Team Based Approach to Fall Prevention in Elderly Population: A Four Year Review

Britney Schwartz BSN, RN
Anne Yaple
Jamie Gaul PharmD, BCPS
Jennifer Ferguson
Katelyn Hougham

See next page for additional authors

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Authors
Britney Schwartz BSN, RN; Anne Yaple; Jamie Gaul PharmD, BCPS; Jennifer Ferguson; Katelyn Hougham; and FenLei Chang MD, PhD
Introduction

- Falls cause major morbidity and even mortality in the elderly population >65 years.
- Falls are the number one cause of both fractures and head injuries.
- From population health standpoint – An unexplained fall should be treated as a red flag for a timely Fall Prevention Clinic evaluation and intervention.

Methods

- The Fall Prevention Clinic was established 4 years ago as an outpatient service within a community hospital.
- The patient completes a series of two appointments after a physician referral is received.
  - 1st Visit – Composed of evaluation by a multidisciplinary team: Neurologist (Neuro), RN Care Advisor (RN), Physical Therapist (PT), Pharmacist (RPh), and Aging & In-Home Services (AIHS).
  - 2nd Visit – Provides personalized recommendations to the patient and family members from each team.
- Patients are instructed to call the clinic and report any falls and are contacted by RN at 1 month intervals to discuss patient status, care plan compliance, and further recommendations.
- Follow up with patient occurs every 6 months.
- Total of 590 patients age 65 years or above were included in this study.

Subset Analysis

- Neuro – Figure 2 & Figure 3
- PT – Table 4
- RPh – Table 5 & Figure 6
- AIHS – Figure 7
- OT – Table B

Randomized data collection from 2014-2017 on variety of patient groups.

Results

- Figure 2: Fall Rate pre and post Fall Prevention Clinic intervention from 2014-2017 (N=590) Fall Prevention Clinic Visit and Intervention was noted with a solid red line. Prior to the Clinic visit, pre-assessment is completed to obtain fall occurrence. After the Fall Prevention Clinic diagnostic evaluation and initiation of care plan, the fall rate is reduced significantly. Continued Close Follow Up Program has kept the fall occurrence rate low for over one year period.

Table 5: Classes of Medication in Which Medication was Provided to Patients/Caregivers

<table>
<thead>
<tr>
<th>Medication</th>
<th>Percentage</th>
</tr>
</thead>
<tbody>
<tr>
<td>Antihypertensives</td>
<td>33%</td>
</tr>
<tr>
<td>Diabetic Medications</td>
<td>16%</td>
</tr>
<tr>
<td>Opioids/Muscle Relaxants</td>
<td>7%</td>
</tr>
<tr>
<td>Benzodiazepines</td>
<td>1%</td>
</tr>
<tr>
<td>Other</td>
<td>8%</td>
</tr>
</tbody>
</table>

Table 6: Pharmacy Interventions

- Alternatives: Therapy, Education, Medication Management, Nursing Change of Medication, Occupational Therapy, Patient Education
- Therapy: Physical Therapy, Occupational Therapy
- Education: Health Education, Medication Education, Nursing Change of Medication
- Nursing: Medication Management

Table 7: Physical Therapy Education/Intervention (N=192)

<table>
<thead>
<tr>
<th>Intervention</th>
<th>Percentage</th>
</tr>
</thead>
<tbody>
<tr>
<td>Exercise Instructions</td>
<td>73%</td>
</tr>
<tr>
<td>Use of Gait Devices</td>
<td>48%</td>
</tr>
<tr>
<td>Referral to Outpatient PT</td>
<td>24%</td>
</tr>
<tr>
<td>Assisted Ambulation</td>
<td>5%</td>
</tr>
</tbody>
</table>

Table 8: Occupational Therapy Compliance for Home Assessment from 2015-2017 (N=185) Clinic OT assess the patients’ engagement in activities of daily living within their home environment in order to provide personalized recommendations: Adaptive equipment, home modifications, and activity adaptations. September 2016, patient contact method changed from telephone call to OT who was able to achieve face-to-face contact with each patient. This contact method has significantly increased the compliance of patient’s willingness to complete a home assessment.

Conclusion

- The contributors for our significant fall reduction includes: Multi-disciplinary teamwork, identification and management of previously undiagnosed neurological/medical conditions, personalized fall prevention rules, and management of previously undiagnosed weaknesses and improve those areas.
- The fall rate is reduced significantly. Continued Close Follow Up Program has kept the fall occurrence rate low for over one year period.

Acknowledgements

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