Fall Prevention Algorithm for the Older Adult Population: A DNP Project Utilizing Evidence-Based Practice and Translational Research

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Background

Prevention of falls in the older population is an important issue for all health care facilities.
- Number of people over the age 65 will increase to ≈20% of the world population by 2030
- Increase in the number of older adults will lead to increase acute care admissions which can increase the number of falls in the acute care setting
- Normal physiological changes associated with aging such as decreased visual acuity, polypharmacy, and heart rhythm abnormalities.

Regulatory requirements
- National Quality Forum list of preventable serious reportable events includes falls with major injuries

Falls are a complex problem with many contributing synergistic factors
- Personal specific intrinsic
- Physical environment
- Riskiness of person’s own behavior

Original algorithm

Adapted algorithm

Intervention

Utilization of adapted algorithm based upon established guidelines developed by the American Geriatrics Society.

Implementation

Approval from the fall prevention committee of the facility.
Discussions with the nurse manager of the pilot unit and approval to move forward.
Education of all nursing staff on all shifts on the use of the adapted algorithm and how to perform the Timed-Up and Go (TUG) test

Setting:
UT Southwestern Medical Center University Hospitals and Clinics. University Hospital - St Paul. Dallas, Texas.

Pilot unit:
- Busy 42 bed medical/oncology unit

Pilot period:
- February 1, 2013 to March 1, 2013

Evaluation of adapted algorithm included number of falls and fall rate per 1000 patient days, both before and during the pilot period.
- 35 total patients

Electronic survey of the nurses on the pilot unit with five questions.
- 23 out of 30 FT RN’s completed survey

Results

Survey Results

<table>
<thead>
<tr>
<th>Question</th>
<th>Completely Agree</th>
<th>Agree</th>
<th>Neutral</th>
<th>Disagree</th>
<th>Completely Disagree</th>
</tr>
</thead>
<tbody>
<tr>
<td>Did you receive sufficient information on the use of the adapted algorithm?</td>
<td>6%</td>
<td>6%</td>
<td>9%</td>
<td>8%</td>
<td>35.7%</td>
</tr>
<tr>
<td>Do you feel the TUG test is simple to perform?</td>
<td>0%</td>
<td>0%</td>
<td>4.3%</td>
<td>52.2%</td>
<td>45.5%</td>
</tr>
<tr>
<td>Do you feel the adapted algorithm is beneficial?</td>
<td>4.3%</td>
<td>4.3%</td>
<td>17.4%</td>
<td>47.8%</td>
<td>24.1%</td>
</tr>
<tr>
<td>Did you have difficulty implementing the adapted algorithm?</td>
<td>4.3%</td>
<td>4.3%</td>
<td>17.4%</td>
<td>47.8%</td>
<td>24.1%</td>
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<tr>
<td>Are you comfortable answering any questions the patient may have about preventing falls both in the hospital and at home?</td>
<td>0%</td>
<td>0%</td>
<td>8%</td>
<td>40.9%</td>
<td>59.1%</td>
</tr>
</tbody>
</table>

Conclusion

Preventing falls is an important aspect of providing safe, high quality care to the older adult population. An adapted algorithm with specific risk categories and targeted multifactorial interventions can be utilized to help decrease the risk of falling in the older adult.