Medication Therapy Management: A Focus on Hypertension
Brooke Fidler, PharmD

Live Activity Handout
2 slides per page
Medication Therapy Management: A Focus on Hypertension

ACTIVITY DESCRIPTION
The pharmacist plays an integral part in minimizing and preventing medication-related problems. Medication Therapy Management (MTM) is patient care provided by a pharmacist aimed to optimize drug therapy and improve therapeutic outcomes for patients. Pharmacists should have an understanding of the core elements of MTM, MTM provisions of Medicare Part D benefits and considerations when developing MTM services. Use of appropriate communication skills and accurate assessment techniques is key during a MTM visit. Using a case study patient with hypertension, this webinar will review the MTM process including patient assessment, identifying medication-related problems and making recommendations based on treatment guidelines.

TARGET AUDIENCE
The target audience for this activity is pharmacists, pharmacy technicians, and nurses in hospital, community, and retail pharmacy settings.

LEARNING OBJECTIVES
After completing this activity, the pharmacist will be able to:
• Define Medication Therapy Management (MTM)
• Describe the five core elements of the Medication Therapy Management (MTM) service model
• Review the MTM provisions of the Medicare Part D benefits, including requirements established by the Centers for Medicare and Medicaid Services and the Affordable Care Act (ACA)
• Identify opportunities for providing MTM services including those that were created by the ACA
• Describe appropriate documentation for MTM services including internal records, patient records and communications with third parties
• Outline the key processes and considerations of developing a MTM services operation and integrating these services with existing services
• Describe the potential impact of pharmacist-provided patient care services on economic and clinical outcomes
• Identify appropriate communication skills and techniques to use with patients during a MTM visit

ACCREDITATION
Pharmacy
PharmCon, Inc. is accredited by the Accreditation Council for Pharmacy Education as a provider of continuing pharmacy education.

Nursing
PharmCon, Inc. is approved by the California Board of Registered Nursing (Provider Number CEP 13649) and the Florida Board of Nursing (Provider Number 50-3515). Activities approved by the CA BRN and the FL BN are accepted by most State Boards of Nursing.

CE hours provided by PharmCon, Inc. meet the ANCC criteria for formally approved continuing education hours. The ACPE is listed by the AANP as an acceptable, accredited continuing education organization for applicants seeking renewal through continuing education credit. For additional information, please visit: http://www.nursecredentialing.org/RenewalRequirements.aspx

Universal Activity No.: 0798-0000-17-098-L04-P
Credits: 2.0 contact hour (0.1 CEU)

Release Date: 5/26/2017
freeCE Expiration Date: 5/26/2020
ACPE Expiration Date: 5/26/2020

ACTIVITY TYPE
Knowledge-Based Live Webinar

FINANCIAL SUPPORT BY
New York City Department of Health and Mental Hygiene
Identify pertinent information that should be obtained from patients and other health care providers prior to a MTM visit using a case study patient with HTN

Based on current treatment guidelines, describe individualized goals and recommendations, including pharmacological and nonpharmacological, for a patient with HTN

Illustrate potential resolutions to situations in which medication-related problems are identified

Describe patient assessment strategies that may be useful during a MTM visits using a case study patient with hypertension (HTN)

After completing this activity, the pharmacy technician will be able to:

- Define Medication Therapy Management (MTM)
- Describe the five core elements of the Medication Therapy Management (MTM) service model
- Review the MTM provisions of the Medicare Part D benefits, including requirements established by the Centers for Medicare and Medicaid Services and the Affordable Care Act (ACA)
- Identify opportunities for providing MTM services including those that were created by the ACA
- Describe appropriate documentation for MTM services including internal records, patient records and communications with third parties
- Outline the key processes and considerations of developing a MTM services operation and integrating these services with existing services
- Describe the potential impact of pharmacist-provided patient care services on economic and clinical outcomes
- Identify appropriate communication skills and techniques to use with patients during a MTM visit
- Identify pertinent information that should be obtained from patients and other health care providers prior to a MTM visit using a case study patient with HTN
ABOUT THE AUTHOR
Dr. Brooke Fidler joined the faculty in 2000 as assistant professor of pharmacy practice. In 1999 Dr. Fidler completed a Pharm.D. at the University of Rhode Island and went on to complete a PGY-1 residency at URI the following year. Currently Dr. Fidler’s practice site is Kings Specialty Pharmacy where she precepts APPE students completing their MTM elective experience. At Kings Pharmacy Dr. Fidler is also the residency director for the PGY-1 Community Residency. Dr. Fidler’s primary didactic responsibilities including teaching and coordinating the physical assessment course at the college. Dr. Fidler has published in Pharmacy and Therapeutics Journal and Journal of Nurse Practitioners. She has also presented numerous webinars for Drug Store News and FreeCE related to community practice and nonprescription medications.

FACULTY DISCLOSURE
It is the policy of PharmCon, Inc. to require the disclosure of the existence of any significant financial interest or any other relationship a faculty member or a sponsor has with the manufacturer of any commercial product(s) and/or service(s) discussed in an educational activity. Brooke Fidler reports no actual or potential conflict of interest in relation to this activity.

Peer review of the material in this CE activity was conducted to assess and resolve potential conflict of interest. Reviewers unanimously found that the activity is fair balanced and lacks commercial bias.

Please Note: PharmCon, Inc. does not view the existence of relationships as an implication of bias or that the value of the material is decreased. The content of the activity was planned to be balanced and objective. Occasionally, faculty may express opinions that represent their own viewpoint. Participants have an implied responsibility to use the newly acquired information to enhance patient outcomes and their own professional development. The information presented in this activity is not intended as a substitute for the participant’s own research, or for the participant’s own professional judgement or advice for a specific problem or situation. Conclusions drawn by participants should be derived from objective analysis of scientific data presented from this activity and other unrelated sources.

Neither freeCE/PharmCon nor any content provider intends to or should be considered to be rendering medical, pharmaceutical, or other professional advice. While freeCE/PharmCon and its content providers have exercised care in providing information, no guarantee of it’s accuracy, timeliness or applicability can be or is made. You assume all risks and responsibilities with respect to any decisions or advice made or given as a result of the use of the content of this activity.
Faculty: Brooke Fidler, PharmD

**Learning Objectives**

- Define Medication Therapy Management (MTM)
- Describe the five core elements of the Medication Therapy Management (MTM) service model
- Review the MTM provisions of the Medicare Part D benefits, including requirements established by the Centers for Medicare and Medicaid Services and the Affordable Care Act (ACA)
- Identify opportunities for providing MTM services including those that were created by the ACA
- Describe appropriate documentation for MTM services including internal records, patient records and communications with third parties
- Outline the key processes and considerations of developing a MTM service operation and integrating these services with existing services
Learning Objectives

• Describe the potential impact of pharmacist-provided patient care services on economic and clinical outcomes
• Identify appropriate communication skills and techniques to use with patients during a MTM visit
• Describe patient assessment strategies that may be useful during MTM visits using a case study patient with hypertension (HTN)
• Identify pertinent information that should be obtained from patients and other health care providers prior to a MTM visit using a case study patient with HTN
• Based on current treatment guidelines, describe individualized goals and recommendations, including pharmacological and nonpharmacological, for a patient with HTN
• Illustrate potential resolutions to situations in which medication-related problems are identified

Medication Therapy Management (MTM)

• Consensus definition approved in July 2004 by National Pharmacy Organizations including
  • Academy of Managed Care Pharmacy
  • American Association of Colleges of Pharmacy
  • American College of Apothecaries
  • American College of Clinical Pharmacy
  • American Society of Consultant Pharmacists
  • American Pharmacists Association
  • American Society of Health-System Pharmacists
  • National Association of Boards of Pharmacy
  • National Association of Chain Drug Stores
  • National Community Pharmacists Association
  • National Council of State Pharmacy Association Executives
MTM Definition

“MTM is a distinct service or group of services that optimizes therapeutic outcomes for individual patients. MTM services are independent of but can occur in conjunction with the provision of a medication product.”

- *J Am Pharm Assoc.* 2005;45:566-572

Purpose of MTM

- Designed to empower patients to take an active role in managing their medications and overall health care
- Enhance the patients’ understanding of appropriate drug use
- Increase adherence to medication therapy
- Improve collaboration and communication among pharmacists, physicians and other healthcare professionals
- Optimize medication use in accordance with evidence-based guidelines to improve patient outcomes
- Services that may help address the need for prevention of medication errors, medication-related morbidity and mortality
Why do We Need MTM Services?

- **Aging population**
  - By 2050 nearly 89 million people in the US will be over the age of 65
  - 95% of health care costs are for chronic disease in those over the age of 65

- **Increase medication use**
  - 70% of the population takes at least 1 prescription medication
  - Over 40% of the US population takes 4 or more prescription medications


Why Do We Need MTM Services?

- **Medication errors**
  - Third leading cause of death
  - Injure 1.3 million people annually in the US
  - Adverse drug events (ADEs) account for about 700,000 ED visits and 100,000 hospitalizations annually
  - According to the FDA Adverse Event Reporting System in 2015 there were 44,693 deaths and 253,017 serious outcomes including death, hospitalization or disability related to AEs
  - Approximately $177 billion spent on preventable medication errors

- **Nonadherence**
  - Leads to approximately 125,000 preventable deaths annually
  - Results in 33-69% of medication related hospital admissions
  - Issues related to medication nonadherence costs an estimated 100$ billion yearly
MTM Services

Including but not limited to...

• Performing or obtaining necessary assessments of the patient’s health status
• Formulating a medication treatment plan
• Selecting, initiating, modifying, or administering medication therapy
• Monitoring and evaluating the patient’s response to therapy, including safety and effectiveness
• Performing a comprehensive medication review to identify, resolve, and prevent medication-related problems, including adverse drug events

MTM Services

Including but not limited to...

• Documenting the care delivered and communicating essential information to the patient’s other primary care providers
• Providing verbal education and training designed to enhance patient understanding and appropriate use of his/her medications
• Providing information, support services and resources designed to enhance patient adherence with his/her therapeutic regimens
• Coordinating and integrating medication therapy management services within the broader health care-management services being provided to the patient
Affordable Care Act (ACA)

- **Also known as health care reform was signed into law in 2010**
  - Patient Protection and Affordable Care Act (PPACA) (March 23, 2010)
  - Health Care and Education Reconciliation Act (March 30, 2010)
- **Goals of the ACA**
  - Expand health insurance coverage to uninsured or under-insured
  - Strengthen existing coverage for patients
  - Improve quality and lower health care costs
  - Provide funding for public health and disease prevention

Impact of ACA on Pharmacy

- CMS Center of Medicare and Medicaid Innovation Center
- Medicare Part D MTM
- Accountable Care Organizations
- Transitional Care Models
CMS Center for Medicare and Medicaid Innovation Center (CMMI)

- CMMI was established in the ACA to look at new service delivery models such as MTM to determine their effect on quality of patient care
- CMMI also looked at transitions of care, reducing hospital readmissions, improving quality and reducing costs
- In 2012 APhA and ASHP defined medication reconciliation in transitions of care and utilizing a standardized approach such as MTM

Medicare Modernization Act (MMA)

- Under the MMA of 2003 all Medicare Part D prescription drug plans must offer a MTM program
- Brings consistency to the type of services provided and the qualification criteria for Medicare beneficiaries
- Requires plans to offer a minimum set of MTM services to targeted Medicare beneficiaries
  - Improve medication adherence by providing an annual comprehensive medication review (CMR) by a licensed pharmacist or other qualified provider either in person or via phone
  - Follow-up interventions as needed based on findings from the CMR or targeted medication reviews
MTM Program Requirements of a Part D Sponsor

• Ensures covered Part D drugs are used to optimize therapeutic outcomes through improved medication use
• Reduces the risk of adverse events
• Is developed in cooperation with licensed and practicing pharmacists and physicians
• May be furnished by pharmacists or other qualified providers

MTM Program Requirements of a Part D Sponsor

• Required to incorporate a MTM program into their plans’ benefits
• Sponsors must submit a program description to CMS for review and approval
• Describes the resources and time required to implement the program if using outside personnel and establishes the fees for pharmacists or others
Accountable Care Organizations (ACO)

- According to CMS, ACOs are a group of doctors, hospitals, and other health care providers, who come together voluntarily to give coordinated high quality care to the Medicare patients they serve.
- ACOs ensure that patients, especially the chronically ill, get the right care at the right time, while avoiding unnecessary duplication of services and preventing medical errors.
- ACOs receive incentives for effective care and cost reductions.
- The pharmacist can play a role in ACOs by providing medication reconciliation through MTM, identifying barriers to adherence and drug utilization reviews.

Transitional Care Models (TCM)

- Movement of patients between health care practitioners, setting, and home as their condition and care needs change.
- Ineffective care transition could lead to medication errors and higher hospital readmission rates and costs.
- Pharmacist intervention has shown significant reduction in readmission rates through medication reconciliation, medication review, discharge counseling and follow-up post discharge.
- According to CMS, pharmacists who are part of a transitional care team may bill TCM codes for transitional care services communicated via phone or in person.
MTM Core Elements*

• Medication therapy review (MTR)
• Personal medication record (PMR)
• Medication-related action plan (MAP)
• Intervention and/or referral
• Documentation and follow-up

Medication Therapy Review (MTR)

• “Systematic approach of collecting patient information, assessing medication therapies, identifying medication-related problems, creating a prioritized list of medication-related problems and a plan to resolve them”
• Conducted between the patient and the pharmacist
• Can be comprehensive or targeted to a specific actual or potential problem
• Goal is to improve patients’ knowledge of their medication, address their problems or concerns and empower patients to self-manage

Medication Therapy Review (MTR)

• Full medical history including demographic information, medication history (Rx, OTC, herbals and supplements), immunization history, family history and social history

• Assessing, identifying and prioritizing medication-related problems (i.e., PRIME method)
  • Appropriateness, duplications, adherence, cost, untreated conditions, efficacy

• Developing a plan for any medication-related problems identified
  • Monitoring, patient education, treatment goals

Medication Therapy Review (MTR)

• P (pharmacological)
  • Assess the drug regimen for appropriateness including drug, dose, route and frequency

• R (risks)
  • Contraindications, drug allergies, adverse effects

• I (interactions)
  • Drug-drug, drug-disease, drug-nutrient, drug-lab test

• M (mismatch)
  • Assess for therapeutic duplication, drug with no indication or untreated condition

• E (efficacy)
  • Assess for therapeutic effectiveness of chosen drug, financial and adherence issues
Personal Medication Record (PMR)

- “A comprehensive record of the patient’s medications including prescription, nonprescription, herbals and other dietary supplements”
- Assist the patient in their overall self-management of their medications
- Usually filled out by the pharmacist and should be updated when any medication changes are made
- PMR should be shared with all the patients health care providers to ensure continuity of care

Personal Medication Record (PMR)

- Patient name, date of birth and phone number
- Emergency contact information
- Primary care physician name and information
- Pharmacy information
- Allergies
- Medication information
  - Drug name, dose and instructions
  - Indication
  - Start and/or stop date
  - Special instructions (i.e., with/without food, AM/PM)
Medication-Related Action Plan (MAP)

- “A patient focused document that contains a list of actions for the patient to use to track progress and help with self-management”
- Collaborative agreement between the patient and pharmacist
- Individualized plan that the patient can act on themselves
- Provides patient empowerment
- Includes action steps for the patient (what I need to do)
- Notes for the patient (what I did and when I did it)

Examples:
- Patient with newly diagnosed HTN
  - Purchase an at-home blood pressure machine and keep a record of their readings to bring to all medical appointments
- Patient with uncontrolled diabetes
  - Monitor blood glucose and keep a record of pre and post prandial readings to bring to all medical appointments
- Patient with uncontrolled asthma
  - Patient needs to use their peak flow meter and know what medications to use based on their zones
Intervention and/or Referral

• “The pharmacist provides consultative services and intervenes to address medication-related problems and when the pharmacist refers the patient to a physician or other healthcare professional”

• Depending on collaborative practice agreements (i.e., CDTM), the pharmacist could make medication changes or additions

• The pharmacist can document their recommendation and contact the other provider on the patients behalf

• Depending on the complexity of the medical conditions or situation the patient may need to referred to a specialist

Intervention and/or Referral

Examples:

• Patient with newly diagnosed HTN
  • Identify that the medication prescribed is not covered by insurance plan and recommend an alternative medication that the patient can afford

• Patient with uncontrolled diabetes
  • Referral to a nutritionist for proper education on diet

• Patient with uncontrolled asthma
  • Identify that the patient is only using a rescue inhaler and make the recommendation that the provider add a daily inhaled corticosteroid
Documentation and Follow-up

• “An essential component of MTM where all services are documented and a follow-up visit is scheduled based on the patient’s medication-related needs or if the patient is transitioned from one care setting to another”

• Allows for communication between the pharmacist and the patient’s other healthcare providers regarding recommendations

• Provides continuity of care for the patient and among all the patients providers

• Helps to demonstrate the value of pharmacist-provided services

• Legal document for reimbursement and liability purposes

• The follow-up visit allows the pharmacist to review the MAP and ensure the patient is achieving their therapeutic goals

Documentation

• Provider documentation
  • SOAP
    • Subjective, Objective, Assessment, Plan
  • FARM
    • Findings, Assessment, Recommendations, Monitoring

• Patient documentation
  • Personal Medication Record (PMR)
  • Medication-Related Action Plan (MAP)
Pharmacists’ Patient Care Process

• In May 2014, the same national pharmacy organizations who adopted the definition of MTM, created the document that describes the pharmacists’ patient care process
• “A patient-centered approach in collaboration with other providers on the health care team to optimize health and medication outcomes”
• This process is incorporated into the MTM process
  • Collect, Assess, Plan, Implement and Follow-up (Monitor and Evaluate)

MTM Eligibility Criteria

• General requirements are determined by CMS but are plan specific within different Medicare Part D sponsors
• Sponsors can set the minimum threshold at 2 or 3 chronic disease states
  • Sponsors may target any chronic disease but should include at least 5 of the 9 core chronic conditions
• Enrollee is likely to incur an annual cost of $3,507* (this varies yearly) for Medicare Part D covered drugs
  • Sponsors can set a minimum threshold for the number of medications a patient is taking to equal to or between 2-8
  *$3,138 in 2015
Nine Core Chronic Conditions

- Diabetes (100%)*
- CHF (92.8%)*
- Dyslipidemia (87.2%)*
- HTN (85.9%)*
- Respiratory Disease (asthma, COPD)
- Bone Disease-Arthritis (osteoarthritis, RA)
- Mental Health (depression, bipolar disease)
- Alzheimer’s Disease
- End-Stage Renal Disease (ESRD)

*2016 percentages

2016 MTM Statistics

- 81% of programs targeted beneficiaries with at least 3 chronic disease
- 57% of programs targeted beneficiaries taking at least 8 covered Part D drugs
- 49% and 28% of programs identified beneficiaries quarterly and monthly, respectively
- 100% and 75% of programs offer phone and in-person CMR consultations, respectively
- 36.1% of programs delivered CMR over the phone
- 39% of programs used the plan sponsor pharmacists
MTM Service Providers

• Plan sponsors indicate who their MTM providers are
• MTM services must be provided by qualified providers
  • Pharmacists
  • Pharmacy intern under a licensed pharmacist
  • Registered nurse
  • Physician
  • Nurse practitioner
  • Physician’s Assistant

MTM Service Requirements

• Sponsors target beneficiaries for MTM services at least quarterly during each plan year
  • Prescription claims data
  • Medical data from beneficiaries
• Sponsors must offer
  • Targeted interventions
  • Annual comprehensive medication review (CMR)
  • Quarterly targeted medication reviews (TMR)
Targeted Interventions

- Focuses on a single medication or specific disease state
- Typically takes ~5-15 minutes
- In-person or via telephone
- Done within the work flow of the pharmacy
- Example
  - Adherence to a specific medication
  - Patient with diabetes is not on a statin
  - Patient with HTN and diabetes and not on an ACEI or ARB

Comprehensive Medication Review (CMR)

- A scheduled appointment taking ~45-60 minutes ideally in person
- Collection of patient-specific information to assess medication therapies and identify drug therapy problems
- Developing a prioritized list of medication-related problems
- Creating a plan to resolve them with the patient, caregiver and/or prescriber.
- Designed to improve patients’ knowledge of their prescription and nonprescription medications, herbal therapies and dietary supplements
- Patient receives the MAP and PMR at this visit
- Providers would be contacted regarding interventions and recommendations
CMR Outcome Measurements

• **Problems identified/recommendations**
  - Needs additional therapy or unnecessary drug therapy
  - Drug dosage too high or too low
  - Lack of drug effectiveness
  - Adverse drug reaction
  - Non-adherence to regimen

• **Drug therapy resolution**
  - Initiate or discontinue a drug
  - Change of drug or dose
  - Counsel on medication adherence

Targeted Medication Review (TMR)

• ~15 minute in person or telephone follow-up visit to the CMR
• Typically done quarterly or more frequently depending on the plan and the patient related issues
• Addresses interventions that took place from the CMR
• Continual assessment of medication adherence
• Identify any unresolved issues that need attention
• Determine if new drug therapy problems have occurred
Getting Started in Your Pharmacy

• Pharmacists practicing as individual practitioner (i.e., ambulatory setting) may be required to obtain a National Provider Identifier number (NPI)

• Register an MTM account with a MTM platform
  • Examples include MirixaPro or OutcomesMTM
  • MTM companies that contract with third party payers and notify pharmacies of eligible patients and MTM opportunities
  • Once enrolled eligible patients will be assigned to your account

MTM Platform Example

• Training and support within the website
• Case summaries
  • In progress and closed patient cases
  • Calendar to make appointments
• Best practices resources
  • Treatment guidelines for core chronic disease states
MTM Platform Example

• Alerts for the pharmacist
  • Red
    • Safety alerts
      • Drug-drug interaction or high dosing
  • Blue
    • Interchange alerts
      • Brand vs. generic or Rx vs. OTC
  • Green
    • Care gap alerts
      • ACE-I for diabetic patient or adherence issues

• Pharmacists have the ability to use drop down menus to identify resolution of the alert
• Areas within the website to document what exactly took place to resolve the alert
• Allows the pharmacist to print out a MAP and PMR for the patient
• Can formulate a summary letter to the provider regarding the patient case
Role of the Pharmacy Staff

• Adequately train and educate all staff members on the MTM process
• Assign a technician to continuously check the MTM website for cases
• Help create a policy and procedure for flagging patients in your computer system as either being CMR eligible or a follow up TMR
• Can help with scheduling of CMR and TMR appointments
• Can assist in obtaining basic demographic or clinical information from the patient prior to the visit

Getting Started in Your Pharmacy

• Scheduling
  • Block out time when there is pharmacist overlap or time when the patient would already be at the pharmacy to pick up their medications
  • Weekend or evening appointments
• Space
  • Private or semi-private counseling area
• The patient visit
  • Be efficient with a focused and concise CMR
  • Prioritize drug therapy problems (DTPs)
  • Discuss a follow-up appointment
Getting Started in Your Pharmacy

**• Documentation**
- Document directly into the MTM website or other documents required by the third party
- Can mail the PMR and MAP to the patient
- Communicate any DTPs to the provider

**• Billing**
- Direct reimbursement from the MTM company to the pharmacy
- Universal MTM claim codes if contracting with individual plans
  - 99605- initial 15 minutes with a new MTM patient
  - 99606- initial 15 minutes with an established patient
  - 99607- each additional 15 minutes with an initial or established patient

---

Getting Started in Your Pharmacy

**• Business plan**
- Mission statement, a description and objectives of the service and policies and procedures

**• Marketing**
- SWOT analysis (strengths, weaknesses, opportunities, threats)
- Patients and disease states to target

**• Cost analysis**
- Certificate programs, personnel, marketing, supplies and equipment
Benefits to Pharmacy Care Services

• Increase in overall star performance ratings for Part D plans
• In 2010 APhA identified more than 300 published studies showing the benefits of pharmacist-provided MTM services related to various chronic disease states such as cardiovascular diseases, hypertension, diabetes and hyperlipidemia
• Results from clinical studies showed
  • Improved clinical outcomes and achieving therapeutic goals
  • Cost saving by resolving drug-related problems
  • Improved quality of life
  • Reduced medication costs
  • Reduced hospitalizations
  • Reduced medication errors

A Focus With Hypertension

• Santschi et al. Improving blood pressure control through pharmacist interventions: a meta-analysis of RCTs. J Am Heart Assoc 2014
  • 39 RCTs were reviewed and found that a monthly pharmacist intervention compared to usual care resulted in improved BP management with a reduction in systolic and diastolic BP
• Tsuyuki et al. Randomized Trial of the Effect of Pharmacist Prescribing on Improving BP in the Community (RxACTION). Circulation 2015
  • 248 patients enrolled and the intervention group was seen by a pharmacist monthly for 6 months for education, risk assessment and BP monitoring
  • The intervention group had a statistically significant greater reduction in systolic BP compared to the control group
A Focus With Hypertension

  • 166 hypertensive patients were enrolled to examine BP control managed by a pharmacy-PCP team
  • Statistically significant reduction in SBP in the treatment group at 6 months compared to usual care and the reduction only remained significant for those who continued to see the pharmacist until 9 months

  • Review of 37 articles looked at means reductions in SBP and DBP when intervened by nurses (5.84 mm Hg), pharmacists in clinic setting (7.76 mm Hg) and community based pharmacists (9.31 mm Hg)

The Initial MTM Visit

• Prepare by reviewing the patient’s profile and medications
• Create a conducive, safe and private environment for your visit
• Three parts to your visit
  • Beginning
    • Greetings and reason for the visit
  • Transitions
    • Moving from one topic to another during the visit
  • Closing
    • Summary, final questions and follow-up
Communication

• The first step in the Pharmacists’ Patient Care Process and starting the MTM process is collecting information from the patient
• Essential to communicate appropriately both verbally and nonverbally with patients to have a successful CMR
• Nonverbal communication
  • Open vs. closed body posture
  • Use eye contact to show you are listening
  • Appropriate amount of space between the pharmacist and patient
  • Avoid distracting facial expressions or gestures
  • Show consideration of the patient’s cultural background

Verbal Communication

• Appropriate use of open-ended vs. close-ended questions
• Avoid leading questions
• Use active listening techniques
  • Clarification
  • Empathy
  • Reflections
  • Interpretation
  • Facilitation
  • Confrontation
• Have the patient repeat back information you provided to ensure their understanding
• Summarize the information you tell the patient
Special Considerations

- Elderly patients
- Patients with multiple disease states
- Speech, vision or hearing impaired

Barriers to Effective Communication

- Use of professional terminology
- Low health literacy
- Environmental barriers (i.e., noise or lack of privacy)
- Personal barriers (i.e., confidence)
- Time restraints
- Negative attitude by the patient, pharmacist or provider
- Inappropriate nonverbal communication
Focusing on Hypertension

- According to the CDC approximately 75 million (29%) American adults have high blood pressure
- About half or 54% of people with high blood pressure are at therapeutic goal
- About 1 of 5 adults do not know they have high blood pressure
- Recent data from CDC shows that 1/3 of adults in New York City have hypertension with a greater prevalence among minorities
- Hypertension costs an estimated $46 billion each year which includes medications to treat
- Hypertension increases the risk for heart attacks, strokes, chronic heart failure and kidney disease

Focusing on Hypertension

- **Nonadherence**
  - Common among patients with cardiovascular disease
  - The risk of hospitalization, re-hospitalization, and premature death among nonadherent hypertension patients is more than 5 times higher compared to hypertension patients who adhere to taking their medicine
  - 46,000 deaths may be avoided each year if 70% of patients with hypertension got the treatment they need.
  - Adherence to hypertension medication reduced health care spending costs by almost $4,000 per individual
  - Common reasons include poor communication between provider and patient, fear of side effects, high costs, interactions with other medication and forgetting
Focusing on Hypertension

- **Signs and symptoms**
  - “Silent killer”
  - No warnings signs or symptoms
  - Potential for medication nonadherence
- **Risk factors**
  - Smoking, foods high in sodium, lack of physical activity, obesity, excessive alcohol, diabetes, family history, age, ethnicity
- **Prevention**
  - Change modifiable risk factors
  - Lifestyle management
  - Medication adherence
  - Self-monitoring blood pressure
  - Managing other medical conditions

MTM: A Case Study With Hypertension

- Mr. Smith is a 67 year old white male patient of your pharmacy who was flagged through your MTM service as needing an intervention due to medication adherence issues.
- Mr. Smith currently takes hydrochlorothiazide 50mg QD for his HTN but his refills are refilled a few days late each month.
- Mr. Smith does not have any other medical conditions, currently takes no other medications and no drug known allergies.
- You decide to speak to Mr. Smith in person when he comes to pick up his medication.
- How do you proceed in this situation?
MTM: A Case Study With Hypertension

- Obtain brief medical history from the patient
  - Family history, social history, medication history
- Disease state specific questions to ask the patient
  - Adherence to his BP medication?
  - Does the patient experience medication side effects?
  - Does the patient have a BP machine at home and is it used appropriately?
  - Does the patient have a log of his readings?
- Patient assessment
  - Can take the patients blood pressure when they come to the pharmacy
- Know your current treatment guidelines and standards of care for core chronic disease states
  - Be aware of differences among guidelines

MTM: A Case Study With Hypertension

- Mr. Smith provides the following information during your discussion
  - He was diagnosed with HTN 6 months ago
  - He has no other medical conditions, denies taking any OTC, herbals or supplements
  - Both his parents had HTN
  - He eats foods high in sodium and does not exercise regularly
  - He has a blood pressure machine at home and his readings range around 160/94 mm Hg
  - His reading at your pharmacy was 158/90 mm Hg
  - He takes his medication every other day because he does not have any symptoms, it’s his first chronic medication and he is worried about side effects
  - ASCVD score 13.9%
MTM: A case study with hypertension

• 10-year Atherosclerotic Cardiovascular Disease (ASCVD) Risk Estimator
  • Gender
  • Age
  • Race
  • Total cholesterol
  • HDL
  • LDL*
  • Systolic BP
  • Treatment for Hypertension?
  • Treatment for Diabetes?
  • Smoker?
  • On a statin?*
  • On aspirin therapy?*

MTM: A Case Study With Hypertension

• Perform a MTR utilizing treatment guidelines
• According to recent AHA/ACC guidelines (November 2017)
  • Mr. Smith is considered hypertension stage 2 (>140/90mmHg)
  • A patient with no history of CVD with an ASCVD risk >10% should be treated with BP lowering medications to a target BP <130/80mmHg
  • A nonblack patient with this goal can be started on a thiazide-type diuretic or ACEI or ARB or CCB alone or in combination
  • Treatment strategy involves maximizing first medication before adding a second OR can add a second medication before reaching the maximum dose of the first OR start with 2 classes separately or as a fixed dose combination
  • Reinforce lifestyle changes and medication adherence

MTM: A Case Study With Hypertension

- Some providers may continue to use other guidelines
  - JNC 7 guidelines (2003) goal BP <140/90 and <130/80 for DM or CKD
  - JNC 8 guidelines (2013) and ASH/ISH (2015) goal BP <140/90 for all patients
  - Choice of drug is based on the patients other medical conditions
  - Patients who are not at their BP goal should be optimized on their current medications or add additional drugs until BP goal is achieved
- Guidelines for other disease states may also have their own recommendations for treating blood pressure
  - American Diabetes Association 2016 standards recommend <140/90 mm Hg for those with DM and HTN

Table 6. Guideline Comparisons of Goal BP and Initial Drug Therapy for Adults With Hypertension

<table>
<thead>
<tr>
<th>Guideline</th>
<th>Population</th>
<th>Goal BP, mm Hg</th>
<th>Initial Drug Treatment Options</th>
</tr>
</thead>
<tbody>
<tr>
<td>2014 Hypertension guideline</td>
<td>General ≥60 y</td>
<td>&lt;150/90</td>
<td>Neopen: thiazide-type diuretic, ACEI, ARB, or CCB; black: thiazide-type diuretic or CCB</td>
</tr>
<tr>
<td></td>
<td>General &lt;60 y</td>
<td>&lt;140/90</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Diabetes</td>
<td>&lt;140/90</td>
<td></td>
</tr>
<tr>
<td></td>
<td>CKD</td>
<td>&lt;140/90</td>
<td>ACEI or ARB</td>
</tr>
<tr>
<td>ESH/ESC 2013(^{37})</td>
<td>General nonelderly</td>
<td>&lt;140/90</td>
<td></td>
</tr>
<tr>
<td></td>
<td>General elderly &lt;60 y</td>
<td>&lt;150/90</td>
<td>Diuretic, β-blocker, CCB, ACEI, or ARB</td>
</tr>
<tr>
<td></td>
<td>General ≥80 y</td>
<td>&lt;150/90</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Diabetes</td>
<td>&lt;140/85</td>
<td>ACEI or ARB</td>
</tr>
<tr>
<td></td>
<td>CKD no proteinuria</td>
<td>&lt;140/90</td>
<td>ACEI or ARB</td>
</tr>
<tr>
<td></td>
<td>CKD + proteinuria</td>
<td>&lt;140/90</td>
<td>ACEI or ARB</td>
</tr>
<tr>
<td></td>
<td>General &lt;80 y</td>
<td>&lt;140/90</td>
<td>Thiazide, β-blocker (age &lt;60y), ACEI (nonblack), or ARB</td>
</tr>
<tr>
<td></td>
<td>General ≥80 y</td>
<td>&lt;150/90</td>
<td></td>
</tr>
<tr>
<td>CHEP 2013(^{38})</td>
<td>Diabetes</td>
<td>&lt;130/80</td>
<td>ACEI or ARB with additional CVD risk; ACEI, ARB, thiazide, or DHPPCCB without additional CVD risk</td>
</tr>
<tr>
<td></td>
<td>CKD</td>
<td>&lt;140/90</td>
<td>ACEI or ARB</td>
</tr>
<tr>
<td>ADA 2013(^{19})</td>
<td>Diabetes</td>
<td>&lt;140/80</td>
<td>ACEI or ARB</td>
</tr>
<tr>
<td>KDIGO 2012(^{40})</td>
<td>CKD no proteinuria</td>
<td>&lt;140/90</td>
<td>ACEI or ARB</td>
</tr>
<tr>
<td></td>
<td>CKD + proteinuria</td>
<td>&lt;130/80</td>
<td>ACEI or ARB</td>
</tr>
<tr>
<td>NICE 2011(^{41})</td>
<td>General &lt;80 y</td>
<td>&lt;140/90</td>
<td>&lt;55 y: ACEI or ARB</td>
</tr>
<tr>
<td></td>
<td>General ≥80 y</td>
<td>&lt;150/90</td>
<td>≥55 y or black: CCB</td>
</tr>
<tr>
<td>ISHIB 2010(^{42})</td>
<td>Black, lower risk</td>
<td>&lt;135/85</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Target organ damage or CVD risk</td>
<td>&lt;130/80</td>
<td>Diuretic or CCB</td>
</tr>
</tbody>
</table>

Abbreviations: ADA, American Diabetes Association; ACEI, angiotensin-converting enzyme inhibitor; ARB, angiotensin receptor blocker; CCB, calcium channel blocker; CHEP Canadian Hypertension Education Program; CVD, chronic kidney disease; CVD, cardiovascular disease; DHCPCCB, dihydropyridine calcium channel blocker; ESC, European Society of Cardiology; ESH, European Society of Hypertension; ISHIB, International Society for Hypertension in Blacks; JNC, Joint National Committee; KDIGO, Kidney Disease: Improving Global Outcomes; NICE, National Institute for Health and Clinical Excellence.
MTM: A Case Study With Hypertension

**Subjective**
- Mr. Smith is a 67 year old white male diagnosed with HTN 6 months ago, with no other medical conditions and is optimized on his HCTZ dose

**Objective**
- BP at home averages 160/94mm Hg and at your pharmacy was 158/90mm Hg

**Assessment**
- Currently not at goal (per guidelines)
- Patient presents with adherence issues due to lack of disease symptoms, worried about side effects and it’s a chronic medication
- Patient is on a thiazide diuretic, is optimized on the dose but not taking it as prescribed
- Patient has a diet high in salt intake and does not exercise

**Plan**
- Address adherence issues
  - Use of a pill box and refill reminders
  - Importance of BP control
  - Educate on common side effects and what to do if he does experience a side effect
- Continue current therapy and monitor BP after adherence issues have been resolved
- If BP remains elevated after taking his medication as prescribed
  - Add on another drug class such as ACEI, ARB or CCB
  - Can do a fixed combination of two different drug classes and titrate dosage based on BP readings
- Contact PCP regarding medication recommendations (i.e., through MTM website, call or fax)
- Follow-up appointment with Mr. Smith regarding his BP readings
MTM: A Case Study With Hypertension

- Create a PMR for the patient
  - HCTZ 50mg once a day with or without food
- Create a MAP for the patient
  - Purchase a pill box
  - Continue to self-monitor BP at home
    - Ensure appropriate cuff size and arm positioning
  - Lifestyle changes
    - Reduce sodium intake to <2.4g/day
    - Increase physical activity to at least 30 minutes per day most days of the week
    - Increase intake of fruits and vegetables

MTM: A case study with hypertension

- Mrs. Jones is a 69 year old African American female patient who was flagged by your MTM platform
  - Interchange alert
  - Care gap alert
  - Annual CMR
- Mrs. Jones is currently being treated for hypertension, diabetes and hyperlipidemia
- Your technician flags this patient in your computer system and contacts the patient to see when they are available
- The patient prefers to speak with you on the telephone
MTM: A case study with hypertension

- Medication profile and MTM platform shows the following medications
  - Hydrochlorothiazide 25mg QD
  - Amlodipine 5mg QD
  - Glucovance 5mg/500mg QD
  - Lipitor 10mg QD

MTM: A case study with hypertension

- Obtain brief medical history from the patient
- Assess her medication knowledge
- Assess her knowledge of her medical conditions
- Assess any adherence issues
- Confirm all medications the patient is taking
- Obtain any relevant labs
MTM: A case study with hypertension

- Medical history
  - High blood pressure x 10 years
  - Diabetes x 1 year
  - High cholesterol x 5 years
  - Family history of all 3 medical conditions
  - Limited exercise
  - Does not follow any particular diet
- Understands how to take to her medications and what they are for
- Had appropriate knowledge about her medical conditions

MTM: A case study with hypertension

- No known adherence issues
- Patient denies taking any other medications
- Relevant labs
  - BP 154/98 mmHg
  - A1C 8.2%
  - Preprandial BG 150 mg/dL
  - Postprandial BG 200 mg/dL
  - TC 160mg/dL
  - HDL 50mg/dL
  - LDL 100
  - Calculated 10-year ASCVD risk score 28.8%
MTM: A case study with hypertension

- 10-year Atherosclerotic Cardiovascular Disease (ASCVD) Risk Estimator*
  - Gender
  - Age
  - Race
  - Total cholesterol
  - HDL
  - Systolic BP
  - Treatment for Hypertension?
  - Treatment for Diabetes?
  - Smoker?

* Lifetime risk can be estimated for those 20-59 years old

MTM: A case study with hypertension

- Perform a medication therapy review
- Utilize a systematic way to assess the medication regimen such as the PRIME method
- Evaluate the various disease state guidelines to ensure appropriate of the medication regimen
- HTN guidelines, diabetes standard of care guidelines and ACC/AHA blood cholesterol guidelines
MTM: A case study with hypertension

- Hypertension
  - Pharmacological
    - Hydrochlorothiazide 25mg QD and amlodipine 5mg QD
    - Current dosing is not meeting therapeutic goals
    - BP 154/98 mmHg (<130/80 mmHg)
  - Risks: None identified
  - Interactions: None identified
  - Mismatch: Non identified
  - Efficacy
    - Patient is on a thiazide and CCB (which is appropriate for African American patients) however the low dosing is not achieving therapeutic BP goal
    - Patient has diabetes and is not on an ACEi or ARB

- Diabetes
  - Pharmacological
    - Glucovance 5mg/500mg QD
    - Current dosing is not meeting therapeutic goals
    - A1C 8.2% (<7%)
    - Preprandial BG 150 mg/dL (80-130 mg/dL)
    - Postprandial BG 200 mg/dL (<180 mg/dL)
  - Risks: None identified
  - Interactions: None identified
  - Mismatch: Non identified
  - Efficacy
    - Patient has diabetes and is not on an ACEi or ARB
    - Patient’s BG is not achieving therapeutic goals and dosing of diabetes medications are not optimized
MTM: A case study with hypertension

• Hyperlipidemia
  • Pharmacological
  • Lipitor 10 QD
  • Dosing may not be appropriate
  • Calculated 10-year ASCVD risk score 28.8%
    • Without diabetes lowers to the score to 13.2%
    • If the patient smoked increases the score 49.2%
  • Risks: None identified
  • Interactions: None identified
  • Mismatch: Non identified
  • Efficacy
    • Considering the patient’s ASCVD score the patient’s statin dose is not adequate
    • Patients with ASCVD score ≥7.5% and with diabetes should be on a high intensity statin

• Interchange alert
  • Provide cost savings to the patient by switching brand Lipitor and Glucovance to generic atorvastatin and glyburide/metformin

• Care gap alert
  • Patient is African American and is on appropriate therapy (thiazide and CCB) but due to the diabetes they should also take an ACEi or ARB for renal protection

• Other interventions made during CMR
  • The patient should be on a high intensity statin such as atorvastatin 40mg QD
  • Patient’s A1C and BG are not at goal and should maximize dosing such as glyburide/metformin 5mg/500mg BID
MTM: A case study with hypertension

• Contact the patient’s PCP to make the following recommendations
  • Switch Lipitor 10mg QD to atorvastatin 40mg QD
  • Switch Glucovance 5mg/500mg QD to glyburide/metformin 5mg/500mg BID
  • Add lisinopril 10mg QD
  • If adherence is a concern you could recommend combination medications such as amlodipine/atorvastatin or lisinopril/HCTZ
• Once approved by the physician create an updated PMR for the patient
• Create a MAP to include home BP and BG monitoring
• Schedule a follow-up appointment in a month to reassess BP goals and then have the patient return once new blood work is done to reassess DM, lipids and ASCVD risk score

MTM: A case study with hypertension

• Educate the patient on appropriate diet for all medical conditions and refer to a nutritionist, if necessary
• Discuss proper techniques when taking blood pressure at home
• Make sure patient is monitoring blood glucose appropriately
• Educate on common medication side effects
• Encourage physical activity
• Therapeutic goals should be determined and discussed between the patient, physician and pharmacist to ensure the entire team is in agreement
Step by Step Process

1. Patient is flagged by MTM vendor
2. Technician, pharmacy intern or pharmacist calls the patient to make an appointment, if applicable (i.e., evening, weekend or during pharmacist overlap) or interaction may take place on the phone
3. Pharmacist prepares by reviewing patient profile
4. Patient presents for visit or speaks with the pharmacist
5. Utilizing the pharmacists’ patient care process drug-related problems are identified

Step by Step Process for CMR

6. Documentation of DRPs by the pharmacist either within the MTM vendor’s website or other third party requirements
7. Recommendations are made through MTM platform, faxing or calling the provider
8. Recommendations are either accepted or denied
9. Document the outcomes in the MTM vendor website or other third party paperwork
10. Follow reimbursement process depending on the MTM vendor or third party plan
11. Provide the PMR and MAP to patient
Take Home Points

- A team approach to patient care which includes the pharmacist can optimize and improve patient outcomes
- MTM is a group of services that allows the pharmacist to identify drug therapy problems and make recommendations to other health care providers
  - The 5 core elements of MTM
  - Targeted interventions, CMR and TMR for Part D plans
- Training and educating the entire pharmacy staff on MTM is essential to having a successful program
- Keep a record and document all recommendations approved to continue to show the benefit of the pharmacist as well as the financial impact on your business
- Stay up to date on treatment guidelines for the core chronic disease states

Informational Sites

- Centers for Medicare and Medicaid Services
  - www.cms.gov
- American Pharmacists Association (MTM Library)
  - www.pharmacist.com
- Medicare 2017
  - www.medicare2017.org
- Medicare
  - www.medicare.gov
References


• Moore. MTM- Tips to Getting Started. Pharmacy Choice.


References


