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### Paper:

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## Prospective Utility Study of Patients with Multiple Cardiovascular Events

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### Objectives

The effects of acute coronary syndrome (ACS) events on healthrelated quality of life (HRQoL) and the time dependency of these effects are unknown. The aim of this study is to characterise health utilities in ACS patients. This will help development of future economic models estimating the cost per quality adjusted life year impact of ACS events and potential treatments.

### Methods

Multicentre, non-interventional, longitudinal evaluation of health utility in patients experiencing ACS or stroke events. EuroQol-5 dimension surveys were sent to patients ( $\geq 18$  years) from three centres in the UK 1 month following hospital admission for myocardial infarction (MI), unstable angina (UA) or stroke. Patient demographics, lifestyle and baseline utility score were collected in the first survey. Follow-up surveys were sent at 6, 12, 18 and 24 months to prospectively capture utility and subsequent health events. A group of patients were also identified retrospectively and patient demographics, lifestyle, and time since previous ACS event were collected. General healthy population utility values were assumed for pre-event HRQoL.

### Results

Between January 2011 and March 2014, 2103 prospectively/retrospectively identified patients (mean age 68.3 [range 24–97] years; 67.9% male) responded: 1176 (55.9%) MI; 898 (42.7%) UA; 29 (1.4%) stroke; 24% had type 2 diabetes. Utility values post-event were lower than general healthy population values, although significant differences in utility among subsequent 6, 18, 12 and 24-month timepoints were not detected. However, a significant difference in utility between 12 and 18 months for the retrospectively identified subgroup only was observed. Through multivariate regressions analyses, wheelchair use, current smoking and secondary mental and joint health events were associated with the

greatest utility decrements (>0.250 decrease).

Conclusions:

This study indicates that health utility decreases following a CV event and, while some improvement occurs over the subsequent 24 months, general healthy population utility is not necessarily attained.