

Emergency department attendance after telephone triage

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Background

Atrial Fibrillation (AF) is a highly debilitating condition with significant economic burden. Previous studies have estimated the cost of hospitalisations associated with AF in Scotland. However, patients with AF are often elderly with co-morbidities requiring substantial outpatient and social care.

Objectives

This study seeks to estimate inpatient, outpatient and social care costs associated with AF in a Scottish cohort, by using individual-level linked data.

Methods

The AF cohort of 50 years and older patients, hospitalised with a known diagnosis of AF or atrial flutter between 1997 and 2014, was followed up for five years following the first AF event. Individual-level data on hospitalisation and discharge to social care home were obtained from the Scottish Morbidity Records (SMR01); whereas data on outpatient attendance were obtained from (SMR00). Death records for the same time period were extracted from National Records of Scotland (NRS). Hospital and outpatient costs associated with the corresponding data were estimated utilising the Scottish National Tariff (SNT) based on Healthcare Resource Groups (HRGs), and the Scottish Health Service Costs report, respectively. Social care costs were identified from the Care Home Census. Following data linkage, the econometric analysis was carried out using a two-part model where, the first part estimates through a probit model the probability of using a healthcare service, and the second part estimates costs conditional on having incurred positive costs. The regression model was adjusted for demographic characteristics, socio-economic status, year of admission and location.

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Results

Overall, a cohort of 253,963 AF patients accounted for 2,988,607 hospital admissions and 4,452,476 outpatient attendances. The mean cost per patient was estimated to be £3,071 (95% CI 3,033-3,109). Overall, hospital admissions and outpatient visits accounted for 71.7% and 3.7% of the total cost, respectively; social care accounted for 24.6% of the total costs. The cost increased with age and females incurred higher costs than males. Significant differences were observed among the urban/rural classifications, individual health boards and the socio-economic status.

Conclusion

This study has shown the importance of taking into account healthcare resource use incurred beyond hospitalisation. In addition to inpatient costs, outpatient and social care costs contribute considerably to the overall economic burden.

