

Medication Therapy Management: Role of the Technician



Mary Ann Kliethermes, Pharm.D.

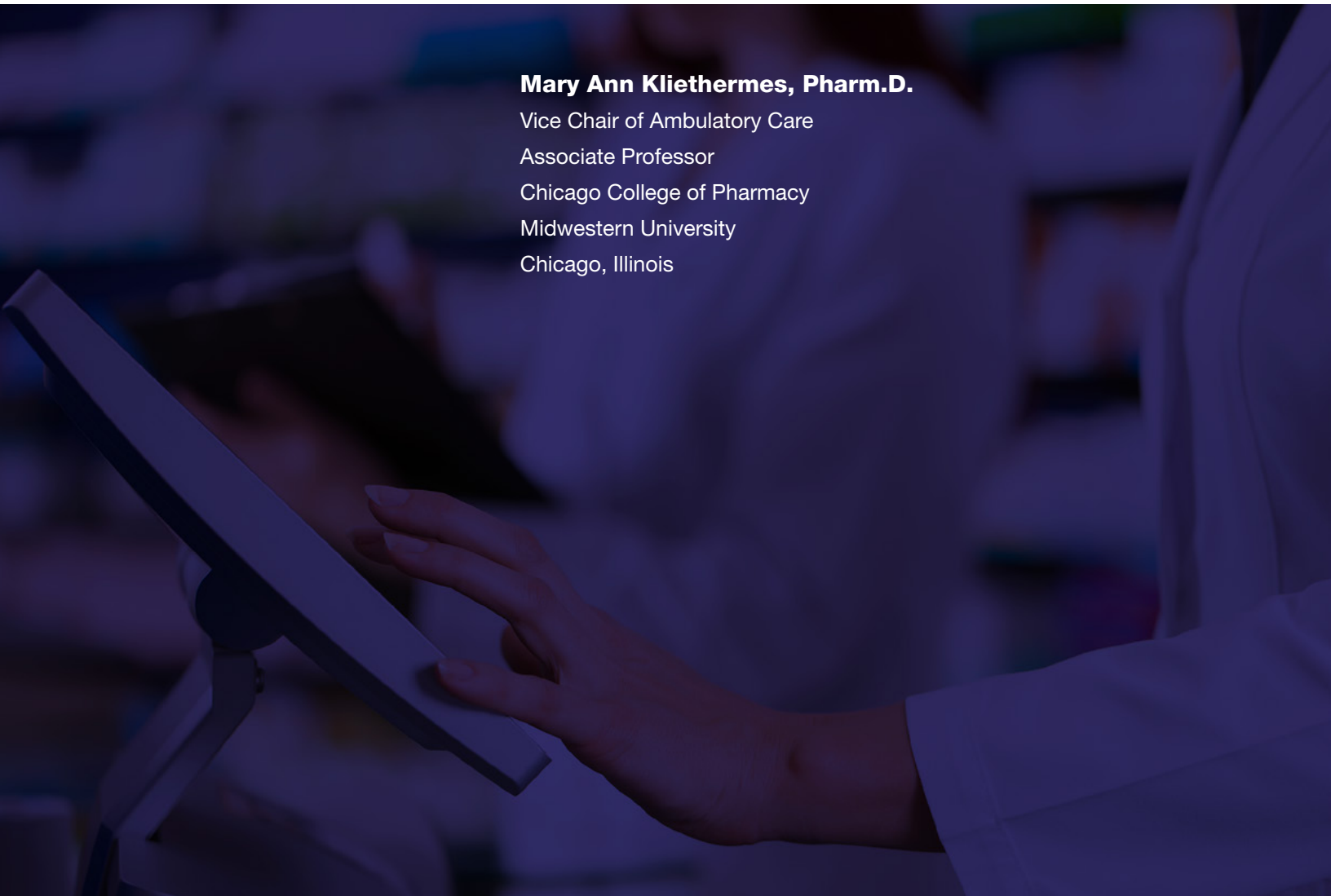
Vice Chair of Ambulatory Care

Associate Professor

Chicago College of Pharmacy

Midwestern University

Chicago, Illinois



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Target Audience

This continuing pharmacy education series was planned to meet the needs of pharmacy technicians in a variety of settings, and it would be particularly beneficial for pharmacy technicians, supervisors, and educators who are interested in learning about how pharmacy technicians can contribute to the medication therapy management team.

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Executive Summary

This activity will review the rationale and benefits of medication therapy management (MTM) services. Faculty will highlight the Medicare Modernization Act and its role in advancing MTM, as well as the core elements and processes of MTM. Examples of MTM services will be described, including the role of the pharmacy technician in providing MTM services.

Learning Objectives

After studying this knowledge-based activity, participants should be able to

- Explain the need and value of medication therapy management (MTM) services.
- Describe the Medicare Modernization Act and its role in advancing MTM.
- Describe the core elements and processes of MTM.
- List the services that may encompass an MTM program.
- Describe the role of the pharmacy technician in providing MTM services.

Background

The U.S. health care system is fragmented, with multiple decision makers per patient and poor communication between and among treatment segments. Patients and families must be able to navigate the health care system to get timely and appropriate care. The system is not easily accessible, especially when quick turn-around time is needed (e.g., a same-day appointment). Patients are responsible for their own continuity of care. The system is costly, and much of the cost of care is attributable to excessive use of costly services with marginal health benefits.

Health care expenditures are not evenly distributed among the population; in 2001, 10% of users were responsible for 70% of total health care expenditures (Figure 1).¹ Many of those health care dollars were spent on seniors, especially those with three or more chronic conditions who rely heavily on medications. The sickest patients require the most medication and use the greatest amount of resources.¹ Patients often have multiple prescribing physicians and use more than one pharmacy, increasing the complexity of their care (Figure 2).² As a group, they tend to delay or avoid filling prescriptions due to the high cost or because they lack insurance coverage (Figure 3).³

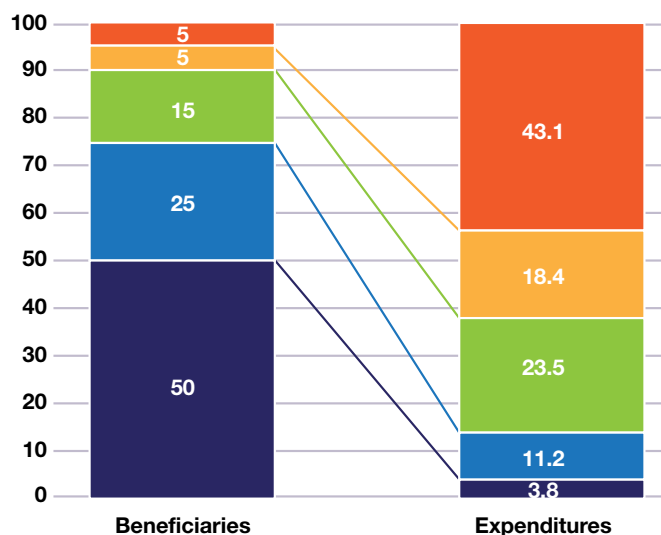


Figure 1. Concentration of Total Annual Medicare Expenditures Among Beneficiaries, 2001

Source: Congressional Budget Office based on data from the Centers for Medicare and Medicaid Services.

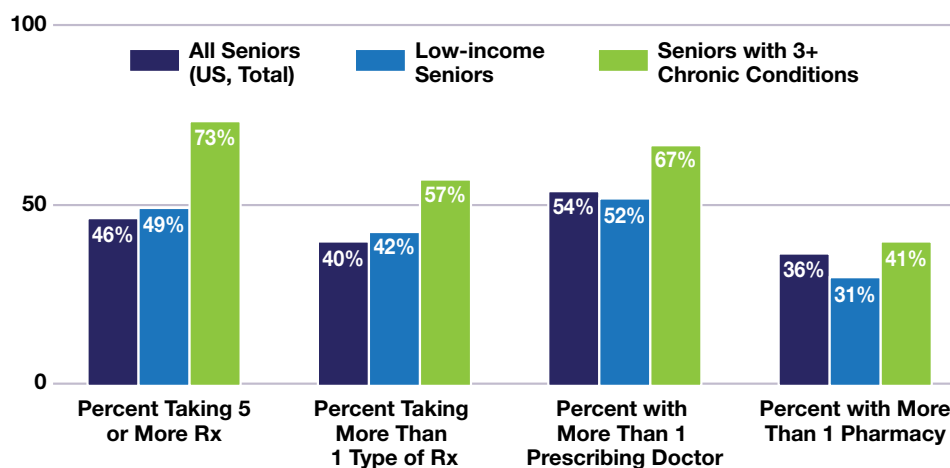


Figure 2. Seniors—especially those with 3 or more chronic conditions—rely heavily on medications.

Note: Low income is 200% of the federal poverty level or less.

Source: Kaiser/Commonwealth/Tufts-New England Medical Center 2003 National Survey of Seniors and Prescription Drugs

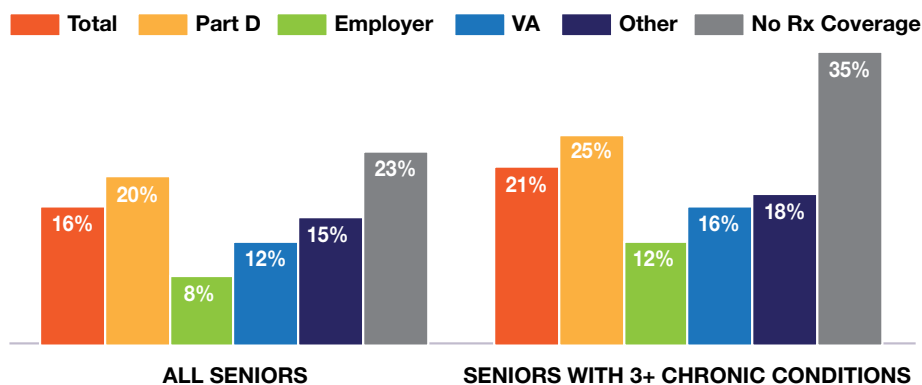


Figure 3. Share of Seniors who did not fill or delayed filling prescriptions due to cost, by source of drug coverage, 2006

Source: Kaiser/Commonwealth/Tufts-New England Medical Center National Survey of Seniors and Prescription Drugs. 2006.

There is a shortage of primary care providers in the U.S. In the current system, a primary care physician would need to work 18 hours per day to take care of all acute, chronic, and preventive needs for an average panel of 2300 patients.⁴ Physicians with a very heavy workload may pay less attention to medications. According to a 2009 study of 100 patients over age 65 published in the *Journal of Geriatric Medicine*, patients discussed medication issues (other than efficacy) with their primary care physicians during only 30% of their encounters (Figure 4).⁵

Patients, providers, and payers have different expectations about medication management.

- **Patients** want assistance with navigating “the system”. They want solutions to what they perceive are medication problems. They also want to minimize trips to the pharmacy.

- **Physicians** want to know whether or not patients are adhering to their prescription regimens. They also want a current, accurate, and legible medication list. When medication problems occur, they want solutions to those problems.
- **Payers** want improved medication adherence, which leads to improved outcomes and improved cost efficiency.

The Medicare Modernization Act of 2004 was designed to decrease costs and ensure the appropriate use of medications.⁶ Medication Therapy Management (MTM) programs are a part of that strategy. The MTM service was developed for Medicare beneficiaries who have multiple chronic diseases, are taking multiple drugs covered under the Act, and (in 2010) are likely to incur an annual cost that exceeds \$3000 per year. A key element of the Act is education and

Medication Issue addressed	% of encounters (n = 100)	% of medications (n = 410)
Efficacy	66	33
Directions for use	37	13
Adherence	35	13
Monitoring	33	12
Med supply/refills	32	20
Told to continue	32	17
Medication dose	30	10
Cost/Insurance	12	4

Figure 4. Medication Issues Addressed by Primary Care Physicians

Tarn et al. *J Gen Int Med* 2009; 24(12): 1296–1302.

counseling to give enrollees a better understanding of their medications. Increased knowledge should lead to improved adherence. Legislators intended for the Act to include mechanisms to detect adverse drug events and patterns of prescription drug overuse or underuse and encouraged pharmacists to undertake this role.

The Centers for Medicare & Medicaid Services (CMS) expand the MTM rules and guidelines annually. Medicare is the primary driver for these services in the outpatient setting.

In 2006, the rules for Medicare coverage of MTM in the community included the following provisions:⁷

- MTM was available for patients with five or more diseases, two of which were major (HTN, DM, HF, Asthma/COPD, lipids). MTM coverage only included the primary diseases commonly seen in seniors.
- Recipients were likely to have yearly prescription expenditures of at least \$4000.
- MTM was an optional service—seniors were notified of the service and could choose to participate.
- A pharmacist or other provider was required to conduct one comprehensive medication review (CMR) yearly.
- No quality measures were included.

By 2013, the rules for Medicare coverage of MTM expanded to include the following:

- Many more diseases are covered under the Act, including Alzheimer's, end stage renal disease (ESRD), atrial fibrillation, and pain.
- Recipients are likely to have yearly prescription expenditures of at least \$3144.
- Auto-enrollment is included as part of a prescription drug plan.
- CMR must be done within 60 days of enrollment and annually. If problems are identified, reviews must be done at least quarterly.
- MTM is integrated with quality measures such as adherence and the use of appropriate drugs.

The MTM Service Model

The American Pharmacists Association and the National Association of Chain Drug Stores created a joint initiative to identify the core elements of an MTM service model.⁷ These core elements include:

- Medication Therapy Review (MTR),
- Personal Medication Record (PMR),
- Medication Related Action Plan (MAP),
- Intervention and/or referral, and
- Documentation.

The five core elements provide a framework for the delivery of MTM services in pharmacy practice. Each element is essential, but the sequence and delivery can be modified to meet an individual patient's need.

The associations define Medication Therapy Review as a systematic process of collecting patient-specific information, assessing medication therapies to identify medication-related problems, developing a prioritized list of medication-related problems, and creating a plan to resolve them.

The Patient-Centered Primary Care Collaborative was formed by a group of physicians, pharmacists, nurses, and health care payers. Their framework for integrating comprehensive MTM is currently used by most organizations.⁸ Core elements of the pharmacist's role include the following:

1. **Assess the patient's medication-related needs:** This comprehensive assessment should include prescription and over-the-counter (OTC) medications, herbal preparations, etc. It should incorporate the patient's medication experience—what works, what doesn't, what causes side effects. The assessment should include the patient's medication history as well as a record of current medications.
2. **Identify Medication-Related Problems:** Determine the appropriateness of current medications and their safety and effectiveness. Ascertain the patient's adherence to the medication.
3. **Develop a care plan:** Individualize therapy based on the patient's needs and the physician's goals. Intervene and solve medication problems. Design personalized education and interventions to help patients comply with their drug regimens. Establish patient outcomes that can be monitored, such as pain level or blood pressure. Determine a follow-up plan and schedule a care coordination consultation at appropriate intervals.
4. **Follow up Evaluation:** During the follow-up evaluation, measure outcomes and ensure coordination of care. Repeat the entire MTM process as often as needed until medication therapy is under control.

The American Society of Health-System Pharmacists commissioned a review of published data to evaluate the effects of medication therapy management. The Chisholm-Burns meta-analysis included 298 studies, 65% of which took place in an ambulatory setting.⁹ Most of the patients were adults. The researchers found favorable therapeutic outcomes (51.4–100%) for measures such as pain control, cholesterol control, and blood pressure control. Patient safety outcomes showed improvement in 60–81.8% of the studies, primarily by reduction in the odds of having an adverse drug event. Results for humanistic outcomes such as patient happiness and satisfaction were more variable (12.9–57.1%). Less satisfied patients felt burdened by the need to see an additional health care professional.



Reflective Question 1

What important benefits do MTM services provide patients?

- A. Accurate medication list
- B. Knowledge on how their medications are supposed to work
- C. A self management plan to manage any problems they may experience
- D. All of the above

Perez et.al.¹⁰ evaluated the economic outcomes of the MTM process and found that the return on investment for this service was positive at \$4.81:1, meaning that every dollar spent on this service saved almost \$5.00 in health care expenditures.

The MTM Process

The first step is information collection; this can be a responsibility of a pharmacy technician, with proper training. If current or potential drug-related problems are discovered, a pharmacist designs and implements a plan to correct the problem. The pharmacist should either implement a monitoring system to evaluate the success of the plan or transition the patient to another appropriate health care professional such as a social worker, dietician, therapist, nurse, or physician.

The pharmacist's role in MTM is inclusive and constantly expanding. Pharmacists address medication-related problems including access to medication, patient adherence, medication reconciliation, medication monitoring for evidence-based outcomes, patient education, adverse drug event monitoring, monitoring patients with multiple hospitalizations, disease state management, medication escalation, medication adjustment, and drug information.

Sample Case

The following sample case illustrates the value of MTM intervention. The following is the medication list that a clinic patient presented with after a recent hospitalization and rehabilitation hospital stay.

Case: An 83-year-old male patient was recently discharged from the hospital. The following chart compares the drugs he was taking prior to entering the hospital to those prescribed at discharge.

Clinic list prior to the Hospital	Discharge medication list from the Hospital
1. Enoxaparin 80 mg daily	1. No Prescription
2. ASA 81 mg daily	2. ASA 325 mg daily
3. Enalapril 20 every 12 hours	3. Enalapril 5 mg every 12 hours
4. NTG sublingual prn	4. No Prescription
5. Atenolol 100 mg daily	5. No Prescription
6. Felodipine 10 mg daily	6. Felodipine 5 mg daily
7. Atorvastatin 20 nightly	7. Simvastatin 40 mg nightly
8. Oxycodone 40 mg SR BID, 5 mg IR q 6 hrs prn	8. No Prescription
9. Zonisamide 200 mg nightly	9. Gabapentin 800 mg TID
10. Flut/salmeterol every 12 hours	10. No Prescription
11. Omeprazole 40 mg daily	11. Pantoprazole 40 mg daily
12. Docusate 100 mg BID	12. No Prescription
13. Lactulose PRN	13. No Prescription
14. Metoclopramide 5 mg 4 times daily	14. No Prescription
15. Multivitamin daily	15. No Prescription
	16. Insulin Glargine 10 Units nightly

The changes in this patient's medication regimen are startling and his discharge paperwork did not provide reasons for the changes. Of greatest concern was that his anticoagulant therapy was stopped and insulin was added to his regimen. The patient has had multiple small strokes in the past, even on other anticoagulant therapy. Enoxaparin therapy controlled this condition. His high blood pressure contributed to his strokes yet his blood pressure medication was significantly reduced. There was no documentation of a diabetes diagnosis, nor was there any clinical evidence for diabetes yet he was discharged on insulin. Physicians have little time in a busy clinic to resolve such complex discrepancies, nor do their staff possess the knowledge or skill that a pharmacist has to understand the medication processes that led to the disparity of this patient's medication list. The MTM pharmacist was able to piece the story together and resolve the discrepancies that certainly may have prevented a re-hospitalization in this case.

The MTM pharmacist discovered that the patient presented to the ER complaining of chest pain and was admitted to the cardiac care unit. His pain was determined not to be cardiac in origin but due to pneumonia. As he suffers from Addison's disease and became hypotensive because his steroid dose was not appropriately adjusted for the stress of his condition; he was transferred to the ICU where the steroid dose was increased, and insulin was started. He quickly improved and was moved to a general medical floor where his admission medication list did not follow him resulting in the list he presented with to the clinic. The patient was hypertensive and confused over his medications at clinic. Based on the work done by the MTM clinic, his enoxaparin was restarted, insulin was stopped, his blood pressure medications doses resumed and the generic switches made back to medications covered by his insurance.

Billing for MTM services

MTM payers include Medicare Part D plan sponsors (Prescription Drug Plans, Medicare Advantage Prescription Drug Plans), employer groups, state Medicaid/other state programs, and patients themselves.

Most third-party billing for a pharmacist's clinical services must be done through a registered pharmacy or a recognized provider's office, such as a physician. The specific Current Professional Terminology (CPT) service codes for MTM Services delivered face-to-face between a pharmacist and a patient include the following:

- 99605** a first-encounter service (up to 15 minutes)
- 99606** a follow-up encounter with an established patient (up to 15 minutes)
- 99607** used with either 99605 or 99606 to bill additional 15-minute increments.¹¹

Other payment options include an "Incident to Physician" fee for service in a physician's office (CPT code 99211) and a facility fee such as health system/hospital outpatient options (HOPPS).



Reflective Question 2

Which of the following would not be a role for the pharmacy technician?

- A. Prepare for patient visit
- B. Fill prescriptions
- C. Fill pill boxes
- D. Conduct a comprehensive medication review
- E. Manage collections

Pharmacy Technicians and MTM

Pharmacy technicians have many important roles in MTM assistance, including medication reconciliation, medication list maintenance, and medication assistance programs. Pharmacy technicians can gather information to complete the initial patient assessment including history, diagnosis, and discharge records from the hospital and patient records from the primary care physician. Technicians often assist patients in making appointments with other providers. If permitted by the state board of pharmacy, pharmacy technicians assist with medication reconciliation by obtaining histories to be crosschecked or crosschecking medications taken before admission, during the hospital stay, and after discharge. They often assist patients with adherence aids such as pillboxes. They teach patients to use the box, and then assist in refilling the pillbox and monitoring for patient adherence during follow up visits. Technicians may be responsible for MTM billing and for managing and coordinating the paperwork needed for financial assistance.

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Activity Assessment

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- 1. One reason for the demand for Medication Therapy Management (MTM) services includes**
 - a. The majority of Medicare beneficiaries spend the highest amount of Medicare dollars.
 - b. Seniors with three or more medical conditions are usually adherent to their medications.
 - c. Health care providers do not focus on medication during primary care visits.
- 2. The federal law which established MTM for seniors in the United States is called**
 - a. The Medicare Modernization Act of 2004.
 - b. The Affordable Care Act of 2010.
 - c. The HITECH Act.
- 3. Which of the following are included in the CMS Guidelines for MTM for 2013?**
 - a. Eligible patients must be auto enrolled.
 - b. Must include all patients with an annual prescription spend of \$3144 or greater.
 - c. Must receive a comprehensive medication review within 60 days of enrollment and annually.
 - d. All of the above.
- 4. Based on the MTM Core Elements, patients should receive the following after each MTM visit:**
 - a. A letter for them to inform their Part D plan the service was performed.
 - b. A current and complete medication list and a medication, and a personal medication related action plan.
 - c. A letter for their physician with pharmacist recommendations.
- 5. Evidence suggests that pharmacist provided MTM services**
 - a. Break even for cost/benefit.
 - b. Lose money but gain quality.
 - c. Have over a \$4 return on investment.
- 6. Prior to an MTM visit, pharmacists need to collect patient information. Which of the following activities can be done by a pharmacy technician?**
 - a. Obtaining patient information from their physician office.
 - b. Administer a patient assessment form.
 - c. Perform a medication reconciliation.
 - d. All of the above.
- 7. An MTM service for which pharmacy technicians may assume responsibility for is**
 - a. Medication dose escalations.
 - b. Medication assistance programs.
 - c. Monitoring medication effectiveness.
- 8. Which MTM codes should be used when billing a 30 minute follow-up MTM visit?**
 - a. Two 99211 codes.
 - b. One 99605 and two 99607 codes.
 - c. One 99606 and one 99607 code.

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Answers to Reflective Questions—1: D, 2: D