Reducing Falls in the Geriatric Psychiatric Patients on Meyer 6

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1 Background

Several methods have been used to prevent falls in patients at risk, but they have decreased patient activity and led to de-conditioning. These include:

- Toileting schedules
- Use of observers
- Hourly rounds
- Bed alarms for high fall patients

Exercise programs have been shown to decrease falls, particularly ones that challenge balance and have a higher dose of exercising (Sherrington, et. al., 2008). Multifactorial approaches have been shown to decrease the rate of falls, though it is inconclusive if they decrease the risk for falling (Cameron, et al, 2012). In multicomponent exercise programs, the most important elements are balance and muscle strengthening. (Karlsson, Magnusson, von Schewelov, & Rosengren, 2013).

Objectives

1. Decrease the fall rate on Meyer 6.
2. Improve participant balance, strength, and gait.

2 Methods

We aimed to assess all geriatric psychiatric patients admitted to Meyer 6 during the study period. We used the STEADI (stopping elderly accidents, deaths, and injuries) assessment tool which involved the timed-up-and-go (TUG) test, the chair sit-to-stand test, and the four point balance test. High fall risk was measured by the JHFRAT tool, and is indicated by a TUG of > 12 seconds and not being able to stand up from a chair with no hands, as measured by the sit-to-stand test (Phelan, Mahoney, Voit, & Stevens, 2015). The 4 stage balance test predicts falls and fall injury (ibid). If a patient failed their age criteria in two or more tests on the assessment, they met the criteria for the study.

Once a participant was assessed and qualified, we took the following steps:

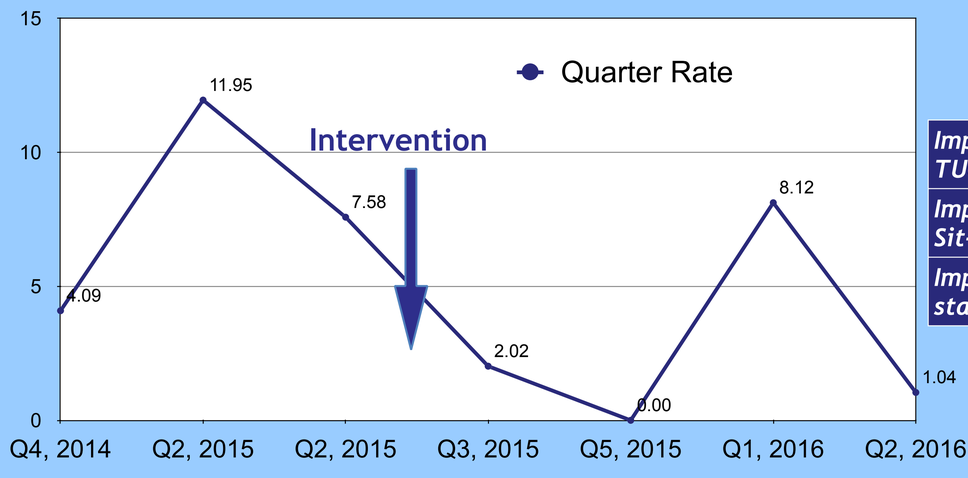
1. Obtain informed written consent
2. Have patient fill out pre-SF-36 survey
3. Exercise with patient 3-4 times/week, increasing the challenge as appropriate
4. Within 48 hours of discharge, have the patient fill out post-SF-36 and perform post assessment

3 Results

Since implementing the exercise intervention, the fall rate on Meyer 6 has decreased, except for a sharp rise in the first quarter of 2016. One of the patients who fell during this period did so before we were able to begin the exercise program with him and did not fall after we had enrolled him in the program. Since implementing the intervention, we maintained a fall rate of equal to or less than the benchmark established by similar hospitals across the country.

N**o one fell while participating in the exercise program.** We saw a small change in fall risk using the TUG, sit-to-stand, and 4 stage balance, with a 4.89 second average decrease in TUG, a 2.53 average number of repetitions increase in sit-to-stand, and a 1 stage average increase in the 4 stage balance test.

Geriatric Psych: Fall Rate per 1000 Patient Days



Improvement in TUG	*4.89 seconds*
Improvement in Sit-to-stand	*2.53 repetitions*
Improvement in 4 stage balance	*1 stage*

4 Conclusions

1. Meyer 6 experienced a reduction in falls during the time of our intervention.
2. Improvement in balance, strength, and gait in participants.

While the fall rate in the geriatric population of Meyer 6 did decrease during the time of our intervention, we cannot infer causation. We also saw an improvement in TUG, Sit-to-stand, and 4 stage balance test scores, indicating an improvement in balance, strength, and gait in our participants.

5 Future Directions

Future Directions

1. Focus the study further to correlate an improvement in balance, strength, and gait with a reduction in falls.
2. Tackle issues related to noncompliance with the program in order to increase our intervention population.

6 References

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