

**RANDOMISED CONTROLLED TRIAL TO  
REDUCE IN-PATIENT FALLS IN HOSPITALISED  
OLDER PEOPLE**

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**Background** One million in-patient falls occur in the US annually with similar rates across higher income countries. More than half such falls occur at the bedside. Multifactorial interventions including bed/chair pressure sensors have significantly reduced falls but the contribution of sensors to this reduction is unclear.

**Aims/Objectives/Purpose** To assess effectiveness of bed/chair pressure sensors in reducing in-patient falls.

**Methods** RCT comparing sensors with usual care in acute admissions to five, elderly care medical wards in one UK publicly funded hospital. Sensors were fitted by the research team and ward staff were trained in their use. The primary outcome measure was bedside falls. Secondary outcomes included injurious bedside falls, fear of falling (m-FES) health related quality of life (EQ5D), activities of daily living (Barthel index), length of stay and discharge to admission address. Comparisons between arms were made using generalised linear models, t-tests, Mann-Whitney U and  $\chi^2$  tests.

**Results/Outcome** 1839 participants (intervention=921; control=918) were recruited. Mean age was 85 years, 55% were female and 65% had a MMSE<23/30. 85 bedside falls occurred in the intervention arm and 83 in the control arm (8.71 vs 9.84/1000 bed days, IRR 0.89, 0.65–1.20). No significant differences in secondary outcome measures were found.

**Significance/Contribution to the Field** Bed/chair pressure sensors did not reduce the rate of falls amongst older people admitted to acute elderly care medical wards in a publicly funded hospital. Sensors may not make a large contribution to falls reductions seen in multifactorial trials.