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Conference Abstract

Digital room-layout planning for complex manual handling hospital discharges

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Abstract

Introduction: Hospital discharge must take account of patients with complex manual handling needs. It is often essential for patients to use a hospital bed and a mobile hoist when returned to their home. Insufficient free-space in the patient's home requires room-layout planning to ensure safe use of bed and hoist. Disruption to furniture positions and change to existing rooms is often unavoidable though this can be very distressing for family and patient (Tamm 1999, Leff et al 2008). These disruptions can be so unwanted by the patient or family that the discharge is threatened.

Aims and Objectives: To minimise the patient and family distress caused by disruption to furniture positions and existing use of rooms when necessitated by safe manual handling practice: by

1) Determination of all suitable layouts for mobile hoists and hospital beds in confined spaces.

2) Demonstration of hospital bed and mobile hoist space requirements to patient and family in their home prior to any changes.

Results: Using recent doctoral research (Abraham 2012) a digital environmental planning tool and a physical simulation tool is being developed. The digital tool will assist determination of hospital bed and mobile hoist space requirements and all room-layout solutions while maintaining safe manual handling. The physical simulation tool will be an easy to carry, adjustable frame that can represent the space requirement of hospital bed or mobile hoist to patient and family in their home prior to any changes.

The paper will provide details of background, underlying science and illustrate the application of both tools.

Conclusion: Together the digital tool and physical simulation tool will assist the planning and facilitate the introduction of hospital bed and mobile hoist for patients with complex manual handling needs.

Keywords

digital first; user-centred design; patient experience design

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