A Pilot Evaluation of Fall Prevention Rooms in a Hospital Facility

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Background

- *Falls continue to be a major safety problem for hospitalized patients.*
- *Measures for patients at risk for falling have been directed towards: prevention by identifying patients at risk & safer room design.*
- *The majority of reported falls and near falls are un-witnessed so data are not available to characterize these un-observed falls.*

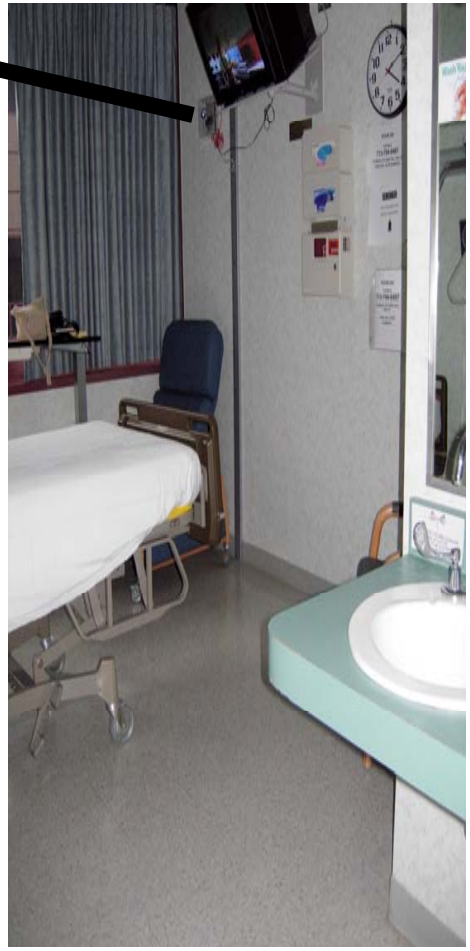
Problem

- *Some evidence indicates that patients may repeat circumstances or characteristics of the initial fall in subsequent falls.*
- *Since the majority of falls or near falls are un-witnessed there is no rigorous research available to provide data and/or support allegations concerning subsequent falls.*

Objectives

- *To evaluate the effectiveness of dedicated fall prevention patient rooms.*
- *To monitor patients identified at risk for falling using video cameras*
- *Establish a methodology to record and analyze falls that usually go un-witnessed.*

Methods



- Two rooms specifically designed for fall prevention were outfitted with video-cameras to record patient ambulation.
- Video surveillance of consenting adult patients occupying two fall prevention designed hospital rooms was maintained on a 24/7 basis.

Methods

- Video-images stored on hard drives were routinely collected and screened for any fall or near-fall incidents.
- Video recordings of fall or near-falls would then be subjected to further software analysis
- Any fall events would be documented and characteristics of the recorded falls and/or near-falls would be determined.

Results

- *Although no fall or near-fall events were recorded during the 1680 hours of video surveillance*
- *The equipment and methodology proved effective in monitoring patients*
- *The video quality was sufficient for further software analysis of fall events*.

Discussion

- Although fall prevention rooms are available for hospitalized patients identified at risk for falling the patients admitted to the rooms may not met the at risk criterion.
- The use of video surveillance for patients at risk for falling in hospital rooms with fall prevention measures can provide needed data to evaluate both the fall prevention rooms as well as determine the characteristics of usually un-witnessed patient falls or near falls.

Conclusions

- This pilot evaluation proved successful for establishing methodology for video monitoring of patients at risk for falls during hospitalization in rooms dedicated to fall prevention.
- Further monitoring of at risk patients is needed in order to record actual falls or near-fall events and submit the video observations to further video software analysis.

Implications

- The use of video technology can provide data concerning the effectiveness of identifying patients at risk for falling & the rooms designed for these at risk patients.
- Video technology can also provide data concerning the characteristics of falls or near falls and subsequent events.
- If it is determined that patients repeat circumstances and characteristics with subsequent fall events then an education/therapy program could be developed for these patients.
- Further studies may increase the ability of health care agencies to provide a safer environment for patients at risk for falling as well as result in a possible reduction in the incidence of falls.

References, Acknowledgements & Contact Details

- References:
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