

# Hospital-Associated Deconditioning – Evidence Briefing

**Background and Context:** Hospital-associated deconditioning (HAD) of older people is associated with adverse events distinct from the reason for the acute admission. HAD contributes to delayed discharge, increased likelihood of re-admission and admission to community facilities, which creates unnecessary costs to the NHS. HAD also has a very concerning impact on older people's well-being and quality of life.

**What we did:** We searched the literature to understand current evidence on HAD and what interventions might be effective for addressing it. Our search considered English-language publications, from 2000 to 2019, on HAD and functional decline. Published literature which informs this Evidence Briefing comes from Europe, North America and Australia.

## What the evidence indicates

The cumulative impact of extended or complicated hospitalisation among older patients (aged  $\geq 65$  years) typically results in older patients experiencing significant functional decline due to a complex process of physiological changes that can affect multiple systems. Hospitalised older patients are thus recovering from acute illness but also facing physiological stress. Risk factors for HAD often co-exist and reflect non-disease specific complications; factors include:

- increased age
- cognitive deficits
- delirium on admission
- depression
- mobility
- presence of multiple comorbidities
- deficits in basic (activities of daily living) ADL or instrumental ADL at admission

The rate and types of decline are variable in older patients, therefore personalised care is needed to address specific symptoms presenting in patients to redress HAD-related decline.

## Summary – Findings and key themes from the literature

### Physical activity

- There is evidence that older people's care can be improved by targeted interventions promoting physical function during hospitalisation. Early physical activity programmes can be delivered safely.
- Supporting older patients not to be sedentary during hospitalisation might help them to maintain physical activity post-discharge.

### Eating, drinking and continence

- Malnutrition and dysphagia were associated with functional decline.
- Dehydration may be unrecognised at admission, thus obscuring changes in systems and disorders.
- The use of urinary catheters without medical indication presents is an important healthcare management issue.

### Promoting older patients' recovery

- Evidence indicates that modifications to the environment of geriatric wards (e.g., carpeted floors, reduction or removal of functional restraints, mitigating loud noise) can promote rehabilitation.
- There is a need to educate and support patients and their families/carers to participate in their recovery, countering the cultural attitude that bed rest is always best.

### Predictors and measures

- There is no universal measure to identify or measure HAD. This makes comparisons across research findings problematic.
- Current evidence is insufficient to recommend optimal doses of physical activity to minimise functional decline, though one report suggested an overall efficacy of twice-daily exercise.

### Where to focus attention

- Attention needs to be paid to the generalised risk of in-hospital adverse health events, as well as the event which caused the acute admission, with greater priority on patient activity and movement.
- Acute Care of Elders (ACE) units demonstrate strong evidence for improving patient outcomes in reducing HAD.
- Incorporate a "life-space" approach to help patients set and co-create goals for their physical capacities.

## Recommendations for commissioners and future research:

- There is a need to go beyond what is described in the "paralysis" campaign to address sedentary behaviour and adopt a fuller, hospital-wide approach which includes taking account of barriers that prevent patients from being more mobile.
- Given how long patients spend time alone and uninterrupted, whether lying, reclining or sitting, a significant ingredient in patient's recovery could be reducing their social isolation.
- Because older patients are often dehydrated at hospital admission, research needs to account for hydration status before measuring baseline values of muscle mass in order to calculate actual changes.
- More research is needed to determine effective ways of re-designing the hospital environment through interventions that actively facilitate walking in the corridors and activities based around socialising.