Global Evolution of Clinical Pharmacy Practice:
Strategies to Increase the Pace
Outline

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ASHP represents pharmacists who serve as patient care providers in acute and ambulatory settings. The organization’s nearly 58,000 members include pharmacists, student pharmacists, and pharmacy technicians. For more than 75 years, ASHP has been at the forefront of efforts to improve medication use and enhance patient safety.
ASHP Global Leadership Team

Paul W. Bush, PharmD, MBA, BCPS, FASHP
Vice President, Global Resource Development and Consulting

Lynnae M. Mahaney, BSPharm, MBA, FASHP
Senior Director, Pharmacy Accreditation

David J. Warner, PharmD
Senior Director, Consulting and Practice Development
Special Guest

Nibal Chamoun, Pharm.D., BCPS
Clinical Associate Professor
Residency Program Director, LAU School of Pharmacy
LAU Medical Center-Rizk Hospital
Lebanese American University
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Resilience and Well-being
A RESILIENT PHARMACY WORKFORCE

Burnout affects today’s pharmacists, residents, student pharmacists, and pharmacy technicians at unprecedented rates. A pharmacy workforce with the ability to thrive during adversity — a resilient workforce — is essential to combat burnout and support safe, high-quality patient care.

BURNOUT

Characterized by emotional exhaustion, cynicism, and/or a low sense of personal accomplishment.

Affects pharmacists, residents, students, and technicians. 53% of health-system pharmacists surveyed reported a high degree of burnout.

A patient care problem. Pharmacy staff burnout can result in medication errors and increased patient harm.

Repercussions on the healthcare system. The effects of burnout — like disengagement, loss of productivity, and employee turnover — can lead to inefficiency and financial problems for healthcare organizations.

https://wellbeing.ashp.org/
WHAT CAUSES BURNOUT?

**Personal stressors**
- Your health
- Family dynamics
- Financial hardship
- Juggling work/life

**Workplace stressors**
- Heavy workload
- Electronic health record requirements
- Lack of autonomy and unclear responsibilities
- Regulatory red tape
- Inability to practice at the top of your education/training

TO DECREASE THE POTENTIAL FOR BURNOUT, THE PHARMACY WORKFORCE MUST BUILD RESILIENCE

- Rebound from setbacks
- Show confidence in strengths and abilities
- Stay calm under pressure

A resilient pharmacy workforce leads to:
- Higher-quality care
- Increased patient safety
- Improved patient satisfaction
HOW CAN INDIVIDUALS BUILD RESILIENCE?
- Monitor your stress levels
- Find a mentor
- Develop meaningful social connections
- Embrace change
- Start a daily gratitude practice

HOW CAN HEALTHCARE ORGANIZATIONS BOOST RESILIENCE?
- Identify burnout risk factors
- Form a committee to explore burnout causes and resilience solutions
- Evaluate changes to confirm increase in employee resilience
- Recognize the presence and risk of burnout in the workplace
- Celebrate and share positive improvements
ASHP RESOURCES

ASHP Workforce Well-Being & Resilience Resource Center:
• Webinars
• Journal articles
• Conversation starters

Toolkit for state affiliate groups:
• Well-being and resilience checklist

ASHP Connect Community on Clinician Well-Being and Resilience

For more information about ASHP’s resources on resilience and well-being, visit

ASHP.ORG/WELLBEINGRESILIENCE

Resources are available via the ASHP eLearning portal: https://elearning.ashp.org/catalog/free

Register on the portal and then go to Catalog, Free Activities, then search using the term Wellness
Evolution of Clinical Pharmacy
Clinical Pharmacy

- An area of pharmacy concerned with the science and practice of rational medication use.
- As a discipline, clinical pharmacy also has an obligation to contribute to the generation of new knowledge that advances health and quality of life.
- This implies we as clinical pharmacists should possess pharmacotherapy knowledge, master skills to apply the knowledge in patient’s care, and take leadership roles to advance pharmacy practice and healthcare.
Clinical Pharmacist Competencies

- Direct patient care
- Pharmacotherapy knowledge
- Systems-based care and population health
- Communication
- Professionalism
- Continuing professional development
Historical Perspective in the US

- 1960 – University of Michigan
- 1966 – Ninth-floor Project – University of California San Francisco
- 1970s-1980s – Significant growth of hospital staff pharmacy (2X)
- 1985 - *Directions for Clinical Practice in Pharmacy* - Hilton Head Conference
- 1989 - Pharmacy in the 21st Century Conference
- 1993 - Implementing Pharmaceutical Care
- 2010 - Pharmacy Practice Model Summit
- 2014 - Ambulatory Care Summit
- 2021 - Specialty Pharmacy Summit
Historical Perspective Globally

- Asia
- Middle East, North Africa and Greater Arabia
- Europe
- North America
- Central America and the Caribbean
- South America
- Sub-Saharan Africa
- Australia and Oceania
Pharmacy Education and Practice in the Arab World

American Journal of Pharmaceutical Education 2018; 82 (9) Article 7014.

COMMENTARY

A Call to Action to Transform Pharmacy Education and Practice in the Arab World

Abeer M. Al-Ghananeem, PhD,a Daniel R. Malcom, PharmD, b,e Samira Shammas, BSPharm, c
Talal Aburjai, PhDd

a Jordan University of Science and Technology, Irbid, Jordan
b Sullivan University College of Pharmacy, Louisville, Kentucky
c Jordan Pharmacists Association, Good Pharmacy Practice Committee, Amman, Jordan
d Middle East University, Amman, Jordan
e Associate Editor, American Journal of Pharmaceutical Education, Arlington, Virginia

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Globally, pharmacy education is evolving to reflect a more patient-centered, interprofessional approach to clinical practice. In the 22 countries of the Arab world, advancements in regulatory support for pharmacy practice and changes to the health care system have been slower than in Europe, Asia, and the Americas. Significant cultural, logistical, and legal barriers exist in many countries, and a consensus approach to accreditation, educational outcomes, and curricula design is lacking. This commentary briefly examines the current state of both pharmacy education and practice in the Arab world, and it highlights recent reports of curricular reform and innovation. Additionally, it provides potential strategies for improving the quality of education and for expanding pharmacy practice to ensure graduates and practitioners have adequate experiential opportunities and institutional support.

Keywords: international education, Arab world, curricula reform, clinical pharmacy
Barriers to Clinical Pharmacy Practice

- Sufficient experiential training
- Sufficient educators with training in clinical disciplines
- Clinical preceptors with advanced training
- Consistent standards for services
- Standardized educational outcomes at sites
- Regulatory and institutional support
Strategies

• Develop and implement competency-based pharmacy education to better prepare pharmacists for their role as a part of the health care system

• Define new, improved learning outcomes for clinical pharmacy education and reassess the teaching methods and learning environment

• Strengthen experiential and interprofessional education (IPE) through strategic planning and leveraging resources

• Develop and implement quality continuous professional development (CPD) programs as part of licensure renewal

• Develop accreditation standards and quality assurance guidelines locally and regionally to address and standardize pharmacy education and practice

• Create job opportunities for new graduates aligned with their new knowledge and skills sets
Clinical Pharmacy Practice Today
Foundation of Pharmaceutical Care (Pharmacy Service)

- To identify and resolve Drug-Related Problems

Drug-Related Problems

An event or circumstance involving drug therapy that actually or potentially interferes with desired health outcomes
Pharmacist Patient Care Process

Pharmacists use a patient-centered approach in collaboration with other providers on the health care team to optimize patient health and medication outcomes.

Using principles of evidence-based practice, pharmacists:

Collect
The pharmacist assures the collection of the necessary subjective and objective information about the patient in order to understand the relevant medical/medication history and clinical status of the patient.

Assess
The pharmacist assesses the information collected and analyzes the clinical effects of the patient's therapy in the context of the patient's overall health goals in order to identify and prioritize problems and achieve optimal care.

Plan
The pharmacist develops an individualized patient-centered care plan, in collaboration with other health care professionals and the patient or caregiver that is evidence-based and cost-effective.

Implement
The pharmacist implements the care plan in collaboration with other health care professionals and the patient or caregiver.

Follow-up: Monitor and Evaluate
The pharmacist monitors and evaluates the effectiveness of the care plan and modifies the plan in collaboration with other health care professionals and the patient or caregiver as needed.

Figure 1: Pharmacists' patient care process
Communication with Patients - Therapeutic Relationship

- Therapeutic Relationship
  - A partnership or alliance between the practitioner and the patient formed for the purpose of optimizing the patient’s medication experience
Communication with Team Members - Collaborator

Collaborator in Healthcare

- Communicator
- Lifelong Learner
- Manager
- Expert
- Professional
- Team Player
- Patient Advocate
Clinical Pharmacists – Key Members of the Health Care Team

- Deployed to inpatient care units and clinics
- Helps choose right drug, right dose
- Focus on high risk therapies, highly complex patients
- Pharmacist serves as drug knowledge expert:
  - Provides drug information
  - Pharmacist monitors response to drug therapy
  - Improves safety of medication use system
  - Improves outcomes from medication therapy
  - Lowers cost of therapy
How is Clinical Pharmacy Practice Evolving?
Allocation of Pharmacist Time

[Diagram showing the allocation of pharmacist time between past, present, and future with a downward trend indicating a decrease in time spent on safe preparation and dispensing, and an increase in time spent on clinical patient management.]
Clinical Services

- Comprehensive medication management
- Pharmacotherapy consults
- Disease management coach/support
- Pharmacogenomics applications
- Anticoagulation management
- Transitions of care
- Medication safety surveillance
- Health, wellness and public health
- Immunization
Comprehensive Medication Management (CMM)

#1 Identify patients that have not achieved clinical goals of therapy.

#2 Understand the patient’s personal medication experience, history, preferences, & beliefs.

#3 Identify actual use patterns of all medications including OTCs, bioactive supplements & prescribed medications.

#4 Assess each medication for appropriateness, effectiveness, safety (including drug interactions) & adherence, focusing on achievement of the clinical goals for each therapy.

#5 Identify all drug-therapy problems.

#6 Develop a care plan addressing recommended steps including therapeutic changes needed to achieve optimal outcomes.

#7 Ensure patient agrees with & understands care plan which is communicated to the prescriber or provider for content & support.

#8 Document all steps & current clinical status vs. goals of therapy.

#9 Follow-up evaluations are critical to determine effects of changes, reassess actual outcomes, & recommend further therapeutic changes to achieve desired clinical goals & outcomes.

#10 CMM is a reiterative process! Care is coordinated with other team members & personalized goals of therapy are understood by all team members.

gtmr.org
Pharmacist Participation in Ambulatory Clinics
(For Those That Have Clinics)

Any Ambulatory or Primary Care Clinics

![Bar Chart]

Staffed Beds

- < 50: 10.9%
- 50-99: 33.3%
- 100-199: 47.6%
- 200-299: 61.0%
- 300-399: 76.6%
- 400-599: 72.2%
- 600+: 83.9%

2016: 39.5%

![Line Chart]

Year

- 2010: 23.8%
- 2013: 38.6%
- 2014: 42.4%
- 2015: 40.0%
- 2016: 39.5%

N = 297

ASHP National Survey – 2016 AJHP 2017:74;1336-1352
Future of Pharmacy Practice

• Pharmacist is essential member of every healthcare team

• Focus on complete spectrum of acute and chronic therapy in all sites in and across all sites of care

• Outcomes driven and cost-effective drug therapy

• Sophisticated automation and advanced clinical information systems

• Majority of all pharmacist time spent in direct patient care

• Expanding roles for pharmacists: prescribing, health and wellness
Why is This so Important?  

Improved Care of the Patient

1. Quality of services and care is linked to well lead and managed clinically focused pharmacy departments.

2. Literature illustrates how patient outcomes are improved when a pharmacist is an integral member of the team.

3. Services are more innovative, efficient.

4. Interdisciplinary interactions are more collaborative and productive.
ASHP Resources to Advance Practice
Professional Certificates

Online, self-guided learning modules for pharmacy professionals

Our certificates provide high-quality, manageable and practical professional development opportunities for practitioners and pharmacy personnel.
ASHP Professional Certificates

1. **18 available, 7 in development**
   - Clinical Pharmacy Practice
   - Administrative

2. **100% online**
   - Curriculum-based
   - Self-paced

3. **Manageable “bites” of education**
   - Multi-media components
   - Modules of varying lengths
   - Continued assessment throughout curriculum
Clinical Skills Certificate for International Pharmacy

1. Developed for pharmacists
2. Focuses on foundation knowledge needed to provide clinical pharmacy services
3. 17 curricular modules with tests
4. Total of 22 hours of education plus final exam

Special Discount – 21% off through March 26
Use promo code Global21 at check out
Core Contents of the Clinical Skills Certificate (17 Modules)

1. Pharmacotherapy Knowledge
   - Pharmacokinetics
   - Infectious Disease/Cardiovascular
   - Gastrointestinal Diseases
   - Diabetes/Pulmonary
   - Neurological/Pain
   - Special Population
   - Fluids and Electrolytes
   - Rheumatology/Coping with Chemotherapy

2. Practice Skills
   - Orientation to Clinical Pharmacy Practice
   - Pharmacists as Caregivers
   - Evidence-Based Medicine for Clinical Decision Making

3. Leadership Development
   - Pharmacists' Roles in Transitions of Care
   - Clinical Pharmacist Mindset: I am a Leader
How to Study the Clinical Skills Certificate?

- Self-Study
  - Listen to Audio Recordings
  - Review Lecture Slides
  - Read Supplemental Materials
  - Take Assessment Exams
How to Study the Clinical Skills Certificate?

• **Small Group Discussion**
  • Study with Your Peers
  • Discuss the Following
    • What have I learned in pharmacotherapy knowledge?
    • What skills do I need to apply the knowledge in my practice?
    • How can I take a leadership role to advance my current practice OR implement new practice?

• **Attend Expert-led Live Webinars**

• **Schedule In-depth Discussion**
  • Clinical knowledge
  • Practice skills
  • Leadership development
Board Certification Resources

We support pharmacists across the continuum of health care settings as they pursue and maintain board certification.

- Recertification Extensions Due to COVID-19
  - View New Expiration Dates
  - Learn More

- Why Choose ASHP
  - What makes our certification so much better?
  - Learn More

- New Board Certification Resources
  - See what's coming soon!
  - Learn More

- Tour Our Resources
  - See how ASHP's Board Activities outperform others.
  - Learn More

- Geriatric
  - Resources for pharmacists pursuing or maintaining BCGP status.
  - Learn More

- Infectious Diseases
  - Resources for pharmacists pursuing or maintaining BCPP status.
  - Learn More

- Oncology
  - Resources for pharmacists pursuing or maintaining BCOP status.
  - Learn More

- Pediatric
  - Resources for pharmacists pursuing or maintaining BCPS status.
  - Learn More

- Ambulatory Care
  - Resources for pharmacists pursuing or maintaining BCPAP status.
  - Learn More

- Cardiology
  - Resources for pharmacists pursuing or maintaining BCNP status.
  - Learn More

- Compounded Sterile Preparations
  - Resources for pharmacists pursuing or maintaining BCOP status.
  - Learn More

- Critical Care
  - Resources for pharmacists pursuing or maintaining BCCP status.
  - Learn More

- Pharmacotherapy
  - Resources for pharmacists pursuing or maintaining BCPS status.
  - Learn More

- 1-Year Recertification Plans for Individuals and Institutions
  - Learn More

- 2-Year Recertification Plans for Board Certified Pharmacists
  - Learn More

- ASHP eLearning
  - Learn More

ashp.org/Professional-Development/Board-Certification-Resources
Products and Services

- Practice Advancement Initiative
- Practice Standards & Guidance Documents
- Clinical Drug Information and Other Drug References
- Books (Print & Electronic)
- American Journal of Health-System Pharmacy
- Pharmacy Competence Assessment Center
- eLearning Portal
- Online Resource Centers
Research Resource Center

Before you Begin: Pharmacy Research Fundamentals

AJHP Research Fundamentals Series
ASHP Foundation Essentials of Practice Based Research for Pharmacists
Using administrative data for your research project: 10 considerations before you begin [AJHP]
Building Upon Existing Evidence to Shape Future Research Endeavors [AJHP]
Research Timeline

https://www.ashp.org/Pharmacy-Practice/Resource-Centers/Research-Resource-Center
Accreditation
International Hospital Pharmacy Services Accreditation
International Hospital Pharmacy Services Accreditation

Purpose

1. Provides formal recognition of high quality pharmacy services
2. Demonstrates commitment to excellence and quality improvement
3. Enhances credibility and value of pharmacy services – internally and externally

Standards specific to international practice
International Hospital Pharmacy Services Accreditation: Benefits

- Improved quality of care leading to improved patient outcomes
- Assurance policies and procedures are followed consistently throughout your organization
- Decreased variation in your processes and improved efficiencies
- Increased confidence of your pharmacy services internally
- External validation of your pharmacy services for your patients and community
- Risk management reduction
- A competitive advantage
- Formal recognition of accreditation with a certificate and ASHP website
International Hospital Pharmacy Services Accreditation

• Role of the ASHP International Accreditation Commission
  • Oversight of the international standards
    • International Hospital Pharmacy Services
    • International Pharmacy Practice Residency
  • Review and recommendation of accreditation for programs

• Global representation

• Three year accreditation
Accreditation Process

1. **Proposal**
   - Based on bed size and number of pharmacies

2. **Application**

3. **Document Assessment**
   - Checklist
   - Document submission and review
   - Document report

4. **Survey**
   - On-site or remote
   - Survey itinerary
   - Multiple days

5. **Survey Report**
   - Pharmacy response and action plan
   - Surveyor review

6. **Accreditation Recommendation**
   - International Accreditation Commission
   - ASHP Board of Directors
   - Three year accreditation – annual reports
Residency Accreditation

PGY1/PGY2
International Pharmacy Practice
Pharmacy Practice Residency

**Purpose**

1. Build on pharmacy education for the development of clinical pharmacists
2. Grow pharmacist delivered patient care services
3. Establish criteria for training pharmacists to achieve professional competence
4. Develop leadership role in advancing pharmacy practice in their country
Pharmacy Practice Residency

Purpose

1. Establishes criteria for training pharmacists to achieve professional competence in the delivery of patient-centered care and pharmacy services

2. Evaluates the training program and the pharmacy services
Accreditation for International Pharmacy Practice Residency

1. Oversight by the ASHP International Accreditation Commission

2. Three year accreditation
Accreditation Process

1. Application
2. Pre-Survey Documents
   - Self-assessment questionnaire
   - Checklist
   - Required Documents
3. Pre-Survey Meeting
   - Document review
4. Survey
   - On-site or remote
   - Survey itinerary
   - Multiple days
5. Survey Findings
   - Pharmacy response and action plan
   - Surveyor review
6. Accreditation Recommendation
   - International Accreditation Commission
   - ASHP Board of Directors
   - Three year accreditation – annual reports
Accreditation Preparation and Training
Preparation for Accreditation

1. Readiness to offer a pharmacy residency program

2. Readiness/suitability to undergo accreditation of pharmacy department

3. Mock surveys for candidate programs and other customized programs
Training Programs

1. Residency Program Design and Conduct Workshop
2. Program Development
3. Preceptor Development
Consulting Services
ASHP Consulting

Put ASHP’s Experts to Work in Your Pharmacy

Our consultants are internationally recognized pharmacy practice experts with longstanding reputations for improving outcomes. Whether it’s helping you develop and expand clinical practice, optimize your pharmacy operation and supply chain, expand your retail pharmacy services, or launch a telehealth program we take pride in assisting our clients with any practice challenge they present.
Consulting Services

- Comprehensive Pharmacy Review
- Advancing Clinical Practice
- Medication Safety and Pharmacovigilance
- Pharmacy Technician Training
- Pharmacy Operations Optimization
- Automation and Technology Transformation
- Sterile Product Compounding & USP Chapter <797> and <800> Compliance
- Supply Chain Optimization
- Retail and Specialty Pharmacy Optimization
- Pharmacy Leadership Search and Placement Service
- Residency Program Development
Dialogue with Dr. Chamoun

Nibal Chamoun, Pharm.D., BCPS
Clinical Associate Professor
Residency Program Director, LAU School of Pharmacy
LAU Medical Center-Rizk Hospital
Lebanese American University
Resilience, Well-being, Burnout: Where are we today in Lebanon?

- Unpublished data in hospital pharmacists in Lebanon:
  - 43.5% were at risk of burnout driven by emotional exhaustion 36.9%
  - Study results were prior to the pandemic, August 4th Beirut explosion and economic crisis

- Dire need of resilience and focus on well-being given the worsening economic situations and political instability which has impacted:
  - Well-being of pharmacists
  - Exodus of qualified pharmacists
  - Difficulty attracting experienced pharmacists
  - Freezing investments related to pharmacy operations
  - Access to medications
Transformation of Clinical Pharmacy Practice in Lebanon
Bridging the gap between Education and Practice

- Hospital pharmacy practice in Lebanon is heavily centered on operational management of medication acquisition and distribution.

- Minimal number of clinical pharmacists are employed throughout hospitals.

- Limited clinical pharmacy role modeling during experiential rotations.

- Collaboration between schools of pharmacy and medical centers has led to the recruitment of:
  - fulltime clinical pharmacists at hospitals
  - non-tenure track clinical faculty at schools of pharmacy to teach and model practice

Figure 1. Timeline and steps for clinical pharmacy service implementation.

- 2011: SOP development of a strategic plan for clinical practice at the medical center
- Sep 2012: Recruitment of a link between the school and the medical center (clinical coordinator)
- Sep–Dec 2012: Assessment of existing pharmacy services, pilot trial of two clinical services, and establishment of prioritization according to school and hospital leadership needs
- Jan 2013: Establishment of clinical pharmacy services
- Jan 2013–Sep 2014: Restructuring of pharmacy practice faculty workload to deliver clinical services and centralize Pharm.D. students’ preceptorship at the medical center
- Jan 2013–Jun 2015: Documentation of outcomes and consistent communication with school and medical center leadership
- Jan 2013–Present: Expansion of clinical services and recruitment of full-time clinical pharmacists by the medical center and nontenure-track pharmacy practice faculty by SOP

Bridging the gap between Residency Training and Practice

• Challenge between number of PGY1 Pharmacy Residency programs and applicants in the United States.

• PGY1 Pharmacy Residency opportunities in Lebanon:
  • LAU School of Pharmacy and LAU Medical Center Rizk Hospital (ASHP candidate accreditation status)
  • American University of Beirut Medical Center (ASHP accredited)
  • Residency opportunities have paved the way for a more consistent pipeline of residency trained practitioners.
Clinical Pharmacy Services in Lebanon

- Pharmacotherapy consults
- Antimicrobial stewardship
- Transitions of care related activities
- Medication safety surveillance
- Health, wellness and public health
- Anticoagulation management
- Immunization
Pharmacist Participation in Ambulatory Clinics in Lebanon

- At the Lebanese American University
  - Heart Failure Clinic
  - Act of Compassion Clinic
  - Medication Therapy Management Clinic

- At other institutions
  - Neurology
  - Multiple sclerosis
Barriers influencing Clinical Pharmacy Practice

• Clinical preceptors with advanced training
  • BPS certified pharmacists: 41 pharmacists in Lebanon in 2021
  • Residency trained pharmacists
  • Expertise is not readily available throughout the country which compromises training

• Regulatory and institutional support
  • No legislations for clinical pharmacy practice
  • Variable institutional support which has rendered inconsistent services

Overcoming Key Barriers in Educational Needs that affect Practice

- Strategies adopted:
  - International Accreditation or Certification

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\(^a\) Accreditation Council for Pharmacy Education  
\(^b\) Canadian Council for Accreditation of Pharmacy Programs

1. American Journal of Pharmaceutical Education 2018; 82 (9) Article 714
Overcoming Key Barriers in Educational Needs that affect Practice

Strategies adopted:

• The Lebanese American University (LAU) was amongst the first to implement experiential and interprofessional education (IPE)

• The Order of Pharmacists in Lebanon actively contributed to country wide continuous professional development (CPD) programs as part of licensure renewal

• Pioneering efforts to demonstrate clinical pharmacy benefit has created job opportunities for new graduates
Future of Pharmacy Practice: Opportunities for Improvement?

• Encourage pharmacists and pharmacy leaders to:
  • expand their roles within their institutions
  • collaborate with researchers and interprofessional healthcare members to ensure outcomes driven and cost-effective drug therapy for patients
  • pursue sophisticated automation and advanced clinical information systems
  • consider collaborating with institution specific IT departments to create interim solutions for clinical decision support tools

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Questions and Answers
ASHP Global Leadership Team

Paul W. Bush, PharmD, MBA, BCPS, FASHP
Vice President, Global Resource Development and Consulting
pbush@ashp.org

Lynnae M. Mahaney, BSPharm, MBA, FASHP
Senior Director, Pharmacy Accreditation
lmahaney@ashp.org

David J. Warner, PharmD
Senior Director, Consulting and Practice Development
dwarner@ashp.org