Pharmacist Collaboration to Maximize Your Patient-Centered Medical Home

Stuart Beatty, PharmD, BCACP, CDE
Associate Professor of Clinical Pharmacy
The Ohio State University College of Pharmacy

Learning Objectives

- Describe how pharmacists can provide patient-centered, collaborative care in a primary care setting
- Discuss a transitional care coordination workflow in a patient centered medical home
- Demonstrate effective population management initiatives

Pharmacist Education

- Doctor of Pharmacy Degree
  - 6-8 years education
  - 3 year emphasis:
    - Medicinal chemistry
    - Pharmacology
    - Pharmacokinetics
    - Therapeutics
  - 1 year experiential
- Pharmacy Residency (elective)
  - 1 or 2 years clinical experience

OSU General Internal Medicine

- Martha Morehouse GIM Clinic
- CarePoint East GIM Clinic
- Stoneridge GIM Clinic
- Grandview GIM Clinic
- Hilliard GIM Clinic
- Lewis Center Primary Care

- National Committee for Quality Assurance (NCQA) tier 3 patient-centered medical homes (PCMH)

Martha Morehouse GIM Clinic

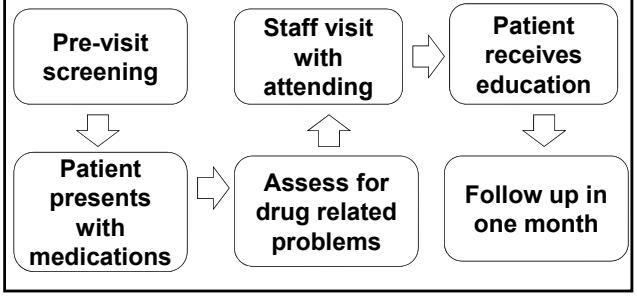
- >75 Internal Medicine residents; 12 attending physicians
- >20,000 patients
- 1 pharmacist shared faculty; 2 pharmacy residents
- 5 care coordinators (RN)
- 1 social worker
- 1 medication assistance programs coordinator
- 12 medical assistants

Polypharmacy Service

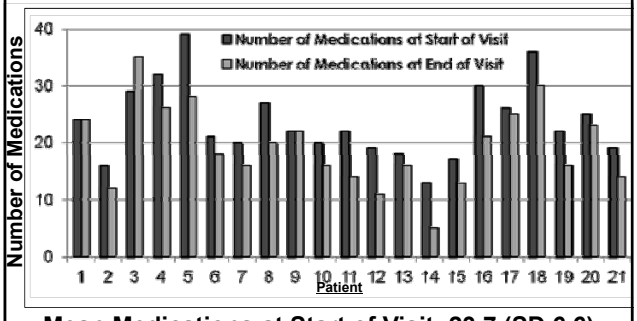
Stuart Beatty, PharmD, BCACP, CDE
Associate Professor of Clinical Pharmacy
The Ohio State University College of Pharmacy

Polypharmacy Clinic Workflow

- Medication-focused visit with pharmacist and internal medicine resident
- Target patients taking ≥ 10 medications



Polypharmacy Clinic – Preliminary Findings



Mean Medications at Start of Visit: 23.7 (SD 6.6)
Mean Medications at End of Visit: 19.3 (SD 7.2)

Polypharmacy Clinic Value

- 5-6 patients scheduled per ½ day
  - 1 attending physician, 1-2 medical residents, 2 pharmacists, medical students, pharmacy students
  - Could be modified to pharmacist only
- Pharmacist billing opportunities for select insurers
- Up-to-date medication list in EMR

Transitional Care Coordination

Stuart Beatty, PharmD, BCACP, CDE
Associate Professor of Clinical Pharmacy
The Ohio State University College of Pharmacy

Transitional Care Coordination

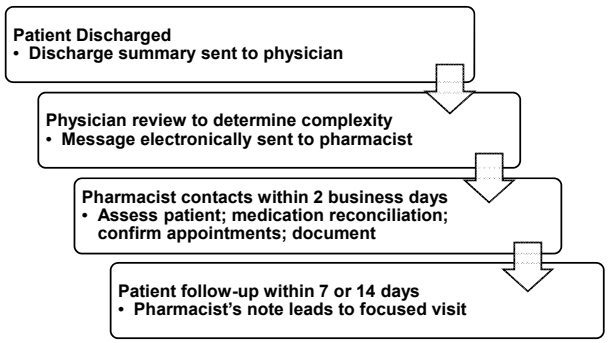
- 99495/99496 introduced in January 2013
- Contact by "licensed clinical staff" within 2 business days of discharge from acute care setting

<u>Type of contact</u>
- Phone
- Email
- Face-to-face

<u>Acute Care Setting</u>
- Acute or rehabilitation hospital
- Observation unit
- Nursing facility

- Face to face visit with physician within 7-14 days
- Continued coordination 30 days post-discharge

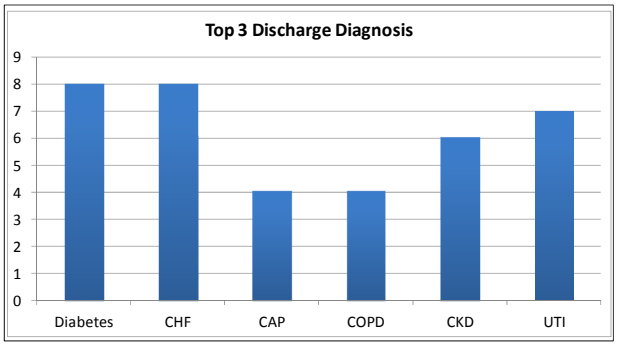
Transitional Care Coordination Workflow



Transitional Care Coordination

- Results from 4/1/13 – 7/31/13 (n=68)
- Demographics
  - Female 62%
  - Mean age – 67.1
  - White 66%; African American 31%
  - Medicare 60%; Private 22%

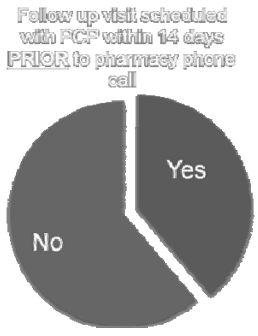
Transitional Care Coordination



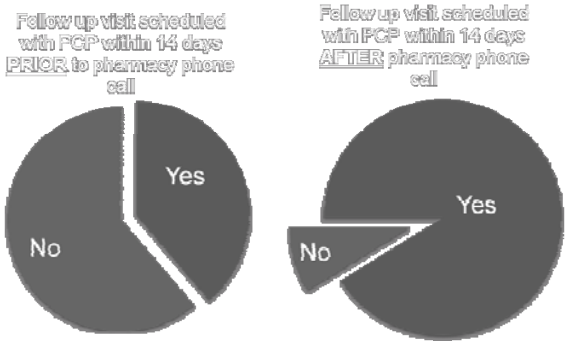
Transitional Care Coordination

- Discharge location:
  - OSUWMC – 59%
- Average medications upon discharge – 14.7
  - 37.3% on opioid
  - 34.3% on anticoagulant
  - 25.3% on antibiotic
  - 25.3% on insulin

Transitional Care Coordination



Transitional Care Coordination



Transitional Care Coordination

- **Medication-related problems**
  - **Identified in 60% of phone calls**

Did not start NEW medication	15
Taking medication incorrectly (e.g., wrong dose, time)	10
Continued to take a STOPPED medication	5
Experienced adverse effect	5
Warfarin without INR monitoring scheduled	6

Transitional Care Coordination Value

CPT code	tRVU	wRVU	tRVU - wRVU
99214	3.13	1.49	1.64
99495	4.82	2.11	2.71
99215	4.20	2.10	2.10
99496	6.79	3.05	3.74

- **Efficient hospital follow-up visit**
- **Reduced rehospitalizations?**

Why patients do not fill their prescriptions

Common drug-drug interactions

Population Management

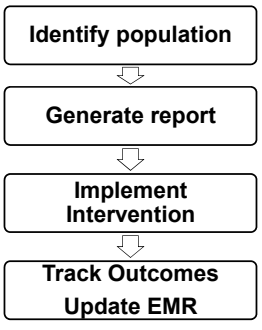
Kelli Barnes, PharmD, BCACP
Associate Professor of Clinical Pharmacy
The Ohio State University College of Pharmacy

Population Management

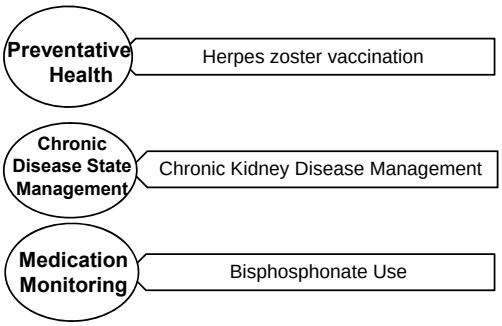
- Uses EMR-reporting capabilities
  - Patient registries (PCMH requirement)
- Proactive, targeted interventions
- Incorporates team-based care
- Improves outcomes in specific population
- Can be completed outside of an office visit

EMR: Electronic Medical Record

Population Management Process

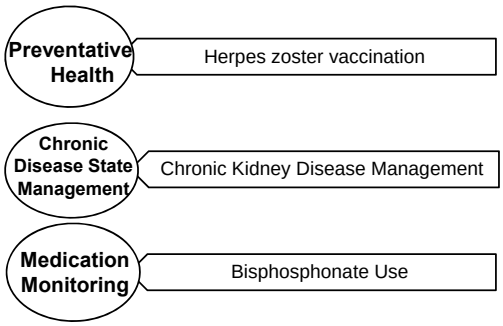


OSU GIM Population Management Interventions



OSU GIM: The Ohio State University Division of General Internal Medicine

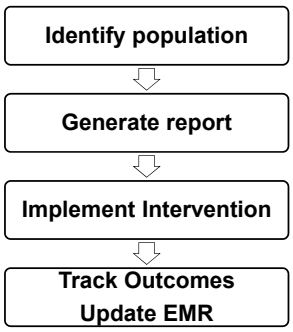
OSU GIM Population Management Interventions



OSU GIM: The Ohio State University Division of General Internal Medicine

Preventative Health

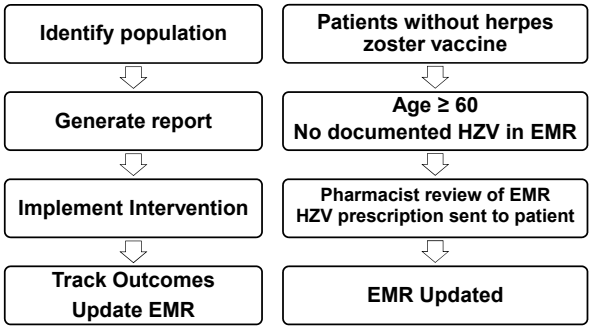
Herpes Zoster Vaccination



EMR: Electronic Medical Record
HZV: Herpes Zoster Vaccine

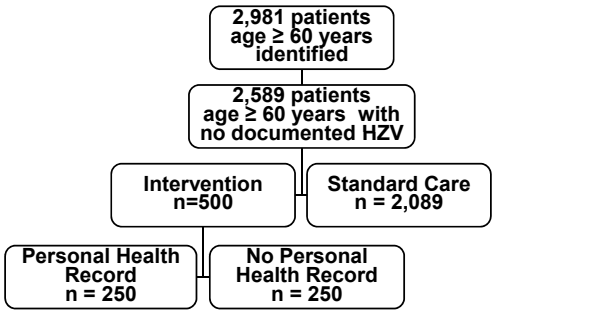
Preventative Health

Herpes Zoster Vaccination



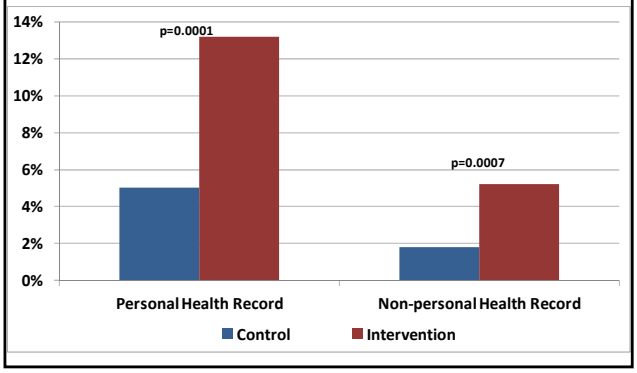
EMR: Electronic Medical Record
HZV: Herpes Zoster Vaccine

Preventative Health
Herpes Zoster Vaccination

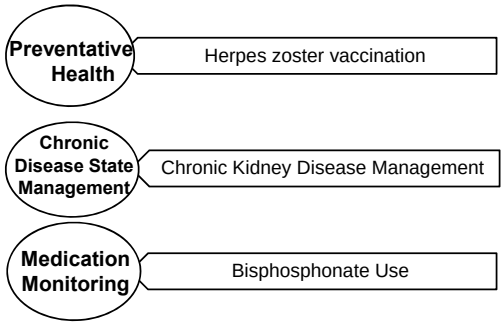


HZV: Herpes Zoster Vaccine

Preventative Health
Herpes Zoster Vaccination



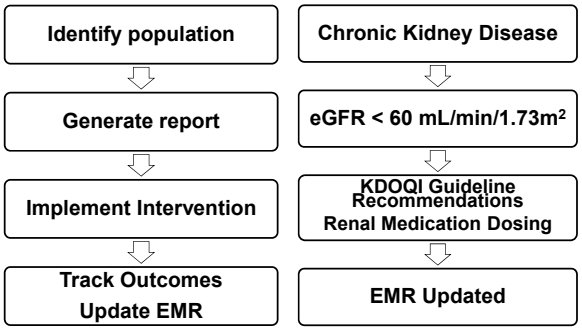
OSU GIM Population Management Interventions



OSU GIM: The Ohio State University Division of General Internal Medicine

Chronic Disease State Management
Chronic Kidney Disease

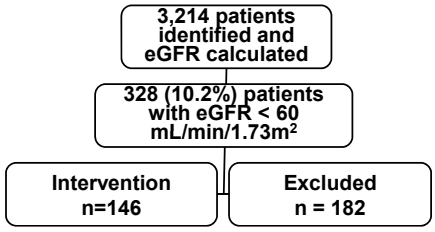
Chronic Disease State Management
Chronic Kidney Disease



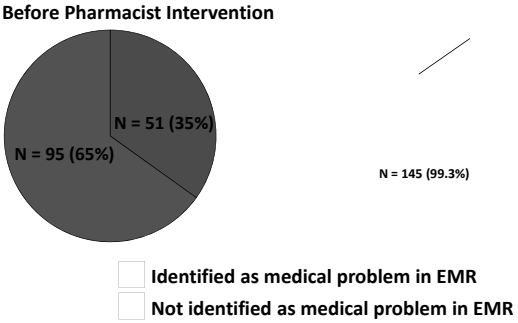
Chronic Disease State Management
CKD Baseline Characteristics

Sex	N = 146
Female	96 (65.8%)
Mean Age in years	71.6 ± 12.2
Mean Number of Medications on List	13 ± 5
Race	
African American	24 (16.4%)
White	112 (76.7%)
Other	10 (6.8%)
CKD Stage	
Stage 3	139 (95.2%)
Stage 4	5 (3.4%)
Stage 5	2 (1.4%)
Comorbidities	
Hypertension	123 (84.3%)
Diabetes	54 (37%)

Chronic Disease State Management
Chronic Kidney Disease

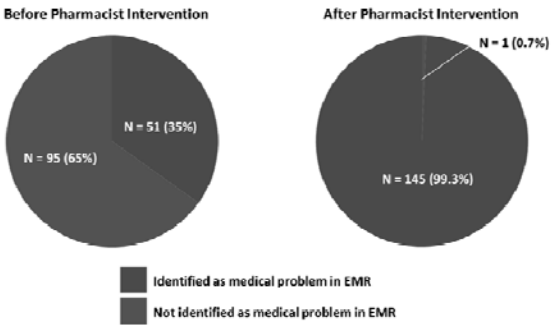


Chronic Disease State Management
CKD Identified as Medical Problem



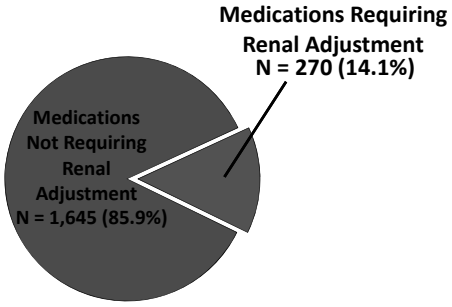
Chronic Disease State Management

CKD Identified as Medical Problem



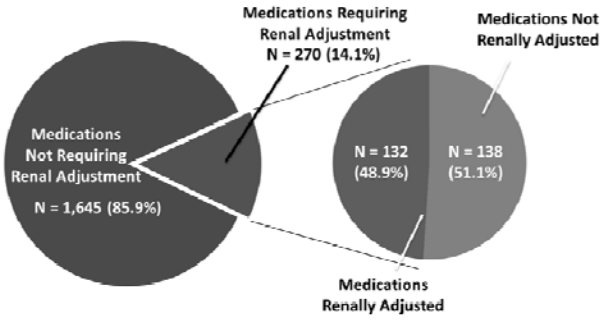
Chronic Disease State Management

CKD Medication Safety



Chronic Disease State Management

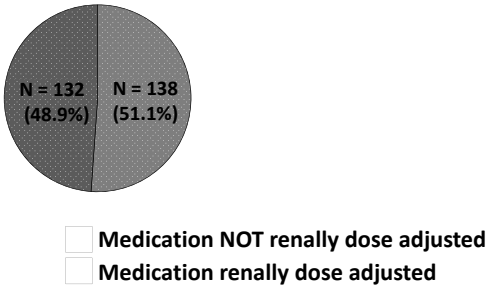
CKD Medication Safety



Chronic Disease State Management

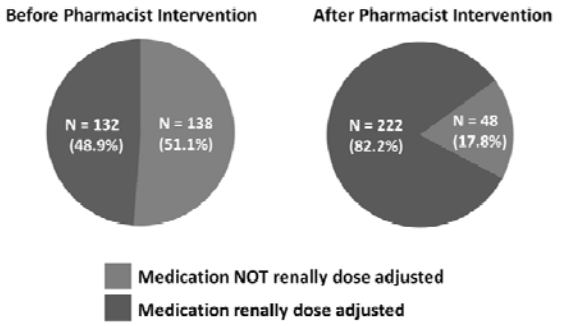
CKD Medication Safety

Before Pharmacist Intervention

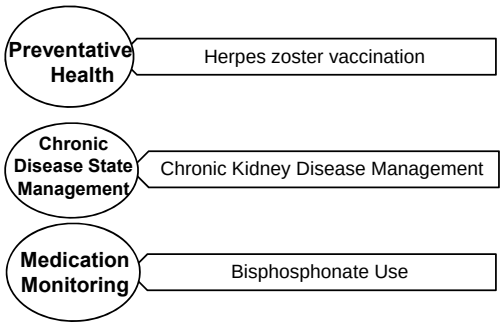


Chronic Disease State Management

CKD Medication Safety



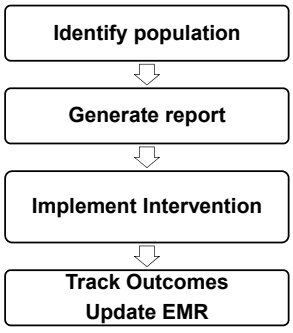
OSU GIM Population Management Interventions



OSU GIM: The Ohio State University Division of General Internal Medicine

High-risk Medication Monitoring

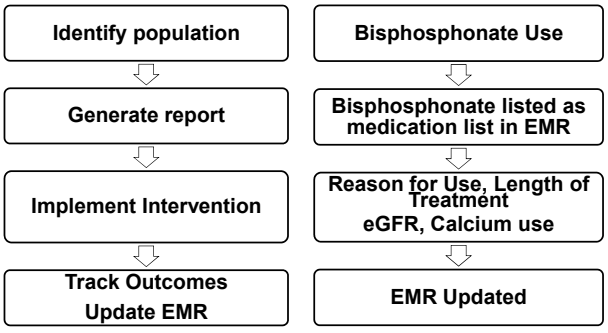
Bisphosphonate Use



EMR: Electronic Medical Record

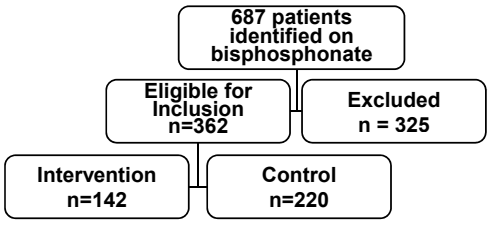
High-risk Medication Monitoring

Bisphosphonate Use

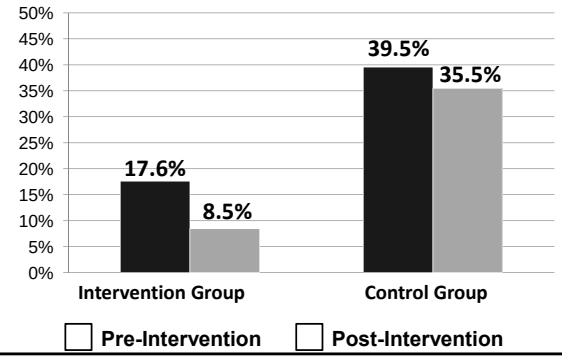


EMR: Electronic Medical Record

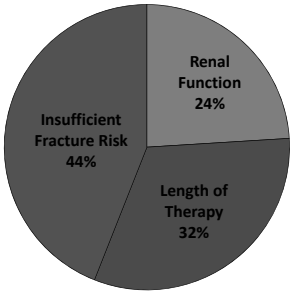
High Risk Medication Monitoring
Bisphosphonate Use



High Risk Medication Monitoring
Bisphosphonate Use



High Risk Medication Monitoring
Reasons for Inappropriate Bisphosphonate Use



Population Management

- **Proactive, targeted interventions**
  - **MANY other opportunities**
- **Team-based care**
- **Can occur outside of office visit**
- **Patient-centered medical home credentialing, etc**
- **Improves patient outcomes**