DESCRIPTION AND INSTRUCTIONS

This worksheet consists of 106 questions assessing adoption of the PPMI recommendations at the hospital level.

The worksheet can be completed by an individual but a team-based approach will provide data that are more reliable. If your institution services both acute care and ambulatory care patient populations, please consider services delivered to the wider population of patients when completing your assessment.

At the end of each question is a reference to the PPMI recommendation that the question was developed to assess (e.g., [B6a] refers to PPMI recommendation “B6a. Insufficient leadership within the field of hospital and health-system pharmacy to catalyze change”).

Upon completing the worksheet, visit www.ashp.org/PPMI to submit your responses, develop a list of priorities (an "Action List"), and identify tools and resources to assist you in implementing change at your hospital/health system.

For questions, comments, or to send feedback, please contact us at quality@ashp.org.
**INTRODUCTION – HOSPITAL DEMOGRAPHIC INFORMATION**

**S1.Q1:** Is there a medical residency program at your hospital/health-system?

- Yes
- No

**S1.Q2:** Is there a pharmacy residency program at your hospital/health-system?

- Yes
- No

**S1.Q3:** Do you take 6 or more pharmacy students on rotations each year?

- Yes
- No

**S1.Q4:** Please indicate how the total number of inpatient full-time equivalent (FTE) pharmacist staff on the pharmacy payroll are assigned to each of the following categories.

*Note: Your answers may include decimals if appropriate (e.g., if all pharmacists in a category total 3.2 FTEs, indicate ‘3.2’ in the designated space).*

<table>
<thead>
<tr>
<th>FTE</th>
<th>Primarily management pharmacists</th>
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<td>FTE</td>
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<table>
<thead>
<tr>
<th>FTE</th>
<th>Primarily clinical pharmacists</th>
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<table>
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<tr>
<th>FTE</th>
<th>Primarily distributive pharmacists</th>
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<td>FTE</td>
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Integrated clinical / distributive pharmacists (i.e., spend approximately equal amounts of time in clinical and distributive activities)

<table>
<thead>
<tr>
<th>FTE</th>
<th>Informatics pharmacists</th>
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<tr>
<th>FTE</th>
<th>Medication-use safety pharmacist</th>
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**Hospital Self-Assessment Worksheet**

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<thead>
<tr>
<th>FTE</th>
<th>Description</th>
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<tbody>
<tr>
<td></td>
<td>Other pharmacists (e.g., investigational drugs, purchasing, etc.)</td>
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<tr>
<td></td>
<td>Pharmacy residents</td>
</tr>
<tr>
<td></td>
<td>Pharmacy technicians (include interns/students)</td>
</tr>
<tr>
<td></td>
<td>Administrative support / clerical staff</td>
</tr>
<tr>
<td></td>
<td>Other non-pharmacist / non-technician staff (management, purchasing, education, etc.)</td>
</tr>
</tbody>
</table>

**S1.Q5:** Which of the following best describes deployment of pharmacists in your practice model?

- Mostly distributive pharmacists with limited clinical services
- Clinical generalist (integrated) model with limited differentiation of roles (nearly all pharmacists have distributive and clinical responsibilities)
- Separate clinical specialist and distributive roles
- Comprehensive model including pharmacists in distributive, generalist/integrated, and specialist roles

**S1.Q6:** Please select the option that best describes your hospital type:

- Academic Medical Center/University Hospital
- Community Hospital
- Critical Access Hospital
- Long Term Acute Care Hospital
- Pediatric Hospital
- Rehabilitation Hospital
- Specialty Hospital
- Veterans Affairs Hospital
- Other
OPTIMAL PHARMACY PRACTICE MODEL CHARACTERISTICS - PART I

S2.Q1: Do pharmacy leaders engage in regular, direct communications with hospital administration and the board of directors about medication management systems performance (e.g. through the use of safety and quality measures and beyond routine Pharmacy and Therapeutics Committee reporting)? [B6a]

☐ Yes
☐ No

S2.Q2: Does resistance to change among pharmacy staff impede development of an optimal pharmacy practice model at your hospital? [B6b]

☐ Yes
☐ No

S2.Q3: Does a lack of pharmacy staff impede development of an optimal pharmacy practice model at your hospital? [B6c]

☐ Yes
☐ No

S2.Q4: Have you developed a strategic plan for implementing automation and technology designed to improve the safety and efficiency of medication use (procurement, prescribing, preparation, dispensing, administration, and monitoring)? [B6e]

☐ Yes
☐ No
S2.Q5: Do automated systems supporting safe medication use interface to maximize safety and minimize rework? [B6f]

- Fully integrated with all hospital information systems (inpatient and outpatient)
- Fully integrated with all hospital information systems (inpatient systems only)
- Partially integrated with some systems (pharmacy system with at least 2 other systems)
- Each department maintains own system with little integration
- Not applicable

S2.Q6: Are pharmacists recognized as leaders — by health care executives, medical staff, nursing staff, and others outside the pharmacy profession — in providing drug therapy management services to patients at your hospital? [B6g]

**Definition:** *Drug Therapy Management is a multidisciplinary team process for selecting appropriate drug therapies, educating patients, monitoring patients, and continually assessing outcomes of therapy. Pharmacist activities in drug therapy management may include, but are not limited to: initiating, modifying, and monitoring a patient’s drug therapy; ordering and performing laboratory and related tests; assessing patient response to therapy; counseling and educating a patient about medications; and administering medications.*

- Exists in all areas/situations (100%)
- Exists in most areas/situations (50–99%)
- Exists only in some areas/situations (1-49%)
- Does not exist (0%)
- Not applicable
**S2.Q7:** Do hospital leaders support (philosophically and with resources) pharmacy models that maximize use of technicians and technology? [B6h]

- Strong leadership support (both philosophically and with resources)
- Partial leadership support
- Limited leadership support
- No leadership support

**S2.Q8:** Do hospital leaders support (philosophically and with resources) pharmacy models that maximize use of pharmacist roles in patient care? [B6h]

- Strong leadership support (both philosophically and with resources)
- Partial leadership support
- Limited leadership support
- No leadership support

**S2.Q9:** Are all pharmacists providing drug therapy management board certified by the Board of Pharmacy Specialties (BPS)? [B10]

- All pharmacists providing drug therapy management are board certified by BPS (100%)
- Most pharmacists providing drug therapy management are board certified by BPS (50-99%)
- Some pharmacists providing drug therapy management are board certified by BPS (1-49%)
- No pharmacists providing drug therapy management are board certified by BPS (0%)
**S2.Q10:** Have pharmacists providing drug therapy management completed an ASHP-accredited residency or achieved equivalent experience? [B23p]

- All pharmacists are residency-trained or have achieved equivalent experience (100%)
- Most pharmacists are residency-trained or have achieved equivalent experience (50-99%)
- Some pharmacists are residency-trained or have achieved equivalent experience (1-49%)
- No pharmacists are residency-trained or have achieved equivalent experience (0%)

**S2.Q11:** Do pharmacists use available evidence-based medical/pharmaceutical literature in evaluating the appropriateness of drug therapy? [B23q]

- Yes
- No

**S2.Q12:** Has a mechanism been established to hold pharmacists accountable for patients' medication-related outcomes at your hospital? [B7]

*Definition:* Accountable is defined as the acknowledgment and assumption of responsibility for actions, products, decisions, and policies within the role or employment position. Accountability also includes an obligation to report, explain, and be answerable for resulting consequences. Pharmacists can be accountable for assuring safe preparation and dispensing of medications, patient outcomes related to medication use, management of departmental resources, and other aspects of care.

- Yes
- No
**S2.Q13:** Are pharmacists involved in identifying, developing, reviewing, or approving new medication order sets? [B18]

- Exists in all areas/situations (100%)
- Exists in most areas/situations (50–99%)
- Exists only in some areas/situations (1-49%)
- Does not exist (0%)
- Not applicable

**S2.Q14:** Are pharmacists involved in monitoring and reporting potential and actual adverse drug events (ADE) at your hospital? [B19]

- Yes
- No

**S2.Q15:** Do pharmacists facilitate medication-related continuity of care when patients experience transitions of care? [B20]

*Definition:* Continuity of Care provides for the safe and seamless transition of patients within the health care continuum, such as when patients are discharged from an acute care setting to an outpatient community environment, and includes the communication of their medication list and treatment plan.

- Exists in all areas/situations (100%)
- Exists in most areas/situations (50–99%)
- Exists only in some areas/situations (1-49%)
- Does not exist (0%)
- Not applicable
**S2.Q16:** Do pharmacists use patient-specific data to be leaders in disease prevention and wellness, such as assuring vaccination schedule adherence or smoking cessation? [B21]

- Yes
- No

**S2.Q17:** Has your pharmacy department evaluated ways to improve your organization’s effectiveness as an accountable care organization (ACO) and taken steps to provide such services? [B22]

*Definition:* Accountable Care Organizations are provider-based entities designed to take responsibility for meeting the health care needs of a defined population with the goal of simultaneously improving health, improving patient experience and reducing per capita costs.

- Yes
- No

**S2.Q18:** Has your pharmacy department evaluated ways to improve your organization’s effectiveness in establishing a medical home model and taken steps to provide such services? [B22]

- Yes
- No

**S2.Q19:** Do pharmacists take a leadership role in an antimicrobial stewardship program in your hospital? [B23]

- Yes
- No
S2.Q20: Does your hospital have processes to ensure medication-related continuity of care for discharged patients? [B23i]

**Definition:** *Continuity of Care* provides for the safe and seamless transition of patients within the health care continuum, such as when patients are discharged from an acute care setting to an outpatient community environment, and includes the communication of their medication list and treatment plan.

- ☐ Yes
- ☐ No

S2.Q21: Has the pharmacy department at your hospital identified drug therapy management as a service that should be provided consistently by its pharmacists? [B24a]

**Definition:** *Drug Therapy Management* is a multidisciplinary team process for selecting appropriate drug therapies, educating patients, monitoring patients, and continually assessing outcomes of therapy. Pharmacist activities in drug therapy management may include, but are not limited to: initiating, modifying, and monitoring a patient’s drug therapy; ordering and performing laboratory and related tests; assessing patient response to therapy; counseling and educating a patient about medications; and administering medications.

- ☐ Yes
- ☐ No

S2.Q22: Does the pharmacy department at your hospital develop, maintain, and update medication-use policies? [B24d]

- ☐ Yes
- ☐ No

S2.Q23: Does your hospital have an organizational program, with appropriate pharmacy involvement, to achieve significant annual, documented improvement in the safety of all steps in medication use? [B24e]

- ☐ Yes
- ☐ No
S2.Q24: Does the pharmacy department assess hospital performance on medication-related national quality indicators and participate in corrective actions where indicated? [B24f]

☐ Yes
☐ No

S2.Q25: Does the pharmacy department play a critical role in ensuring that your hospital adheres to medication-related evidence-based practice guidelines? [B24g]

☐ Yes
☐ No

S2.Q26: Does the pharmacy department track and trend adverse drug events at your hospital? [B24h]

☐ Yes
☐ No

S2.Q27: Does the pharmacy department at your hospital manage prospective medication-use evaluation programs to improve prescribing? [B24i]

☐ Yes
☐ No

S2.Q28: Does the pharmacy department at your hospital manage retrospective medication-use evaluation programs to improve prescribing? [B24j]

☐ Yes
☐ No
S2.Q29: Does the pharmacy department at your hospital routinely review hospital/health-system antibiotic resistance patterns? [B24I]

- Yes
- No

S2.Q30: Does the pharmacy department track and trend pharmacist interventions at your hospital? [B24m]

- Yes
- No
**OPTIMAL PHARMACY PRACTICE MODEL CHARACTERISTICS - PART II**

**S3.Q1:** Are pharmacists involved in development of a patient care plan? [B23a]

- Exists in all areas/situations (100%)
- Exists in most areas/situations (50–99%)
- Exists only in some areas/situations (1-49%)
- Does not exist (0%)
- Not applicable

**S3.Q2:** Do pharmacists review medication orders before initial dose is administered? [B23b]

- Exists in all areas/situations (100%)
- Exists in most areas/situations (50–99%)
- Exists only in some areas/situations (1-49%)
- Does not exist (0%)
- Not applicable

**S3.Q3:** Are all patients’ medication profiles reviewed for appropriateness at least daily by a pharmacist? [B23c]

- Exists in all areas/situations (100%)
- Exists in most areas/situations (50–99%)
- Exists only in some areas/situations (1-49%)
- Does not exist (0%)
- Not applicable
S3.Q4: Do pharmacists monitor patients' responses to medication therapy? [B23d]

- Exists in all areas/situations (100%)
- Exists in most areas/situations (50–99%)
- Exists only in some areas/situations (1-49%)
- Does not exist (0%)
- Not applicable

S3.Q5: Do pharmacists adjust dosing of medications based on patient response or pharmacokinetic characteristics? [B23e]

- Medication dosage adjustment is made for all patients
- Medication dosage adjustment is made for some patient-care units
- Medication dosage adjustment is made for patients on selective medications
- Medication dosage adjustment is available upon request
- Not applicable

S3.Q6: Based on the genetic characteristics of the patient, do pharmacists have a role in adjusting dosing or changing therapy of selective medications (e.g., genetic tests for variants in the CYP2C9 and VKORC1 genes for warfarin therapy)? [B23f]

- Yes
- No

S3.Q7: Is medication reconciliation performed by the pharmacy staff at your hospital? [B23k]

- Medication reconciliation is performed by pharmacy staff throughout all areas
- Medication reconciliation is performed by pharmacy staff in some areas
- Medication reconciliation partially performed by pharmacy staff in some or all areas
- Medication reconciliation not performed by pharmacy staff
- Not applicable
S3.Q8: Do pharmacists provide discharge education to patients at your hospital? [B23m]

- Discharge education is provided to all patients
- Discharge education is provided to some patient-care units
- Discharge education is provided to high-risk patients
- Discharge education is available upon request
- Not applicable

S3.Q9: Do pharmacists participate on your hospital's rapid response teams? [B23n]

- Yes
- No
- Not applicable

S3.Q10: Do pharmacists participate on your hospital's cardiopulmonary resuscitation teams? [B23o]

- Yes
- No
- Not applicable

S3.Q11: Does the pharmacy department at your hospital identify problem-prone (e.g., high-alert) and high-risk drug therapies using pre-established criteria? [B24k]

- Yes
- No
S3.Q12: Are drug therapy management services prioritized for inpatients based on patient medication complexity? [B8]

- Exists in all areas/situations (100%)
- Exists in most areas/situations (50–99%)
- Exists only in some areas/situations (1-49%)
- Does not exist (0%)
- Not applicable


- Exists in all areas/situations (100%)
- Exists in most areas/situations (50–99%)
- Exists only in some areas/situations (1-49%)
- Does not exist (0%)
- Not applicable

S3.Q14: Are inpatient pharmacists authorized by policy or protocol to write medication orders as part of the pharmacists’ scope of practice? [B13]

- Exists in all areas/situations (100%)
- Exists in most areas/situations (50–99%)
- Exists only in some areas/situations (1-49%)
- Does not exist (0%)
- Not applicable
**Hospital Self-Assessment Worksheet**

**S3.Q15:** Are outpatient pharmacists authorized by policy or protocol to write medication orders and/or prescriptions as part of the pharmacists' scope of practice? [B13]

- Exists in all areas/situations (100%)
- Exists in most areas/situations (50–99%)
- Exists only in some areas/situations (1-49%)
- Does not exist (0%)
- Not applicable

**S3.Q16:** Does your hospital's credentialing and privileging process include pharmacist prescribing and define their scope of practice? [B14]

*Definition: Credentialing is defined as the process used by health care organizations to obtain, verify, and assess an individual's qualifications to provide patient care services.*

*Privileging is defined as the process by which a health care organization, having reviewed an individual health care provider's credentials and found them satisfactory, authorizes that person to perform a specific scope of patient care services within that organization.*

- Yes
- No

**S3.Q17:** Are pharmacists in your hospital allowed to document recommendations and make follow-up notes in patients' permanent medical records? [B15]

- Yes
- No
S3.Q18: Do pharmacists routinely document recommendations and assess progress and achievement of therapeutic goals in patients' medical records? [B16]

- Exists in all areas/situations (100%)
- Exists in most areas/situations (50–99%)
- Exists only in some areas/situations (1-49%)
- Does not exist (0%)
- Not applicable

S3.Q19: Has your pharmacy department performed a proactive and ongoing risk assessment of medication-use systems within the last 12-months? [B17]

- Yes
- No

S3.Q20: Do pharmacists have independent authority in your hospital to order serum concentrations and other clinically important laboratory analyses? [B23h]

- Yes
- No

S3.Q21: Has the pharmacy department at your hospital developed a plan to reallocate its resources to devote significantly more pharmacist time to drug therapy management services? [B24b]

Definition: Drug Therapy Management is a multidisciplinary team process for selecting appropriate drug therapies, educating patients, monitoring patients, and continually assessing outcomes of therapy. Pharmacist activities in drug therapy management may include, but are not limited to: initiating, modifying, and monitoring a patient’s drug therapy; ordering and performing laboratory and related tests; assessing patient response to therapy; counseling and educating a patient about medications; and administering medications.

- Yes
- No
S3.Q22: If you take pharmacy students on rotation, has a plan been developed to allocate pharmacy student time to drug therapy management services? [B24c]

- Yes
- No
- Not applicable

S3.Q23: If you employ pharmacy student interns, are their duties different from traditional pharmacy technician duties? [B24c]

- Yes
- No
- Not applicable

S3.Q24: Do pharmacists have oversight and responsibility for medication distribution in all areas of your hospital that handle medications? [B25a]

- Exists in all areas/situations (100%)
- Exists in most areas/situations (50–99%)
- Exists only in some areas/situations (1–49%)
- Does not exist (0%)
- Not applicable

S3.Q25: Does the role of pharmacists in frontline practice extend beyond drug distribution and reactive order processing at your hospital? [B25b]

- Exists in all areas/situations (100%)
- Exists in most areas/situations (50–99%)
- Exists only in some areas/situations (1–49%)
- Does not exist (0%)
- Not applicable
**S3.Q26:** Do individual pharmacists who are engaged specifically in drug therapy management have an understanding of and shared responsibility for the medication-use and delivery systems at your hospital? [B25c]

- Yes
- No

**S3.Q27:** Do individual pharmacists at your hospital accept responsibility for both the clinical and the distributive activities of the pharmacy department? [B25d]

- Yes
- No
**ADVANCING THE APPLICATION OF INFORMATION TECHNOLOGY IN THE MEDICATION-USE PROCESS**

**S4.Q1:** Has an electronic health records system been implemented at your hospital? [C2a]

**Definition:** Electronic Health Record (EHR) is defined as a real-time patient health record with access to evidence-based decision support tools that can be used to aid clinicians in decision making. The EHR can automate and streamline a clinician's workflow, ensuring that all clinical information is communicated. It can also prevent delays in response that result in gaps in care. The EHR can also support the collection of data for uses other than clinical care, such as billing, quality management, outcome reporting, and public health disease surveillance and reporting.

- Exists in all areas/situations (100%)
- Exists in most areas/situations (50–99%)
- Exists only in some areas/situations (1–49%)
- Does not exist (0%)
- Not applicable

**S4.Q2:** Has an inpatient computerized provider order entry system been implemented at your hospital? [C2b]

- Exists in all areas/situations (100%)
- Exists in most areas/situations (50–99%)
- Exists only in some areas/situations (1–49%)
- Does not exist (0%)
- Not applicable
S4.Q3: Has an outpatient computerized provider order entry system been implemented at your hospital? [C2c]

- Exists in all areas/situations (100%)
- Exists in most areas/situations (50–99%)
- Exists only in some areas/situations (1-49%)
- Does not exist (0%)
- Not applicable

S4.Q4: Have clinical decision support systems been integrated with computerized provider order entry systems at your hospital? [C2d]

**Definition:** Clinical Decision Support Systems (CDSS) support processes for the enhancement health-related decisions and actions with pertinent, organized clinical knowledge and patient information to improve health and healthcare delivery. Information recipients can include patients, clinicians and others involved in patient care delivery; information delivered can include general clinical knowledge and guidance, intelligently processed patient data, or a mixture of both; and information delivery formats can be drawn from a rich palette of options that includes data and order entry facilitators, filtered data displays, reference information, alerts, and others. (Improving outcomes with clinical decision support: an implementer’s guide. Second Edition. HIMSS. 2011)

- Exists in all areas/situations (100%)
- Exists in most areas/situations (50–99%)
- Exists only in some areas/situations (1-49%)
- Does not exist (0%)
- Not applicable
S4.Q5: Do real-time monitoring systems provide a work queue of patients needing review and possible intervention at your hospital? [C2f]

Definition: a Real-time, continuous monitoring system detects the need for interventions based on documentation in the clinical record, qualifies its evaluation based on those data, prioritizes the indicated interventions based on acuity of illness, and schedules the appropriate actions. These actions are prompted only for users who have the appropriate authority or skill. The system queues interventions by priority, supports documentation of patient management efforts (e.g., consultations, order changes) and scheduling of follow-up activity, and formulates treatment alternatives based on patient needs.

- Exists in all areas/situations (100%)
- Exists in most areas/situations (50–99%)
- Exists only in some areas/situations (1–49%)
- Does not exist (0%)

S4.Q6: Do the electronic health record and pharmacy information systems support drug therapy management services at your hospital? [C2g]

- Exists in all areas/situations (100%)
- Exists in most areas/situations (50–99%)
- Exists only in some areas/situations (1–49%)
- Does not exist (0%)
- Not applicable
S4.Q7: Does a work queue provide documentation and management tools for drug therapy management services at your hospital? [C2h]

**Definition:** a Real-time, continuous monitoring system detects the need for interventions based on documentation in the clinical record, qualifies its evaluation based on those data, prioritizes the indicated interventions based on acuity of illness, and schedules the appropriate actions. These actions are prompted only for users who have the appropriate authority or skill. The system queues interventions by priority, supports documentation of patient management efforts (e.g., consultations, order changes) and scheduling of follow-up activity, and formulates treatment alternatives based on patient needs.

- Exists in all areas/situations (100%)
- Exists in most areas/situations (50–99%)
- Exists only in some areas/situations (1-49%)
- Does not exist (0%)
- Not applicable

S4.Q8: Do automated systems at your hospital notify pharmacists when medication serum concentrations or other clinically important laboratory values fall outside of a therapeutic or normal range? [C2i]

- Exists in all areas/situations (100%)
- Exists in most areas/situations (50–99%)
- Exists only in some areas/situations (1-49%)
- Does not exist (0%)
- Not applicable

S4.Q9: Is barcode technology used during the inventory process at your hospital? [C2j]

- Exists in all areas/situations (100%)
- Exists in most areas/situations (50–99%)
- Exists only in some areas/situations (1-49%)
- Does not exist (0%)
- Not applicable
**S4.Q10:** Is barcode technology used during the **preparation and compounding** process at your hospital? [C2j]

- Exists in all areas/situations (100%)
- Exists in most areas/situations (50–99%)
- Exists only in some areas/situations (1–49%)
- Does not exist (0%)
- Not applicable

**S4.Q11:** Is barcode technology used during the **dispensing** process at your hospital (with or without robotics)? [C2j]

- Exists in all areas/situations (100%)
- Exists in most areas/situations (50–99%)
- Exists only in some areas/situations (1–49%)
- Does not exist (0%)
- Not applicable

**S4.Q12:** Are automated dispensing or robotics used at your hospital for the routine dispensing of maintenance doses? [C2k]

- Yes
- No
S4.Q13: Is barcode point-of-care technology used during medication administration at your hospital? [C21]

- Exists in all areas/situations (100%)
- Exists in most areas/situations (50–99%)
- Exists only in some areas/situations (1–49%)
- Does not exist (0%)
- Not applicable

S4.Q14: Are smart infusion pumps integrated into a closed-loop medication-use process at your hospital (i.e., where CPOE/pharmacy information system is integrated with pumps, and administration is documented on eMAR)? [C2m]

- Exists in all areas/situations (100%)
- Exists in most areas/situations (50–99%)
- Exists only in some areas/situations (1–49%)
- Does not exist (0%)
- Not applicable

S4.Q15: Is information on pharmacist interventions automatically captured through the information system at your hospital? [C2n]

- Exists in all areas/situations (100%)
- Exists in most areas/situations (50–99%)
- Exists only in some areas/situations (1–49%)
- Does not exist (0%)
- Not applicable
S4.Q16: Have information systems been developed at your hospital to efficiently capture and report pharmacy metrics, outcomes data, and pharmacists' value? [C2o]

- Exists in all areas/situations (100%)
- Exists in most areas/situations (50–99%)
- Exists only in some areas/situations (1-49%)
- Does not exist (0%)
- Not applicable

S4.Q17: Are sufficient pharmacy resources available at your hospital to safely develop, implement, and maintain technology-related medication use safety standards? [C4]

- Yes
- No

S4.Q18: Is telepharmacy technology to enable remote supervision used by the pharmacy department at your hospital when appropriate pharmacy staff is not available onsite? [C5]

- Yes
- No
- Not applicable, pharmacy open 24/7

S4.Q19: Is remote medication order review and approval used at your hospital when appropriate pharmacy staff is not available? [C5]

- Yes
- No
- Not applicable
**Hospital Self-Assessment Worksheet**

**S4.Q20:** Is telepharmacy technology that allows pharmacists to interact with patients from a remote location available for use in the pharmacy department at your hospital? [C6]

- Yes
- No
- Not applicable, no remote locations/patients

**S4.Q21:** Are electronic health records designed to align with pharmacists’ care documentation and demonstrate improvement of outcomes and quality of care? [C7]

- Yes
- No
- Not applicable

**S4.Q22:** Are human factors engineering principles employed to design and optimize the safety, efficiency, and effectiveness of technology at your hospital? [C8]

*Definition: Human Factors Engineering (HFE) is defined as an interdisciplinary approach to evaluating and improving the safety, efficiency, and robustness of work systems, such as health care delivery. HFE focuses on the intersection of people, technology, policy, and work across multiple domains.*

- Yes
- No

**S4.Q23:** Is technology in medication-use systems designed to demonstrate its impact on patient outcomes (e.g., process, safety, and quality outcomes) at your hospital? [C9]

- Yes
- No

**S4.Q24:** Is technology in medication-use systems designed to support pharmacy processes to improve patient outcomes (e.g., process, safety, and quality outcomes) at your hospital? [C10]

- Yes
- No
ADVANCING THE USE OF PHARMACY TECHNICIANS

S5.Q1: Are medication preparation and distribution tasks assigned to pharmacy technicians, to the extent possible, to allow redeployment of pharmacists’ time to drug therapy management activities at your hospital? [D2]

- Tasks fully assigned throughout all areas
- Tasks fully assigned for some areas
- Tasks partially assigned in some or all areas
- Tasks not assigned
- Not applicable

S5.Q2: Is initiation of medication reconciliation, including obtaining and documenting patient medication information for pharmacist review, assigned to pharmacy technicians who have appropriate education and training at your hospital? [D3a]

Definition: Medication Reconciliation is defined as the process of comparing a patient’s medication orders to all of the medications that the patient has been taking. This reconciliation is done to avoid medication errors such as omissions, duplications, dosing errors, or drug interactions. It should be done at every transition of care in which new medications are ordered or existing orders are rewritten. Transitions in care include changes in setting, service, practitioner, or level of care.

Definition: Appropriate Training of pharmacy technicians includes: completion of an ASHP Accredited Training Program, PTCB Certification, and training on additional competencies specific to the advanced or non-traditional role with which the technician may be tasked.

- Tasks fully assigned throughout all areas
- Tasks fully assigned for some areas
- Tasks partially assigned in some or all areas
- Tasks not assigned
- Not permitted by law
S5.Q3: Is review of patient charts to identify medication allergies that require pharmacist follow up assigned to pharmacy technicians who have appropriate education and training at your hospital (e.g., identify allergies not documented in the pharmacy information system)? [D3b]

☐ Exists in all areas/situations (100%)
☐ Exists in most areas/situations (50–99%)
☐ Exists only in some areas/situations (1-49%)
☐ Does not exist (0%)

S5.Q4: If permitted by law, is the accuracy of medication dispensing by pharmacy technicians checked by other technicians (i.e., "tech-check-tech") who have appropriate education and training at your hospital? [D3c]

☐ Exists in all areas/situations (100%)
☐ Exists in most areas/situations (50–99%)
☐ Exists only in some areas/situations (1-49%)
☐ Does not exist (0%)
☐ Not permitted by law

S5.Q5: Is the compounding of routine sterile preparations in conformance with well-documented procedures performed by pharmacy technicians who have appropriate education and training at your hospital? [D3d]

☐ Exists in all areas/situations (100%)
☐ Exists in most areas/situations (50–99%)
☐ Exists only in some areas/situations (1-49%)
☐ Does not exist (0%)
☐ Not applicable
**S5.Q6:** Is the compilation of clinical monitoring information (e.g., International Normalized Ratios) for pharmacist review assigned to pharmacy technicians who have appropriate education and training at your hospital? [D3h]

- Tasks fully assigned throughout all areas
- Tasks fully assigned for some areas
- Tasks partially assigned in some or all areas
- Tasks not assigned
- Tasks performed by hospital information system

**S5.Q7:** Is the inspection and replenishment of medication storage devices assigned to pharmacy technicians who have appropriate education and training at your hospital? [D3i]

- Yes
- No

**S5.Q8:** Is the management of controlled substance systems assigned to pharmacy technicians who have appropriate education and training at your hospital? [D3j]

- Yes
- No

**S5.Q9:** Is the management of medication assistance programs assigned to pharmacy technicians who have appropriate education and training at your hospital? [D3k]

- Yes
- No
- Not applicable
S5.Q10: Are components of quality improvement programs conducted by pharmacy technicians who have appropriate education and training at your hospital? [D3I]

- Exists in all areas/situations (100%)
- Exists in most areas/situations (50–99%)
- Exists only in some areas/situations (1-49%)
- Does not exist (0%)
- Not applicable

S5.Q11: Is the management of pharmacy department information technology systems, including routine database management and billing systems, assigned to pharmacy technicians who have appropriate education and training at your hospital? [D3m]

- Exists in all areas/situations (100%)
- Exists in most areas/situations (50–99%)
- Exists only in some areas/situations (1-49%)
- Does not exist (0%)
- Not applicable

S5.Q12: Is the supervision of other pharmacy technicians assigned to technicians who have appropriate education and training at your hospital? [D3n]

- Exists in all areas/situations (100%)
- Exists in most areas/situations (50–99%)
- Exists only in some areas/situations (1-49%)
- Does not exist (0%)
- Not applicable
S5.Q13: Are pharmacy technicians at your hospital certified by the Pharmacy Technician Certification Board (PTCB)? [D6]

☐ All pharmacy technicians are PTCB-certified (100%)
☐ Most pharmacy technicians are PTCB-certified (50%-99%)
☐ Some pharmacy technicians are PTCB-certified (1%-49%)
☐ No pharmacy technicians are PTCB-certified (0%)

S5.Q14: Are all distributive functions that do not require a pharmacist's clinical judgment assigned to pharmacy technicians at your hospital? [D9]

☐ Yes
☐ No

S5.Q15: Are opportunities for advanced, specialized pharmacy technician roles available at your hospital (examples of advanced pharmacy technician roles include: dispensing medications with remote video supervision, managing medication assistance programs, initiation of medication reconciliation [obtaining list], order entry for pharmacist's verification, and technician supervising other technicians)? [D10]

☐ Yes
☐ No
SUCCESSFUL IMPLEMENTATION OF NEW PHARMACY PRACTICE MODELS

S6.Q1: Have efforts been undertaken to advance drug therapy management services by pharmacists at your hospital in the last 3 years? [E3]

☐ Yes
☐ No

S6.Q2: Are pharmacists assigned/deployed to patient-care units at your hospital? [E4d]

☐ Exists in all areas/situations (100%)
☐ Exists in most areas/situations (50–99%)
☐ Exists only in some areas/situations (1–49%)
☐ Does not exist (0%)
☐ Not applicable

S6.Q3: Have pharmacy technician responsibilities been expanded to the extent possible based on education and training at your hospital? [E4e]

☐ Yes
☐ No

S6.Q4: Do pharmacists have electronic access to complete patient-specific data at your hospital? [E4f]

☐ Exists in all areas/situations (100%)
☐ Exists in most areas/situations (50–99%)
☐ Exists only in some areas/situations (1–49%)
☐ Does not exist (0%)
☐ Not applicable
**S6.Q5:** If permitted by law, have collaborative practice agreements between pharmacists and other health care providers been implemented at your hospital? [E4k]

- Yes
- No
- Not applicable

**S6.Q6:** When on rotations at your hospital, are pharmacy students trained on the roles of safety and quality in the medication-use process? [E4m]

- Yes
- No
- Not applicable

**S6.Q7:** When on rotations at your hospital, are pharmacy students trained on transitions of care in the medication-use process? [E4n]

- Yes
- No
- Not applicable

**S6.Q8:** Are the pharmacists at your hospital residency-trained? [E4o]

- All pharmacists are residency-trained (100%)
- Most pharmacists are residency-trained (50-99%)
- Some pharmacists are residency-trained (1-49%)
- No pharmacists are residency-trained (0%)
**S6.Q9:** Are you offering residency training at your hospital? [E4o]

- Yes
- No
- Not applicable

**S6.Q10:** Have you expanded your capacity for residency training where possible? [E4o]

- Yes
- No
- Not applicable