The Emergency Department Stopping Elderly Accidents, Deaths, & Injuries Study

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The Emergency Department Stopping Elderly Accidents, Deaths, & Injuries Study

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Background

Alarming, falls are one of the leading causes of fatal and nonfatal injuries among older adults. 1 Each year, in 1 in 3 adults age 65 and older falls. 2 20% to 30% of people who fall suffer moderate to severe injuries, including lacerations, hip fractures, and head traumas. 3 These injuries make it extremely difficult for the aging to live independently and can increase risk of premature death. In 2011, 2.4 million nonfatal fall injuries among older adults were treated in emergency departments, and more than 689,000 of these patients were hospitalized. 4 Furthermore, it has been reported that falls account for 10% of all emergency department visits. 5 Additionally, gender has been found to have a clear impact on fall risk. Men are more likely to die from a fall; however, women have been found to be 58% more likely than men to suffer a nonfatal fall injury. 6

Goals

• To determine if a bedside decision aid used in the ED for mechanical fall prevention can increase patient participation in management options that decrease their fall risk
• To determine if there are gender differences in patient choices of fall prevention management options chosen using the bedside decision aid
• To determine if there are gender differences in accomplished goals inspired by the decision tool

Hypotheses

• The use of a bedside decision aid for fall prevention will increase patient participation in management options that decrease their fall risk.
• Men and women will select different management options listed on the decision aid.
• Men and women will accomplish different goals by using the decision aid.

Methods

Eligible patients were approached by a member of the research team, and interested patients were consented and randomly assigned to either control or intervention study arms. All subjects in both the control and intervention arms took an initial survey and performed the Timed Up and Go (TUG) Test and the 30 Second Chair Stand Test. Those in the control arm were then given the brochure "What YOU Can Do To Prevent Falls." 7 Those in the intervention arm instead completed a bedside decision aid worksheet and selected fall prevention management options most valuable to them. Both arms will have follow-up phone calls at 6 weeks, 3 months, 6 months, 9 months, and 12 months after discharge to collect self-reported data about goal completion and fall history. Logistic regression models will be used to determine if use of the bedside decision aid for fall prevention increased patient participation in management options that decreased their fall risk, to determine if men and women selected different fall prevention management options listed on the decision aid, and to determine if men and women actually participated in different management options.

Discussion & Conclusion

Between 6/4/2014 and 7/10/2014, 120 people were screened at the Lehigh Valley Hospital Cedar Crest Emergency Department, and 7 of these 120 screened patients (5.8%) enrolled. 78.4% of the enrolled participants were male while only 21.6% were female. The high rate of male enrollment in contrast to the considerably higher number of women screened, may have been due to the fact that men were less likely to be admitted, had health or mobility issues, have memory or psychological problems, or be in intense pain as compared to women.

As evident by the trends seen in the primary reasons that people did not enroll for each age group, many of those ages 65-74 may have decided against enrollment because they did not yet view themselves as a fall risk, while those age 75 and older may have declined or been ineligible to enroll due to more serious medical issues that they suffered from. Interestingly, a notably higher number of males did not enroll because they stated they were not fall risks, while a significantly higher number of females did not enroll because they were in intense pain or eventually admitted. Overall, the two most common interventions chosen to prevent falls using the bedside decision aid included the utilization of a checklist which provided patients with the information necessary to make their homes safer on their own, followed by medication review by the patient’s own doctors. The home modification checklist may have been selected most often because it allowed patients to easily make their homes safer at their own convenience without needing to find a ride to an appointment or being charged a copay, and was an easier goal to achieve than doing an exercise program or working with a physical therapist, especially for those who had limited mobility or already enrolled while male, or were ineligible to enroll.

The coefficients of determination for the TUG Test and 30 Second Chair Stand Test were 0.39 and 0.63 respectively; however, only 7 patients were enrolled, and thus graphically represented. As anticipated, the time to complete the TUG test increased by age. The number of chair stands performed in 30 seconds during the 30 Second Chair Stand Test decreased with age.

References

7. Others may have preferred to have their medications reviewed by their own doctor because an established relationship already existed between the patients and their doctor. As evident by the trends seen in the primary reasons that people did not enroll for each age group, many of those ages 65-74 may have decided against enrollment because they did not yet view themselves as a fall risk, while those age 75 and older may have declined or been ineligible to enroll due to more serious medical issues that they suffered from. Interestingly, a notably higher number of males did not enroll because they stated they were not fall risks, while a significantly higher number of females did not enroll because they were in intense pain or eventually admitted. Overall, the two most common interventions chosen to prevent falls using the bedside decision aid included the utilization of a checklist which provided patients with the information necessary to make their homes safer on their own, followed by medication review by the patient’s own doctors. The home modification checklist may have been selected most often because it allowed patients to easily make their homes safer at their own convenience without needing to find a ride to an appointment or being charged a copay, and was an easier goal to achieve than doing an exercise program or working with a physical therapist, especially for those who had limited mobility or already enrolled while male, or were ineligible to enroll.

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