

Hospitalization costs related to long-term management of patients undergoing CABG (PRIORITY project)

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Background:

Identifying potential tools that could help improving the standard of care and lead to a better allocation of economic resources represents a main objective of research in public health. Using data from the PRIORITY cohort, this study aims to describe inpatients costs after a discharge for isolated coronary artery bypass surgery (CABG).

Methods:

The PRIORITY project was designed to evaluate the long-term outcomes of 2 large multicenter cohort studies on CABG conducted between 2002-04 and 2007-08. For each patient discharged alive after a CABG intervention, costs of hospitalizations were estimated as the sum of costs of all the admissions occurred during 3 years of follow-up. NHS reimbursement rates were used as standard costs (in Euros). Inpatients costs were analysed according to their baseline risk factors.

Results:

Among the 7363 patients included in this analysis, the median 3-year hospitalization costs were 4341€ (IQR: 1865-11699). Median costs were around 4.000€ for subjects alive at the end of follow up but higher for patients dying within 1 (about 8.600€) and 2-3 years of follow up (about 20.000€). The presence of comorbidities (such as diabetes and cancer) lead to higher median hospitalization costs while the on-pump approach was associated to lower median cost. Sixteen per cent of patients were at zero cost having no re-hospitalizations during the 3 years of follow-up (97% alive). Subjects at zero cost received more frequently on-pump approach, had a lower frequency of cancer, arteriopathy and ictus, but a higher frequency of angina and infarction.

Conclusions:

Inpatient costs after isolated CABG are affected by preoperative comorbidities and by operative variables that could be removed or managed. Identifying independent risk factors for re-hospitalization will lead to the definition of a preoperative clinical and decision-making path that will bring both a clinical advantage for the patient and an optimization of costs for the NHS.

Key messages:

- Inpatient costs after isolated CABG are affected by preoperative comorbidities and operative characteristics like the on-pump approach.
- Appropriate management of operative approaches mainly based on operator preferences can have important implications in terms of healthcare costs.