

Acute Care

| Element | Example Learning Objectives or Activities* | Comments |
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| Pharmacist Patient Care (PPC) | | |
| PPC 1. Demonstrate appropriate depth and breadth of pharmacotherapeutics and disease-related knowledge for a variety of common conditions seen in adult acute care patients. | <ul style="list-style-type: none"> • Participate in and/or lead topic discussions. • Apply the PPCP to every patient assigned by preceptor, essentially independently, and present to preceptor. | We recognize that the patients seen on this rotation may exist in any specialty floor or ICU depending on the hospital size, census and patient demographics served. The goal is to see the most common disease states generally encountered in the acute care setting. |
| PPC 2. Efficiently and appropriately optimize patient-specific outcomes for acute care patients using the Pharmacist Patient Care Process (PPCP). | <ul style="list-style-type: none"> • Systematically collect information sufficient to identify drug related problems and to support decisions regarding drug therapy. • Assess collected information to evaluate/identify drug related problems. • Make decisions about a care plan for treatment; prevention; and wellness to optimize patient outcomes that includes, but not limited to, strategies that overcome patient-specific barriers to care. • Implement a care plan in collaboration with health care team and patient that includes monitoring and continuity of care, and considerations for triage, patient referral, and follow-up. | <p>Practicing the PPCP as it applies in the acute care setting should form the majority of this experience. There are 2 types of clinical practice models in the acute care setting:</p> <ul style="list-style-type: none"> ○ <i>Patient-specific</i>: taking care of whole individuals (including their entire list of drug therapy) by serving on a team that manages a set of patients (usually rounds with team) ○ <i>Task-oriented</i>: performing kinetic dosing or other monitoring/adjustment for specific drugs according to protocol, performing focused discharge teaching for high risk drugs such as anticoagulation (may or may not include rounding with team) <p>The practice model in an institution often dictates the nature and type of work pharmacists do with or along side their health care teammates. Preceptors will need to work within their practice model to allow students to accomplish these competencies while working collaboratively with other health professionals.</p> |

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| | <ul style="list-style-type: none"> • Monitor and evaluate care plan, make needed adjustments. | |
| PPC 3. Accurately prioritize multiple patient care responsibilities/needs in times of high activity and workload. | <ul style="list-style-type: none"> • Determine which patient's needs should be addressed first • Address patient needs within an appropriate time, based on priority/acuity. • Communicate clearly and appropriately regarding patient work that is unable to be completed during an assigned work shift (ie. hand-off). | The expectation is to have students gain experience managing multiple patients or tasks at once, so they learn how to prioritize and manage time. This also helps students see the importance of developing a standard, efficient process for working up patients and approaching a days work. |
| PPC 4. Apply pharmacokinetic dosing principles for a variety of commonly used drugs to determine the correct dose. | <ul style="list-style-type: none"> • Accurately adjust doses according to patient's renal and/or hepatic function. • Perform dose calculations for drugs that require monitoring for peak and trough concentrations. • Participate in dosing protocols that pharmacists are responsible for in the practice site. | While dosing calculations are performed in many settings, pharmacokinetic dosing per protocol is a common responsibility of hospital pharmacists. Students should contribute to this work as appropriate. |
| Communication and Education (C&E) | | |
| C&E 1. Document patient care activities clearly and concisely to reflect the PPCP in the appropriate site-specific health record system(s). | <ul style="list-style-type: none"> • Write SOAP notes for inclusion in the patient's medical record • Document pharmacist activities as part of a clinical intervention tracking system (where appropriate) • Document treatment plans under protocol (eg. Vanocmycin, anticoag) • Document medication histories/reconciliation in EMR | <p>Examples of other types of documentation pharmacists may do in this setting:</p> <ul style="list-style-type: none"> • Interventions/recommendations for patient care • Outcomes for ACO reporting: Cost savings or length of stay <p>Achieving provider status involves documentation, so whenever possible, students should participate in these processes to gain experience in documentation methods.</p> |

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| | <ul style="list-style-type: none"> • Document patient education encounters | |
| C&E 2. Educate healthcare team members on pharmacy topics relevant to their roles and practice. | <ul style="list-style-type: none"> • Provide a formal education presentation, for example: • Patient case presentation • Medication information in-service presentations • Lead informal topic discussions/presentations with/for the interprofessional team | Students learn to present to peers who are health care providers. This kind of communication is different than with patients. Speaking with colleagues is an important skill in establishing credibility with team members. |
| Interprofessional Collaboration (IPC) | | |
| IPC 1. Actively contribute as a member of an interprofessional healthcare team. | <ul style="list-style-type: none"> • Independently communicate medication therapy recommendations to members of the healthcare team. • Share accountability for patient care decisions with the team. • Demonstrate effective teamwork/collaboration skills. • Participate in rounds with other health care professionals (if possible). | Collaborating with others on the health care team happens in many settings, however, the greatest opportunity for it is in the inpatient setting where team members are co-located. While schools may choose to incorporate team collaboration into other APPEs, we feel it should at a minimum be required during this experience where face-to-face interactions make shared decision-making more likely. |
| Evidence-Based Medicine (EBM) | | |
| EBM 1. Apply evidence-based medicine practices to demonstrate knowledge of information applicable to acute care medicine. | <ul style="list-style-type: none"> • Retrieve, interpret, and apply biomedical literature applicable to the patients seen on this rotation. • Respond to questions with the appropriate level of detail necessary to ensure proper patient care and communication with other relevant parties. | |

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| | <ul style="list-style-type: none"> Analyze a clinical study. Prepare and lead a Journal club. Defend/justify recommendations using with published evidence in support of a clinical situation. | |
| Practice-Specific Responsibilities (PSR) | | |
| PSR 1. Perform institutional procedures and apply best practices to ensure continuity of care for patients transitioning across healthcare settings. | <ul style="list-style-type: none"> Perform medication reconciliation as appropriate. Provide discharge counseling as appropriate. Participate in communications regarding transitions of patients between different levels of care in the same institution (ICU to ward). Communicate with community pharmacist and other community providers to facilitate successful transition to home upon discharge. | Processes for transitions of care and medication reconciliation vary from institution to institution. As this responsibility grows for pharmacists, students should participate in and contribute to these responsibilities that pharmacists have during admission, transfer, and discharge. |

*Example learning objectives are provided as additional information but are neither comprehensive nor expected of all schools or students.

Ambulatory Care

| Element | Example Learning Objectives or Activities* | Comments |
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| Pharmacist Patient Care (PPC) | | |
| PPC 1. Demonstrate appropriate depth and breadth of pharmacotherapeutics and disease-related knowledge for common conditions in the ambulatory care clinic population. | <ul style="list-style-type: none"> • Participate and/or lead topic discussions. • Apply the PPCP to every patient assigned by preceptor, essentially independently, and present to preceptor. | We recognize that the patients seen on this rotation could represent a variety of specialty and primary care clinics depending on the geographic area and local practice model. The goal is to see the most common disease states generally encountered in the clinic setting. This is not a dispensing experience. |
| PPC 2. Efficiently and appropriately optimize patient-specific outcomes for ambulatory care patients using the Pharmacist Patient Care Process (PPCP), in collaboration with other healthcare providers. | <ul style="list-style-type: none"> • Perform a patient history and systematically collect information sufficient to identify drug related problems and to support decisions regarding drug therapy. • Perform, obtain and interpret physical assessments needed for managing medication therapy. • Assess collected information to evaluate/identify drug related problems. • Make decisions about a care plan for treatment; prevention; and wellness to optimize patient outcomes that includes, but not limited to, strategies that overcome patient-specific barriers to care. • Implement a care plan in collaboration with health care team and patient that includes monitoring and continuity of care, and | Practicing the PPCP as it applies in the clinic setting should form the majority of this experience. |

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| | <p>considerations for triage, patient referral, and follow-up.</p> <ul style="list-style-type: none"> • Monitor and evaluate care plan, make needed adjustments. | |
| Communication and Education (C&E) | | |
| C&E 1. Document patient care activities and care plan clearly and concisely to reflect the PPCP in the appropriate site-specific system. | <ul style="list-style-type: none"> • Accurately and efficiently perform types of documentation pharmacists do in this setting: <ul style="list-style-type: none"> ○ SOAP notes for inclusion in medical record. ○ Care notes from face-to-face patient visits. ○ Interventions/recommendations made to team for patient care. • Report in writing cost outcomes necessary for ACO reporting. | As pharmacists gain provider status (especially in the clinic setting) documentation becomes imperative for appropriate reimbursement to happen. Students should gain experience at documentation practices while on this experience. |
| C&E 2. Advocate for patient access to medications to optimize patient outcomes. | <ul style="list-style-type: none"> • Identify common avenues for accessing drug/medication assistance programs for un/non-insured patients. • Assist a patient whose insurance has denied coverage for a necessary medication in obtaining that medication through either an insurance appeal or a medication assistance program | Not all insurance companies are able to add new, and often essential, medications to their formularies, and the pharmacist is the ideal practitioner to help the patient access the medication. |
| C&E 3. Perform patient-centered medication education. | <ul style="list-style-type: none"> • Demonstrate teach back method for instructing patients with devices. • Appropriately apply techniques to assess patient understanding. | Recommendation: Push students to show this skill proactively and/or independently to emphasize leadership and self-awareness abilities. |
| C&E 4. Adjust communication style, techniques, and language in response to patient-specific needs and individual social | <ul style="list-style-type: none"> • Demonstrate common communication techniques used in this setting: | Practice in the clinic involves significant communication and cooperation with patients to help them take their medications properly. It |

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| determinants of health. | <ul style="list-style-type: none"> ○ motivational interviewing, ○ coaching ○ counseling/education ○ teach back ○ teaching for devices. ● Social determinants of health that should be given attention include culture, religion, health literacy, literacy, disabilities, and cognitive impairment. | is the cornerstone of practice in this setting. Students should spend significant time performing these skills. |
| Interprofessional Collaboration (IPC) | | |
| IPC 1. Actively contribute as a member of an interprofessional healthcare team. | <ul style="list-style-type: none"> ● Independently communicate medication therapy recommendations to members of the healthcare team ● Share accountability for patient care decisions with the team ● Demonstrate effective teamwork/collaboration skills ● Present patient cases to other members of the team | Collaborating with others on the health care team happens in many settings. However, it can be difficult to achieve the community pharmacy setting. Yet it is necessary to experience teamwork unique to the ambulatory care setting. While schools may choose to incorporate team collaboration into other APPEs, we feel it should at a minimum be required during this experience because the likelihood of shared decision-making is greater in the clinic setting as opposed to a community pharmacy. |
| Evidence Based Medicine (EBM) | | |
| EBM 1. Apply evidence-based medicine practices to demonstrate knowledge of information applicable to ambulatory care practice. | <ul style="list-style-type: none"> ● Retrieve, interpret, and apply biomedical literature applicable to the patients seen on this rotation. ● Respond to questions with the appropriate level of detail necessary to ensure proper patient care and communication with other relevant parties. ● Analyze a clinical study. ● Prepare and lead a Journal club | |

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| | <ul style="list-style-type: none"> • Defend/justify recommendations using with published evidence in support of a clinical situation . • Present patient cases, disease or medication related topics to health care professionals. | |
| Practice-Specific Responsibilities (PSR) | | |
| PSR 1. Use population-level data and quality metrics to identify and develop practices or strategies for improving outcomes and/or addressing health promotion and disease prevention for the population served by the clinic. | <ul style="list-style-type: none"> • Participate in a MUE/DUE or other type of data collection and review to assess the effectiveness of a treatment regimen or pathway. | The need for pharmacists to help manage a costs and drug prescribing for a panel (ie. population) of patients is ever growing. Students should get experience doing this as it is becoming a core component of practice in this setting. |

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Community Pharmacy

| Element | Example Learning Objectives or Activities* | Comments |
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| Pharmacist Patient Care (PPC) | | |
| <p>PPC 1. Efficiently and appropriately optimize patient-specific outcomes using the Pharmacist Patient Care Process (PPCP) in the community pharmacy setting, including collaboration with other healthcare professionals.</p> | <ul style="list-style-type: none"> • Collect patient information and interpret it based on results of monitoring parameters to support improved patient outcomes • Perform disease state management services • Conduct formal MTM process • Assess and resolve problems identified as part of prospective or retrospective drug utilization review. • Make recommendations and/or modify care plans to address patient specific needs • When possible, initiate/change drug therapy to address patient specific needs • Perform CMR when appropriate and make recommendations/changes accordingly • Prepare and deliver a patient case presentation | <p>Preferred that this competency include Disease State Management (DSM) AND/OR Medication Therapy Management (MTM) so that this experience is an advanced community experience as opposed to the introductory community experience.</p> <p>We have split out disease state management (DSM) from MTM, because in reality it is a different process. DSM refers to collaborative practice, which varies site-to-site and state-to-state, where as MTM is a specific reimbursed service/process.</p> <p>Recognizing that MTM is delivered in many ways and may vary with plans, we did not specify "Perform a CMR" as the competency itself but provided some flexibility in demonstrating this competency.</p> |
| <p>PPC 2. Proactively identify and resolve drug-related problems including patient-specific barriers to medication adherence.</p> | <ul style="list-style-type: none"> • Perform effective prospective, concurrent, and retrospective drug utilization review | <p>This element can be accomplished through a variety of tasks (formal and informal) in the course of identifying and resolving drug related problems for patients. This could be</p> |

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| | <ul style="list-style-type: none"> • Create and implement care plans to resolve identified potential or existing drug therapy problems • Identify medication adherence concerns and construct patient-specific interventions to improve adherence • Conduct formal MTM process • Perform CMR when appropriate and make recommendations/changes accordingly • Prepare and deliver a patient case presentation | accomplished as part of MTM and/or preparing a patient case presentation. The responsibilities will need to be made site specific. |
| PPC 3. Educate patients about self-care and medication self-administration including making recommendations regarding medications (prescription and OTC) and non-drug therapy alternatives. | <ul style="list-style-type: none"> • Provide appropriate OTC counseling/consulting. • Perform self-care consults. | This could be accomplished as part of MTM. |
| PPC 4. Triage and refer patients to other members of the health care team to meet a specific patient's health needs. | <ul style="list-style-type: none"> • Perform an assessment including History of Present Illness (HPI) to determine the appropriate level of care • Match patient health needs to the roles and responsibilities of other healthcare professionals • Make recommendations and/or modify care plans to address patient specific needs | |
| Communication and Education (C&E) | | |
| C&E 1. Proactively perform patient-centered counseling and medication education using | <ul style="list-style-type: none"> • Provide medication education on all new prescriptions | |

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| <p>the most current and relevant information.</p> | <ul style="list-style-type: none"> • Provide medication education on refills when appropriate • Proactively perform patient-tailored counseling and medication education using the most current and relevant information. | |
| <p>C&E 2. Adjust communication styles and techniques (e.g. motivational interviewing, coaching, counseling/education) in response to patient specific needs and individual social determinants of health (e.g. culture, religion, health literacy, literacy, disabilities, and cognitive impairment).</p> | <ul style="list-style-type: none"> • Implement motivational interviewing techniques to improve patient adherence • Alter prescription counseling strategies based on patient or caregiver needs • Assess effectiveness of counseling or other communication using the teach back method and re-adjust technique until understanding is confirmed | <p>This could be included in the process of MTM, prescription filling, or OTC consults. Consider including communicating with other health care providers as part of this element.</p> |
| <p>Population Health (PH)</p> | | |
| <p>PH 1. Provide patients with health and wellness strategies including provision of community screening and education services when indicated.</p> | <ul style="list-style-type: none"> • Provide patients with health and wellness strategies including provision of community screening and education services when indicated. • Deliver preventative disease screening services. • Participate in immunization services. • Participate in point-of-care testing services. • Accurately provide OTC counseling/consulting. • Participate in health fairs. | |

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| | <ul style="list-style-type: none"> • Prepare and deliver a patient case presentation. | |
| Dispensing System and Safety Management (D&S) | | |
| D&S 1. Accurately apply the prescription verification process (e.g. legitimate prescription, appropriate dose, interactions, DUR). | <ul style="list-style-type: none"> • Accurately fill prescriptions while operating within the workflow of the practice site. | |
| D&S 2. Use a computerized pharmacy management system and best practices related to safe medication use in distribution of medications to patients. | <ul style="list-style-type: none"> • Accurately fill prescriptions while operating within the workflow of the practice site. | |
| Practice Management (PM) | | |
| PM 1. Demonstrate the role of a pharmacist in managing legal, human, financial, technological and/or physical resources for day-to-day operations in the pharmacy. | <ul style="list-style-type: none"> • Identifies situations requiring the intervention and management of the pharmacist in the community pharmacy setting. • Identifies strengths and areas for improvement within the practice or business model, considering alternatives and potential strategies. • Discusses site's budget and financial projections. • Identifies opportunities for staff training and creates a training plan. • Provides an in-service to pharmacy staff. • Given a human resources conflict, describes perspectives of all involved. • Completes a needs assessment regarding technology at the site. | |

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| | <ul style="list-style-type: none"> • Examines the pros and cons of the site’s physical layout and develops an improvement plan. • Conducts an inventory analysis and creates a plan to increase turnover. • Writes a report about strategies to manage drug shortages. • Contrasts pharmacist and pharmacy technician activities at the site and makes recommendations to improve workflow. • Reviews the drug storage policies to ensure proper drug storage. | |
| <p>PM 2. Participate in continuous quality improvement techniques to optimize the medication use process.</p> | <ul style="list-style-type: none"> • Apply the CQI process within the site’s procedures for quality improvement. • Evaluate CQI data to determine improvement opportunities. • Create a report recommending potential improvements based on site data. • 4. Participate in the reporting of quality-related events. | <p>While CQI is often emphasized in hospital practice, it is important in the outpatient setting too. Students should have opportunity to engage in these activities in the community pharmacy to see how they occur in this setting.</p> |

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