

Survey of Pharmacy Services in the ICU

PART 1: GENERAL HOSPITAL CHARACTERISTICS

Please complete questions #1-12 for your institution. These questions may be completed by any critical care pharmacist or the clinical coordinator responsible for critical care pharmacy services. Questions and answers pertain to the institution and not the ICU or pharmacist.

1. Which of the following best describes the geographic location of the hospital in which you work (choose one)?
 - New England: Connecticut, Maine, Massachusetts, New Hampshire, Rhode Island, Vermont
 - Mid-Atlantic: New Jersey, New York, Pennsylvania
 - Midwest (East North Central): Illinois, Indiana, Michigan, Ohio, Wisconsin
 - Midwest (West North Central): Iowa, Kansas, Minnesota, Missouri, Nebraska, North Dakota, South Dakota
 - South Atlantic: Delaware, District of Columbia, Florida, Georgia, Maryland, North Carolina, South Carolina, Virginia, West Virginia
 - Southeast: Alabama, Kentucky, Mississippi, Tennessee
 - South Central: Arkansas, Louisiana, Oklahoma, Texas
 - Mountain West: Arizona, Colorado, Idaho, Montana, Nevada, New Mexico, Utah, Wyoming
 - Pacific: Alaska, California, Hawaii, Oregon, Washington
 - Outside of the United States: American Samoa, Guam, Northern Mariana Islands, Trust Territory of the Pacific Islands

2. Which of the following best describes the type of hospital in which you work (choose one)?

Choose one: <ul style="list-style-type: none"><input type="checkbox"/> For-profit non-government<input type="checkbox"/> Not-for-profit non-government<input type="checkbox"/> Non-federal government<input type="checkbox"/> Federal government	Choose one: <ul style="list-style-type: none"><input type="checkbox"/> University<input type="checkbox"/> Community, teaching<input type="checkbox"/> Community, nonteaching
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3. What is the approximate mean daily inpatient census of this hospital (all inpatient services)? _____ occupied beds/day

4. What is the total number of beds devoted to critical care (do not include emergency room or operating room beds) at this hospital? _____beds

5. What is the total number of pharmacist Full Time Equivalents (FTEs) at your institution? _____ FTEs

6. What is the total number of pharmacist Full Time Equivalents (FTEs) devoted to all ICUs at your institution? _____ FTEs

Pharmacy and Hospital Services

7. For the following statements, please indicate whether the medication use system / health record that is available to the ICU pharmacist(s) has the following capabilities?

	YES	NO
Creates and maintains medication profiles	<input type="checkbox"/>	<input type="checkbox"/>
Interfaces with laboratory data	<input type="checkbox"/>	<input type="checkbox"/>
Directly transfers bedside patient data into the health record (e.g. vitals)	<input type="checkbox"/>	<input type="checkbox"/>
Interfaces with outpatient medication profiles	<input type="checkbox"/>	<input type="checkbox"/>
Interfaces with medication profiles from other health-systems	<input type="checkbox"/>	<input type="checkbox"/>
Interfaces with mobile devices	<input type="checkbox"/>	<input type="checkbox"/>
Interfaces with bedside barcode scanning	<input type="checkbox"/>	<input type="checkbox"/>
Directly transfers information from the “intelligent/smart” intravenous infusion devices into the health record	<input type="checkbox"/>	<input type="checkbox"/>
Manually transfers information from the “intelligent/smart” intravenous infusion devices into the health record	<input type="checkbox"/>	<input type="checkbox"/>
Alerts users to patient diagnoses	<input type="checkbox"/>	<input type="checkbox"/>
Alerts users to drug allergies	<input type="checkbox"/>	<input type="checkbox"/>
Alerts users to maximum dosage limits	<input type="checkbox"/>	<input type="checkbox"/>
Alerts users to drug-drug interactions	<input type="checkbox"/>	<input type="checkbox"/>
Alerts users to drug-food/nutrient interactions	<input type="checkbox"/>	<input type="checkbox"/>
Alerts users to disease state-drug interactions	<input type="checkbox"/>	<input type="checkbox"/>
Alerts users to approved substitutions for non-formulary agents	<input type="checkbox"/>	<input type="checkbox"/>
Alerts users to pertinent medication shortages	<input type="checkbox"/>	<input type="checkbox"/>
Alerts user to the cost of medications	<input type="checkbox"/>	<input type="checkbox"/>
Provides direct prescriber order entry	<input type="checkbox"/>	<input type="checkbox"/>
Provides a platform to communicate with other clinicians	<input type="checkbox"/>	<input type="checkbox"/>

8. For the following statements, please indicate whether the pharmacist(s) caring for ICU patients has available an information management system that does the following?

	YES	NO
Provides hospital policies and procedures related to medications	<input type="checkbox"/>	<input type="checkbox"/>
Provides hospital patient care algorithms	<input type="checkbox"/>	<input type="checkbox"/>
Provides intravenous admixture information	<input type="checkbox"/>	<input type="checkbox"/>
Provides access to information about medications	<input type="checkbox"/>	<input type="checkbox"/>
Provides hospital goals for benchmarking or quality data	<input type="checkbox"/>	<input type="checkbox"/>
Provides a platform to document recommendations or interventions	<input type="checkbox"/>	<input type="checkbox"/>

9. Is the pharmacist caring for ICU patients involved in optimizing medications in automated dispensing cabinets (e.g. availability, quantity, access, etc.)?

- Yes No

10. What type of activities are routinely documented and reported by the pharmacist to the department of pharmacy or ICU (please check all that apply)? Also specify if the activity is documented in the medication use system / health record.

	Reported to the pharmacy department or ICU?		Documented in health record?	
	YES	NO		
Services that change patient-specific drug therapy	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Services that monitor patient-specific drug therapy	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Services that provide cost savings	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Stewardship services	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Services that provide drug information	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Services related to research	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Emergency response services (e.g. code)	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Patient / family counselling	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Medication reconciliation	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Educational services	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

11. Does the institution or pharmacy department regularly provide funding for any of the following (please check all that apply)?

	YES	NO
Memberships to professional organizations (e.g. SCCM, ACCP, ASHP, state pharmacy organization)	<input type="checkbox"/>	<input type="checkbox"/>
Workshops in specific area (e.g. leadership, grant writing, information technology, etc.)	<input type="checkbox"/>	<input type="checkbox"/>
Attendance at local meetings	<input type="checkbox"/>	<input type="checkbox"/>
Attendance at national meetings	<input type="checkbox"/>	<input type="checkbox"/>
Travel to national meetings	<input type="checkbox"/>	<input type="checkbox"/>
Board certification, initial exam	<input type="checkbox"/>	<input type="checkbox"/>
Board certification, maintenance	<input type="checkbox"/>	<input type="checkbox"/>
Other continuing education (e.g. webinars, etc.)	<input type="checkbox"/>	<input type="checkbox"/>
BLS / ACLS (or similar)	<input type="checkbox"/>	<input type="checkbox"/>
Tuition	<input type="checkbox"/>	<input type="checkbox"/>
Licensure	<input type="checkbox"/>	<input type="checkbox"/>
Projects / research through a competitive process	<input type="checkbox"/>	<input type="checkbox"/>
Projects / research through a non-competitive process	<input type="checkbox"/>	<input type="checkbox"/>

12. Please indicate what type of ICUs are available at your institution (please check all that apply) and then complete the descriptions for each ICU. Please use the following definitions to complete the descriptions.

- Physician Model:
 - *Open* ICU means that a private attending with hospital admitting privileges may be physician of record for ICU patients;
 - *Closed* ICU means that only an intensivist may be physician of record for ICU patients (consult services are available but the intensivist is the primary physician of record);
 - *Transitional* ICU means that a private attending and an intensivist provide co-managed care of ICU patients.
- Clinical Services (please answer based on what is the **most common mode** of providing services with the understanding that this may change based on day of week or time of day):
 - *Direct* clinical services mean that at least a partial pharmacist full time equivalent (FTE) is specifically devoted to the ICU such that the care of patients in the ICU is the primary responsibility of the pharmacist (e.g. decentralized staffing, pharmacist present for bedside patient care, or pharmacist available via telepharmacy, etc.);

- *Indirect* clinical services mean that a pharmacist, or partial FTE, is *not* specifically devoted to the ICU but services may be provided in another manner (e.g. centralized staffing services, pharmacy consult as requested, the pharmacist is primarily responsible for caring for non-ICU patients but “covers” the ICU, or pharmacy program for specific indications such as pharmacokinetic monitoring, nutrition support, etc.);
- *Hybrid* clinical services mean that both direct and indirect pharmacy services are routinely available with specific activities delineated during pharmacy coverage hours.

Type of ICU (check all that apply)	Mean Daily Census (occupied beds / day)	Physician Model	Most Common Type of Clinical Pharmacy Services	Approximate Mean Patient to Pharmacist Ratio During Primary Coverage Hours
<input type="checkbox"/> Burn		<input type="checkbox"/> Open <input type="checkbox"/> Closed <input type="checkbox"/> Transitional	<input type="checkbox"/> Indirect <input type="checkbox"/> Direct <input type="checkbox"/> Hybrid	
<input type="checkbox"/> Cardiovascular		<input type="checkbox"/> Open <input type="checkbox"/> Closed <input type="checkbox"/> Transitional	<input type="checkbox"/> Indirect <input type="checkbox"/> Direct <input type="checkbox"/> Hybrid	
<input type="checkbox"/> Cardiothoracic		<input type="checkbox"/> Open <input type="checkbox"/> Closed <input type="checkbox"/> Transitional	<input type="checkbox"/> Indirect <input type="checkbox"/> Direct <input type="checkbox"/> Hybrid	
<input type="checkbox"/> General mixed (e.g. medical / surgical)		<input type="checkbox"/> Open <input type="checkbox"/> Closed <input type="checkbox"/> Transitional	<input type="checkbox"/> Indirect <input type="checkbox"/> Direct <input type="checkbox"/> Hybrid	
<input type="checkbox"/> Medical		<input type="checkbox"/> Open <input type="checkbox"/> Closed <input type="checkbox"/> Transitional	<input type="checkbox"/> Indirect <input type="checkbox"/> Direct <input type="checkbox"/> Hybrid	
<input type="checkbox"/> Neonatal		<input type="checkbox"/> Open <input type="checkbox"/> Closed <input type="checkbox"/> Transitional	<input type="checkbox"/> Indirect <input type="checkbox"/> Direct <input type="checkbox"/> Hybrid	
<input type="checkbox"/> Neurological		<input type="checkbox"/> Open <input type="checkbox"/> Closed <input type="checkbox"/> Transitional	<input type="checkbox"/> Indirect <input type="checkbox"/> Direct <input type="checkbox"/> Hybrid	
<input type="checkbox"/> Neurosurgical		<input type="checkbox"/> Open <input type="checkbox"/> Closed	<input type="checkbox"/> Indirect <input type="checkbox"/> Direct	

- | | | |
|---|---------------------------------------|-----------------------------------|
| <input type="checkbox"/> Pediatric | <input type="checkbox"/> Transitional | <input type="checkbox"/> Hybrid |
| | <input type="checkbox"/> Open | <input type="checkbox"/> Indirect |
| | <input type="checkbox"/> Closed | <input type="checkbox"/> Direct |
| <input type="checkbox"/> Surgical | <input type="checkbox"/> Transitional | <input type="checkbox"/> Hybrid |
| | <input type="checkbox"/> Open | <input type="checkbox"/> Indirect |
| | <input type="checkbox"/> Closed | <input type="checkbox"/> Direct |
| <input type="checkbox"/> Transplant / Bone Marrow
transplant / Immunosuppressed
ICU | <input type="checkbox"/> Transitional | <input type="checkbox"/> Hybrid |
| | <input type="checkbox"/> Open | <input type="checkbox"/> Indirect |
| | <input type="checkbox"/> Closed | <input type="checkbox"/> Direct |
| <input type="checkbox"/> Trauma | <input type="checkbox"/> Transitional | <input type="checkbox"/> Hybrid |
| | <input type="checkbox"/> Open | <input type="checkbox"/> Indirect |
| | <input type="checkbox"/> Closed | <input type="checkbox"/> Direct |
| <input type="checkbox"/> Other: _____ | <input type="checkbox"/> Transitional | <input type="checkbox"/> Hybrid |
| | <input type="checkbox"/> Open | <input type="checkbox"/> Indirect |
| | <input type="checkbox"/> Closed | <input type="checkbox"/> Direct |
| | <input type="checkbox"/> Transitional | <input type="checkbox"/> Hybrid |

PART 2: SPECIFIC INFORMATION ABOUT EACH ICU

Please complete questions #13-20 for each of the ICUs you checked in question #12. These questions may be completed by the pharmacist primarily responsible for providing pharmacy services to each of the ICUs checked in question #1 but questions and answers pertain to the ICU and not the institution or pharmacist.

Clinical Activities

13. For the following statements, please indicate the % of time the pharmacist providing the primary coverage is **actually** involved in the specific clinical responsibility for this ICU (% does not need to add to 100% as many activities may be accomplished simultaneously). Please also indicate whether the specific clinical responsibility for this ICU is maintained over 24 hours, on the weekend, and if the activity is available by tele-medicine.

Responsibility	% of pharmacist time devoted to each activity during a typical week (0 to 100%)	Is the activity available 24 hours?		Are weekend activities available?		Is the activity available by off-site telemedicine?	
		YES	NO	YES	NO	YES	NO
Review drug histories to determine which maintenance		<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

drugs should be continued during
the acute illness

Identify or prevent inappropriate drug therapy / drug-related adverse effects	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Prospectively evaluate drug therapy (e.g. appropriate indication, dosage, interactions, allergies)	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Monitor the therapeutic regimen for efficacy or adverse events	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Provide therapeutic drug management to patient or physician	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Attend multidisciplinary rounds	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Provide medication reconciliation at time of ICU admission	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Provide pharmacokinetic monitoring	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Perform independent patient assessments (e.g. nutrition, pain, anxiety, delirium, cardiac, etc.)	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Provide formal clinical consults regarding pharmacotherapy with documentation in the medical record	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Assist providers in discussions with patients and/or family members to help make informed decisions regarding treatment options	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Educate care team members regarding medication therapies	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Educate patients or family members regarding medication therapies	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Reviews nutrition therapy plans	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Document clinical activities, recommendations or care plans in	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

the medical record (chart)

Provide stewardship activities (e.g. antimicrobials, anticoagulants, factor products, sedation, etc.)	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Respond to time dependent emergencies (e.g. codes, resuscitation, trauma, stroke, etc.)	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Collaborate with other pharmacists (e.g. infectious diseases, oncology, transplant) to address patient and disease specific therapeutic issues	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Provide comprehensive drug information	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Involvement in ICU research	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

14. How many days does an ICU pharmacist(s) attend patient care rounds in a week (0 to 7 range)? _____

15. Which of the following pharmacist provider models best describes this ICU (please choose one)?

- Independent prescriptive authority that is recognized by the institution or physician group for all medications
- Independent prescriptive authority that is recognized by the institution or physician group for only certain medications or classes of medications
- Dependent (e.g. collaborative practice agreement, per protocol) prescriptive authority for all medications
- Dependent (e.g. collaborative practice agreement, per protocol) prescriptive authority for only medications certain medications or classes of medications

Educational Activities

16. For the following statements, please indicate whether the pharmacist(s) is involved with the specific teaching responsibility (please check all that apply):

Responsibility	YES	NO
Provide informal drug therapy education to the ICU team (e.g. inservices)	<input type="checkbox"/>	<input type="checkbox"/>
Provide educational services to pharmacists or other ICU health care professionals	<input type="checkbox"/>	<input type="checkbox"/>
Provide didactic education to health care professionals, students, residents,	<input type="checkbox"/>	<input type="checkbox"/>

and fellows in critical care pharmacotherapy

Provide experiential critical care training to pharmacy students, residents, and fellows	<input type="checkbox"/>	<input type="checkbox"/>
Apply predefined outcomes to assess competencies of trainees	<input type="checkbox"/>	<input type="checkbox"/>
Provide accredited continuing educational sessions (e.g. grand rounds, presentations at conferences)	<input type="checkbox"/>	<input type="checkbox"/>
Serve as a project advisor to students, residents, or fellows in critical care related topics	<input type="checkbox"/>	<input type="checkbox"/>
Provide certification classes for advanced cardiac life support (or similar)	<input type="checkbox"/>	<input type="checkbox"/>
Participate in interdisciplinary simulation activities	<input type="checkbox"/>	<input type="checkbox"/>
Implement training programs for personnel working in the ICU	<input type="checkbox"/>	<input type="checkbox"/>
Educate medical and community groups about the role of pharmacists as part of the multidisciplinary health care team in the ICU	<input type="checkbox"/>	<input type="checkbox"/>

17. How often does the pharmacist(s) provide informal or formal drug therapy education to ICU health care team members? _____ times/month

Administrative Activities

18. Which of the following best describes the level of involvement that the pharmacist(s) has with systems or processes designed to improve the care or delivery of care to ICU patients (e.g. guidelines, protocols, policies, or procedures pertinent to pharmacotherapy) (please check all that apply)?

Responsibility	YES	NO
Identify areas of need for an intervention	<input type="checkbox"/>	<input type="checkbox"/>
Act as a liaison between pharmacy and other healthcare professionals to communicate, publicize, or receive feedback about the intervention	<input type="checkbox"/>	<input type="checkbox"/>
Design the intervention	<input type="checkbox"/>	<input type="checkbox"/>
Coordinate the intervention	<input type="checkbox"/>	<input type="checkbox"/>
Implement the intervention	<input type="checkbox"/>	<input type="checkbox"/>
Assess economic and / or workflow outcomes of the intervention	<input type="checkbox"/>	<input type="checkbox"/>
Assess clinical outcomes of the intervention	<input type="checkbox"/>	<input type="checkbox"/>

19. Which of the following responsibilities is the pharmacist(s) regularly involved with (please check all that apply)?

Responsibility	YES	NO
Implement and maintain departmental policies and procedures	<input type="checkbox"/>	<input type="checkbox"/>
Implement and maintain ICU policies and procedures	<input type="checkbox"/>	<input type="checkbox"/>
Develop and implement ICU-focused protocols, order sets, clinical guidelines	<input type="checkbox"/>	<input type="checkbox"/>
Contribute to Joint Commission (or equivalent) preparatory and response	<input type="checkbox"/>	<input type="checkbox"/>

team

Contribute to accreditation preparatory and response teams (e.g. residency, critical care programs)	<input type="checkbox"/>	<input type="checkbox"/>
Residency program (e.g. coordination, scheduling, etc.)	<input type="checkbox"/>	<input type="checkbox"/>
Student program (e.g. coordination, scheduling, etc.)	<input type="checkbox"/>	<input type="checkbox"/>
Contribute to hospital newsletters	<input type="checkbox"/>	<input type="checkbox"/>
Prepare and present drug monographs	<input type="checkbox"/>	<input type="checkbox"/>
Pharmacy and Therapeutics Committee (or subcommittee) involvement	<input type="checkbox"/>	<input type="checkbox"/>
Quality assurance / improvement programs, policies and procedures	<input type="checkbox"/>	<input type="checkbox"/>
Ascertain core measures / performance quality metrics	<input type="checkbox"/>	<input type="checkbox"/>
Implement and maintain safety policies and procedures	<input type="checkbox"/>	<input type="checkbox"/>
Develop and implement stewardship policies and procedures	<input type="checkbox"/>	<input type="checkbox"/>
Participate in disaster response preparedness policies and procedures	<input type="checkbox"/>	<input type="checkbox"/>
Investigational review board involvement	<input type="checkbox"/>	<input type="checkbox"/>
ICU or pharmacy research committee involvement	<input type="checkbox"/>	<input type="checkbox"/>
Participate in design of ICU or pharmacy space	<input type="checkbox"/>	<input type="checkbox"/>

Scholarly Activities

20. Has the pharmacist(s) contributed to the pharmacy or medical literature (not institutional newsletters, monographs, etc.) any of the following in the last 5 years (please check all that apply)?

	YES	NO
Abstracts	<input type="checkbox"/>	<input type="checkbox"/>
Case reports	<input type="checkbox"/>	<input type="checkbox"/>
Letters to the editor of journals	<input type="checkbox"/>	<input type="checkbox"/>
Review articles / book chapters	<input type="checkbox"/>	<input type="checkbox"/>
Practice insights	<input type="checkbox"/>	<input type="checkbox"/>
Prospective clinical research	<input type="checkbox"/>	<input type="checkbox"/>
Retrospective clinical research	<input type="checkbox"/>	<input type="checkbox"/>
Pharmacoepidemiology / pharmacoconomics / survey / outcomes research	<input type="checkbox"/>	<input type="checkbox"/>
Educational research	<input type="checkbox"/>	<input type="checkbox"/>
Administrative research	<input type="checkbox"/>	<input type="checkbox"/>
Laboratory / translational research	<input type="checkbox"/>	<input type="checkbox"/>
External peer reviewer of manuscripts	<input type="checkbox"/>	<input type="checkbox"/>

21. Which of the following best describes the level of involvement that the pharmacist(s) has had as a researcher in the last 5 years (please check all that apply)?

YES **NO**

- | | | |
|--|--------------------------|--------------------------|
| Study coordinator | <input type="checkbox"/> | <input type="checkbox"/> |
| Principal investigator | <input type="checkbox"/> | <input type="checkbox"/> |
| Site investigator for multicenter projects | <input type="checkbox"/> | <input type="checkbox"/> |
| Funding procurement | <input type="checkbox"/> | <input type="checkbox"/> |
| Protocol design | <input type="checkbox"/> | <input type="checkbox"/> |
| Patient screening | <input type="checkbox"/> | <input type="checkbox"/> |
| Data collection | <input type="checkbox"/> | <input type="checkbox"/> |
| Data analysis | <input type="checkbox"/> | <input type="checkbox"/> |
| Laboratory analysis | <input type="checkbox"/> | <input type="checkbox"/> |
| Manuscript preparation | <input type="checkbox"/> | <input type="checkbox"/> |
| External grant reviewer | <input type="checkbox"/> | <input type="checkbox"/> |

Please complete the questions #22–27 if you provide direct or hybrid clinical pharmacy services. If you provide indirect clinical services, you are finished with the survey.

22. What is the number of Full Time Equivalentents (FTEs) devoted to this ICU? _____ FTE Pharmacists

23. Please provide us with information on each of the pharmacists that regularly staff this ICU. We have provided space for up to 10 pharmacists. Please provide demographic information about each pharmacist who staffs the ICU on a regular basis. Check all boxes that may apply to each pharmacist.

	Education (check all that apply)	Training (check all that apply)	BPS certified* (check all that apply)	Approximate number of years practiced in any ICU post-training
Pharmacist #1	<input type="checkbox"/> Bachelors of Science in Pharmacy <input type="checkbox"/> Doctor of Pharmacy <input type="checkbox"/> Masters Degree	<input type="checkbox"/> PGY1 <input type="checkbox"/> PGY2 <input type="checkbox"/> Fellowship	<input type="checkbox"/> BCCCP <input type="checkbox"/> BCPS <input type="checkbox"/> BCPPS <input type="checkbox"/> BCNSP <input type="checkbox"/> Other	

Pharmacist #2	<input type="checkbox"/> Bachelors of Science in Pharmacy <input type="checkbox"/> Doctor of Pharmacy <input type="checkbox"/> Masters Degree	<input type="checkbox"/> PGY1 <input type="checkbox"/> PGY2 <input type="checkbox"/> Fellowship	<input type="checkbox"/> BCCCP <input type="checkbox"/> BCPS <input type="checkbox"/> BCPPS <input type="checkbox"/> BCNSP <input type="checkbox"/> Other	
Pharmacist #3	<input type="checkbox"/> Bachelors of Science in Pharmacy <input type="checkbox"/> Doctor of Pharmacy <input type="checkbox"/> Masters Degree	<input type="checkbox"/> PGY1 <input type="checkbox"/> PGY2 <input type="checkbox"/> Fellowship	<input type="checkbox"/> BCCCP <input type="checkbox"/> BCPS <input type="checkbox"/> BCPPS <input type="checkbox"/> BCNSP <input type="checkbox"/> Other	
Pharmacist #4	<input type="checkbox"/> Bachelors of Science in Pharmacy <input type="checkbox"/> Doctor of Pharmacy <input type="checkbox"/> Masters Degree	<input type="checkbox"/> PGY1 <input type="checkbox"/> PGY2 <input type="checkbox"/> Fellowship	<input type="checkbox"/> BCCCP <input type="checkbox"/> BCPS <input type="checkbox"/> BCPPS <input type="checkbox"/> BCNSP <input type="checkbox"/> Other	
Pharmacist #5	<input type="checkbox"/> Bachelors of Science in Pharmacy <input type="checkbox"/> Doctor of Pharmacy <input type="checkbox"/> Masters Degree	<input type="checkbox"/> PGY1 <input type="checkbox"/> PGY2 <input type="checkbox"/> Fellowship	<input type="checkbox"/> BCCCP <input type="checkbox"/> BCPS <input type="checkbox"/> BCPPS <input type="checkbox"/> BCNSP <input type="checkbox"/> Other	

Pharmacist #6	<input type="checkbox"/> Bachelors of Science in Pharmacy <input type="checkbox"/> Doctor of Pharmacy <input type="checkbox"/> Masters Degree	<input type="checkbox"/> PGY1 <input type="checkbox"/> PGY2 <input type="checkbox"/> Fellowship	<input type="checkbox"/> BCCCP <input type="checkbox"/> BCPS <input type="checkbox"/> BCPPS <input type="checkbox"/> BCNSP <input type="checkbox"/> Other	
Pharmacist #7	<input type="checkbox"/> Bachelors of Science in Pharmacy <input type="checkbox"/> Doctor of Pharmacy <input type="checkbox"/> Masters Degree	<input type="checkbox"/> PGY1 <input type="checkbox"/> PGY2 <input type="checkbox"/> Fellowship	<input type="checkbox"/> BCCCP <input type="checkbox"/> BCPS <input type="checkbox"/> BCPPS <input type="checkbox"/> BCNSP <input type="checkbox"/> Other	
Pharmacist #8	<input type="checkbox"/> Bachelors of Science in Pharmacy <input type="checkbox"/> Doctor of Pharmacy <input type="checkbox"/> Masters Degree	<input type="checkbox"/> PGY1 <input type="checkbox"/> PGY2 <input type="checkbox"/> Fellowship	<input type="checkbox"/> BCCCP <input type="checkbox"/> BCPS <input type="checkbox"/> BCPPS <input type="checkbox"/> BCNSP <input type="checkbox"/> Other	
Pharmacist #9	<input type="checkbox"/> Bachelors of Science in Pharmacy <input type="checkbox"/> Doctor of Pharmacy <input type="checkbox"/> Masters Degree	<input type="checkbox"/> PGY1 <input type="checkbox"/> PGY2 <input type="checkbox"/> Fellowship	<input type="checkbox"/> BCCCP <input type="checkbox"/> BCPS <input type="checkbox"/> BCPPS <input type="checkbox"/> BCNSP <input type="checkbox"/> Other	

Pharmacist #10clinical	<input type="checkbox"/> Bachelors of Science in Pharmacy	<input type="checkbox"/> PGY1	<input type="checkbox"/> BCCCP
	<input type="checkbox"/> Doctor of Pharmacy	<input type="checkbox"/> PGY2	<input type="checkbox"/> BCPS
	<input type="checkbox"/> Masters Degree	<input type="checkbox"/> Fellowship	<input type="checkbox"/> BCPPS
			<input type="checkbox"/> BCNSP
			<input type="checkbox"/> Other

*Board of Pharmaceutical Specialties (BCCCP, BCPS, BCPPS, BCNSP, etc.)

24. What type of activities are routinely reported by your typical pharmacist(s)? Also specify if the activity is documented in the medication use system / health record (please check all that apply)?

Activity	Reported to Pharmacy Department or ICU	Documented in Health Record
Services that change patient-specific drug therapy	<input type="checkbox"/>	<input type="checkbox"/>
Services that monitor patient-specific drug therapy	<input type="checkbox"/>	<input type="checkbox"/>
Services that provide cost savings	<input type="checkbox"/>	<input type="checkbox"/>
Stewardship services	<input type="checkbox"/>	<input type="checkbox"/>
Services that provide drug information	<input type="checkbox"/>	<input type="checkbox"/>
Services related to research	<input type="checkbox"/>	<input type="checkbox"/>
Emergency response services (e.g. code)	<input type="checkbox"/>	<input type="checkbox"/>
Patient / family counselling	<input type="checkbox"/>	<input type="checkbox"/>
Medication reconciliation	<input type="checkbox"/>	<input type="checkbox"/>
Education services	<input type="checkbox"/>	<input type="checkbox"/>

25. What percentage of the work week is devoted to each of the following (please fill in the blanks so total % is 100%)?

Activity	Percentage
Direct care of critically ill patients	
Direct care of other patients	
Drug distribution	
Administration / management	
Teaching / Education	
Scholarly activity	

Other: _____

26. What percentage of your salary is funded by each of the following entities (please fill in the blanks so total % is 100%)?

Entity	Percentage
Pharmacy department, hospital	
ICU department, hospital	
College or School of Pharmacy	
College or School of Medicine	
Other college or school	
Service contract with provider practice group	
Service contract with an independent entity (e.g. insurance provider, government agency)	
Reimbursement for specific services	
Research or education grant	
Other: _____	

27. Does the institution or pharmacy department regularly provide funding for any of the following (please check all that apply)?

	YES	NO
Memberships to professional organizations (e.g. SCCM, ACCP, ASHP, state pharmacy organization)	<input type="checkbox"/>	<input type="checkbox"/>
Workshops in specific area (e.g. leadership, grant writing, information technology, etc.)	<input type="checkbox"/>	<input type="checkbox"/>
Attendance at local meetings	<input type="checkbox"/>	<input type="checkbox"/>
Attendance at national meetings	<input type="checkbox"/>	<input type="checkbox"/>
Travel to national meetings	<input type="checkbox"/>	<input type="checkbox"/>
Board certification, initial exam	<input type="checkbox"/>	<input type="checkbox"/>
Board certification, maintenance	<input type="checkbox"/>	<input type="checkbox"/>
Other continuing education (e.g. webinars, etc.)	<input type="checkbox"/>	<input type="checkbox"/>
BLS / ACLS (or similar)	<input type="checkbox"/>	<input type="checkbox"/>
Tuition	<input type="checkbox"/>	<input type="checkbox"/>
Licensure	<input type="checkbox"/>	<input type="checkbox"/>
Projects / research through a competitive process	<input type="checkbox"/>	<input type="checkbox"/>
Projects / research through a non-competitive process	<input type="checkbox"/>	<input type="checkbox"/>

PART 3: ACKNOWLEDGEMENT OF CONSENT

Completion of this research survey is voluntary. By completing this survey and submitting it electronically to Qualtrics you are giving your consent to participate in this project.

28. Please indicate below that you wish to submit your responses.

- Yes No