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**Commentary on:** Strøm C., Rasmussen LS., Löwe AS., et al. Short-stay unit hospitalisation vs.

standard care outcomes in older internal medicine patients-a randomised clinical trial. Age Ageing.

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**Implications**

* Preliminary data suggests emergency-based, short-stay units reduced: functional decline, adverse events, readmission rates and hospital stays.
* Short-stay units reported similar 90-day mortality rates to standard medical admissions.
* Multicentre international studies are required.
* Future research should include a cost-analysis and powered studies to detect minimal differences in 90-day mortality.

**Context**

In most countries, demand exceeds availability of acute healthcare resources1. An aged population with complex biopsychosocial needs are an increasing healthcare challenge2. Older adults regularly require extended periods of hospitalisation, and are more at risk of developing adverse, hospital-acquired sequelae3 2.

Short-Stay Units (SSU) are speculated to be cost-effective facilities with the potential to reduce the duration of acute hospitalisation1. SSUs typically offer fast-tracked access to assessment, observation, diagnostic and treatment services for individuals who have an anticipated short-stay admission requirement1. However, there are concerns that SSUs may negatively impact adults with complex needs. Strøm and colleagues4 compare Emergency Department (ED)-based SSU admission to standard care medical admission for older adults.

**Methods**

Strøm and colleagues4 pragmatic, randomised, control trial recruited individuals from one Danish hospital using stringent inclusion and exclusion criteria. Baseline demographics were collected using a systematic approach which incorporated validated questionnaires. Sample size was established using a power calculation based on locally available audit data. Online software randomised 1:1 into ED-SSU or standard-care. Clinicians and participants were not blinded to group allocation. Data was collected from the Danish Civil Registration Registry, electronic patient records and telephone interviews which took place 88-92 days after randomisation. All “*pre-planned*” data was analysed before breaking the randomisation code, with post-hoc analysis occurring after the code had been broken. A data monitoring committee (DMC) conducted an independent analysis of 90-day mortality when half of the research participants had been recruited. The DMC authorised trial continuation.

**Findings**

Findings report a similar 90-day mortality rate for ED-SSU and standard care medical admission4. However, ED-SSU adults yielded faster access to multidisciplinary, biopsychosocial interventions and shorter hospital stays. It is suggested that these factors contributed to an improved Lawton’s Instrumental Activities of Daily Living (IADL) score at 90-days4. ED-SSU adults also encountered lower rates of medication error, hospital-acquired infection and readmission as compared to standard care counterparts. It is clinically significant that 28.9% of standard care adults were readmitted as compared to 12.9% ED-SSU adults4. This finding was found to be statistically significant (p-value < 0.001)4.

**Commentary**

International research investigates the efficacy of SSUs in a variety of populations and contexts. While a plethora of observational research exists, methodologically robust studies examining older people are required, as this population give rise to the majority of emergency presentations and acute medical admissions1.

Strøm and colleagues4 investigate ED-SSU as compared to standard care medical admission in older adults. Findings support Strøm and colleagues3 earlier research in 2017, which described comparable rates of mortality, readmission and adverse events in standard care medical admissions. The 28.9% readmission rate in the standard care group is similar to Galvin and colleagues2 emergency readmission rate of 33% for older people. Furthermore, the number of drug errors and the concurrent IADL decline in the standard care group would seem to support Basic and colleagues5 association between drug errors and functional decline.

While ED-SSU results are promising, further international research is required in diverse older adult populations and healthcare systems. Additionally, Strøm and colleagues4 acknowledge that they did not power their trial sufficiently and this may bias the findings arising from this study. Furthermore, there is the potential for performance bias, as clinicians and participants were unable to be blinded due to the pragmatic nature of this single centre trial.

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Competing Interests

The author has no competing interests.

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