

Evaluation of the Impact of Quality Improvement Programs on Mortality among Elderly Patients after Cardiac Surgery

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Background:

Quality improvement program is an important pursuit for critical care teams. In this study we evaluate the influence of introduction of a quality improvement program in Cardiac Surgical ICU on outcomes elderly patient after cardiac surgery.

Methods:

We performed an observational cohort study in an eight-bed Cardiac Surgical ICU over a 7.5-year period between January 2005 and June 2012. We analyzed 1637 patients in the Period I (2005-6) before introduction of a quality improvement program and 3786 patients in the Period II (2007-12), after its introduction. We compared mortality between the two periods.

Results:

Unadjusted in-hospital overall mortality decreased from 6.23% (102 patients) in the first period to 3.64% (138 patients) in the second period ($p=0.01$). In the patients 75 years age mortality was unchanged 4.49% (57 patients) vs. 2.96% (88 patients) ($p=0.016$) and in elderly patients 75+ years of age mortality decreased from 12.26% (45 patients) to 6.13% (50 patients) ($p=0.0001$).

Conclusion:

Introduction of quality improvement program in the Cardiac Surgical ICU were associated with decreased mortality among elderly after cardiac surgery.