



Pennsylvania's Guide to Coronary Artery Bypass Graft (CABG) Surgery 2004 - Key Findings

- ⊕ Mortality rates following coronary artery bypass graft (CABG) surgery in Pennsylvania hospitals decreased slightly between 2003 and 2004 (in-hospital mortality from 2.04% to 1.98% and 30-day mortality from 2.36% to 2.31%).
- ⊕ Readmission rates also fell between 2003 and 2004 (7-day readmissions from 5.28% to 5.21% and 30-day readmissions from 13.74% to 13.20%).
- ⊕ Infection was the top reason for patient readmission within 7 or 30 days of CABG surgery, with mortality rates of 3.8 percent for those readmitted within 7 days and 2.9 percent for those readmitted within 30 days for an infection. The 7 and 30-day readmissions for infection were associated with, respectively, more than \$10.3 million and \$19.4 million in hospital charges and over 1,390 and 3,100 hospital days. (Note that these infections were not necessarily acquired during the hospital stay in which the CABG surgery was performed. A patient could have contracted an infection following discharge from the hospital, resulting in a readmission. Infections that were acquired in the hospital are discussed separately below.)
- ⊕ As shown in past reports, patients with longer post-surgical lengths of stay were more likely to be readmitted within 7 or 30 days of CABG surgery – after controlling for patient risk.
- ⊕ For the first time in reporting data on CABG surgery, insurance payment data was available for a portion of the patients who were members of commercial insurance plans. The average payment hospitals received from commercial insurance companies for these patients was \$29,586.
- ⊕ In 2004, Pennsylvania hospitals performed 24 percent fewer isolated CABG surgeries than in 2000. During this time period, the number of CABG surgeries done in combination with surgery on the heart valves increased by 53.7 percent. The number of inpatient balloon angioplasty procedures increased by 26 percent.
- ⊕ When examining all open-heart surgeries, the average number of cases per hospital decreased from 390 in 2003 to 376 in 2004, a decline of 3.6 percent. The average number of open-heart surgeries performed per surgeon has remained relatively constant since 2002 at approximately 130 cases.

Hospital-acquired Infections

In January 2004, hospitals began submitting data on hospital-acquired infections to PHC4. Specifically, hospitals were asked to provide data on the following hospital-acquired infections: in-dwelling catheter-associated urinary tract infections, ventilator-associated pneumonia, central line-associated bloodstream infections, and surgical site infections. Of the 13,359 patients who underwent CABG surgery in 2004, hospitals reported to PHC4 that 341 (2.6 percent) contracted one of these hospital-acquired infections during their hospital stay. The following chart shows differences in outcome results for these patients. Note that PHC4 data suggests that hospital-acquired infections were likely underreported for 2004.

CABG patients...	In-hospital mortality rates	Average post-surgical length of stay	7-day readmission rates	30-day readmission rates	Average hospital charge
With a hospital-acquired infection	12.6%	22.9 days	13.2%	27.9%	\$314,666
Without a hospital-acquired infection	1.7%	6.7 days	5.0%	12.9%	\$105,488

- ⊕ Patients who were readmitted after contracting a hospital-acquired infection during the hospital stay in which the CABG surgery was performed had higher mortality rates (13.9% for 7-day readmissions and 9.2% for 30-day readmissions) than those who were readmitted but did not contract a hospital-acquired infection during the original hospital stay (2.6 percent for 7-day readmissions and 2.0 percent for 30-day readmissions).
- ⊕ The average commercial insurance payment for patients who contracted a hospital-acquired infection during their CABG hospitalization was \$51,337, compared to \$29,281 for patients without a hospital-acquired infection.