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Multiple medical admissions – an opportunity for improved care?

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Aims

This study aimed to provide an accurate description of patients with multiple medical admission (≥3 non-elective admissions (NEA) in preceding 12 months) within an NHS hospital, a description of current care and a judgement on predicted care needs for good holistic care by expert assessors.

Methods

This was a prospective study which assessed a population who were on their third or greater NEA to a medicine within an urban district general hospital. The study was a 1 day, real time assessment of current clinical course, health provision, needs and decision making, with 90 day follow-up. Patients were identified through a novel clinical information technology system which joined up patient activity, using NHS numbers between primary, secondary and community care. Assessors number general practitioners with total greater than 60 years consultant experience. Assessors went through a process of orientation and utilised template data collection documents for process standardisation. Data was split into two sections: factual information available from documented notes and judgement information based on the available information. Data were analysed using SPSS v24.

Results

Point prevalence of patients with multiple NEAs for this NHS district general hospital was 21%. Of this 56 were studied. At assessment, average length of stay was 13 days. On follow up total average length of stay was 28 days totalling 1,584 bed days.

Characteristics

The population was elderly (mean age 78), multimorbid (mean of four long-term conditions (LTC)), frail (76% with clinical frailty score ≥3), immobile (74% some level of immobility) and dependent (66% some level of community support). Eighty-one per cent were admitted from their own home and not a long-term care setting. The leading cause of admission was infection (41%). Forty per cent of admissions were related to a LTC with malignancy, and respiratory disorders were the most common. At the point of admission, 93% of admissions were justified but 22% of admissions were considered by assessors to have been avoidable.

Table 1. Need for attainment in all domains

Domain	% complete at assessment	% assessors judge needed	% complete at discharge
Capacity for long-term care decisions	28	72	-
Resuscitation status	46	87	57
End of life and/or advance care plan	11	79	20
Preferred place of care	3	72	11

Care needs

Processes felt to be important to good holistic care were very incomplete in all domains at the point of assessment and subsequently at discharge. Assessors judged a very high need for attainment in all domains (Table 1). Fifteen per cent of patients had had a documented assessment of life expectancy while assessors judged that 83% of patients were in the last year of life and that 19% were in the last 3 months. Assessors judged that readmission within 30 days was either 'highly likely' or 'probable' in 31%.

90-day follow-up

Total mortality of the initial study sample was 43%. Forty-six per cent of patients survived to discharge. Thirteen died (28%) in the 90 days post discharge. At 90 days, there had been 25 patients who had been readmitted (54%) one or more times. Assessors' judgements on needs for good holistic care were analysed against mortality and readmission. Against mortality these showed statistical significance for life expectancy judgements (>1 year,

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p=0.02; <3 months, p=0.005) and requirement for an advance care plan (p=0.001). Negative predictive values were strong for all. Against readmission these showed statistical significance for clinical stability (p=0.02) and those felt likely to be at risk of imminent unplanned readmission (p=0.009).

Conclusion

Patients who have had ≥3 NEA within the previous year are old, frail and multimorbid. Whilst their acute issues need to be addressed, experienced physician assessment was that there can be improvements in additional care factors that are pertinent to good holistic care. These are valid relative to this cohort's high mortality and readmissions rates. General physicians were able to accurately determine who would not need this input. Using the simple metric of ≥3 NEA in preceding year may allow focus of resource on this needful cohort. ■

Conflict of interest statement

None declared.