

Direct admission to intermediate care for older adults with reactivated chronic diseases managed by an expert primary care team as an alternative to conventional hospitalization. A pilot study

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Objective

Direct admission of geriatric patients with reactivated chronic diseases to an intermediate care (IC) geriatric unit may be an alternative to hospitalization in an acute general hospital. In a specific geographic area of Barcelona, we implemented a pilot clinical pathway to promote direct admission of these patients, routinely and actively followed-up by an expert primary care team, to a specialized geriatric IC unit.

We aim to compare baseline characteristics and outcomes at discharge between patients admitted from home (HO), and those admitted from an acute hospital (AH) where had been previously hospitalized for similar acute diagnostics.

Methods

- From January 2010 to March 2011 we enrolled 21 patients in the AH group and 20 in the HO group.
- We recorded demographics, social status (living alone), comorbidity (Charlson index) and number of chronic medications.
- At admission, we assessed functional status (Barthel index), cognitive status (Pfeiffer SPMQ), risk of falls (Downton scale), and risk of pressure ulcers (Emina scale).
- We recorded discharge destination (including mortality and transfer to the acute hospital), and length of stay.

Results

- Prevalent diagnostics at admission were: **chronic heart failure (41,5%)**, COPD (12,2%), chronic kidney disease (9,8%) and urinary infections (7,3%)
- Before being transferred to IC the AH group summed up 297 days of hospitalization in the acute hospital (mean loss in the acute hospital is 13,5 days)
- The two groups did not show statically significant differences in baseline characteristics, except for functional status, which was worse in the HO group (table 1)
- At discharge, we obtained similar clinical results AH and HO had comparable mortality, transfer to the acute hospital and length of stay (table 2).

Table 1. Characteristics at admission in the IC unit

| | Acute hospital (AH), N=21 | Home (HO) , N=20 | p value |
|-------------------|------------------------------|------------------|---------|
| Age | 84,52 * - 6,57 | 86,45* -7,7 | 0,39 |
| Gender | 16 (76,2) | 10 (50%) | 0,08 |
| Living alone | 16 (76,2%) | 15 (75%) | 0,6 |
| Charlson Index | 2,76+ 1,6 | 1,53 * -2,66 | 0,67 |
| N. of medications | 8,86+3,19 | 10,05* -2,46 | 0,19 |
| Barthel Index | 65,19+33,06 | 43,7 * - | 0,02 |
| Pfeiffer Index | 2,35+3,36 | 2,17+2,55 | 0,85 |
| Downton Scale | 4,05+2,69 | 4,79+1,61 | 0,31 |
| Emina scale | 5,05* -3,08 | 5,80+2,58 | 0,39 |

Table 2. Outcomes at discharge from IC

| | Acute hospital (AH), N=21 | Home (HO) , N=20 | p value |
|----------------------------|------------------------------|------------------|----------|
| Mortality | 4 | 3 | p=0,52 |
| Transfer to acute hospital | 3 | 0 | p= 0,125 |
| Length of stay in IC | 42,6 * - 25 | 37,3+20,8 | P=0,469 |

Conclusions

At admission to IC, compared with patients discharged from the acute hospitals, patients admitted from home had similar demographic, clinical and social characteristics and a worse function. Outcomes at discharge were similar.

Our pilot results encourage exploring direct admission to an IC unit, linked with a primary care expert team, for older adults with reactivated chronic diseases, as an alternative to conventional hospitalization.