Medication Therapy Management (MTM)

Description of Rotation:
The MTM rotation provides the student with broad-based exposure to medication therapy management patient care activities. This rotation is designed to provide the student with general knowledge regarding various issues surrounding the development and implementation of MTM services. Activities focus on engagement and active participation through direct interactions to enhance patient care and improve medication-related outcomes. The student will employ strategies for interprofessional collaboration and cooperation, demonstrate effective communication techniques, collect and analyze data, develop and implement treatment plans, provide education, provide instruction on patient self-management, and conduct appropriate follow-up. The student will also gain insight into and actively use patient care data in the patient's medical record to provide effective and efficient care to patients. The student will develop skills in pharmacotherapy, verbal and written communications, drug information retrieval and evaluation, patient monitoring and diagnostics as they apply to area of MTM.

Goals of Rotation:
Facilitate student learning and critical thinking skills in Transitions of Care in order to prepare the student to understand and apply comprehensive medication management skills in collaboration with the healthcare team.
1. Understand patient healthcare needs.
2. Apply evidence-based medicine.
3. Enhance and reinforce didactic coursework.
4. Develop interpersonal communication skills.
5. Adopt and formulate ethics and integrity for practice site and career.
6. Formulate an understanding of the laws and regulation for the practice site
7. Recognize barriers of care for patient
8. Demonstrate leadership skills for successful self-development in the provision of care for patients.

Learning Objectives:
Upon completion of this rotation the student should be able to:
1. Develop a foundational clinical approach to patient care that can be applied in all practice settings.
2. Describe the impact of MTM and patient counseling on health outcomes.
3. Develop a general knowledge of the steps required to develop a business model for MTM services.
4. Develop a general knowledge of the steps required to establish billing procedures for MTM services.
5. Apply the five core elements of MTM to a patient interaction.
6. Identify drug therapy problems within a patient's medication regimen.
7. Apply current treatment guidelines to the management of patients utilizing MTM services.
8. Engage in collaborative professional relationships with other pharmacists, other health care professionals, and supportive personnel involved in the care of patients.
9. Communicate effectively with physicians and other healthcare providers.
10. Establish collaborative professional pharmacist–patient relationships.
11. Identify and become familiar with practice site patient record forms for collecting and documenting patient-specific information or, if necessary, develop forms that the ambulatory care practice can use to collect specific information such as demographics, social history, family history, and past medical history and use.
12. Collect, analyze, and assess patient information to identify medication or non–medication related problems.
13. Engage in discussions with the preceptor on prevention, signs, symptoms, epidemiology risk factors, pathogenesis, clinical course, and etiology of common diseases encountered.
14. Design evidence-based medication or non-medication, health improvement, wellness, and/or disease prevention treatment and monitoring plans for patients.
15. Engage in therapeutic discussions with the preceptor about specific medications or classes of medications (e.g., mechanism of action, pharmacokinetics, pharmacodynamics, usual dose, contraindications, interactions, adverse reactions, requirements for renal function dosage adjustment).

17. Recommend and/or communicate treatment and monitoring plans to patients and to other health care professionals.
18. Implement treatment plans and monitoring plans and make referrals when necessary.
19. Evaluate patients' progress and redesign treatment and monitoring plans.
21. Participate in a discussion with the preceptor about how the practice site measures the effectiveness of patient care services and the overall impact on patient care quality and outcomes.
22. Answer drug information questions as they arise from providers, patients, and pharmacists, accessing appropriate references when needed.

Activities:
1. Patient interviews and care plans
   a. Medication Therapy Management
   b. Patient goal setting
2. Physical Assessment
3. Medication reconciliation
4. Data collection
5. Patient screening
6. Completion of comprehensive medication reviews (CMRs)
7. Create individualized medication plans
8. Identification of and strategies to alleviate barriers that affect medication adherence
9. Documentation of interventions
10. Educational programs
    a. Patients
    b. Medical Staff
    c. Students
11. Presentations
    a. Pharmacists
    b. Residents
    c. Technicians
    d. IPPE/APPE students
    e. Nursing
12. Topic discussions
13. Journal clubs
14. Drug information
15. Newsletter
16. Required Readings

Common topics and disease states encountered in the Transitions of Care setting (list not inclusive):
1. Diabetes
2. Chronic Heart Failure (CHF)
3. Dyslipidemia
4. Obesity
5. Chronic Obstructive Pulmonary Disease (COPD)
6. Hypertension
7. Anticoagulation
8. Asthma
9. Myocardial infarction (MI)
10. Osteoporosis
11. Depression/Anxiety
12. Rheumatoid Arthritis
13. Cardiovascular Disorders
14. End-Stage Renal Disease (ESRD)
15. HIV/AIDS
16. Hepatitis C
17. Dementia/Alzheimer’s Disease

Potential longitudinal activities to accomplish at site:
1. Identify and collect appropriate drug-related monitoring parameters for each assigned patient
2. Maintain an adequate patient data base for each assigned patient
3. Identify and prioritize drug-related problems for each assigned patient
4. Assess the appropriateness of each assigned patient’s drug therapy
5. Construct a detailed pharmacotherapeutic plan for each assigned patient
6. Present all patient data in a concise and meaningful fashion
7. Provides evidence-based regimens and monitoring plans for each patient
8. Obtain and write-up a patient medication history
9. Provide medication information to a unique cultural and socioeconomic diverse patient
10. Counsel a patient on their medications
11. Provide a verbal therapeutic plan recommendation to another health-care professional
12. Perform medication reconciliation for patients
13. Interpret diagnostic tests results for patient/caregiver/or preceptor
14. Take a patient’s blood pressure
15. Take a patient’s pulse
16. Assess a patient’s peripheral edema
17. Take a patient’s respiratory rate
18. Assess a patient’s temperature
19. Provide an optimal pain management or palliative care plan for a patient
20. Observe a Health Care professional perform a full physical examination and assess results
21. Make a warfarin dosage adjustment based on patient parameters
22. Recommend empiric antibiotic therapy
23. Recommend antibiotic therapy based upon a culture and sensitivity
24. Assess the significance of a drug-drug interaction
25. Adjust a drug dose in a patient with renal insufficiency
26. Determine monitoring parameters for a patient being treated for an infectious disease
27. Assist in explaining to a patient or caregiver their health-insurance options
28. Prepare a written pharmacokinetic consultation
29. Prepare a handout for case presentation
30. Prepare an article for a newsletter or publication
31. Prepare a patient education sheet
32. Prepare a written drug information response in a practice setting
33. Provide an education presentation to pharmacists
34. Provide an education presentation to other health care professionals
35. Lead a Journal Club discussion
36. Participate in a Patient/Medication Safety Review or error reduction program
37. Discuss or Implement, evaluate, and obtain reimbursement for MTM services
38. Participate in a discussion of a pharmacist role in ethical issues related to any of the following topics: end of life care, professional behavior, clinical research, and pharmacy current event/hot button issue

Adapted from “Medication Therapy Management Advanced Pharmacy Practice Experience in Ambulatory Care”. American Pharmacists Association.