Implementation of an Evidence-Based Intervention to Support Older Adults’ Medication Adherence Post-Discharge

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Authors:
Rebecca L. Trotta, PhD, RN
Aditi D. Rao, PhD, RN
Colleen M. Regan, BA, BSN, RN
Hospital of the University of Pennsylvania

Presentation Objectives

• Understand the concept of Medication Adherence
• Understand the AGE Program components
• Understand the GRN assessment and collaboration with interprofessional team around planning and support for medication adherence
• Understand findings to date and next steps

Medication Adherence

• Definition
  • Process whereby patients take their medications as instructed, and maintain consistency of the regimen
• Reasons for Medication Non-adherence

<table>
<thead>
<tr>
<th>Categories</th>
<th>Examples</th>
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</thead>
<tbody>
<tr>
<td>Health system</td>
<td>Poor quality of provider-patient relationship; poor communication; lack of access to health care; lack of continuity of care</td>
</tr>
<tr>
<td>Condition</td>
<td>Asymptomatic chronic disease (lack of physical cues); mental health disorders</td>
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<tr>
<td>Patient</td>
<td>Physical impairments (vision problems, impaired dexterity; cognitive impairment; psychological/behavioral; younger age; nonwhite race)</td>
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<tr>
<td>Therapy</td>
<td>Complexity of regimen; side effects</td>
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<tr>
<td>Socioeconomic</td>
<td>Low literacy; higher medication costs; poor social support</td>
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</tbody>
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(Ho et al., 2009)
Impact of Medication Non-Adherence

- **Admission/Readmission**
  - 15% of hospitalizations due to medication non-adherence (Tarantino et al., 2010)
  - Approx. 14% of 30-day readmissions are related to medication issues (Kangovi et al., 2012)

- **Poorer Overall Health**
  - Non-adherence is a significant risk factor for increased morbidity and mortality (Tarantino et al., 2010)

- **Caregiver Strain/Stress**
  - Many admission diagnoses are new and acute, forcing new caregiver role to be established (Kimball et al., 2010)
  - Day-to-day care for patient post-discharge (med administration) causes significant strain (Kimball et al., 2010)

Discharge Preparation - Current Practices

- **Medication Teaching** (Lindquist et al., 2011)
  - Medication reconciliation required by TJC on admission, not discharge
  - 30% of older adults have low health literacy leading to poor understanding of medication adherence principles

- **Identifying Who to Teach - Patient vs Caregiver**
  - Patients and caregivers typically taught about medications upon discharge with no time for follow-up (Kimball et al., 2010)
  - Medication teaching primarily directed toward patient, who may not be responsible for medication administration

- **Addressing Medication Regimen Complexity** (Elliot et al., 2012)
  - Hospitalization increases complexity of medication regimen
  - "Lack of time" is main reason for lack of review/simplification of medication regimen
  - Older adults’ medication regimens can be simplified without altering therapeutic intent of regimen

Opportunities to Improve Medication Adherence

- **Proactive Identification of High Risk Patients**
  - Depressed patients are 3x more likely to be non-adherent to medication regimen (Krousel-Wood et al., 2010)
  - Lack of a caregiver, cognitive impairment, and polypharmacy (>6 meds) increase risk for non-adherence (Xiong et al., 2014)

- **Assessment and Support of Adherence Practices**
  - Patients/caregivers need support in adapting to new regimen to daily routine post-discharge (Xiong et al., 2014)
  - Home visit by community pharmacist reduces unnecessary med supplies, reduces medication cost and increases patient satisfaction with medication review (Hugtenburg et al., 2009)
  - Multiple instruments available to assess patients’ capacity to manage medications (Farris & Phillips, 2008)
AGE Program: Overview

• Program Description
  • Nurse-led consultative program
  • Enhances capacity for interprofessional collaborative care of hospitalized older adults
  • Facilitates implementation of early individualized interventions to mitigate negative outcomes for high-risk older adults and their families

• GRN Consultation Process
  • Conduct Comprehensive Geriatric Assessments (CGAs) on selected geriatric patients
  • Communicate CGA findings to IP team
  • Facilitate actualization of recommendations in collaboration with IP team
  • Connect with caregivers
  • Conductor daily follow-up visits

AGE Program: Focus on Pharmacotherapy

• Clinical Assessment
  • Cognition
    – Dementia - Cognitive Interview, Mini-Cog
    – Delirium - CAM
  • Sensory - Vision, hearing
  • Function - Grip strength, physical mobility

• Psychosocial Assessment
  • Depression - PHQ-2, PHQ-9
  • Social support - Enrichd Social Support Inventory
  • Living situation – patient interview

• Pharmacotherapy Assessment
  • Pharmacotherapy patient/caregiver interview
  • Morisky 8-item medication adherence questionnaire
  • Medication regimen evaluation against Beers Criteria

Collaboration with Interprofessional Team

• Pharmacists
  • Medication action planning
  • Other sources of support – pill boxes

• Physicians
  • Decrease complexity of the regimen
  • Improve medication safety profile

• Social Workers
  • Enlist home care for med reconciliation
  • Obtaining medications at more reasonable price

• Therapists (PT/OT)
  • Evaluation and support for strength and dexterity

• Patients and Caregivers
  • Elicit needs and provide individualized education

GRNs activate care coordination among IP team members for optimal patient & family support
Descriptive Data (Feb – Dec 2014)

- **Patient Demographics (n=488)**
  - Gender – 40.6% male
  - Race
    - 43.4% Caucasian
    - 51.8% African American
  - Average age 78.2 years

- **Clinical Characteristics**

<table>
<thead>
<tr>
<th>Characteristic</th>
<th>Instrument</th>
<th>Sample</th>
<th>%/Score</th>
</tr>
</thead>
<tbody>
<tr>
<td>Cognitive Impairment</td>
<td>MiniCog</td>
<td>463</td>
<td>31.5% positive</td>
</tr>
<tr>
<td>Depression</td>
<td>PHQ-2</td>
<td>465</td>
<td>33.3% positive</td>
</tr>
<tr>
<td>Social Support</td>
<td>Enriched Social Support Inventory Range 0-34</td>
<td>389</td>
<td>Mean 28.4 (SD=6)</td>
</tr>
<tr>
<td>Inconsistent Med Adherence</td>
<td>Morisky medication adherence scale</td>
<td>303</td>
<td>62.1%</td>
</tr>
<tr>
<td>Prescribed inappropriate meds</td>
<td>Beers Criteria</td>
<td>134</td>
<td>27.5%</td>
</tr>
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AGE Program: Next Steps

- **Additional Assessments**
  - Medication Regimen Complexity Index
  - Medication management capacity

- **Individualized Post-discharge Support**
  - Phone calls within 24 hours
  - "help line" for patients/caregivers to call back with questions

- **Prospective Cohort Analysis**
  - Assess impact of the AGE program interventions aimed at improving medication adherence

THANK YOU!

Rebecca L. Trotta, PhD, RN  
Director, Nursing Research & Science  
NICHE Coordinator  
Rebecca.Trotta@uphs.upenn.edu

Colleen M. Regan, BA, BSN, RN  
Geriatric Resource Nurse  
Colleen.Regan@uphs.upenn.edu