Team Based Geriatrics Practice in Acute Care/Community Care

Sue Fosnight RPh, CGP, BCPS
Associate Professor, Northeast Ohio Medical University, Rootstown, Ohio
Lead Pharmacist, Geriatrics, Summa Health System, Akron, Ohio
Building a Geriatrics Practice in Acute Care

- **Summa Health System**
  - Akron City and St. Thomas Hospitals: 573 beds
  - Residency Program
    - Geriatric Rotation
    - Transitions Rotation

- **Northeast Ohio Medical University**
  - Interprofessional Management of Geriatric Patients Elective
  - Neuro-Psych Module
  - Palliative Care Elective
  - Drugs of Review Elective
  - Approximately 12 APPE students per year
  - Research Elective Students
Objectives

• By the end of this presentation the listener should be able to:
  - Discuss areas in acute and community care that are in need of services from a geriatric trained pharmacist
  - Describe examples of team based projects that provide improved geriatric patient care, student learning and scholarship
  - Summarize tips to design practice based scholarship involving geriatric patients in a team environment that includes student learning opportunities
What area do the majority of CGP certified pharmacists practice?

a. Hospitals
b. Ambulatory Care
c. Nursing Facilities
What is the incidence of adverse events in Medicare patients in the hospital?

a. 3%
b. 7%
c. 13%
d. 26%
e. 52%
Issues in Elderly Hospitalized Patients

• According to a 2010 report from the Department of Health and Human Services:
  – 13.1% of Medicare patients had an adverse event in the four most serious categories of patient harm while in the hospital
  – Another 13.5% of Medicare patients had an adverse event categorized as temporary harm
  – Cost for adverse events= $4.4 billion/year
  – 31% of these events were due to medications
  – 50% of the medication adverse events were felt to be avoidable

Accessed 3-1-15
How many elderly patients will be readmitted within 30 days of discharge?

a. 5%
b. 10%
c. 15%
d. 20%
Issues in Elderly Hospitalized Patients

• 2004 study showed that 20% of Medicare patients discharged from the hospital were readmitted within 30 days
  – Estimate cost = 17.4 billion dollars/year

PREVENTION COMES FIRST
Opportunities for Improving Geriatric Patient Care in Hospitals

• Preventing Hospital Acquired Conditions
• Preventing Readmissions
• Meeting Core Measures
“Population aging is a phenomenon that occurs when the median age of a country or region rises due to rising life expectancy and/or declining birth rates”
Health Care System Concerns and Recommendations

- Older patients use more healthcare services
  - Will we have enough well trained health care providers to provide these services?
  - Will we have enough money to pay for these services?


Cleary P. Health Affairs 2010: 29; 906-913
Health Care System Concerns and Recommendations

• Institute of Medicine’s Recommendations:
  • Enhance the competence of all individuals in the delivery of geriatric care
  • Practice in interdisciplinary teams

• National Committee for Quality Assurance Recommendations:
  • Use a team as part of the patient-centered medical home

Cleary P. Health Affairs 2010: 29; 906-913
Areas that will benefit from Geriatric Trained Pharmacist

• All areas serving elderly patients
  – Nursing Facilities
  – Hospitals
  – Ambulatory Care Services
  – Community Pharmacy
  – Area Agency on Aging

Institute of Medicine’s Recommendations: Enhance the competence of all individuals in the delivery of geriatric care
According to the 2010 Department of Health and Human Services study, what is the most common serious medication related adverse event that occurred in hospitalized Medicare patients?

a. Excess bleeding  
b. Delirium  
c. Hypoglycemia  
d. Acute renal insufficiency  
e. Severe hypotension  
f. Respiratory failure  
g. Allergic reaction

• Other Adverse Events that may be Medication Related
  – Intravenous volume overload
  – CHF
  – DVT or PE
  – CHF
  – Prolonged Weakness
  – Post-op ileus
  – Post-op urinary retention
Areas for Focus of Geriatric Trained Pharmacists

- Avoidance of High Risk Medications
- Narrow Therapeutic Index Medication Monitoring
- Falls Avoidance
- Delirium Avoidance
- Medication Counseling
- Adherence
- Prevention of Readmission
- Optimizing Pain Control
- Education of Providers
- Reaching Core Measures
- Improving Patient Satisfaction
HCAHPS Scores

How many questions on the HCAHPS survey pertain to medication?

a. 1
b. 3
c. 5
d. 7
HCAHPS Questions Related to Meds

1. During this hospital stay, how often was your pain well controlled?
2. During this hospital stay, how often did the hospital staff do everything they could to help you with your pain?
3. Before giving you any new medicine, how often did hospital staff tell you what the medicine was for?
4. Before giving you any new medicine, how often did hospital staff describe possible side effects in a way you could understand?
5. When I left the hospital, I clearly understood the purpose for taking each of my medications

25 total non-demographic questions, 3 qualifier medications

Choices = Never, sometimes, usually, always

http://www.hcahpsonline.org/surveyinstrument.aspx
OPPORTUNITY
You will always miss 100% of the shots you do not take
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Team Based Geriatric Care in Acute Care/Community Care: Pharmacist Role

Unit Based Pharmacist

Readmission Rate Project
Pain Management
Medication Counseling
Area Agency on Aging Weekly Community Rounds
Home visit /MTM program

Delirium Initiative
High Risk Meds
Insomnia Order Set
Polypharmacy/Adherence Consults
Family Practice Consults
Family Practice Pharmacist

ADLIFE trial
PEACE trial
Diabetes trial

All pictures from Microsoft Clipart: Accessed 6-5-14
Unit Based Pharmacist

- Optimize medication therapy
- Education
- Student and Fellow Based Research Projects
Taking ACE out of the ACE unit

• **Hospital-wide initiatives**
  - Interdisciplinary teams to coordinate:
    • High Risk Medication Initiative
    • Delirium Initiative
    • Development of Insomnia Order Set
    • Standardization of QTC prolongation warnings
    • Geriatric Principles to the Emergency Room

• **Area Agency on Aging**
  - Attendance of weekly interdisciplinary rounds
    • Home visits with comprehensive MTM review
    • ADLIFE, PEACE trial
    • Student-led education of care managers
High Risk Medications

**Intervention**
- Preprinted note/pharmacist interaction to decrease high risk medication use
- Intervention by pharmacists on all shifts and all nursing units

**Outcomes/Scholarship**
- Documented 33% to 52% decrease in high risk medications (depending on the medication) one year after implementation
- **Fosnight S**, Allen K, Hazelett S. Decreasing the use of high risk medications in hospitalized older adults. American Geriatrics Society Annual Meeting, Baltimore, Maryland, May 2003
Delirium Initiative

**Intervention**
- Implementation of an interdisciplinary delirium intervention
- Included pro-active contact of prescriber by pharmacist if medications that pose risk are ordered in patients at risk **on all shifts**
- Included an order set that included screening for causes of delirium and medication regimens if treatment is necessary

**Students/Residents**
- Students attended committee meetings to develop
- Residency research project related to outcome
Delirium Initiative: Outcomes

- Pre-protocol (100 patients) vs Post protocol (99 patients) on Pilot Unit
  - Delirium decreased from 8.8% to 7.2%
  - Length of stay decreased from 7.6 days to 4 days
  - Transfers to intensive care decreased from 18% to 0%
  - 30 day readmits decreased from 31% to 5%
  - Deaths decreased from 23% to 9.5%
  - Number of patients that received medications that increased risk of delirium decreased from 53% to 24%

- Medication use 6 months and 12 months after implementation to all Med-Surg Floors
  - IV lorazepam doses dispensed per day decreased from 14.1 (pre-protocol) to 11.1 (at 6 months) to 9.7 (at 12 months)
  - The use of >5 mg doses of haloperidol doses decreased from 5.4% (pre-protocol) to 3.9% (at 6 months) to 0.71% (at 12 months)
Delirium Initiative: Scholarship


Insomnia Order Set

**Intervention**
- Interprofessional team developed an order set for use in patients with insomnia

**Students**
- Students attended committee meetings as planning occurred
- Residency and student research projects looked at outcomes

**Outcomes/Scholarship**
- Elderly patients using insomnia order set with recommended medication (melatonin) to treat insomnia had decreased delirium (18.6% to 4.3%)
- Manuscript in Progress
# Area on Agency Interprofessional Rounds

**Intervention**
- Interprofessional team reviews
- Community dwelling patients that care managers bring to rounds for interprofessional approach
- All qualifies for federally funded geriatric services

**Students**
- Students attend team meetings
- Students participate in formal education for Care Managers

**Outcomes/Scholarship**
- Student poster presentations related to education programs
PEACE trial

**Intervention**
- Interprofessional team developed an intervention for patients with chronic disease likely qualifying for palliative care services. Intervention included pharmacist medication review
- Funded by: National Palliative Care Research Center

**Students**
- Students attended committee meetings as planning occurred
- Students attended team meetings
- Students assisted with comprehensive medication reviews and home visits

**Outcomes/Scholarship**
- Decreased hospital (55% to 50%) and nursing facility (32.5% to 22.5%) visits
QI on Family Practice Consults

**Intervention**
- Family Practice using polypharmacy or adherence consult for all patients for two week period

**Students**
- Students assisted in patient interviews and SOAP notes

**Outcomes**
- 7% decrease in readmissions in those with consult when compared to average from previous six months
- Decrease in medication errors
- Feasibility pilot for pharmacist led transition project
Family Practice Transition Pharmacist

- Imbed pharmacist in Family Practice Inpatient Team
- Able to perform intervention 21 days over 2 month period
- Perform admission med interview and reconciliation, adherence interview, inpatient recommendations, discharge reconciliation and counseling, post-discharge phone call or visit

Intervention

Students

- Residents and students involved in rounding with all aspects of the intervention
Family Practice Transition Pharmacist

• Results
  • 2.4 day decrease in ALOS if pharmacist performed admission med history and reconciliation vs not (p=0.09)
  
  • 3.4% readmissions in patients with discharge counseling and adherence interventions (Significant p=0.02 when compared to those that did not get discharge counseling)

• Inpatient bundle= admit med history and reconciliation, team rounds attendance, discharge med reconciliation and counseling completed. Significant correlation (p<0.007) between if <3 of these bundle items were done
QI Project: Patient Pain Assessment and Intervention to Improve Outcomes

**Intervention**
- Patient with pain score >3 as relayed on rounds by nurse was seen by pharmacy student/pharmacist

**Students**
- Student performed pain interview
- Student and preceptor prepared recommendation for optimization of pain regimen developed with preceptor
- Physician contacted to change regimen, Non-pharmacological options relayed to nurse

**Outcomes**
- HCAHPS scores on unit increased from 10th percentile prior to program to >90th percentile during program

**Scholarship?**
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Tips For Practice Based Scholarship with Students

- Solve issues seen as practicing
  - Interventions will be stronger if you also involve an interprofessional team of experts
- Design outcome data as research if feasible - include students
  - Added benefit for justification of positions
- Collect outcomes from pilots then apply for grants to reach more patients, provide more meaningful outcomes, increase the evidence base for the important work we do
If opportunity doesn’t knock, build a door.

-Milton Berle

WWW.POSITIVEMOTIVATION.NET
How many of you are currently involved in QI projects or research studies?

a. Research studies
b. Quality Improvement Projects
c. Both
Barriers to Geriatric Pharmacy Practice
Geriatric Patient Care by US Pharmacists: Generating Evidence through Research

Jeannie K. Lee, PharmD, BCPS, CGP, FASHP
Assistant Professor, University of Arizona Colleges of Pharmacy & Medicine
jlee@pharmacy.arizona.edu

https://aaccp.adobeconnect.com/_a946482050/p3hw2iv5hxd/?launcher=false&fcsContent=true&pbMode=normal
Webinar #3 : APRIL 8th at 1:00 pm ET

Title: Geriatric Patient Care by US Pharmacists: Community-based Participatory Research Date

Presenter: Dr. KC Ogbonna