



Service Priorities and Programmes Electronic Presentations

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Initiative fall prevention enhancement program - Framework of using Bed exit alarm device

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Introduction

Inpatient falls are widespread and serious threats to patient safety. Most falls in hospitalized patients occur in patient rooms and are related to ambulating from a bed. Bed-exit alarm systems could therefore reduce falls by alerting staffs when at-risk patients attempt to leave a bed or chair without assistance. Despite the widespread usage of these devices as part of the multi-component fall prevention interventions in various hospitals within Hospital Authority, the evidence to support the use of bed-exit alarms to fall reduction is not evident.

Objectives

The aim of this quality improvement project was to investigate whether the bed-exit alarm use decreases hospital falls and related events.

Methodology

The project was conducted in a Geriatric and Rehabilitation ward in Haven of Hope Hospital from 12 Dec 2015 to 11 Dec 2016. Interventions included translating the label of the reset button from Japanese to Chinese, selection of difference audible signal and in-service training for all nursing staffs and healthcare assistants. Difference audible signals were set to represent a specific clinical area within the ward; therefore nurses could locate the area promptly when the specific sound alarm was triggered. The in-service training addressed operation/technical issues on device use. In addition, the project leader did rounds every weekday to determine the appropriateness of using the alarm.

10 true or false questions and an individual skill assessment were used to determine participant's knowledge and skills on operating the bed-exit alarm. A post-training evaluation form was used to collect feedback from participants after the training to enable continuous quality improvement for coordinating similar events in the future. In addition, two years in-patient fall rate in the study ward (2015 & 2016) were used to determine the effectiveness of the intervention.

Result

Total 28 staffs attend the training and the mean knowledge score increased from 6.25 to 8.54 after the training session. All participants passed the skill assessment. They also agreed that the training course were useful and practical. There was a 0.4 per 1000 patient-days decrease in fall rates when compared with the previous year (0.47 in 2016 and 0.87 in 2015 respectively).

In conclusion, the use of difference audible signal and staff training in using the bed-exit alarm had clinically great effect on fall-related events.