2017-2018 Influenza Season: A Review for Pharmacists and Pharmacy Technicians

FACULTY
Clark Kebodeaux, PharmD, BCACP
Clinical Assistant Professor
University of Kentucky College of Pharmacy
Lexington, Kentucky

UAN: 0430-0000-17-079-H06-P
Credits: 2.0 hours (0.20 ceu)

GOAL
To provide information on historical and new trends in influenza immunization that impact patient care, including updated recommendations provided by the Advisory Committee on Immunization Practices for the 2017-2018 influenza season.

EDUCATIONAL OBJECTIVES
Upon completion of this activity, participants should be better able to:

1. Define current and historical trends that impact influenza immunization recommendations
2. Describe the Advisory Committee on Immunization Practices recommendations and updates that guide current influenza immunization practices
3. Recognize appropriate influenza immunization-related recommendations for patients in special populations
4. Identify appropriate communication techniques to support influenza immunization recommendations

A Systems Approach to Improving Medication Safety

FACULTY
Donna Horn, RPh, DPh
Director, Patient Safety–Community Pharmacy
Institute for Safe Medication Practices
Horsham, PA

UAN: 0430-0000-16-069-H05-P
Credits: 2.0 hours (0.20 ceu)

GOAL
To improve the pharmacist’s awareness of multiple underlying system failures that often lead to error, many of which can be identified through root cause analysis or assessed using case reviews or other investigative techniques.
EDUCATIONAL OBJECTIVES
Upon completion of this activity, participants should be better able to:
1. Use the Institute for Safe Medication Practices’ (ISMP)’“Key Elements of the Medication Use System” to identify and prevent risk in daily practice;
2. Describe how to analyze a medication error using a specific set of steps and associated tools to identify contributing factors and root causes of the event;
3. Specify how to use information gathered during root cause analysis to minimize the reoccurrence of medication errors;
4. Select effective error reduction strategies that can prevent patient harm and engage in practices that ensure patient safety.

Abuse-Deterrent Formulations:
Clinical Applications and Utility in Chronic Pain

FACULTY
Jeffrey Fudin, BS, PharmD, DAAPM, FCCP, FASHP
President and Director, Scientific and Clinical Affairs
REMITIGATE, LLC
Albany, NY

Thien C. Pham, BS, PharmD
Clinical Pharmacy Specialist, Pain Management
VA Long Beach Healthcare System
Long Beach, CA

Jacqueline Cleary, PharmD
Assistant Professor of Pharmacy Practice
Albany College of Pharmacy and Health Sciences
Albany, NY

UAN: 0430-0000-16-108-H05-P
Credits: 2.0 hours (0.20 ceu)

GOAL
To understand the rationale and utility of abuse-deterrent formulations, examine the various technologies, and review their current regulatory status.

EDUCATIONAL OBJECTIVES
Upon completion of this activity, participants should be better able to:
1. Identify the characteristics that make various opioids desirable among abusers;
2. Understand how oral formulations of opioids are abused;
3. Describe and differentiate among the various abuse-deterrent formulations (ADFs) and how they can deter opioid abuse;
4. Review the regulatory status of abuse-deterrent products in the United States; and
5. Describe validated risk assessment tool applicability for employing universal precautions and how this could apply to ADF preference.
Aerosol Delivery Devices Used in the Treatment of Asthma: Improving Patient Education to Prevent Hospital Readmissions

FACULTY

Dean R. Hess, PhD RRT FAARC
Assistant Director of Respiratory Care
Massachusetts General Hospital
Associate Professor of Anesthesia, Harvard Medical School
Boston, MA

UAN: 0430-0000-17-022-H01-P
Credits: 2.0 hours (0.20 ceu)

GOAL
To improve pharmacists' understanding of the performance characteristics related to various aerosol delivery devices and distinguish which aerosol delivery device is most appropriate for an individual patient.

EDUCATIONAL OBJECTIVES
Upon completion of this activity, participants should be better able to:
1. Compare the performance characteristics of pressurized metered dose inhalers, dry powder inhalers, and nebulizers
2. List the correct steps for the use of various aerosol delivery devices
3. Discuss advantages and disadvantages of various aerosol delivery devices
4. Select the appropriate aerosol delivery device for an individual patient

Compounding Preparations for Ophthalmic Use in Humans

FACULTY

Linda McElhiney, PharmD, MSP, RPh, FIACP, FACA, FASHP
Compounding Pharmacist
Indiana University Health Compounding
Indianapolis, IN

UAN: 0430-0000-16-068-H01-P
Credits: 2.0 hours (0.20 ceu)

GOAL
To review the components and delivery systems of sterile compounded ophthalmic medications and how to properly prepare them according to United States Pharmacopeia standards.

EDUCATIONAL OBJECTIVES
Upon completion of this activity, participants should be better able to:
1. Review the anatomy of the eye;
2. Describe different medication delivery systems for sterile ophthalmic preparations;
3. Discuss the components used to prepare sterile compounded ophthalmic preparations; and
4. Summarize the United States Pharmacopeia (USP) standards and other relevant guidelines for compounding, dispensing, and storing sterile ophthalmic preparations in effect as of this writing.
Current Topics in Sterile Compounding: The Drug Quality and Security Act

FACULTY

Erin Albert, MBA, PharmD, JD, PAHM
Health Outcomes Pharmacist - Myers and Stauffer, LLC
CEO - Pharm, LLC
Indianapolis, IN

Angela V. Ockerman, BS, RPh, PharmD
Butler University College of Pharmacy and Health Sciences
Indianapolis, IN

UAN: 0430-0000-16-068-H01-P
Credits: 2.0 hours (0.20 ceu)

GOAL
To present information on the laws and oversight governing compounding pharmacies and newly designated outsourcing facilities.

EDUCATIONAL OBJECTIVES
Upon completion of this activity, participants should be better able to:
1. Discuss the issues that led to the introduction and passage of the Drug Quality and Security Act (DQSA);
2. List the provisions for compounding and outsourcing facilities stipulated in the DQSA;
3. Compare and contrast the definitions of compounding and outsourcing facilities provided in Sections 503A and 503B of the Federal Food, Drug & Cosmetic Act (FDCA); and
4. Describe the process for becoming an outsourcing facility under Section 503B of the FDCA.

Diabetes Update:
New and Emerging Antihyperglycemic Agents

FACULTY

Joshua J. Neumiller, PharmD, CDE, FASCP
Associate Professor
Department of Pharmacotherapy
Washington State University
Spokane, WA

UAN: 0430-0000-16-042-H01-P
Credits: 2.0 hours (0.20 ceu)

GOAL
To educate pharmacists on select new and emerging medications for the treatment of diabetes mellitus. Emphasis will be placed on the mechanisms of action, efficacy, tolerability, and key patient counseling information for each agent and/or drug class.

EDUCATIONAL OBJECTIVES
Upon completion of this activity, participants should be better able to:
1. Discuss the mechanisms of action and pharmacodynamic/pharmacokinetic characteristics of new and
emerging antihyperglycemic agents.
2. **Compare** and contrast new and emerging insulins, glucagon-like peptide-1 (GLP-1) receptor agonists, and sodium-glucose co-transporter-2 (SGLT-2) inhibitors.
3. **Discuss** tolerability and safety considerations for select antihyperglycemic agents.
4. **Summarize** key patient counseling information for the antihyperglycemic agents discussed in this lesson.

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**Emergency Contraception: An Update for Pharmacists**

**FACULTY**

*Laura Borgelt, PharmD, FCCP, BCPS, NCMP*

Associate Dean of Administration and Operations and Professor
Departments of Clinical Pharmacy and Family Practice
University of Colorado Anschutz Medical Campus
Skaggs School of Pharmacy and Pharmaceutical Sciences
Aurora, CO

**UAN:** 0430-0000-16-067-H01-P

**Credits:** 2.0 hours (0.20 ceu)

**GOAL**

To review the four available methods of emergency contraception and educate pharmacists about each methods' strengths and limitations.

**EDUCATIONAL OBJECTIVES**

Upon completion of this activity, participants should be better able to:

1. **Compare** and contrast various methods of emergency contraception (EC) including their efficacy, mechanism of action, contraindications, dosing, potential drug interactions, and adverse effects;
2. **Explain** ongoing legislation regarding access and prescription status of EC;
3. **Describe** when EC should be recommended to a patient seeking EC; and
4. **Counsel** patients regarding the proper use of oral EC, including referral to primary health care provider when necessary.

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**Evidence-Based Treatment of Dyslipidemia: Patient-Centered Evaluation and Management**

**FACULTY**

*Joseph J. Saseen, PharmD, BCPS, BCACP*

Professor, Departments of Clinical Pharmacy and Family Medicine
Vice-Chair, Department of Clinical Pharmacy
University of Colorado School of Pharmacy
Aurora, CO

**UAN:** 0430-0000-16-071-H01-P

**Credits:** 2.0 hours (0.20 ceu)

**GOAL**

This activity’s goal is to highlight recent changes in management approaches for dyslipidemia; review drugs used to lower lipids; and address select special populations.
EDUCATIONAL OBJECTIVES
Upon completion of this activity, participants should be better able to:
1. **Describe** the American College of Cardiology/American Heart Association cholesterol guidelines and the National Lipid Association recommendations for patient-centered management of dyslipidemia;
2. **Compare** and contrast currently available medications for the treatment of dyslipidemia;
3. **Explain** statin adverse effects, including those related to cognition, new-onset diabetes, and muscle symptoms; and
4. **Summarize** treatment of dyslipidemia in special populations.

Factor Replacement Therapy in Hemophilia A and Hemophilia B

**FACULTY**

**Michelle Bryson, PharmD, BCPS**
Clinical Assistant Professor
Drug Information Group
Department of Pharmacy Practice
University of Illinois at Chicago, College of Pharmacy
Chicago, Illinois

**Lara K Ellinger, PharmD, BCPS**
Clinical Assistant Professor
Drug Information Group
Department of Pharmacy Practice
University of Illinois at Chicago, College of Pharmacy
Chicago, Illinois

**UAN:** 0430-0000-16-083-H01-P
**Credits:** 2.0 hours (0.20 ceu)

**GOAL**
To inform pharmacists of the available factor replacement products and prophylaxis and treatment strategies for hemophilia and enable them to provide comprehensive care for patients with hemophilia A or hemophilia B.

**EDUCATIONAL OBJECTIVES**
Upon completion of this activity, participants should be better able to:
1. **Summarize** the epidemiology and presentation of hemophilia A and hemophilia B;
2. **List** characteristics of available factor replacement therapies;
3. **Review** treatment and prophylactic strategies for bleeding and bleeding-related complications; and
4. **Describe** complications associated with factor replacement therapies.

FDA’s Risk Evaluation and Mitigation Strategies Program: What Pharmacists Need to Know

**FACULTY**

**Casey Covrett, PharmD, BCPS**
Clinical Editor
Postgraduate Healthcare Education, LLC
[at the time this article was prepared]
GOAL
The goal of this activity is to update pharmacists regarding the progression of risk evaluation and mitigation strategies (REMS).

EDUCATIONAL OBJECTIVES
Upon completion of this activity, participants should be better able to:
1. Explain the evolution from risk minimization action plans (RiskMAPs) to REMS.
2. Identify key elements that may be included in REMS.
3. Describe the effect that a REMS has on the health care distribution system.
4. Summarize the existing challenges surrounding REMS.

HIV Treatment Overview and Considerations for Antiretroviral Use in Patients with HCV Coinfection

FACULTY
John M. Conry, PharmD, AAHIVP, FNAP
College of Pharmacy and Health Sciences
St. John’s University
Queens, New York

Clinical Coordinator of Pharmaceutical Care Services
Project Renewal
New York, New York

GOAL
To review screening and management of human immunodeficiency virus (HIV), hepatitis C virus (HCV), and HIV/HCV coinfected treatment-naive patients, with special emphasis on the role of the pharmacist as a member of the health care team caring for the HIV/HCV-coinfected patient.

EDUCATIONAL OBJECTIVES
Upon completion of this activity, participants should be better able to:
1. Review the epidemiology and screening recommendations for human immunodeficiency virus (HIV) and hepatitis C virus (HCV) infections;
2. Identify treatment goals for HIV-infected patients and for HCV-infected patients;
3. Describe the current HIV treatment guidelines and the appropriate selection of antiretrovirals when initiating therapy in antiretroviral-naive HIV-infected patients;
4. Describe the current HCV treatment guidelines and the appropriate selection of treatment when initiating therapy in treatment-naive HCV-infected patients; and
5. Discuss how drug interactions between HIV and HCV treatments affect the care of HIV/HCV coinfected patients.
Implementing and Providing Transitions of Care Among Health Care Settings

**FACULTY**

**Julianna Burton, PharmD, BCPS, BCACP, FCSHP**
Assistant Chief of Pharmacy  
Department of Pharmacy  
University of California–Davis Medical Center  
Sacramento, CA

**Pamela Mendoza, PharmD**
Transitions of Care Pharmacist  
Department of Pharmacy  
University of California–Davis Medical Center  
Sacramento, CA

**GOAL**
Inform and educate pharmacists about transitions of care and the need for collaboration with other health care professionals as patients transition from one health care setting to the next and provide resources, tools, and key components for implementing and/or improving transitions of care as suggested in primary literature and governing bodies.

**EDUCATIONAL OBJECTIVES**
Upon completion of this activity, participants should be better able to:
1. Describe different transitions of care (TOC) models and barriers to effective TOC among care settings;
2. Explain components of medication reconciliation, including methods for obtaining the best possible medication history;
3. Outline a plan to introduce transitions of care in health systems and key elements to obtain administrative buy-in; and
4. List financial options to support transitions of care.

Management of Pain, Agitation, and Delirium in Critically Ill Adult Patients

**FACULTY**

**Gilles L. Fraser, PharmD, MCCM**
Professor of Medicine  
Tufts University College of Medicine  
Director Clinical Specialist Critical Care  
Department of Pharmacy  
Maine Medical Center  
Portland, ME

**Lauren Payne, PharmD**
PGY2 Critical Care Resident  
Maine Medical Center  
Portland, ME
GOAL
To improve pharmacists understanding of best standards of care in regards to therapeutic management of pain, agitation, and delirium in critically ill adults.

EDUCATIONAL OBJECTIVES
Upon completion of this activity, participants should be better able to:
1. Select patient-care strategies to potentially improve the experience of the critically ill patient by increasing patient comfort.
2. Use the 2013 American College of Critical Care Medicine (ACCM) pain, agitation, and delirium guidelines to develop prevention and treatment plans for critically ill patients.
3. Discuss pharmacologic agents for treatment of pain and agitation in the intensive care unit (ICU).
4. List ways to expand the pharmacist’s role in making pain, agitation, and delirium-related recommendations in the ICU.

Medical Marijuana: Pharmacologic and Regulatory Considerations

FACULTY
Gerald Gianutsos, PhD, JD
Associate Professor of Pharmacology
School of Pharmacy
University of Connecticut
Storrs, CT

GOAL
To provide an understanding of the pharmacology, effects, side effects, and potential clinical uses of marijuana constituents and to provide a basis for the appreciation of the controversy and legal issues surrounding state and federal programs that attempt to regulate the availability of marijuana for medical and non-medical uses.

EDUCATIONAL OBJECTIVES
Upon completion of this activity, participants should be better able to:
1. List the potential therapeutic applications of marijuana;
2. Describe the effects of marijuana on the central nervous system and other organ systems;
3. Recognize the advantages and disadvantages of different natural and synthetic cannabinoids and routes of administration;
4. Describe the differences and similarities among states that permit marijuana to be used for medical purposes; and
5. Analyze the controversy between state and federal law as it applies to marijuana and the historical context of regulation.
A Review of Nonsterile Compounding Essentials for Veterinary Patients (Module 10)

FACULTY

Gigi Davidson, RPh, DICVP
Director of Clinical Pharmacy Services
North Carolina State Veterinary Hospital
Raleigh, NC

UAN: 0430-0000-16-061-H04-P
Credits: 2.5 hours (0.25 ceu)

GOAL
To provide pharmacists with knowledge and skills to facilitate preparation of high quality and legally compliant simple, moderate, and complex nonsterile compounded preparations for veterinary patients.

EDUCATIONAL OBJECTIVES
Upon completion of this activity, participants should be better able to:
1. Summarize regulatory boundaries for legally compliant preparation of nonsterile compounds for veterinary patients.
2. Differentiate species-specific considerations for preparing simple, moderate, and complex nonsterile compounds for veterinary patients.
3. Identify drugs, excipients, vehicles, flavors, and preservatives that are toxic in veterinary patients.
4. Describe preparation of and quality assurance assessments for commonly prescribed simple, moderate, and complex nonsterile veterinary compounded preparations.
5. Provide comprehensive counseling and monitoring for caregivers administering compounding preparations for nonhuman patients.

Opioid Analgesics: Best Practices for Prescribing, Dispensing, and Preventing Diversion

FACULTY

Mark Rose, BS, MA
Licensed Psychologist and Researcher/Field of alcoholism and drug addiction
North Central Biomedical Communications, Inc
St. Paul, Minnesota

UAN: 0430-0000-17-017-H03-P
Credits: 3.0 hours (0.30 ceu)

GOAL
To increase pharmacists’ understanding of opioid use, diversion, and abuse in West Virginia; review safe and effective opioid prescribing and dispensing practices for pain management; and review opioid antagonist prescribing and administration in West Virginia.

EDUCATIONAL OBJECTIVES
Upon completion of this activity, participants should be better able to:
1. Using data from West Virginia, describe the epidemiology of chronic pain, demographics of patients who abuse opioids, addiction/abuse risk factors, and opioids’ abuse potential
2. **Describe** opioids' characteristics (including toxicities and drug interactions), associated use disorders, and behavioral responses to prescribed opioids
3. **Describe** best practices for prescribing of opioid analgesics and management of patients with pain
4. **Discuss** the complete range of legal requirements for controlled substance prescriptions, identification of fraudulent prescriptions, drug-seeking behaviors, and drug diversion
5. **Describe** risk reduction approaches, including FDA risk evaluation and mitigation strategies (REMS), and the West Virginia Controlled Substance Monitoring Program
6. **Using** a case study, apply best practices for opioid analgesics in ways that deal with known and potential abusers effectively, efficiently, and safely
7. **Educate** patients on appropriate drug administration of naloxone rescue therapy and other overdose prevention strategies

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**Opioids: Addiction, Overdose Prevention, and Patient Education**

**FACULTY**

*Kelly N. Gable, PharmD, BCPP*

Associate Professor

Southern Illinois University–Edwardsville, School of Pharmacy

Edwardsville, IL

Psychiatric Care Provider

Places for People

St. Louis, MO

UAN: 0430-0000-15-006-H05-T

Credits: 2.0 hours (0.20 ceu)

**GOAL**

This activity is designed to educate pharmacists about treatment concerns associated with addiction, life-saving treatments to prevent opioid overdose and patient education about naloxone rescue therapy.

**EDUCATIONAL OBJECTIVES**

Upon completion of this activity, participants should be better able to:

1. **Discuss** national trends specific to opioid use and overdose.
2. **Describe** the neurobiology of opioid use disorder and addiction.
3. **Understand** the signs and symptoms of opioid use disorder, intoxication, and withdrawal.
4. **Identify** patients who are at risk for opioid use disorder and opioid overdose.
5. **Recognize** how to educate patients on appropriate drug administration of naloxone rescue therapy and other overdose prevention strategies.

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**Optimizing Use of Biologic DMARDs in Rheumatoid Arthritis**

**FACULTY**

*Steven Kheloussi, PharmD*

Adjunct Professor, Pharmacy Practice

Wilkes University, School of Pharmacy

Medication Therapy Management Pharmacist

Geisinger Health Plan

Wilkes-Barre, PA
GOAL
To review clinical and practical aspects of use of biologic disease-modifying antirheumatic drugs in treatment of patients with rheumatoid arthritis.

EDUCATIONAL OBJECTIVES
Upon completion of this activity, participants should be better able to:
1. Describe the role of biologic disease-modifying antirheumatic drugs (DMARDs) in the treatment of patients with rheumatoid arthritis (RA).
2. Recall dosing, precautions, contraindications, and warnings involving the use of biologic DMARDs in patients with RA.
3. Review appropriate subcutaneous injection techniques for select biologic DMARDs.
4. Identify the need for tuberculosis screening and appropriateness of vaccinations in patients using biologic DMARDs.
5. List available RA disease activity indices that are increasingly being used in patient monitoring.

Pediatric Readiness in the Hospital Setting:
Preparing Pharmacists for Pediatric Emergencies

FACULTY
Pamela Lada Walker, PharmD, MHA, BCPS
Clinical Coordinator, Emergency Medicine Pharmacy Services
Adjunct Clinical Assistant Professor
Department of Pharmacy
University of Michigan
Ann Arbor, Michigan

Jeannette Wick, RPh, MBA, FASCP
Visiting Professor
School of Pharmacy
University of Connecticut
Storrs, Connecticut

GOAL
To discuss the unique issues that pharmacists must consider when providing care for pediatric patients in institutional settings during times of disasters (biological, chemical, natural, and radiological).

EDUCATIONAL OBJECTIVES
Upon completion of this activity, participants should be better able to:
1. Describe the different agencies involved in disaster preparedness;
2. Discuss the pharmacodynamic differences that elevate risk in pediatric populations;
3. Categorize the different biological terrorism agents per classifications of the Centers for Disease Control and Prevention; and
4. Prepare a disaster pharmaceutical plan for pediatric patients for exposures that include biological agents, chemical agents, and radiological agents.
Perioperative Pharmacy Care—What Every Pharmacist Should Know

FACULTY

Jeannette Wick, RPh, MBA, FASCP
Visiting Professor
School of Pharmacy
University of Connecticut
Storrs, Connecticut

UAN: 0430-0000-16-072-H01-P
Credits: 2.0 hours (0.20 ceu)

GOAL

To describe four major areas of perioperative care relevant to pharmacists practicing in acute and other care settings: antibiotic prophylaxis in surgical patients; malignant hyperthermia, safe use of alvimopan, and management of systemic toxicities of local anesthetics.

EDUCATIONAL OBJECTIVES

Upon completion of this activity, participants should be better able to:

1. Describe the prevalence and economic burden of surgical site infections.
2. Summarize Surgical Care Improvement Project performance measures and their application in the hospital including antibiotic selection, timing of initial dose, when to stop, and intraoperative re-dosing recommendations.
3. List details about the pathophysiology of malignant hyperthermia, causative agents, and the pharmacist response team’s drug therapy management options and responsibilities.
4. Explain the alvimopan (Entereg) Risk Evaluation Mitigation Strategy.
5. Recognize local anesthetic systemic toxicity and be able to actively assist with emergency treatment.
6. List various contraindications and warnings for nonprescription products commonly recommended for headache and other common conditions causing pain.

Pharmacist Immunization Practices and OARRS Updates: Ohio Pharmacy Law

FACULTY

Joseph R. Sabino, BS, MS, RPh
Clinical Editor and Medical Writer
Wilmington, North Carolina

UAN: 0430-0000-16-003-H03-P
Credits: 1.0 hours (0.10 ceu)

GOAL

To update pharmacists on the current status of key issues in Ohio Statutes and Rules governing immunizations administered by pharmacists and pharmacy interns as well as guidance for the appropriate use of the Ohio Automated Rx Reporting System (OARRS).
EDUCATIONAL OBJECTIVES
Upon completion of this program, participants should be better able to:
1. List the general guidelines in Ohio Statutes and Rules for immunizations permitted for pharmacist and pharmacy intern administration;
2. Explain the education and legal requirements for pharmacists and pharmacy interns to lawfully administer immunizations;
3. Review basic record keeping requirements for the administration of immunizations;
4. Identify the standards that have been established for the use of the Ohio Automated Rx Reporting System (OARRS);
5. Describe the nature and use of Morphine Equivalent Dose (MED) on the OARRS report.

Pharmacotherapeutic Agents for Smoking Cessation

FACULTY
Kristen M. Wiese, PharmD
Clinical Pharmacist
Adult Ambulatory Psychiatry
Pharmacogenomics Fellow
Department of Clinical, Social, & Administrative Pharmacy
College of Pharmacy
University of Michigan
Ann Arbor, MI

UAN: 0430-0000-16-109-H01-P
Credits: 2.0 hours (0.20 ceu)

GOAL
The goal of this program is to increase the pharmacist’s knowledge base regarding pharmacologic treatment options used for smoking cessation, with a focus on nicotine replacement therapies.

EDUCATIONAL OBJECTIVES
Upon completion of this program, participants should be better able to:
1. Describe the health benefits of smoking cessation;
2. Recognize patients who are appropriate candidates for nicotine replacement therapy (NRT);
3. Compare available formulations of NRTs and how they differ with respect to dosing, adverse events, and pharmacokinetic parameters;
4. Explain alternative pharmacologic treatment options for smoking cessation; and Counsel patients on the use of prescription and over-the-counter NRTs.

Primer on Prevention and Treatment of HIV Infection

FACULTY
David Cluck, PharmD, BCPS, AAHIVP
Clinical Assistant Professor and Clinical Pharmacist, Infectious Disease
Department of Pharmacy Practice
East Tennessee State University – Gatton College of Pharmacy
Johnson City, TN

UAN: 0430-0000-16-076-H02-P
Credits: 3.0 hours (0.30 ceu)
GOAL
To educate pharmacists about prevention and treatment of human immunodeficiency virus (HIV) infection and review Florida-specific legislation related to HIV testing requirements.

EDUCATIONAL OBJECTIVES
Upon completion of this activity, participants should be better able to:
1. Discuss the epidemiology of HIV infection including trends related to incidence and transmission
2. Summarize opportunistic infections associated with HIV/acquired immunodeficiency syndrome (AIDS)
3. Outline infection control practices for HIV infection as well as nonpharmacologic and pharmacologic methods of prevention
4. Review preferred antiretroviral drug regimens for treatment-naive and treatment-experienced patients
5. Describe HIV testing-related requirements of the Florida Omnibus AIDS Act

Reaching for the ‘Stars’:
Medication Nonadherence, Root Causes, and Methods for Intervention

FACULTY
Jennifer Strohecker, PharmD, BCPS
Director Corporate Pharmacy Services, Clinical Operations
Molina Healthcare, Inc.
Midvale, UT

UAN: 0430-0000-16-084-H04-P
Credits: 2.0 hours (0.20 ceu)

GOAL
To describe medication nonadherence and pharmacists’ roles in addressing it under the Medicare Five-Star Quality Rating System.

EDUCATIONAL OBJECTIVES
Upon completion of this activity, participants should be better able to:
1. Differentiate between the fee-for-service model and quality-based performance health care models;
2. Define Centers for Medicare & Medicaid Services (CMS) standards for nonadherence using proportion of days covered (PDC);
3. List the consequences of medication nonadherence;
4. Describe the CMS Five-Star Quality Rating System’s medication adherence quality measures and their role in Medicare Part D;
5. Outline the necessary components of the high-touch model;
6. Recall the patient, provider, and external factors that contribute to nonadherence; and
7. Use strategies to identify and resolve barriers to adherence through a high-touch model.

Safe and Effective Use of Extended-Release and Long-Acting Opioids:
Overview of ER/LA Opioid Risk Evaluation Mitigation Strategy

FACULTY
Michele Matthews, PharmD, CDE, BCACP
Associate Professor of Pharmacy Practice
Massachusetts College of Pharmacy and Health Sciences
Boston, MA
GOAL
Provide pharmacists with timely and practical education on the role of long-acting and extended-release opioids in the management of chronic pain with emphasis on safety and appropriate monitoring.

EDUCATIONAL OBJECTIVES
Upon completion of this activity, participants should be better able to:
1. **Describe** components of the Risk Evaluation Mitigation Strategy (REMS) program associated with the prescribing of extended-release/long-acting (ER/LA) opioids.
2. **Determine** the appropriateness of ER/LA opioid therapy for patients with chronic pain.
3. **Implement** monitoring strategies to ensure the safe and effective use of ER/LA opioids.
4. **Educate** patients on the benefits and risks of ER/LA opioids to improve adherence and minimize adverse effects.
5. **Calculate** a day’s supply of both oral solid and liquid dosage forms.

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**Texas State Law Primer and Updates**

**FACULTY**

*Eli G. Phillips, Jr., PharmD, JD*

*Director, Pharmacy Compliance*

Quality & Regulatory Affairs
Cardinal Health

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**GOAL**

To review professional pharmacy practice requirements of both pharmacists and pharmacy technicians in the state of Texas.

**EDUCATIONAL OBJECTIVES**

Upon completion of this activity, participants should be better able to:
1. **Recognize** the purpose and composition of the Texas State Board of Pharmacy;
2. **Understand** the continuing education requirement(s) for pharmacy technicians;
3. **Describe** the legal requirements for various product substitutions;
4. **Identify** the situations that require a pharmacist to provide patient counseling; and
5. **Support** pharmacists in preparing prescriptions within legal limits.

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**The Drug Supply Chain Security Act:**

**Improving the Integrity of Drug Distribution**

**FACULTY**

*Marsha K. Millonig, MBA, BPharm*

President & CEO
Catalyst Enterprises, LLC
Eagan, Minnesota
GOAL
The goal of this activity is to provide relevant education to pharmacists about the Drug Supply Chain Security Act (DSCSA) to improve the integrity of the drug supply distribution chain, while learning methods to identify suspect product.

EDUCATIONAL OBJECTIVES
Upon completion of this activity, participants should be better able to:
1. **Review** how the Drug Supply Chain Security Act (DSCSA) will improve the integrity of the drug supply distribution chain;
2. **Describe** the “track and trace” language in the DSCSA;
3. **List** DSCSA requirements and their effective dates;
4. **Explain** what documentation has to “move” with the product; and
5. **Describe** methods for identifying suspect product delivered to the pharmacy.

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**The Utility of Root Cause Analysis and Failure Mode and Effects Analysis in the Hospital Setting**

**FACULTY**

*Jennifer Gibson, PharmD*
Medical Writer
President of Excalibur Scientific

GOAL
Identifying and preventing medication errors is a significant challenge in all health care settings. Pharmacists must understand common methodologies for detecting sources of risk in order to participate in error and risk investigations and to implement changes in pharmacy practice.

EDUCATIONAL OBJECTIVES
Upon completion of this program, participants should be able to:
1. **Discuss** the prevalence of medication errors in the United States;
2. **Describe** the utility of root cause analysis (RCA) in the health care setting;
3. **Outline** the steps involved in a failure mode and effects analysis (FMEA);
4. **Summarize** the benefits of drawing from a multidisciplinary team to complete patient safety evaluations; and
5. **List** 4 strategies that can be employed in the pharmacy to help reduce medication errors.
Update on the Prescription Drug Abuse Epidemic for Pharmacists and Pharmacy Technicians

FACULTY

Gerald Gianutsos, PhD, JD
Associate Professor of Pharmacology
School of Pharmacy
University of Connecticut
Storrs, CT

UAN: 0430-0000-16-020-H03-P
Credits: 2.0 hours (0.20 ceu)

GOAL
The goal of the activity is to update pharmacists and pharmacy technicians about the current issues surrounding the nonmedical use of prescribed controlled substances, including the approaches to and consequences of regulatory efforts to minimize diversion, with an emphasis on rescheduling.

EDUCATIONAL OBJECTIVES
Upon completion of this program, participants should be better able to:
1. State the current prevalence of the diversion of prescribed controlled substances, as well as some concerns associated with this diversion;
2. Describe the differences among criteria for designating controlled drugs into different schedules;
3. Identify how federal and state laws regulating controlled substances may differ;
4. Outline the process for reclassification of controlled substances; and
5. Discuss how reclassification can affect pharmacists, pharmacy technicians, and patients.

USP General Chapter <797>:
A Guide to Sterile Compounding for Pharmacy Personnel

FACULTY

Patricia C. Kienle, RPh, MPA, FASHP
Cardinal Health Innovative Delivery Solutions
Angela G. Long, MS, MPH
RightInsight

UAN: 0430-0000-17-041-H04-P
Credits: 2.0 hours (0.20 ceu)

GOAL
To present requirements for establishing and maintaining policies, facilities, and personnel needed for production of sterile compounded preparations in accordance with laws, regulations, and standards in the United States.

LEARNING OBJECTIVES
Upon completion of this activity, participants should be better able to:
1. List the key regulations, standards, and enforcement bodies for sterile compounding.
2. Identity the types of primary engineering controls used for nonhazardous and hazardous sterile compounding
3. State the two physical tests that must be successfully completed by compounders and
the frequency the tests must be performed
4. **Differentiate** viable and nonviable testing for compounding facilities
5. List the work practices required when compounding sterile preparations.

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**USP General Chapter <800>: A Pharmacy Professional’s Guide to Handling and Compounding Hazardous Drugs**

**FACULTY**

*Patricia C. Kienle, RPh, MPA, FASHP*
Cardinal Health Innovative Delivery Solutions

*Angela G. Long, MS, MPH*
RightInsight

**UAN:** 0430-0000-17-060-H07-P
**Credits:** 2.0 hours (0.20 ceu)

**GOAL**
To present information on the practice issues, standards, and regulatory framework related to the handling of and compounding hazardous drugs.

**LEARNING OBJECTIVES**
Upon completion of this activity, participants should be better able to:
1. **State** the purpose of the United States Pharmacopeia Chapter <800>, to whom it applies, and in what locations
2. **Identify** the document that must be used to identify hazardous drugs
3. **Define** the process for establishing an assessment of risk
4. **Cite** the types of engineering controls appropriate for use with hazardous drugs
5. **List** the type of environmental monitoring used to detect hazardous drug contamination

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**Vaccine Storage, Handling, and Administration, and Vaccine Adverse Events: A Review for the Pharmacist**

**FACULTY**

*Micahel D. Hogue, PharmD, FAPhA, FNAP*
Chair & Professor
Department of Pharmacy Practice
Samford University—McWhorter School of Pharmacy
Birmingham, AL

**UAN:** 0430-0000-16-065-H01-P
**Credits:** 2.0 hours (0.20 ceu)

**GOAL**
To inform pharmacists about current practices in vaccine storage, handling, and administration, and provide an update on adverse reactions to vaccines.

**EDUCATIONAL OBJECTIVES**
Upon completion of this activity, participants should be better able to:
1. **Identify** the appropriate parameters for vaccine storage and handling;
2. **Discuss** the significance of the Vaccine Adverse Event Reporting System, National Vaccine Errors Reporting Program, and Vaccine Injury Compensation Program, and pharmacists’ professional responsibility to participate in these programs;
3. **Describe** the procedures for handling vaccines that have been exposed to a deviation in required storage temperature; and
4. **Discuss** mechanisms for pharmacists to ensure, to the best of their ability, vaccine safety.

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**Zika Virus and Its Effects in Pregnancy**

**FACULTY**

*Ruth P. Ebiasab, PharmD, MS*
National Institutes of Health
National Institute of Allergy and Infectious Diseases
Bethesda, Maryland

*Thucuma K. Sise, PharmD, BCPS*
National Institutes of Health
National Institute of Allergy and Infectious Diseases
Bethesda, Maryland

*Michelle Wildman, PharmD*
National Institutes of Health
National Institute of Allergy and Infectious Diseases
Bethesda, Maryland

**UAN:** 0430-0000-16-082-H01-P  
**Credits:** 2.0 hours (0.20 ceu)

**GOAL**
To educate pharmacists and pharmacy technicians about the effect of Zika infection during pregnancy, modes of transmission, signs and symptoms of infection, and preventive measures.

**EDUCATIONAL OBJECTIVES**
Upon completion of this activity, participants should be better able to:
1. **Describe** the characteristics of Zika virus and its various modes of transmission.
2. **Recognize** the clinical presentation of Zika infections, including signs and symptoms, and discuss the tools used to definitively diagnose a Zika infection.
3. **Identify** the potential complications that could affect the fetus as a result of Zika infection during pregnancy.
4. **Counsel** patients on important information about Zika virus, including preventive measures for avoiding exposure to infection.