Fact Sheet:

Product(s):	• Mobility Monitor	Statistical Significance (if applicable)
Indication(s)	• Patients at a neurological and neurosurgical ward of a university hospital • Patients with pressure ulcers / decubitus risk • Patients at risk of falling (out of bed)	
Name of the clinical trial / Publication	Cluster “Future of Care” - PPZ-Freiburg: Pilot project on the effectiveness of integrated bed sensors for evidence-based fall and decubitus prophylaxis	
Author(s)	Dr. J. Feuchtinger et al	
Center(s) of the clinical trial:	• Neurological ward of the University hospital of Freiburg • Neurosurgery ward of the University hospital of Freiburg	
Country	Germany	
Year of publication	2018	
Journal	Poster presentation at “German Pflegetag 2018”	
Journal Impact Factor (JIF)	Ø	
Study- / Publication design	• 2-phase observational study • Caregivers Survey	
# Patients treatment group # Caregivers during Online survey	Blind phase: 74 Intervention phase: 55 After completion of the observation: 12	
# Patients Control group	Ø:	
# Patients Placebo group	Ø	
Methods within treatment group Methods of the caregiver survey	• Duration of the blind phase: 20 days • Duration of the intervention phase: 21 days • Blind phase methods: Detect mobility, bed exit behavior and micro activity <u>without</u> alerts • Methods of the intervention phase: recording mobility, bed exit and micro activity <u>with</u> alert function • Online survey of caregivers about the acquisition of the system	
Methods in Control group	Ø	
Methods in Placebo group	Ø	
Primary Outcomes	• 0 patients with nosocomial decubitus in the intervention phase vs 1 patient in the blind phase • 0 patients with fall out of bed in the intervention phase vs. 3 patients with fall from bed in the blind phase • reduction of mean immobility time blind vs. Intervention phase by 35% • 49% of patients with continuously low (PU) risk • 29% of patients with dynamic risk	

	• 21% of patients with continuously high risk • 31% of patients with 0-10 bed exits per day • 48% of Patients with 11-20 bed exits per day • 21% of patients with > 20 bed exits per day • In the blind phase, 50% of the patients were assessed as not at risk for pressure ulcers, but 7 patients showed a pressure ulcer risk according to the mobility profile • In the intervention phase, 51.7% of the patients were assessed as not at risk for pressure ulcers, but 2 patients showed a pressure ulcer risk according to the mobility profile	
Secondary Outcomes	• 83.3% (10 employees) of the surveyed carers recommend the purchase of the system • 8.3% (1 employee) decline the purchase of the system • 8.3% (1 employee) had no opinion	
Abstract	In the Cluster “Future of Care” - PPZ-Freiburg, technologies for use in hospitals are being tested, which have an advantage for patients and caregivers. These include technologies in the field of bed sensors, in the care of people with dementia and in noise reduction in intensive care units. Accompanying skills in technical training are acquired in education and training. The first pilot project at the University Hospital of Freiburg was the integrated Bed sensor «Mobility Monitor (MoMo)» from the company compliant concept. The MoMo, a sensor mat which is placed under the mattress in the bed and transfers data about the mobility of the patient in bed to a monitor. Micro-movements and pressure-relieving movements as well as bed exits are recorded. With the possibility of a visual and / or audible warning, an alert is given to caregivers when patients reaching immobility periods or at bed exit. Patient positioning can be timely done and falls can be avoided. The MoMo was tested in a pilot project at a neurological and a neurosurgical ward in the University Hospital of Freiburg.	
Summary	The differences in the blind phase and the intervention phase indicate a promising use of the MoMo in patient care in the hospital.	
Limitations of the Study / Publication	A – Publication: a) Poster presentations offer limited space to present the trial, its results and the discussion only B – Design:	

	Due to the relatively small number of patients (n = 74 vs 55) and the uncontrolled study design, the results observed are to be classified as class IV according to recommendations of the Agency for Healthcare Research and Quality (AHRQ).	
The study / Publication can be used for:	Healthcare professionals who treat neurological / neurosurgical patients at pressure ulcer risk and out-of-bed fall risk in an acute care hospital.	
Main statements:	• In patients with complications during the blind phase, long periods of immobility and / or frequent bed leaving were detected • The incidence of pressure ulcers and out-of-bed falls decreased to 0% in the intervention phase • In the blind phase, it was seen that the clinical assessment of the pressure ulcer risk of caregivers may differ from the actual risk. • 18 patients in the neurological ward were classified as not at risk; according to the mobility analyses, 7 of these patients had long immobility. • Thanks to the immobility alerts, in the intervention phase the immobility was reduced by 35% • Statistical evaluations also showed that more than 20% of patients leave the bed up to > 20 times a day, which may indicate increased restlessness or an increased out-of-bed fall risk. • Finally, the MoMo has a broad acceptance in nursing. 83.3% of the surveyed caregivers recommend the integration of the aid into the clinical routine	