THE CANARY IN THE COAL MINE: PERCUTANEOUS CORONARY INTERVENTION RATES MIRROR DECLINE IN CABG VOLUME. TRENDS IN CORONARY REvascularization IN THE U.S. FROM 2001-2008

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Background: There is concern that the volume of percutaneous coronary interventions (PCI) is decreasing. Most prior studies of PCI volumes have evaluated regional or hospital trends, but few have captured national data. We evaluated the utilization of coronary angiography and revascularization of Medicare patients from 2001 to 2008.

Methods: This is a retrospective study of procedures billed to the Centers for Medicare and Medicaid Services from 2001-2008. The annual number of angiograms, PCI, and coronary artery bypass graft surgery (CABG) procedures were determined from billing codes and adjusted for the number of Medicare recipients each year. Trends were evaluated by linear regression and f i 2 tests.

Results: From 2001-2008, the mean annual rate of increase for PCI was 3%, while the mean annual decrease for CABG was 5%, as seen in Figure I. However, the increase in PCI volume occurred primarily from 2001 to 2004, as there was a mean annual rate of decline of 4% from 2004-2008; similar trends were seen with angiograms as well. Notably, in 2008, there was a slight increase in PCI rates.

Conclusion: This study confirms recent speculation that PCI volume has begun to decrease. While rates of CABG have waned for several decades, all forms of coronary revascularization have been declining since 2004, prior to the concerns of drug eluting stents. This likely speaks to the advances in medical therapy and runs counter to the notion that decreases in CABG are entirely attributed to increased rates of PCI.

Figure I: Trends in Coronary Diagnostic and Revascularization Procedures in the U.S. Medicare Population from 2001-2008