

## Costs analysis from a randomized comparison of immediate versus delayed angiography in patients successfully resuscitated after out-of-hospital cardiac arrest

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**Background:** In out-of-hospital cardiac arrest (OHCA) patients without ST-segment elevation, immediate coronary angiography did not improve clinical outcomes when compared to delayed angiography in the Coronary Angiography after Cardiac Arrest (COACT) trial (1,2). Whether one of the two strategies has benefits in terms of healthcare resource use and costs is currently unknown. We assess the healthcare resource use and costs in patients with OHCA.

**Methods:** 521 patients were eligible for a cost consequence analysis. Detailed healthcare resource use and cost-prices were collected from the initial hospital episode and compared between both groups. A generalized model (GLM) with a log link function and a gamma distribution was performed. Generic quality of life was measured with the RAND36 and collected at 12 months follow-up.

**Results:** Overall total mean costs were similar between both groups (EUR 33575±19612 vs EUR 33880±21044, P=0.86). GLM: ( $\beta$  0.991 (95% CI 0.894–1.099), P=0.86. Mean procedural costs (CAG and/or PCI, coronary artery bypass graft) were higher in the immediate angiography group (EUR 4384±3447 vs EUR 3028±4220, P<0.001). Costs concerning Intensive Care Unit and ward stay did not show any significant difference. The median for the RAND-36 questionnaire physical component score was 49.2 in the immediate angiography group and 50.4 in the delayed group, P=0.57.

**Conclusions:** The mean total costs between OHCA patients randomized to an immediate angiography or a delayed invasive strategy were similar. With respect to the higher invasive procedure costs in the immediate group, a strategy awaiting neurological recovery followed by coronary angiography and planned revascularization may be considered.

