OBJECTIVES: Cardiovascular death is an important endpoint in clinical trials. In health-economic analyses it also plays a key role in the calculation of the number of life years gained. Unlike other outcomes like myocardial infarction (MI) or stroke, not much research has been done on the assessment of specific resource use in patients dying of a cardiovascular cause. This study assessed the cost of cardiovascular death in Belgium. METHODS: In this cost-of-illness study, data on resource utilisation were retrospectively collected in patients with a history of MI who died in the hospital in the year 2002. Four hospitals were selected based on setting (community-university) and geographical region (north and south). Direct medical costs from the health care payer’s perspective, as expressed by the intensity of medical resource consumption in physical units, times the direct cost or charge per unit, were considered. Costs were defined as cost of hospitalisation (basic care and nursing), drug use, diagnostic tests, physician consults and technical interventions. RESULTS: The charts of 60 patients were reviewed (mean age: 76 ± 11 years). The average length of stay was 5.28 days (St. Err. 0.64). The main causes of death were MI (37%), cardiogenic shock (22%) and ventricular fibrillation (20%). The average hospitalisation cost €2043 (St. Err. €215), the drug cost €383 (St. Err. €97), the cost of diagnostic tests €344 (St. Err. €42), the cost of physician consults €29 (St. Err. €7) and the cost of technical interventions €943 (St. Err. €207), resulting in a total cost of death from cardiovascular disease of €3744 (St. Err. €431). In the Northern part the average cost is about €1000 higher compared to the Southern part (€4284 vs. €3239) (NS). CONCLUSIONS: Cardiovascular death is not only an important clinical endpoint but also an important economic parameter due to its high cost.

A COST ANALYSIS IN PATIENTS WITH ACUTE CORONARY SYNDROMES USING CLOPIDOGREL IN ADDITION TO ASPIRIN IN A HONG KONG PUBLIC HOSPITAL
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OBJECTIVE: Results from the Clopidogrel in Unstable Angina to Prevent Recurrent Events (CURE) study showed that clopidogrel plus aspirin, comparing to aspirin alone, reduced the cardiovascular events (death, myocardial infarction, and stroke) in patients with acute coronary syndromes (ACS). Yet the acquisition cost of clopidogrel is much higher. It would therefore be worthwhile to compare the long term cost impact of these 2 regimens. METHODS: Until recently, only very few patients with ACS received a clopidogrel-aspirin combination therapy in Hong Kong. Therefore a hypothetical cohort was formed and compared to a real group of patients treated with aspirin alone. For the aspirin group, medical history was reviewed and cardiovascular and gastrointestinal events occurring in a period of 12 months after initiation of therapy were recorded. The target cost items included hospitalisation, emergency room visits, outpatient clinic visits, related medications, diagnostic tests, procedures and surgery. For the hypothetical cohort, the probabilities/relative risks for clinical events were adopted from the CURE study. The unit cost of drugs and other resource items were based on the Hong Kong Hospital Authority drug acquisition cost 2001 and Hong Kong Government Gazette 2003 respectively. The perspective of the study was that of a public health organisation. RESULTS: Fifty-four consecutive patients with ACS receiving aspirin therapy were identified over the period of January 1, 2001 to December 31, 2001 from a major public hospital in Hong Kong and studied.
The average cost of management per patient over the 10-month period of this group was HKD85,324 (USD$10,940, HKD7.8 = USD$1). Hospitalisation represented the major cost item (64.6%), followed by cost of investigational tests (14.5%) and procedural cost (11.6%). The average cost per patient in the hypothetical cohort was HKD83,903 (USD$10,757). CONCLUSION: According to our analytical model, the overall cost impact between clopidogrel plus aspirin vs aspirin alone in the 2 groups of patients was similar.

ECONOMIC ANALYSIS OF THE USE OF CONTRAST MEDIA DURING PERCUTANEOUS CORONARY INTERVENTION (PCI) IN FRANCE AND SPAIN
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OBJECTIVES: The isosmolar contrast medium (CM) ioxaglate has been shown to reduce the risk of major adverse cardiac events and have a higher intervention success rate compared with the low-osmolar agent ioxaglate in patients undergoing PCI at high risk of complications. The purpose of this study was to assess to what extent this clinical benefit is associated with differences in health care costs for PCI patients in France and Spain. METHODS: A decision tree model was developed to compare the costs associated with receiving each CM in high-risk and low-risk patients. Clinical data were derived from published comparative clinical trials. Data on medical resource use associated with managing adverse events were obtained from panels of French and Spanish interventional cardiologists, and resource use was converted to costs using nationally representative country-specific tariffs. The study end-point was the difference in costs associated with receiving each CM in intervention: and after discharge. The associated events are also very expensive to treat and multiply total cost. Any reduction therefore in MI’s, given the high prevalence, will save the NHS and the taxpayer a lot of money.

AN EVALUATION OF THE COSTS ASSOCIATED WITH ACUTE MI TREATMENT IN AND OUT OF HOSPITALS IN GREECE
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OBJECTIVES: To evaluate the inpatient and outpatient maintenance costs associated with treatment for acute myocardial infarction in the Greek NHS. METHODS: A database from a large NHS University Hospital was employed and analyzed. Resource consumption data were combined with 2003 price data to compute overall treatment costs. Inpatient costs of an uncomplicated AMI comprise all costs associated with treating an event in-hospital and these include the costs of wards, PTCAs, medications, cardiac ICU, etc. The marginal costs of having one of many types of events, such as strokes, re-infarction, etc, are also computed. The outpatient maintenance costs of patients include medication taken after the AMI for certain period or life-time, visits to professionals and rehabilitation in cases of events such as strokes. RESULTS: The costs of initial inpatient medication given is between €790 and €1000. The average cost of hospitalization is about €8,474 and the additional cost per event is as follows: stroke—€1,300, bleeding—€90, reinfarction—€1,125, recurrent ischemia: 0, CHF—€561, hypotension: 0, cardiogenic chock—€1,730, electromechanical dissociation—€1,210, tamponade or cardiac rapture—€2,790, second degree atrioventricular block—€961, third degree atrioventricular block: €1,521, atrial fibrillation: €100, asystole: €1,210, acute mitral regurgitation—€1,415, septal defect: €415, anaphylaxis: €300, pulmonary embolism: €2,050, arrhythmias: €100, hypoten- tion: 0, pericarditis—€100. The cost of rehabilitation and maintenance is on average €915 in the first year plus €4.5 per day after discharge and during lifetime thereafter. Severe stroke is associated with an extra of €1,000 in the first year. CONCLUSION: AMI is an expensive to treat event. The cost of initial medication given is low in comparison with the total treatment cost within the hospital and after discharge. The associated events are also very expensive to treat and multiply total cost. Any reduction therefore in MI’s, given the high prevalence, will save the NHS and the taxpayer a lot of money.