



***Critical Care Concentrated:
A traineeship to accelerate your competence***

Application Policies and Guidelines

Accreditation for Pharmacists



The American Society of Health-System Pharmacists is accredited by the Accreditation Council for Pharmacy Education as a provider of continuing pharmacy education.

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Program Preview

The Critical Care Concentrated, a traineeship to accelerate your competence, is designed for pharmacists in acute settings who are providing specialized services for critically ill patients. The traineeship prepares participants to design patient-specific pharmacotherapy, solve drug therapy problems, and develop protocols, policies, and procedures for the treatment of such patients. Participants will be able to address their hospital/health system's needs regarding medication use in critically ill patients.

The traineeship consists of four components:

- Pre-program Self-Assessment
- Distance Education Program
- Robust, 10-day On-site Experiential Component
- Post-Training Requirements, demonstrating advancement and impact

The distance education program is a combination of independent readings, on-demand presentations, live web-based presentations with discussion, and a final assessment. During a 10-day experiential program, working with experienced clinicians, participants will design, communicate, and manage evidence-based, patient-specific pharmacotherapy for critically ill adult patients. Four months following completion of the experiential component, participants are required to provide the ASHP Foundation documentation of post-training projects that demonstrate meaningful practice advancement. The distance education and experiential components offer continuing pharmacy education hours for pharmacists. A certificate will be given to participants who successfully complete all components and requirements of the program.

ASHP Foundation

Our Mission

The mission of the ASHP Foundation is to improve the health and well-being of patients in health systems through appropriate, safe and effective medication use.

ASHP Foundation Strategic Priorities

1. Facilitate and strongly support the pharmacy profession in advancing pharmacy practice models that foster pharmacists' leadership and accountability for patient outcomes.
2. Create demand for new models of pharmacy practice that leverage the expertise and unique abilities of pharmacists.
3. Drive the advancement of the technical, human and leadership competencies of pharmacists and pharmacy staff in complex and rapidly changing organizations.
4. Ensure the long-term financial sustainability of the ASHP Foundation.

The strategic priorities of the ASHP Foundation are closely aligned with the ASHP strategic plan. ASHP represents pharmacists who serve as patient care providers in acute and ambulatory settings. The organization's more than 40,000 members include pharmacists, student pharmacists and pharmacy technicians. For over 70 years, ASHP has been on the forefront of efforts to improve medication use and enhance patient safety.

The ASHP Foundation pursues its mission and strategic priorities through provision of awards, research grants, educational programs, and practice tools. The ASHP Foundation has a long track record of administering research grant, education and practitioner recognition programs that use stringent

external review processes to select program recipients and participants. [Visit our website](#) to learn more about the ASHP Foundation.

Program Description

Upon completion of the Critical Care Traineeship, the applicant will be responsible for providing drug-therapy management to critically ill patients. For the purposes of this traineeship, the ASHP definition of Drug Therapy Management will be used. ASHP defines drug-therapy management as an interprofessional 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.

Upon completion of this program, the participant will be able to:

- Design, communicate, and manage evidence-based, patient-specific pharmacotherapy for critically ill patients.
- Develop, implement, and manage protocols, policies, and procedures for the treatment of critically ill patients.
- Provide interdisciplinary education regarding care of critically ill patients.

Program Timeline for the 2017-2018 Offering

- Applications available –June 23, 2017
- Scholarship application deadline –(Full Trainee Application **and** Scholarship application) – September 12, 2017
- Application deadline –October 10, 2017
- Participants announced –November 2017
- Distance education –December 2017 – March 2018
- Experiential training –April/May 2018
- Post training requirements –Fall 2018

Distance Education Program

The distance education component consists of independent readings, web-based presentations, and a final assessment. The web-based presentations will be case-based and will be a combination of home study, on-demand activities and live webinars with guided faculty discussions. Participants must successfully pass the final assessment with a score of 80% or higher in order to participate in the experiential education. To earn CE credit for the distance education component, participants must pass the final learning assessment and complete the online evaluation. Participants are required to successfully complete the final learning assessment prior to beginning the experiential education phase. CE statements will be generated through the ASHP CE Center.

Case-based Webinars

Trainees will be required to participate in a series of six (6) case-based webinars. Faculty and participants will apply standards, resources, and tools to critical care patient cases. The times and dates of the live webinars with discussion included below are subject to change. Confirmed times and dates will be provided to the trainees upon entry into the program.

| Topics |
|------------------------------------|
| Welcome & Introductions |
| Sedation/Patient Comfort |
| Shock |
| Pneumonia |
| Sepsis |
| Supportive Care |
| Arrhythmias |

The purpose of the knowledge-based, distance education component of this traineeship is to prepare the trainee to arrive at the experiential stage with the fund of knowledge required to practice in a critical care setting. It therefore concentrates on acquiring advanced knowledge about the disease states most likely to be encountered and their management, including drug therapy.

Upon completion of the distance education program, participants will be able to:

1. Build the information base needed to design a medication therapy regimen for critically ill patients by collecting, organizing, and generating patient-specific problem lists using all information needed by a critical care pharmacist to prevent, detect, and resolve drug-related problems and to make appropriate drug therapy recommendations. Specifically this will require the ability to:
 - a. Explain signs and symptoms, epidemiology, risk factors, etiology pathogenesis, natural history of disease, pathophysiology, clinical course, and treatment of diseases commonly encountered in the critical care environment.
 - b. Explain the meaning of results of diagnostic and laboratory tests, physiologic monitoring, and physical assessment commonly performed in the critical care setting.
 - c. Explain the mechanism of action, pharmacokinetics, pharmacodynamics, pharmacoeconomics, usual regimen (dose, schedule, route, and method of administration), indications, contraindications, interactions, adverse affects, and therapeutics of medications and specialized nutrition support used in the critical care environment.

2. Design, recommend, monitor, and evaluate patient-specific therapeutic regimens that incorporate the principles of evidence-based decision making the conscientious, explicit, and judicious use of current best evidence in making decisions about the care of individual critically ill patients.

3. Continuously evaluate therapeutic regimens and corresponding monitoring plans based on evaluation of monitoring data. To do this successfully, the trainee should to be able to accurately assess patients' progress toward their therapeutic goals and be able to:
 - a. Accurately interpret the meaning of each measurement.
 - b. Explain factors that may contribute to the unreliability of monitoring results (e.g., patient-specific factors, timing of monitoring tests, equipment errors, outpatient versus inpatient monitoring).
 - c. Explain the need to consider multiple organ system function when interpreting a group of individual test results.
 - d. Explain the importance of the analysis of trends over time in monitoring test results.
 - e. Build the information base needed to design a drug therapy regimen for a critically ill patient.
 - f. Redesign therapeutic regimens and corresponding monitoring plans based on evaluation of monitoring data giving consideration to secondary treatment options.

The distance education program covers the following subject areas:

1. Acid/Base/Fluid and Electrolyte Disorders
2. Sedation and Analgesia
 - *Agitation/Anxiety*
 - *Pain*
 - *Delirium*
3. Paralysis/Neuromuscular Blockade
4. Mechanical Ventilation Principles
5. Adult Respiratory Distress Syndrome (ARDS)/Acute Lung Injury (ALI)
6. Cardiovascular
 - *Shock*
 - *Acute Coronary Syndrome*
 - *Atrial and Ventricular Arrhythmias*
 - *Congestive Heart Failure*
 - *Hypertensive Crisis*
 - *Cardiac Arrest*
7. Stroke
8. Trauma
 - *Traumatic Brain Injury*
9. Status Epilepticus
10. Acute Upper GI Bleeding
11. Acute Kidney Injury
 - *Renal Replacement Therapy*
12. Anemia
13. Liver Failure
 - *Ascites*
 - *Encephalopathy*
 - *Spontaneous Bacterial Peritonitis*
14. Varices
15. Pancreatitis
16. Infectious Diseases
 - *Pneumonia*
 - *Device Related Infections*
 - *Urinary Tract Infections*
 - *Clostridium difficile*
 - *Meningitis*
 - *Intra-abdominal Infections*
 - *Systemic Inflammatory Response Syndrome/Sepsis*
 - *Antibiotic Principles*
17. Glycemic Control
18. Diabetic Ketoacidosis (DKA)/Hyperosmolar Hyperglycemic Syndrome (HHS)
19. Adrenal Insufficiency
20. Venous Thromboembolism
 - *Prophylaxis*
 - *Deep Vein Thrombosis*
 - *Pulmonary Embolism*
21. Coagulopathy and Thrombocytopenia
 - *Heparin-Induced Thrombocytopenia (HIT)*
 - *Disseminated Intravascular Coagulopathy (DIC)*
 - *Blood Products*
22. Stress Ulcer Prophylaxis

23. Nutrition Assessment/Nutrition Management
24. Alcohol Withdrawal
25. Opioid Withdrawal
26. Biostatistics and Literature Evaluation
27. Toxicology
28. General Critical Care Principles

Experiential Program

During the 10-day experiential program, working with experienced clinicians, participants will design, communicate, and manage evidence-based, patient-specific pharmacotherapy for critically ill adult patients. The program focuses on critical thinking, decision-making, and communication skills. Following completion of the experiential program, the preceptor provides the ASHP Foundation with an evaluation of the trainee's progress.

At least two weeks in advance of the experiential component, the trainee should provide the site preceptor, via email, with a list of topics/questions that the trainee would like to focus on during the experiential weeks.

ASHP Foundation staff and traineeship faculty will strive to align trainees' individual educational needs and geographic location when determining site assignments. Alignment of trainees' educational needs and training site capabilities will be prioritized. The ASHP Foundation cannot guarantee that trainees will be assigned to the site that is closest in geographic proximity to the trainee's home.

Upon completion of experiential program, the participant will be able to:

Foundation Skills

1. Evaluate and stay current with the relevant biomedical literature.
2. Communicate clearly and professionally when speaking or writing.
3. Function effectively as a member of a critical care team in the critical care setting.
4. Solve practice problems effectively.
5. Deliver effective education and training programs that may include in services to healthcare providers or patients and/or families (assessment based on presentation at site).
6. Describe the role of the pharmacist in the management of medical emergencies.

Patient Care Skills

7. Establish collaborative working relationships with the interdisciplinary critical care team.
8. Design, recommend, communicate, and implement patient-specific therapeutic regimens that incorporate the principles of evidence-based decision making.
9. Monitor, manage and evaluate therapeutic regimens to achieve optimal patient outcomes.
10. Utilize processes that optimize continuity of care during patient transitions in and out of the critical care unit.

Practice Management Skills

11. Develop, implement, and manage protocols, policies, and procedures for the treatment of critically ill patients. (documentation of interventions).
12. Identify and understand the steps involved in assessing outcome data for development of individual- and population-based patient care guidelines/protocols.
13. Develop, implement, and manage protocols, policies, and procedures for the care of critically ill patients.
14. Contribute to the development of new pharmacy services or to the enhancement of existing services.
15. Systematically document interventions and adverse events following health system

- standards.
16. Provide interdisciplinary education regarding care of critically ill patients.

Traineeship Administration

The Critical Care Traineeship Program is administered by the ASHP Foundation, 4500 East West Highway, Suite 900 Bethesda, MD 20814. All traineeships are tuition-based programs.

Tuition Information

The tuition for the Critical Care Traineeship program is \$7500.

Applicants who are accepted into the program can elect to pay their registration fee in full or participate in a payment plan.

Upon acceptance into the Critical Care Traineeship program, trainees will be sent a declaration of payment form with the option of entering into a payment plan with the ASHP Foundation. The first payment is due upon program commencement, and the final payment is due before the experiential education. **Full payment must be received before trainees go onsite for experiential training in order to guarantee participation.** In order to be eligible for monthly payment plan, you must pay the first payment by the deadline. You will otherwise be responsible for remitting the amount in full.

2017-2018 Traineeship Programs Tuition and Payment Plan Information

| Tuition Total | Payment Plan* (<i>optional</i>) | | | |
|---------------|-----------------------------------|--------|--------|---------|
| | Nov 1 | Dec 1 | Jan 1 | March 1 |
| \$7500 | \$1875 | \$1875 | \$1875 | \$1875 |

*Alternative payment plan for all – Call customer service and give a credit card for equal monthly payments between November 1 – March 1. Full payment to be submitted 30 days after receipt of invoice.

Please Note:

- The tuition fee does not include travel accommodations for the experiential training, which are the responsibility of the trainee.
- If the participant(s) must cancel his/her participation, he/she must notify the ASHP Foundation in writing at least eight (8) weeks in advance of the starting date of the experiential portion of the program.
 - Tuition is not refundable if notification occurs less than eight (8) weeks before participant entry into the experiential program.

Partial Scholarship Information

The Excellence in Pharmacy Scholarship is a partial non-renewable \$1,000 scholarship that is offered to eligible students of one of the ASHP Foundation's traineeship programs. Recipients of the scholarship will be invoiced \$1,000 less for their tuition as that portion of the funding will be covered by the Excellence in Pharmacy Scholarship fund.

Candidates must have a fully submitted traineeship application, **and** submit the scholarship application by September 12th in order to be eligible. The scholarship application can be found in the electronic application, and ASHP Foundation webpage. To view the full eligibility requirements [click here](#).

Trainee Assessment

Distance Education Component

To earn CE credit for the distance education component and to advance to the experiential component, participants must pass the final learning assessment and complete the online evaluation. Problem-solving capabilities will be assessed by the faculty during the distance education component and through faculty evaluation during the case-based discussions.

System Technical Requirements

Courses and learning activities are delivered via your Web browser and Acrobat PDF. Users should have a basic comfort level using a computer and navigating web sites.

View the [minimum technical and system requirements](#) for learning activities.

Experiential Component

Participants must successfully complete all requirements of the distance education component prior to going on site. During the experiential component, faculty members will assess the participants' ability to function effectively as a member of a critical care team. The faculty member will complete an evaluation form for each participant following the experiential component and discuss the evaluation with the participant. Assessment and feedback is based upon progress in meeting the learning objectives for the experiential component.

Post-Training Requirements

Four months after completion of the experiential component of the traineeship, trainees are required to provide the ASHP Foundation documentation that demonstrates application of the obtained knowledge and skills before a certificate of completion is issued, as described below.

| Deliverable | Due to ASHP Foundation |
|--|------------------------|
| Narrative statement that addresses: <ul style="list-style-type: none"> • How the traineeship supported the trainee's integration in caring for critical care patients. • Key elements of the trainee's impact on program outcomes. | 4 months post-training |
| Follow up letter from a critical care physician that describes the participant's involvement as a member of the critical care team at their practice setting. | 4 months post-training |
| Six vignettes that illustrate the trainee's post-traineeship application of the knowledge and skills obtained through the traineeship; | 4 months post-training |
| A copy of the proposed policy and procedure for the care of critically ill patients that they have submitted to their health system. Applicants should plan to take a draft of the policy/procedure to the experiential component of the traineeship to obtain feedback from the site preceptor. | 4 months post-training |
| Examples of contributions to their program's educational outreach (e.g., educational program materials) to patients, healthcare | 4 months post-training |

| | |
|--------------------------------------|-------------------------|
| providers and/or other stakeholders. | |
| Impact on Practice Survey | 12 months post-training |

Application Process

To apply to the traineeship, the applicant must complete an online application along with the following items:

- 1) **Required:** A cover letter from the applicant that describes how he/she will use the training obtained through this program;
- 2) **Required:** A CV or biographical sketch limited to four (4) pages;
- 3) **Required:** A letter from the director of pharmacy or practice equivalent that indicates support for the applicant's participation on the critical care service.
- 4) **Required:** Online attestation
- 5) **Optional but encouraged:** A letter from the chief executive officer of the applicant's organization confirming a commitment to the applicant's involvement on the critical care service, including the expected implementation date; and
- 6) **Optional but encouraged:** A letter from the physician/clinician responsible for the critical care service that supports the applicant's participation.

The director of pharmacy, or practice equivalent letters are critical to the reviewers' evaluation of institutional support for the trainee to participate on critical care services. These letters are also evaluated closely to assess sustainability of the service. The Critical Care Traineeship opportunity is awarded to an individual participant.

International applicants must also provide:

1. Evidence of English proficiency (TOEFL results) or International English Language Testing System (IELTS) for individuals in countries where English is not the first language;

TOEFL Score Scale

| | |
|-----------|--------------|
| Reading | High (22-30) |
| Listening | High (22-30) |
| Speaking | Good (26-30) |
| Writing | Good (24-30) |

IELTS

| | |
|--------|----------------|
| Band 7 | Good User |
| Band 8 | Very Good User |
| Band 9 | Expert User |

Exceptions:

- United States citizens living outside of the U.S. do not need to submit English proficiency test results or visa information.
 - International applicants who graduated from a U.S. university do not need to submit English proficiency results or accreditation information.
 - Participants from English-speaking countries do not need to submit English proficiency test results.
2. If the United States requires that you obtain a visa for entry into the United States, a copy of an existing visa to travel to the U.S. to study or a detailed timeline indicating your ability to obtain a visa to participate in a 1-2 week education program in the United States; (For additional information, please see the following information on a B1 Visa:

<http://www.uscis.gov/working-united-states/temporary-visitors-business/b-1-temporary-business-visitor>)

- a. Final Visa documentation must be provided a minimum of six (6) weeks prior to onsite training.
3. A copy of your school/college of pharmacy diploma; and
4. Documentation from your college or school of pharmacy that it is an accredited institution.

Selection Criteria

All applications will be reviewed by a panel appointed by the ASHP Foundation Board of Directors. The following criteria will be used to review and score applications:

| Criteria | Points Possible |
|--|-----------------|
| Academic Preparation | 5 |
| Clinical Practice and Academic Experience | 5 |
| Training Expectations (Along with applicant responses to related application questions, the applicant's cover letter will be used to score under this criterion.) | 30 |
| Institutional Support for Applicant to Participate in the Traineeship and Service Establishment or Enhancement (Along with applicant responses to related application questions, a letter from the Director of Pharmacy, or practice equivalent will be used to score under this criterion.) | 30 |
| Institutional Service Viability (Along with applicant responses to related application questions, a letter from the Director of Pharmacy, or practice equivalent will be used to score under this criterion.) | 30 |
| TOTAL | 100 |

Qualifications of the Applicant

To apply to the traineeship, the applicant must be a graduate of an accredited college or school of pharmacy. The applicant must have completed an accredited PGY1 residency or have 2 years experience in clinical practice. **Current pharmacy residents are not eligible to apply.**

Applicants must have a command of basic knowledge areas as they relate to care of critically ill patients including pathophysiology, clinical pharmacology and therapeutics, clinical laboratory data interpretation, clinical pharmacokinetics, and medical terminology and abbreviations. In addition, applicants should have experience with writing pharmaceutical care plans, conducting patient interviews and delivering educational programs to other members of the health care team.

Upon acceptance into the program, the participant will be asked to provide evidence of HIPAA training and current vaccination status. The following vaccine-related information is required:

- Measles-documentation of administration of TWO measles vaccine doses in your lifetime or one

dose if administered after 1980. If first measles vaccination was at 15 months of age or younger, it does not count toward the two lifetime doses.

- Rubella-proof of immunity to rubella, positive serology for rubella antibodies (copy of lab slip), or documentation of administration of rubella vaccine.
- Varicella-known past history of disease. A stated history is acceptable, or if there is no known history of disease: serology documenting absence or presence of antibody to VZ is required (copy of lab slip).
- Tuberculosis-evidence of negative PPD skin test results within the last 12 months or a tuberculosis screening questionnaire completed within the last 12 months (spot testing, questionnaire, etc.). If the participant is PPD Positive, evidence of a chest x-ray within the last 12 months must be provided (symptom interview).
- Tetanus-documentation of administration of a tetanus vaccine within the last ten years.
- Hepatitis B-documentation of administration of the entire hepatitis B vaccine series and the booster dose, if required.

Additional Requirements:

- Participant(s) selected for the experiential program are responsible for transportation and lodging.
- In addition, some sites may require that participants complete a criminal background check before arrival at the site.

Qualifications of the Applicant's Healthcare Organization

All of the following are required for qualification of the participant's current healthcare organization with documentation provided in the application process:

- The applicant's employer must be a health-care organization with resources for the provision of care for critically ill patients.
- The chief executive officer or equivalent of the applicant's organization confirms a commitment to the applicant's involvement on the critical care team or care system.
- The physician who will be administratively responsible for the critical care services confirms a willingness to support pharmacists' involvement.
- The director of pharmacy confirms support for the applicant's participation, departmental commitment to the applicant's participation on the critical care team, and an institutional commitment to payment of the program tuition.