

# **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**

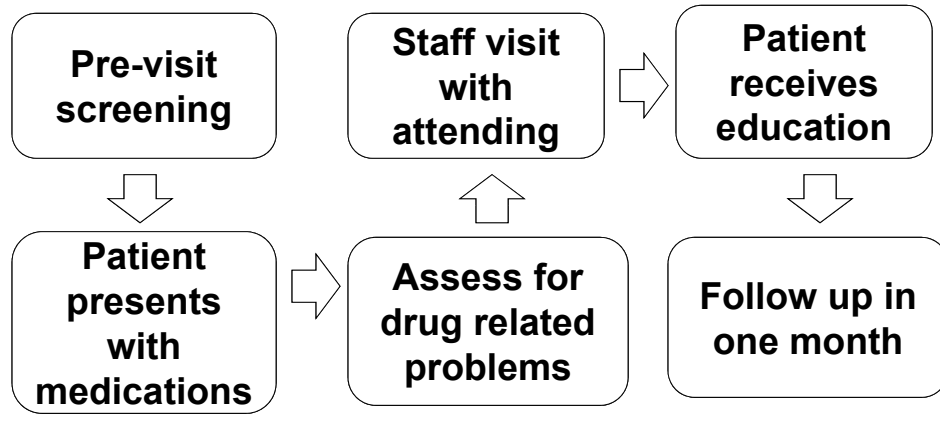
- **>75 Internal Medicine residents; 12 attending physicians**
- **>20,000 patients**
- **1 pharmacist shared faculty; 2 pharmacy residents**
- **5 care coordinators (RN)**
- **1 social worker**
- **1 medication assistance programs coordinator**
- **12 medical assistants**

## **Polypharmacy Service**

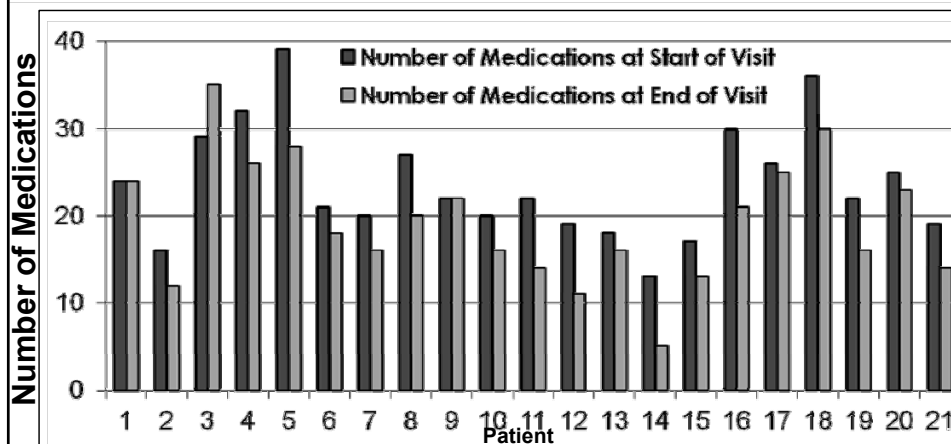
**Stuart Beatty, PharmD, BCACP, CDE**  
**Associate Professor of Clinical Pharmacy**  
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## Polypharmacy Clinic Workflow

- Medication-focused visit with pharmacist and internal medicine resident
- Target patients taking  $\geq 10$  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

## Type of contact

- Phone
- Email
- Face-to-face

## Acute Care Setting

- 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

## Patient Discharged

- Discharge summary sent to physician

## Physician review to determine complexity

- Message electronically sent to pharmacist

## Pharmacist contacts within 2 business days

- Assess patient; medication reconciliation; confirm appointments; document

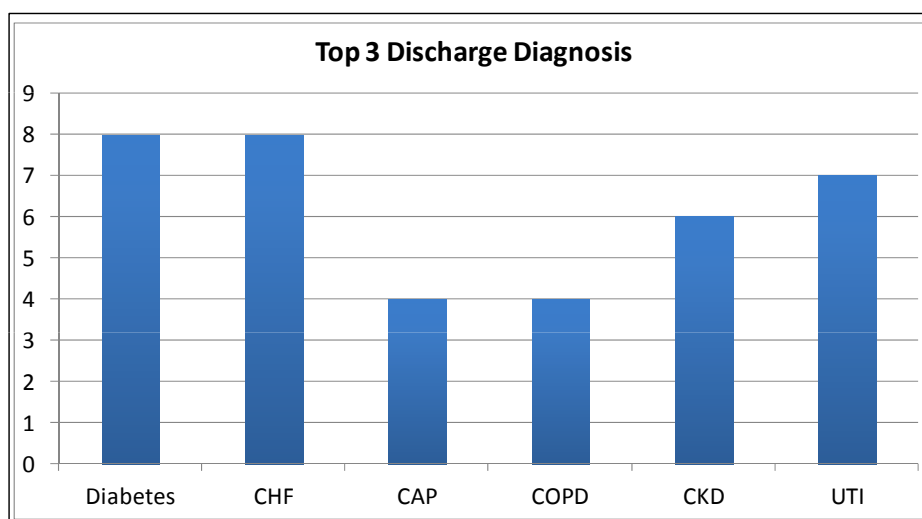
## Patient follow-up within 7 or 14 days

- Pharmacist's note leads to focused visit

## 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

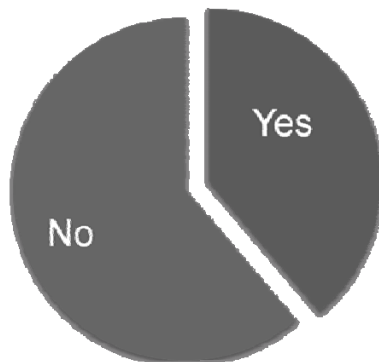


## Transitional Care Coordination

- 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

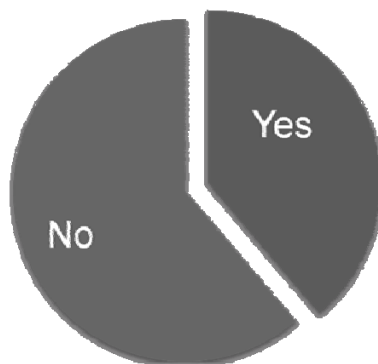
## Transitional Care Coordination

Follow up visit scheduled  
with PCP within 14 days  
PRIOR to pharmacy phone  
call

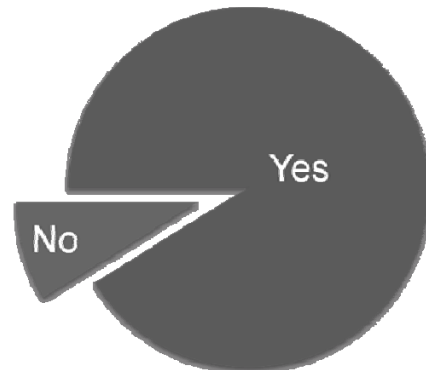


# Transitional Care Coordination

Follow up visit scheduled  
with PCP within 14 days  
PRIOR to pharmacy phone  
call



Follow up visit scheduled  
with PCP within 14 days  
AFTER pharmacy phone  
call



# 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**

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

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

**Why patients do  
not fill their  
prescriptions**

# **Common drug- drug interactions**

## **Population Management**

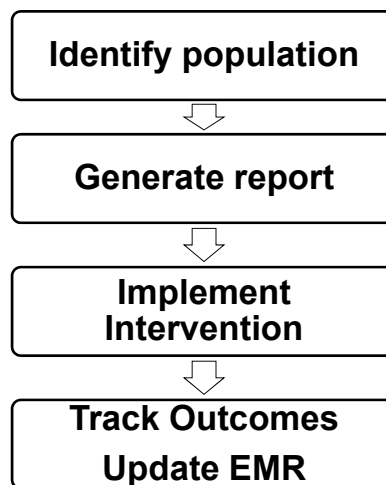
**Kelli Barnes, PharmD, BCACP**  
**Associate Professor of Clinical Pharmacy**  
**The Ohio State University College of Pharmacy**

# Population Management

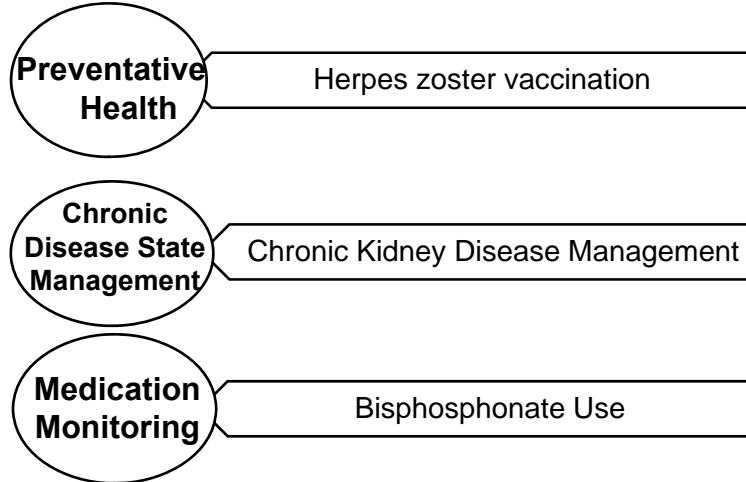
- **Uses EMR-reporting capabilities**
  - **Patient registries (PCMH requirement)**
- **Proactive, targeted interventions**
- **Incorporates team-based care**
- **Improves outcomes in specific population**
- **Can be completed outside of an office visit**

EMR: Electronic Medical Record

## Population Management Process

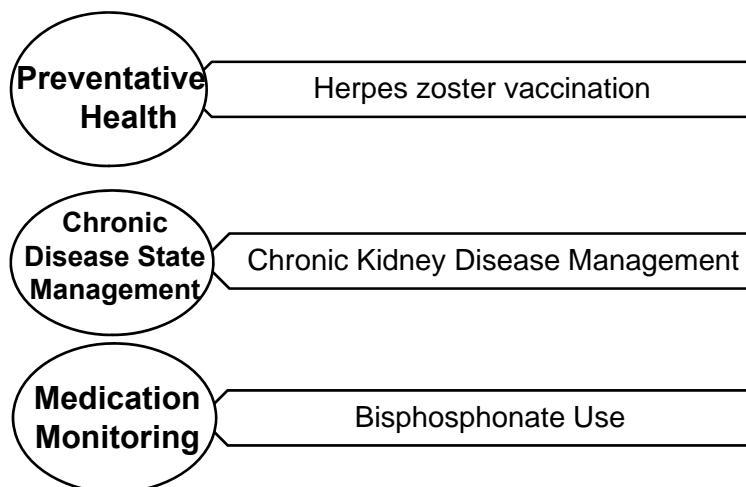


## OSU GIM Population Management Interventions



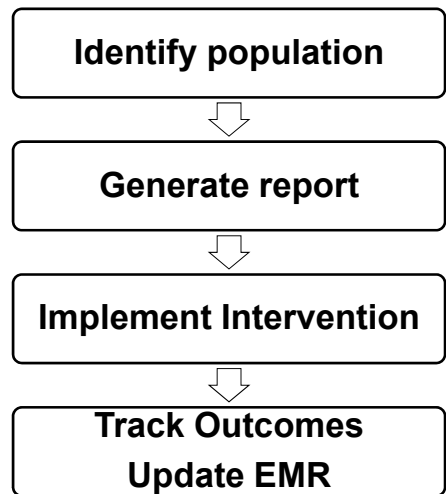
OSU GIM: The Ohio State University Division of General Internal Medicine

## OSU GIM Population Management Interventions



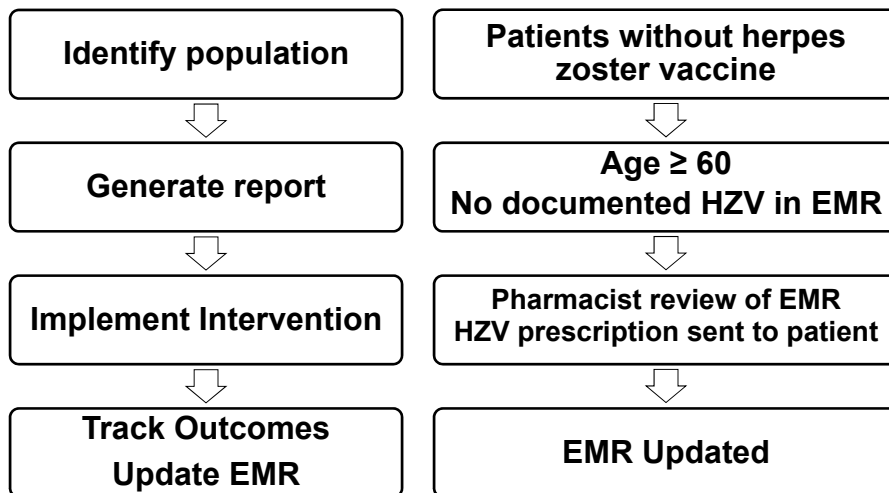
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## Preventative Health Herpes Zoster Vaccination



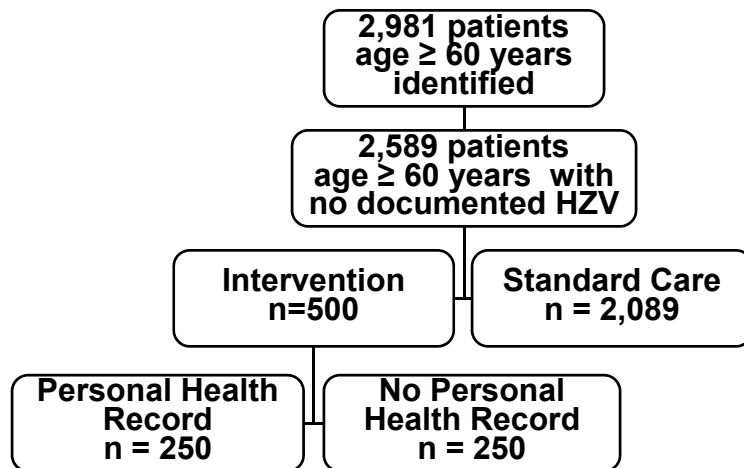
EMR: Electronic Medical Record  
HZV: Herpes Zoster Vaccine

## Preventative Health Herpes Zoster Vaccination



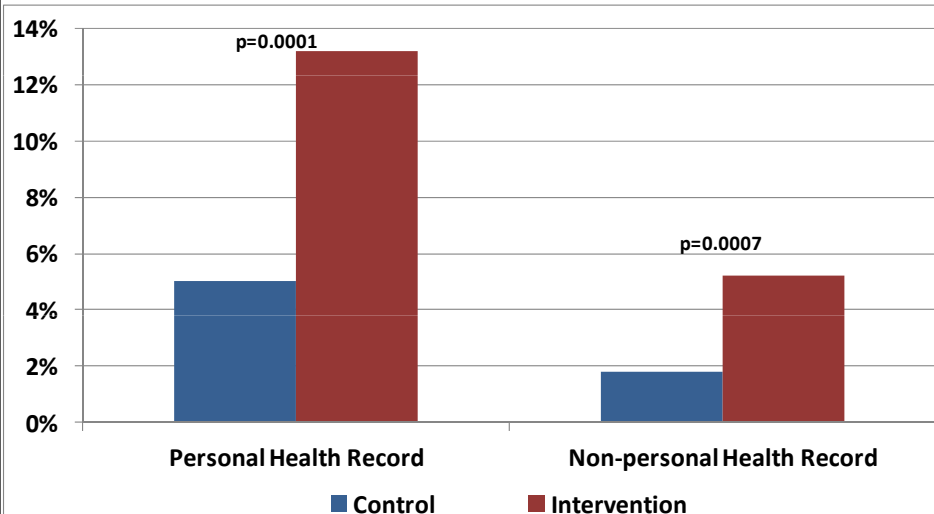
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## Preventative Health Herpes Zoster Vaccination

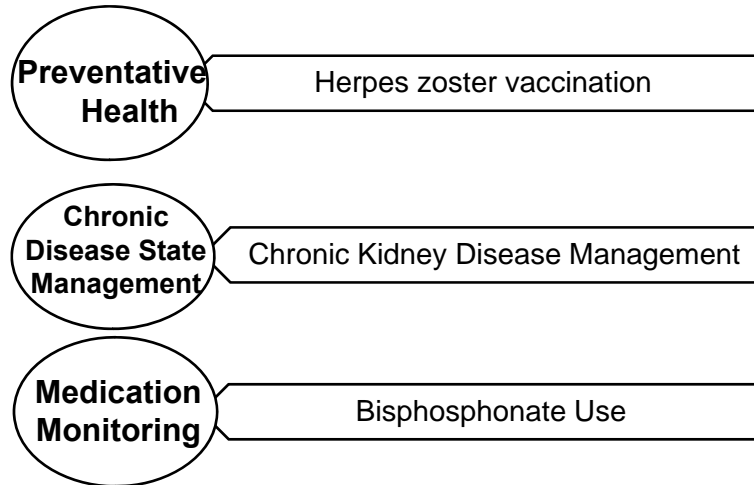


HZV: Herpes Zoster Vaccine

## Preventative Health Herpes Zoster Vaccination

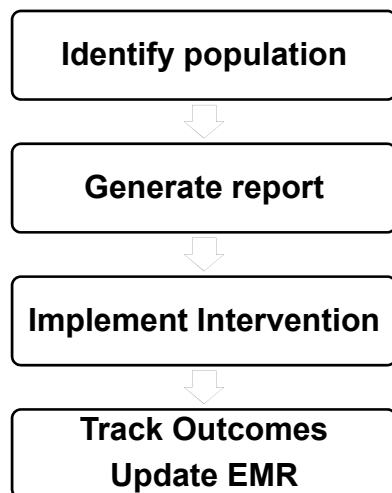


## OSU GIM Population Management Interventions

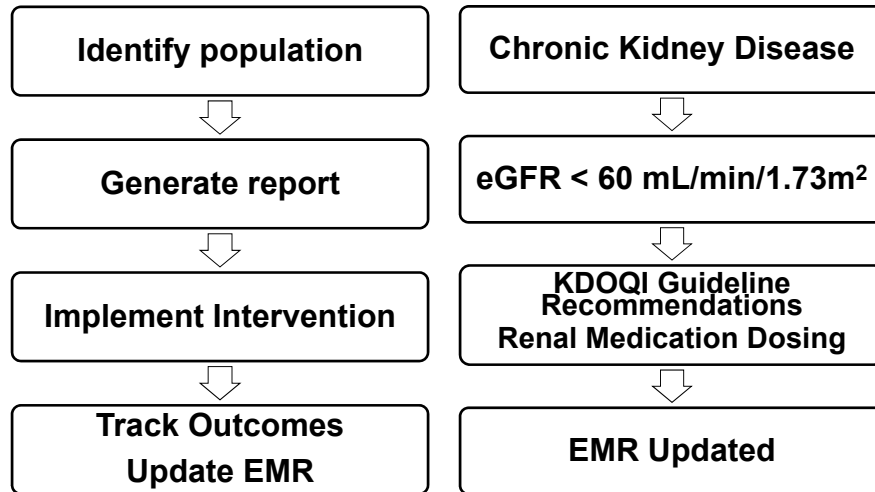


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## Chronic Disease State Management Chronic Kidney Disease



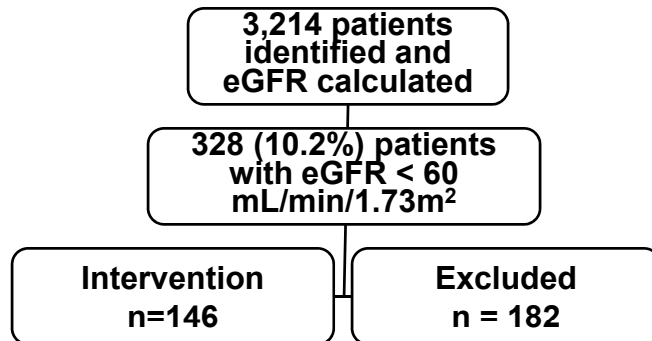
## Chronic Disease State Management Chronic Kidney Disease



## Chronic Disease State Management CKD Baseline Characteristics

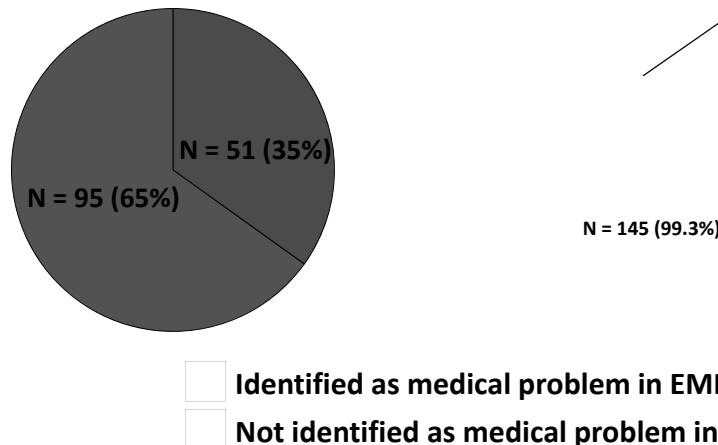
Sex	N = 146
Female	96 (65.8%)
Mean Age in years	71.6 ± 12.2
Mean Number of Medications on List	13 ± 5
Race	
African American	24 (16.4%)
White	112 (76.7%)
Other	10 (6.8%)
CKD Stage	
Stage 3	139 (95.2%)
Stage 4	5 (3.4%)
Stage 5	2 (1.4%)
Comorbidities	
Hypertension	123 (84.3%)
Diabetes	54 (37%)

## Chronic Disease State Management Chronic Kidney Disease



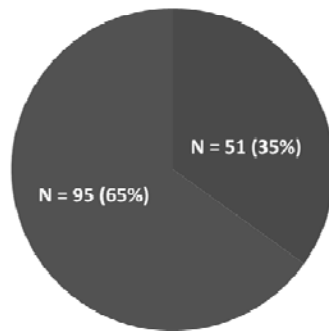
## Chronic Disease State Management CKD Identified as Medical Problem

Before Pharmacist Intervention

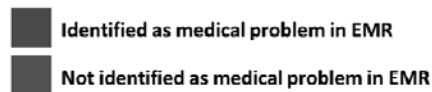
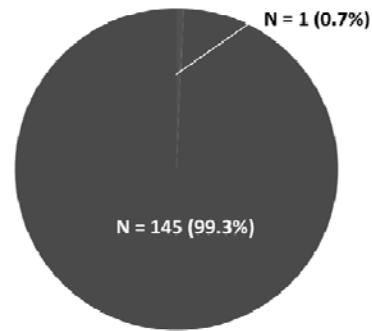


## CKD Identified as Medical Problem

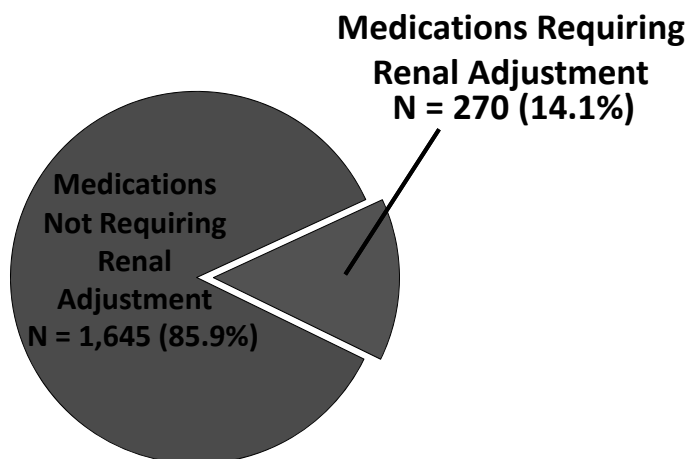
Before Pharmacist Intervention



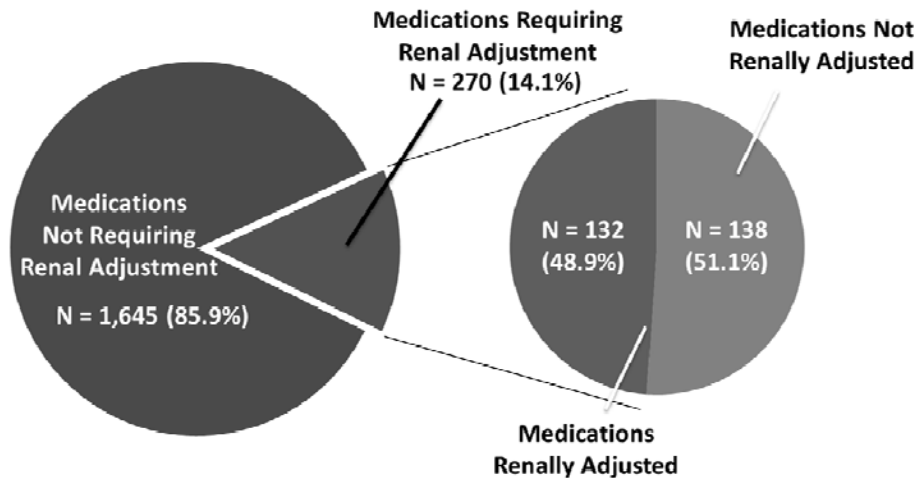
After Pharmacist Intervention



## CKD Medication Safety

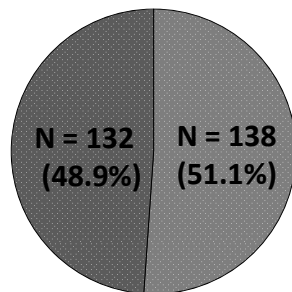


## CKD Medication Safety



## CKD Medication Safety

### Before Pharmacist Intervention

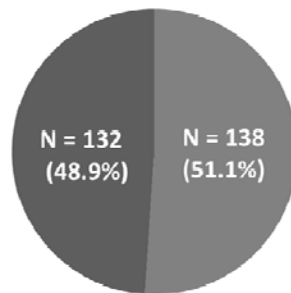


- ☐ Medication NOT renally dose adjusted
- ☐ Medication renally dose adjusted

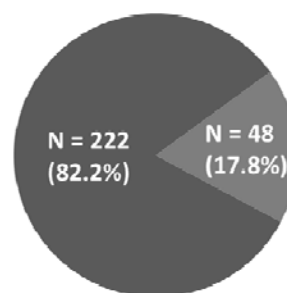
Chronic Disease State Management



## CKD Medication Safety

Before Pharmacist Intervention

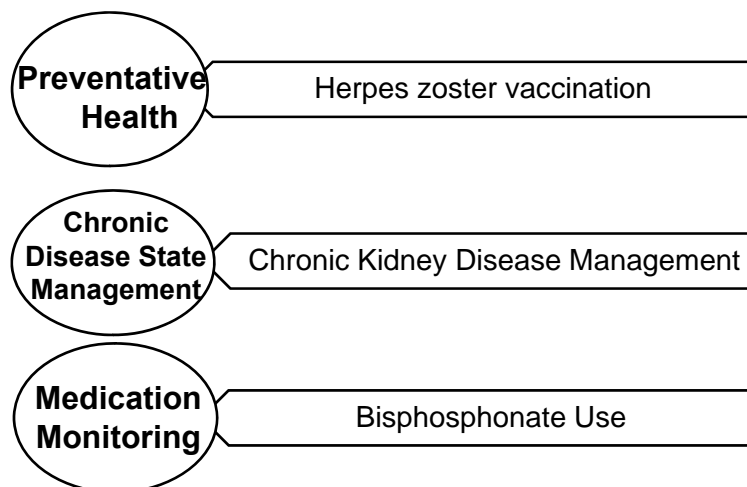


After Pharmacist Intervention



 Medication NOT renally dose adjusted  
 Medication renally dose adjusted

## OSU GIM Population Management Interventions



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

## High-risk Medication Monitoring Bisphosphonate Use

Identify population



Generate report



Implement Intervention



Track Outcomes  
Update EMR

EMR: Electronic Medical Record

## High-risk Medication Monitoring Bisphosphonate Use

Identify population



Generate report



Implement Intervention



Track Outcomes  
Update EMR

Bisphosphonate Use



Bisphosphonate listed as  
medication list in EMR



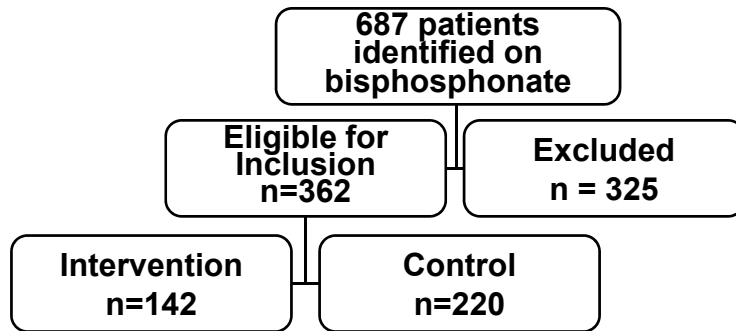
Reason for Use, Length of  
Treatment  
eGFR, Calcium use



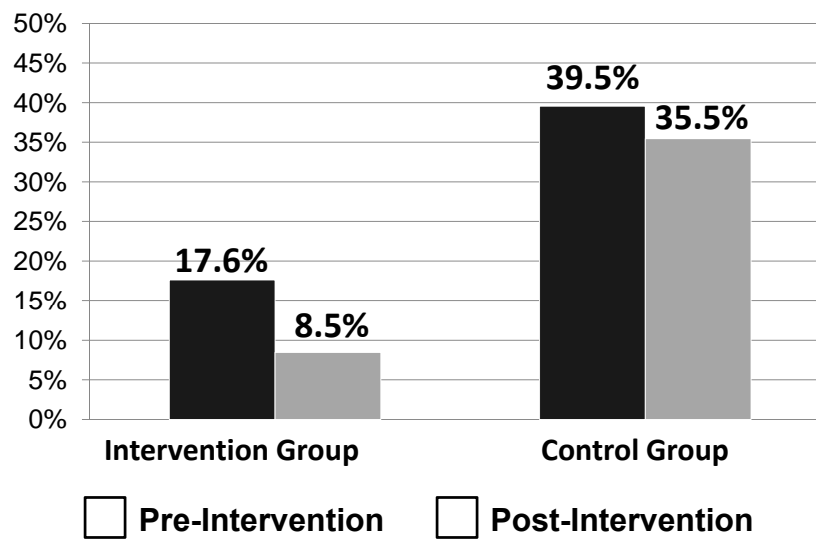
EMR Updated

EMR: Electronic Medical Record

## High Risk Medication Monitoring Bisphosphonate Use

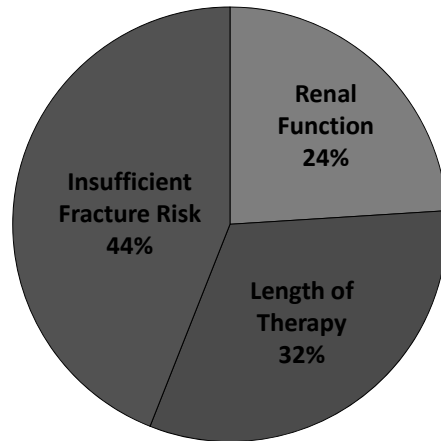


## High Risk Medication Monitoring Bisphosphonate Use



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