CONFERENCE ABSTRACT

Should I stay or should I go? A retrospective propensity score matched analysis of home-based intermediate care for older people

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Objectives: The aim of this study was to use real-world data to compare the characteristics of populations from three geriatrician-led hospital-at-home services with the population who received hospital care, and to assess the impact of these services on healthcare costs and mortality.

Design: In a retrospective large observational cohort study we used propensity score matching in combination with regression analysis to reduce observed confounding.

Participants: We included patients aged 65 years and older who were admitted with similar diagnoses to either hospital-at-home or hospital at the same period in three large Health Boards in Scotland.

Interventions: Geriatrician-led admission avoidance hospital-at-home services.

Main outcome measures: Healthcare costs and mortality during follow-up period i.e. from the index admission to six months after index discharge.

Results: In all three Health Boards, patients who received healthcare from the hospital-at-home services were older, were more socioeconomically disadvantaged, had higher rates of previous hospitalization, a greater proportion had more than four chronic conditions and there was a greater proportion of women compared with the group admitted to hospital. The cost of providing hospital-at-home varied between the three settings from £628 to £2,928 per admission, and costs were driven primarily by staff costs. Hospital-at-home led to 18% lower costs during the follow-up period only in Health Board A ratio of means 0.82; 95%CI: 0.76;0.89 and 23% lower costs ratio of means 0.77; 95%CI: 0.69;0.84 for patients with dementia. Regarding only the costs during the 6 months after index discharge, patients in the hospital-at-home cohorts had 27% higher costs ratio of means 1.27; 95%CI: 1.14 ;1.41 in Health Board A and 70% in Health Board C ratio of means 1.70; 95%CI: 1.40;2.07 compared with patients in the control cohorts. Admission to hospital-at-home was associated with an increased risk of death during the follow-up period in all three Health Boards ranging from 1.09 95%CI1.00;1.19

in Health Board A to 1.27 95%CI 1.06;1.54 in Health Board C; and may be associated with an increase in the sub-group of patients who had a diagnosis of dementia.

Conclusions: We found differences in the populations admitted to admission avoidance hospital-at-home and to hospital, with those receiving healthcare from the three admission avoidance services being older, and having more chronic conditions. Admission avoidance hospital-at-home was associated with an increased risk of death and with higher cost in 6 months after discharge. Our findings highlight the importance of characterising populations eligible to receive these types of healthcare services and of assessing subsequent use of health, social, and informal care following admission to hospital-at-home or hospital.