

# One-year outcomes in older people following discharge post-rehabilitation from a community hospital

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## Introduction, background and aims

The population is ageing as a result of increased life expectancy, due to medical advancements, better access to healthcare and societal developments. Consequently, people tend to live longer with chronic major health conditions such as cardiovascular disease, respiratory disease, cancer, and dementia.

"Patterns of care, England 2021" was published in August 2023 by the Department for Health and Social Care.

-In 486,998 people who died in 2021, the overwhelming majority (88.9%) died of or with one of those 4 major conditions.

-Nearly three quarters (72%) spent time in hospital during the 6 months before they died.

-Almost half (48%) of the inpatient care provided by hospitals for people aged 85 year was in their last year of life.

"A picture of End-of-Life Care in England" was also published in November 2023, highlighting of the over 400,000 adults who died in England in the financial year 2021/22.

-close to half died in hospital (44%),

-27% had 3 or more emergency admissions in year prior to death,

-31% had 2 or more A & E attendances in the 90 days prior to death, and

-40% had an out-of-hours emergency admission in the 90 days prior to death.

-Upwards of a quarter experienced a poor urgent care outcomes.

-Three quarters (77%) had at least one day of unplanned hospital care in the 90 days before they died.

- Half (56%) had at least one day of planned hospital care.

Both increasing levels of frailty and multi-morbidity have been independently associated with poorer outcomes including increased mortality and high risk for nursing home placement.

There is limited data on the best ways of assessing frailty and complex comorbidities to guide patient selection for rehabilitation. It is important we do not deprive an individual the chance of inpatient rehabilitation, but this needs to be balanced with potential poor outcomes at one year because of increased frailty and complex medical comorbidity.

From our own experiences, and in light of recent publications, we aim to look at 1 year outcomes following an admission to the RSH for rehab.

## Methods

Data was collated retrospectively on all discharged patients from the rehab wards of the community hospital over a 90-day period from May to July 2023.

A sub-analysis of all patients was undertaken to evaluate one-year functional outcomes, based on clinical frailty scales on discharge, Barthel's index, their length of admission and number of subsequent hospital admissions.

## Results

153 patients were discharged from the rehab wards over the 90 day period.

At one year 31 % had died, 12% had gone to placement and 57% remain alive at home.

Higher clinical frailty scores and lower Barthel's index at discharge were correlated with poorer outcomes with mortality & placement.

Higher length of stay, increased subsequent hospital admissions, and more advanced age were also associated with unfavourable outcomes.

Among those who had died, 42% were transferred back to the acute hospital due to acute instability, and 15% had been discharged to placement.

Among those who had gone to placement, 27% were transferred back to the acute hospital due to acute instability.

Among those who remain alive at home, only 10% were transferred back to the acute hospital due to acute instability.

Length of stay in rehab is shorter in those that are still alive and living at home compared to those discharged to placement, or those who have died.

Discharges during May to July 2023	Total 153	Outcome	Mean CFS on discharge	Mean Barthel's on discharge	Mean age	Female	Male	Mean length of stay	Mean no of subsequent admissions
Death	47	31%	6	8	85	53%	47%	24	2
Placement	18	12%	6	10	88	61%	39%	35	3
Alive at home	88	57%	5	12	80	67%	33%	21	1

Discharges during May to July 2023	Total 153	Outcome	Transferred back to the acute hospital	Discharged to placement	Discharged to home
Death	47	31%	20 (42%)	7 (15%)	20 (42%)
Placement	18	12%	5 (27%)	3 (16%)	10 (55%)
Alive at home	88	57%	9 (10%)	0 (0%)	79 (90%)

## Conclusions

Our review has identified that a significant proportion (almost one third) have died within a year of discharge from the rehabilitation unit.

The increased frailty and poor functional status at discharge were strongly correlated with poor functional outcomes and increased mortality at one year, as well as an increased length of admission and subsequent acute hospital admissions.

The results should make us consider in more detail the risks and benefits of an admission for rehabilitation, as this may account for 10% of an individual's last year of life.

Where an admission to rehabilitation is appropriate, subsequent admission to the acute hospital and even death should not be seen as a failure as our results parallel recent national studies.

## Action plan

With system wide changes taking place; the successful introduction of intravenous therapies to the rehab wards; the recruitment of trainee ACPs for the wards; more focus on future care planning for this cohort of patients as well as relocating to the South of England Rehab Centre, we aim to relook and refine our pathways to ensure the right patients are accessing rehabilitation. We will repeat this study in a years' time.