominator. Trends in risk factors and 30-day mortality were also described.

**Results:** Between 1991 and 2009, the number of CABG surgeries declined overall (1996 peak of 183,005 to 116,959 in 2008). However, octogenarians accounted for a greater proportion of CABG surgeries performed each year (figure). 30-day mortality in octogenarians following CABG declined over the nineteen-year period from 8.1% (1991-1995) to 5.6% (2006-2008), p<0.01 for comparison. This was despite an apparent increase in the prevalence of comorbidities in all Medicare beneficiaries ≥ 65 years, including octogenarians (e.g., COPD 9.8 to 15.7%; CKD 3.0 to 14.2%; PVD 6.9 to 11.7%; dementia 0.3 to 1.5% in 1991-1995 as compared with 2006-2008).

**Conclusions:** The proportion of CABG surgeries performed in octogenarians is increasing over time. 30-day survival among octogenarians is improving as well.