**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 ≥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

**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 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 “#endPJparalysis” 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.

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