

POWER-PAK C.E.[®]

PHARMACY TECHNICIAN C.E. PROGRAM

DESCRIPTIONS AND LEARNING OBJECTIVES

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-T

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

Pharmacy Calculations for Pharmacy Technicians: Concentrations, Dilutions and Drug Dosing

FACULTY

Casey J. Covrett, PharmD, BCPS

Freelance Medical Writer

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REVIEWER/CONTENT ADVISOR

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EDITORIAL NOTE:

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UAN: 0430-0000-17-065-H04-T

Credits: 2.0 hours (0.20 ceu)

GOAL

The goal of this activity is to improve the pharmacy technician's ability to solve math problems related to drug concentrations, dilutions, and individualized drug dosing.

EDUCATIONAL OBJECTIVES

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

1. Apply the method of alligation when mixing solutions or solids with different percent strengths;
2. Perform liquid and solid dilution calculations expressed in terms of weight-volume (w/v) and weight-weight (w/w);
3. Calculate patient-specific drug doses based on ideal body weight, body surface area, and adjusted body weight;
4. Utilize the aliquot method in pharmacy compounding when appropriate; and
5. Verify IV flow rates to enhance patient safety.

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-T

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

PHARMACY CALCULATIONS FOR PHARMACY TECHNICIANS: UNITS OF MEASUREMENT AND METHODS OF CALCULATION

FACULTY

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UAN: 0430-0000-17-054-H04-T

Credits: 2.0 hours (0.20 ceu)

GOAL

The goal of this activity is to enhance the pharmacy technician's familiarity with calculations performed in the traditional pharmacy practice setting.

EDUCATIONAL OBJECTIVES

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

1. Determine quantities based on the Roman numeral system;
2. Solve pharmacy-based math problems using dimensional analysis, fractional equations, and ratio-proportion methods of calculation;
3. Accurately convert units between metric and household systems of measurement; and
4. Calculate a day's supply of both oral solid and liquid dosage forms.

EMERGENCY CONTRACEPTION: KEY CONCEPTS FOR THE PHARMACY TECHNICIAN

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: 0430-0000-17-052-H01-T

Credits: 2.0 hours (0.20 ceu)



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. Identify when EC would be recommended to a patient seeking EC; and
4. Identify when to refer patients for counseling with the pharmacist.

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-T

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. Identify 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.

KEEPING UP WITH SUPPLY AND DEMAND: PHARMACY INVENTORY MANAGEMENT FACULTY

Laura K. Stinson, PharmD

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UAN: 0430-0000-17-052-H01-T

Credits: 2.0 hours (0.20 ceu)

EDITORIAL NOTE

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UAN: 0430-0000-17-034-H04-T

Credits: 2.0 hours (0.20 ceu)

GOAL

To educate pharmacy technicians about effective and efficient inventory control practices in order to limit spoilage and improve patient care.

EDUCATIONAL OBJECTIVES

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

1. Understand key inventory terminology and how it applies to daily practice;
2. Summarize steps to appropriately manage inventory when new drugs gain market entry and during brand-to-generic transitions;
3. Identify positive and negative events that affect inventory; and
4. Outline the goals of inventory management.

THE EXPANDING ROLE OF THE PHARMACY TECHNICIAN— MTM AND VACCINATION SUPPORT

FACULTY

Michael D. Hogue, PharmD, FAPhA, FNAP

Professor and Chair

Department of Pharmacy Practice

McWhorter School of Pharmacy, Samford University

Birmingham, Alabama

UAN: 0430-0000-17-013-H04-T

Credits: 2.0 hours (0.20 ceu)

GOAL

To review the roles of the pharmacy technician in medication therapy management and vaccination support.

EDUCATIONAL OBJECTIVES

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

1. Identify the core elements of the medication therapy management process;
2. Describe how a pharmacy technician can assist pharmacists to enable optimal patient care as part of the medication
3. therapy management process;
4. Articulate positive verbal queues which facilitate pharmacist-patient interaction resulting in vaccination of the patient; and
5. Describe the pharmacy technician's role in appropriate vaccine storage and handling, pre-vaccination patient screening, and post-vaccination documentation and follow-up.



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: 0430-0000-17-034-H04-T

Credits: 2.0 hours (0.20 ceu)

GOAL

To educate pharmacy technicians about effective and efficient inventory control practices in order to limit spoilage and improve patient care.

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.

MAXIMIZING PATIENT INTERACTION AT THE PHARMACY COUNTER OTC MEDICATIONS FOR ALLERGIC RHINITIS AND THE COMMON COLD

FACULTY

W. Steven Pray, PhD, DPh

Bernhardt Professor of Pharmacy

Southwestern Oklahoma State University School of Pharmacy

Weatherford, Oklahoma

UAN: 0430-0000-17-010-H01-T

Credits: 2.0 hours (0.20 ceu)

GOAL

The goal of this activity is to prepare pharmacy technicians to assist pharmacists by eliciting appropriate and useful information from patients complaining of allergic rhinitis or the common cold.

EDUCATIONAL OBJECTIVES

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

1. Describe the etiologies of allergic rhinitis and the common cold;
2. Recall the various manifestations of allergic rhinitis and the common cold;
3. Gather the information needed to allow the pharmacist to recognize whether a patient has allergic rhinitis or the common cold;
4. List the various nonprescription products and devices used to treat symptoms of allergic rhinitis and the common cold; and

5. Recognize various contraindications and warnings for nonprescription products for allergic rhinitis and the common cold.

PHARMACY TECHNICIAN REVIEW: NONPRESCRIPTION ANALGESICS FOR HEADACHE AND COMMON CONDITIONS CAUSING PAIN

FACULTY

W. Steven Pray, PhD, DPh

Bernhardt Professor of Pharmacy

Southwestern Oklahoma State University School of Pharmacy

Weatherford, Oklahoma

UAN: 0430-0000-17-009-H01-T

Credits: 2.0 hours (0.20 ceu)

GOAL

To prepare pharmacy technicians to assist pharmacists by eliciting appropriate and useful information from patients complaining of headache and other common conditions causing pain.

EDUCATIONAL OBJECTIVES

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

1. Describe etiologies of headache, including types of headaches and accompanying symptoms or situations that require immediate referral;
2. Gather the information needed to allow the pharmacist to recognize self-treatable headaches and common conditions causing pain;
3. Recognize appropriate products that might provide relief for a specific type of self-treatable headache or common condition causing pain; and
4. List various contraindications and warnings for nonprescription products commonly recommended for headache and other common conditions causing pain.

OUT WITH THE OLD! THE IMPORTANCE OF SAFE AND RESPONSIBLE DISPOSAL OF MEDICATION

FACULTY

Kimberly A. Burns, RPh, JD

Professor

Lake Erie College of Osteopathic Medicine (LECOM) School of Pharmacy

Erie, Pennsylvania

UAN: 0430-0000-17-008-H03-T

Credits: 2.0 hours (0.20 ceu)

GOAL

The purpose of this program is to provide updated information on the topic of medication disposal. This information can be used by pharmacy providers, including pharmacy technicians, while assisting patients, caregivers, and the community.



EDUCATIONAL OBJECTIVES

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

1. Describe current environmental concerns surrounding improper medication disposal;
2. Relate how improper medication disposal is correlated to prescription drug abuse;
3. Review current options available to dispose of unused medications;
4. Identify current legal considerations regarding medication disposal; and
5. Describe the role of pharmacy providers in medication disposal.

REGULATION OF OVER-THE-COUNTER DRUGS

FACULTY

Gerald Gianutsos, PhD, BSc Pharm, JD

Associate Professor of Pharmacology

University of Connecticut, School of Pharmacy Department of Pharmaceutical Sciences
Storrs, Connecticut

UAN: 0430-0000-17-007-H03-T

Credits: 2.0 hours (0.20 ceu)

GOAL

The goal of this lesson is to review for pharmacy technicians the regulatory oversight of Over-The-Counter (OTC) drugs and the risk of misuse and abuse of OTC drugs.

EDUCATIONAL OBJECTIVES

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

1. Describe the background behind the distinction between prescription and OTC drugs and criteria used to differentiate them;
2. Explain the process for approval of OTC drugs;
3. Discuss the misuse of OTC drugs, especially as it applies to analgesics;
4. Identify the problem of OTC drug abuse;
5. Describe the type of restrictions that can be placed on OTC drugs to limit misuse and abuse; and
6. Describe the abuse liability of selected nonprescription products including pseudoephedrine, dextromethorphan, loperamide, diet drugs and e-cigarettes.

MEDICATION SAFETY: THE ROLE OF THE TECHNICIAN IN PREVENTING MEDICATION ERRORS

FACULTY

Jennifer L. Gibson, PharmD

Freelance Writer and Editor

Marietta, Georgia

UAN: 0430-0000-17-006-H05-T

Credits: 2.0 hours (0.20 ceu)

GOAL

To review the origin and types of medication errors and to explain the role of the pharmacy technician in improving medication safety.

EDUCATIONAL OBJECTIVES

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

1. Describe the impact of medication errors;
2. Review barriers and vulnerabilities to medication safety in multiple pharmacy settings;
3. Define pharmacy technician responsibilities in the medication-use process;
4. List strategies for preventing medication errors and enhancing patient safety; and
5. Identify mechanisms for reporting errors.

WHY DO DRUGS AFFECT PEOPLE DIFFERENTLY? UNDERSTANDING FACTORS THAT INFLUENCE DRUG RESPONSES

FACULTY

Casey J. Covrett, PharmD, BCPS

Medical Writer

Wilmington, North Carolina

UAN: 0430-0000-17-005-H01-T

Credits: 2.0 hours (0.20 ceu)

GOAL

To enhance the pharmacy technician's awareness of the multiple factors that influence individual responses to medications.

EDUCATIONAL OBJECTIVES

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

1. Recall the mechanisms involved in food-drug interactions;
2. Explain why drugs must be used cautiously in patients with underlying disease states;
3. Describe the mechanisms and potential outcomes of drug-drug interactions; and
4. Recognize the influence of gender and genetics in drug responses.

APPROPRIATE USE OF SELF-MONITORING DEVICES: THE PHARMACY TECHNICIAN'S ROLE

FACULTY

Jeannette Wick, RPh, MBA, FASCP

Visiting Professor

University of Connecticut, School of Pharmacy

Storrs, Connecticut

UAN: 0430-0000-17-003-H01-T

Credits: 2.0 hours (0.20 ceu)

GOAL

To improve the pharmacy technician's ability to locate and utilize appropriate drug information resources in pharmacy practice in order to help the pharmacist respond to questions from consumers and other health care professionals in an effective, efficient manner.



EDUCATIONAL OBJECTIVES

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

1. Discuss the importance of measurements for the diagnosis of disease as well as determining disease severity, progression, and treatment response;
2. Identify patients with specific medical conditions who might benefit from disease-specific monitoring supplies;
3. Discuss accuracy and limitations of 5 types of monitoring tools;
4. Distinguish between type 1 and type 2 diabetes mellitus; and
5. Evaluate the significance of patient-measured monitoring results and understand when to recommend a pharmacist consultation.

KNOWING WHERE TO FIND KEY DRUG INFORMATION— UNDERSTANDING DRUG RESOURCES

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

UAN: 0430-0000-17-004-H04-T

Credits: 2.0 hours (0.20 ceu)

GOAL

To improve the pharmacy technician's ability to locate and utilize appropriate drug information resources in pharmacy practice in order to help the pharmacist respond to questions from consumers and other health care professionals in an effective, efficient manner.

EDUCATIONAL OBJECTIVES

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

1. Define tertiary, secondary, and primary literature;
2. Identify key features and limitations of common tertiary resources;
3. List resources used to evaluate the effectiveness and quality of a website containing health information;
4. Describe the FDA regulations for mobile medical applications; and
5. Apply the systematic approach to answer a drug information request.

COMMON CHILDHOOD ILLNESSES: CONSIDERATIONS FOR THE PHARMACY TECHNICIAN

FACULTY

Jennifer L. Gibson, PharmD

Freelance Writer and Editor

Marietta, Georgia

UAN: 0430-0000-17-002-H05-T

Credits: 2.0 hours (0.20 ceu)

GOAL

To enhance the pharmacy technician's understanding of common illnesses in pediatric patients, as well as the unique physiological characteristics of this population, in order to improve medication safety and patient care calculations performed in the traditional pharmacy practice setting.

EDUCATIONAL OBJECTIVES

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

1. Describe the body composition and physiological characteristics of pediatric patients and how these factors influence drug use and safety;
2. Recall common sources of medication errors in pediatric patients;
3. Identify common childhood illnesses and the medications used to treat them; and
4. List recent changes to the labeling and regulation of pediatric drug products.

CURRENT TOPICS IN STERILE COMPOUNDING: THE DRUG QUALITY AND SECURITY ACT

FACULTY

Erin Albert, MBA, PharmD, JD, PAHM

Health Outcomes Pharmacist – Myers and Stauffer, LC

CEO – Pharm, LLC Indianapolis, IN

Angela V. Ockerman, BS, RPh, PharmD

Butler University College of Pharmacy and Health Sciences

Indianapolis, IN

UAN: 0430-0000-16-085-H03-T

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.

ZIKA VIRUS AND ITS EFFECTS IN PREGNANCY

FACULTY

Ruth P. Ebiasah, 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

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Michelle Wildman, PharmD

National Institutes of Health

National Institute of Allergy and Infectious Diseases

Bethesda, Maryland

UAN: 0430-0000-16-082-H01-T

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 will 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.

MEDICAL MARIJUANA: PHARMACOLOGIC AND REGULATORY CONSIDERATIONS

FACULTY

Gerald Gianutsos, PhD, JD

Associate Professor of Pharmacology

School of Pharmacy University of Connecticut

Storrs, CT

UAN: 0430-0000-16-081-H01-T

Credits: 2.0 hours (0.20 ceu)

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.

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-T

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 activity, participants should be better able to:

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

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
Marietta, Georgia

UAN: 0430-0000-15-062-H05-T

Credits: 2.0 hours (0.20 ceu)

GOAL

Identifying and preventing medication errors is a significant challenge in all health care settings. Pharmacists and pharmacy technicians 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 activity, participants should be better 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.

HIV/AIDS REVIEW FOR THE PHARMACY TECHNICIAN FACULTY

Casey J. Covrett, PharmD, BCPS
Clinical Editor and Medical Writer
Wilmington, North Carolina

UAN: 0430-0000-15-061-H02-T
Credits: 2.0 hours (0.20 ceu)

GOAL

To educate pharmacy technicians about HIV/AIDS, including epidemiology, modes of transmission, infection control procedures, clinical management, and 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/AIDS;
2. Summarize modes of transmission of HIV infection;
3. List methods of prevention and infection control practices for HIV infection;
4. Describe the HIV lifecycle and clinical management of HIV infection; and
5. Review HIV testing-related requirements of the Florida Omnibus AIDS Act.

THE DRUG SUPPLY CHAIN SECURITY ACT: IMPROVING THE INTEGRITY OF DRUG DISTRIBUTION FACULTY

Marsba K. Millonig, MBA, BPharm
President & CEO
Catalyst Enterprises, LLC
Eagan, Minnesota

UAN: 0430-0000-15-056-H03-T
Credits: 2.0 hours (0.20 ceu)

GOAL

The goal of this activity is to provide relevant education to pharmacists and pharmacy technicians 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.

TEXAS STATE LAW PRIMER AND UPDATES

FACULTY

Eli G. Phillips, Jr., PharmD, JD

Director, Pharmacy Compliance

Quality & Regulatory Affairs Cardinal Health

UAN: 0430-0000-15-026-H03-T

Credits: 1.0 hour (0.10 ceu)

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.

UNDERSTANDING MEDICAL TERMINOLOGY AND PHARMACOLOGY ASSOCIATED WITH THE EYE: GLAUCOMA, DRY EYE, AND CONJUNCTIVITIS

FACULTY

Casey J. Covrett, PharmD, BCPS

Medical Writer

Wilmington, North Carolina

UAN: 0430-0000-15-002-H01-T

Credits: 2.0 hours (0.20 ceu)

GOAL

To improve the pharmacy technician’s understanding of medical science terminology and pharmacology related to common medical conditions and drugs affecting the human eye.

EDUCATIONAL OBJECTIVES

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

1. Recognize medical science terminology associated with common conditions of the human eye;
2. Explain pharmacology related to the topical eye treatments for glaucoma, dry eye, and conjunctivitis;
3. Describe the appropriate application of eye drop solutions, gels, and ointments; and
4. Accurately calculate the correct volume (bottle size) required for eye drop prescriptions.

CURRENT CONCEPTS IN MEDICATION THERAPY MANAGEMENT

MODULE 1. WHAT IS MEDICATION THERAPY MANAGEMENT (MTM)?—2017 UPDATE

FACULTY

Marilyn Stebbins, PharmD

Professor of Clinical Pharmacy

Vice Chair of Clinical Innovation

University of California San Francisco School of Pharmacy

San Francisco, California

UAN: 0430-0000-17-080-H04-T

Credits: 1.0 hours (0.10 ceu)

GOAL

Provide pharmacy technicians with a basic understanding of medication therapy management (MTM) and how technicians can contribute to the process of MTM.

EDUCATIONAL OBJECTIVES

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

1. Explain what MTM is and how technicians can support MTM services;
2. Describe the rationale for MTM in the current healthcare climate; and
3. Review steps that technicians can perform to plan and implement MTM services.

MODULE. 2 MEDICATION THERAPY MANAGEMENT PROCEDURES AND DOCUMENTS—2017 UPDATE

FACULTY

Marilyn Stebbins, PharmD

Professor of Clinical Pharmacy

Vice Chair of Clinical Innovation

University of California San Francisco School of Pharmacy

San Francisco, California

UAN: 0430-0000-17-081-H04-T

Credits: 1.5 hours (0.15 ceu)

GOAL

Explain the steps and procedures of medication therapy management (MTM) that are most relevant to pharmacy technicians, including the technician's role in generating and updating key documents used in MTM.

EDUCATIONAL OBJECTIVES

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

1. Identify documents used in MTM, including the Personal Medication List and the Therapeutic Action Plan;
2. Determine how existing forms can be adapted for specific practice settings and patient circumstances; and
3. Recognize technician's role in maintaining/updating MTM documents in conjunction with patients and healthcare providers.

MODULE 3. MEDICATION RECONCILIATION: STEPS FOR THE PHARMACY TECHNICIAN—2017 UPDATE

FACULTY

Stacy A. Knox, PharmD, BCPS, BCACP

Specialty Pharmacist Supervisor

University of California Davis Medical Center Sacramento, California

Health Sciences Assistant Clinical Professor

University of California San Francisco School of Pharmacy Adjunct Professor of Pharmacy Practice

University of the Pacific Thomas J. Long School of Pharmacy and Health Sciences
Stockton, California

UAN: 0430-0000-17-082-H04-T

Credits: 1.0 hours (0.10 ceu)

GOAL

Provide pharmacy technicians with the skills they need to perform and support medication reconciliation procedures and develop a Personal Medication List (PML).

EDUCATIONAL OBJECTIVES

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

1. Discuss how the pharmacy technician can support pharmacists in reconciliation procedures needed for medication therapy management (MTM);
2. Describe sources of information needed for medication reconciliation; and
3. List steps for reconciliation as part of MTM.

MODULE 4. HOW CAN TECHNICIANS HELP TO MAXIMIZE MEDICATION SAFETY?—2017 UPDATE

FACULTY

Stacy A. Knox, PharmD, BCPS, BCACP

Specialty Pharmacist Supervisor

University of California Davis Medical Center Sacramento, California

Health Sciences Assistant Clinical Professor

University of California San Francisco School of Pharmacy Adjunct Professor of Pharmacy Practice



UAN: 0430-0000-17-083-H05-T

Credits: 1.5 hours (0.15 ceu)

GOAL

Identify ways in which the pharmacy technician can help reduce medication errors and maximize medication safety.

EDUCATIONAL OBJECTIVES

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

1. Discuss the impact of medication errors and drug safety risks;
2. Assess how activities performed by pharmacy technicians can affect medication safety risks; and
3. Determine steps pharmacy technicians can take to enhance medication safety for patients participating in MTM.

MODULE 5. HELPING PATIENTS WITH DRUG BENEFITS AND COVERAGE—2017 UPDATE

FACULTY

Sbalini Lynch, PharmD

Health Sciences Associate Clinical Professor of Pharmacy
University of California San Francisco, School of Pharmacy
San Francisco, California

UAN: 0430-0000-17-084-H04-T

Credits: 1.0 hours (0.10 ceu)

GOAL

Provide pharmacy technicians with the tools and background to assist patients with decision-making about medication benefits and coverage.

EDUCATIONAL OBJECTIVES

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

1. Recognize technician's role in assisting patients with benefits and coverage as part of medication therapy management (MTM);
2. Determine information needed to assess patients' drug benefit coverage and needs; and
3. Identify organizations and services that provide payment or reimbursement for medication-related costs.

MODULE 6. THE IMPORTANCE OF CHRONIC DISEASE MANAGEMENT IN MTM—2017 UPDATE

FACULTY

Demetra Antimisiaris, PharmD, CGP

Associate Professor, Department of Pharmacology & Toxicology
and Department of Family and Geriatric Medicine
University of Louisville School of Medicine
Louisville, Kentucky

UAN: 0430-0000-17-085-H01-T

Credits: 1.0 hours (0.10 ceu)

GOAL

Review core chronic disease states targeted in medication therapy management (MTM) and why chronic disease management is a critical goal in MTM.

EDUCATIONAL OBJECTIVES

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

1. Describe the impact of chronic diseases in the U.S.;
2. List core chronic disease states targeted by Medicare Part D for MTM services; and
3. Explain benefits of pharmacy-based MTM services in chronic disease management, including improved patient care, lower healthcare costs, and reduced complications.

MODULE 7. POLYPHARMACY AND MTM—2017 UPDATE

FACULTY

Demetra Antimisiaris, PharmD, CGP

Associate Professor, Department of Pharmacology & Toxicology and Department of Family and Geriatric Medicine

University of Louisville School of Medicine

Louisville, Kentucky

UAN: 0430-0000-17-086-H01-T

Credits: 1.5 hours (0.15 ceu)

GOAL

Define polypharmacy and educate pharmacy technicians about managing multiple medications in the setting of MTM.

EDUCATIONAL OBJECTIVES

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

1. Define polypharmacy in the context of medication therapy management (MTM);
2. Discuss factors that increase the risks and potential complications of polypharmacy; and
3. Demonstrate how MTM is designed to identify and address problems associated with polypharmacy.

MODULE 8. MEDICATION USE AMONG OLDER ADULTS—2017 UPDATE

FACULTY

Demetra Antimisiaris, PharmD, CGP

Associate Professor, Department of Pharmacology & Toxicology and

Department of Family and Geriatric Medicine

University of Louisville School of Medicine

Louisville, Kentucky

UAN: 0430-0000-17-087-H01-T

Credits: 1.0 hours (0.10 ceu)



GOAL

Enable pharmacy technicians to identify aspects of medication use applicable to older adults, including the frail elderly.

EDUCATIONAL OBJECTIVES

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

1. Describe geriatric syndromes and the physiologic, societal, and behavioral issues associated with aging that may increase risks of medication use;
2. Discuss ways in which the body reacts differently to medications as a person ages; and
3. Recognize features of medication therapy management (MTM) that should be tailored to individualize therapies for geriatric patients.

MODULE 9: GENERIC DRUGS AND THERAPEUTIC EQUIVALENCE—2017 UPDATE

FACULTY

Jessie D. Morgan, RPh, MHA

Manager of Outpatient Pharmacy Services and Medication Access
University of Louisville Hospital James Graham Brown Cancer Center
Louisville, Kentucky

UAN: 0430-0000-17-088-H03-T

Credits: 1.0 hours (0.10 ceu)

GOAL

Identify for pharmacy technicians how generic substitution and therapeutic equivalence play a role in MTM.

EDUCATIONAL OBJECTIVES

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

1. Identify terminology related to pharmaceutical and therapeutic equivalence;
2. Explain the pharmacist's and pharmacy technician's responsibilities in generic substitution; and
3. Discuss how patients can be educated about generic substitution as part of MTM practice.

MODULE 10. CONTROLLED SUBSTANCES AND RISK EVALUATION MITIGATION STRATEGIES (REMS)—2017 UPDATE

FACULTY

Jessie D. Morgan, RPh, MHA

Manager of Outpatient Pharmacy Services and Medication Access
University of Louisville Hospital James Graham Brown Cancer Center
Louisville, Kentucky

UAN: 0430-0000-17-089-H03-T

Credits: 1.0 hours (0.10 ceu)

GOAL

Teach pharmacy technicians about how prescribing and distribution restrictions for controlled substances and Risk Evaluation and Mitigation Strategies (REMS) affect the MTM process.

EDUCATIONAL OBJECTIVES

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

1. Describe controlled substance schedules and how this affects distribution of these agents in the pharmacy;
2. Explain the goals of REMS and the role of pharmacy technicians in adhering to REMS programs; and
3. Discuss how medication therapy management (MTM) services can be tailored to address controlled substance and REMS requirements.

MODULE 11. ARRANGING FOR REIMBURSEMENT OF MTM SERVICES—2017 UPDATE

FACULTY

Marilyn Stebbins, PharmD

Professor of Clinical Pharmacy

Vice Chair of Clinical Innovation

University of California San Francisco School of Pharmacy

San Francisco, California

UAN: 0430-0000-17-090-H04-T

Credits: 0.50 hours (0.05 ceu)

GOAL

Enable pharmacy technicians to assist with documents and paperwork associated with reimbursement of pharmacist-provided medication therapy management (MTM).

EDUCATIONAL OBJECTIVES

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

- Outline the various systems through which pharmacists can bill for medication therapy management (MTM) services;
- Identify methods for billing through Medicare Part D for MTM; and
- Discuss how MTM can contribute to cost efficiency for different types of healthcare providers.

CURRENT CONCEPTS IN DIABETES MANAGEMENT

MODULE 1. DIABETES DEFINED: PATHOPHYSIOLOGY

FACULTY

Ashley A. Martin, PharmD, CDE

Clinical Pharmacy Specialist, Diabetes

Providence Endocrinology, Diabetes and Nutrition Center

Missoula, Montana

UAN: 0430-0000-16-104-H01-T

Credits: 2.0 hours (0.20 ceu)



GOAL

To provide pharmacy technicians with a broad understanding of the definitions of type 1 and type 2 diabetes, the clinical features of both type 1 and type 2 diabetes, and the progressive nature of type 2 diabetes.

EDUCATIONAL OBJECTIVES

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

1. Recognize the prevalence of diabetes mellitus;
2. Identify the differences between type 1 and type 2 diabetes;
3. Review the symptoms and risk factors for both type 1 and type 2 diabetes; and
4. Identify the roles of genetics and family history in diabetes susceptibility.

MODULE 2. IDENTIFYING DRUG CLASSES TO TREAT DIABETES: ORAL AGENTS

FACULTY

Dhiren K. Patel, PharmD, CDE, BC-ADM, BCACP

Associate Professor of Pharmacy Practice

School of Pharmacy

MCPHS University

Clinical Pharmacy Specialist VA Boston Healthcare System

Boston, MA

UAN: 0430-0000-16-106-H01-T

Credits: 2.0 hours (0.20 ceu)

GOAL

To educate pharmacy technicians about oral agents used in the treatment of type 2 diabetes.

EDUCATIONAL OBJECTIVES

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

1. Define the different classes of oral medications used to treat type 2 diabetes;
2. Outline how treatment plans for patients with diabetes are designed according to American Diabetes Association and
3. American Association of Clinical Endocrinologists guidelines;
4. Discuss the mechanisms of action, adverse effects, and potential drug interactions of diabetes medications;
5. Recognize the effects of oral diabetes agents on glycosylated hemoglobin levels; and
6. List open-ended questions to ask patients who are taking oral diabetes agents to assess the need for a consultation with a pharmacist.

MODULE 3. NON-INSULIN INJECTABLE DIABETES MEDICATIONS

FACULTY

Dhiren K. Patel, PharmD, CDE, BC-ADM, BCACP

Associate Professor of Pharmacy Practice

School of Pharmacy

MCPHS University

Clinical Pharmacy Specialist VA Boston Healthcare System

Boston, MA

UAN: 0430-0000-16-024-H01-T

Credits: 2.0 hours (0.20 ceu)

GOAL

To familiarize pharmacy technicians with non-insulin injectable agents available for the management of diabetes and discuss the roles of these agents in diabetes treatment.

EDUCATIONAL OBJECTIVES

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

1. Discuss the roles of non-insulin injectable agents for achieving treatment goals in patients with type 2 diabetes;
2. Recognize the hierarchy of non-insulin injectable agents within current treatment recommendations;
3. Define the incretin effect and how it relates to the mechanism of action (MOA) of non-insulin injectable agents;
4. Discuss the MOA, adverse effects, and potential drug interactions associated with the use of non-insulin injectable agents; and
5. Explain Risk Evaluation and Mitigation Strategy (REMS) programs related to non-insulin injectable agents.

MODULE 4. BLOOD GLUCOSE MONITORING

FACULTY

Justin W. Bouw, PharmD, BCACP, CDE

Assistant Professor

Clinical and Administrative Sciences

California Northstat University, College of Pharmacy

Elk Grove, Georgia

UAN: 0430-0000-16-105-H01-T

Credits: 1.5 hours (0.15 ceu)

GOAL

The goal of this module is to educate pharmacy technicians on the basic concepts of blood glucose monitoring and how to interpret the results.

EDUCATIONAL OBJECTIVES

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

1. List the appropriate steps in using a blood glucose (BG) monitor;
2. Relate how to interpret self-monitoring of blood glucose (SMBG) results;
3. Discuss glycosylated hemoglobin (HbA1c) and why it is important; and
4. Recognize how patients with diabetes make therapy changes based on their SMBG readings with the help of their health care team.

MODULE 5. UNDERSTANDING INSULIN THERAPY

FACULTY

Candis M. Morello, PharmD, CDE, FCSHP, FASHP

Professor of Clinical Pharmacy & Associate

Dean for Student Affairs

Skaggs School of Pharmacy & Pharmaceutical Science UC San Diego



La Jolla, CA
Clinical Pharmacist Specialist
VA San Diego Healthcare System
San Diego, California

UAN: 0430-0000-16-116-H01-T
Credits: 2.5 hours (0.25 ceu)

GOAL

To provide pharmacy technicians with knowledge of the types of insulin products available and how these products are used to manage diabetes mellitus.

EDUCATIONAL OBJECTIVES

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

1. Define the basic physiologic concept of basal-bolus insulin;
2. Explain the proper insulin administration techniques;
3. Identify available insulin products and discuss how they are used in diabetes treatment plans;
4. Recognize the warnings and precautions associated with insulin use;
5. Discuss barriers to insulin use; and
6. List questions to ask patients who are using insulin to identify if they may need additional counseling from a pharmacist.

MODULE 6. INSULIN SAFETY

FACULTY

Susan B. Sloane, RPh, CDE, CPT

Clinical Editor

Postgraduate Healthcare Education, LLC

Clifton, NJ

UAN: 0430-0000-16-115-H05-T
Credits: 1.5 hours (0.15 ceu)

GOAL

To provide technicians with safety information about the use, storage, and disposal of injectable insulin products and devices.

EDUCATIONAL OBJECTIVES

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

1. List key safety precautions that need to be communicated to patients who use insulin;
2. Discuss common misconceptions that patients have about the use of insulin products;
3. Describe proper insulin injection techniques; and
4. List open-ended questions to ask patients to assess if they need further counseling by a pharmacist.

MODULE 7. EXERCISE FOR BETTER HEALTH

FACULTY

Sheri R. Colberg, PhD, FACSM

Professor of Exercise Science

Human Movement Sciences Old Dominion University Adjunct Professor
Internal Medicine
Eastern Virginia Medical School
Norfolk, VA

UAN: 0430-0000-16-028-H01-T
Credits: 2.0 hours (0.20 ceu)

GOAL

The goal of this CE module is to educate pharmacy technicians on how exercise impacts diabetes control, and to familiarize themselves with different types and levels of exercise therapy that may be appropriate for patients with diabetes.

EDUCATIONAL OBJECTIVES

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

1. Identify the physiologic benefits of all types of exercise in patients with diabetes;
2. Discuss exercise recommendations for patients with diabetes based on current evidence-based standards of care;
3. Explain how exercise may lead to both hypoglycemia and hyperglycemia;
4. Discuss how insulin needs may change during and after exercise, and how food intake may need to be adjusted;
5. Describe the impact of some medications on blood glucose levels during exercise; and
6. Recognize that some patients with diabetes have limitations to certain types of exercise and how to adjust exercise based on patient capabilities.

MODULE 8. HEALTHY EATING WITH DIABETES

FACULTY

Sheri R. Colberg, PhD, FACSM

Professor of Exercise Science

Human Movement Sciences Old Dominion University Adjunct Professor

Internal Medicine

Eastern Virginia Medical School

Norfolk, VA

UAN: 0430-0000-16-027-H01-T
Credits: 2.0 hours (0.20 ceu)

GOAL

The goal of this CE module is to educate pharmacy technicians about what constitutes a healthy diet for patients with diabetes and how different food choices affect blood glucose control.

EDUCATIONAL OBJECTIVES

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

1. Define the key elements that define a healthy diet for diabetes;
2. Indicate the basics of carbohydrate counting versus calorie counting;
3. Recall the meaning of glycemic index, glycemic load, and food insulin index and their importance in blood glucose management;
4. Relate how sugar and sugar substitutes fit in to a diet plan; and
5. Define how to interpret food labels and portion sizes.

MODULE 9. THE ROLE OF THE PHARMACY TECHNICIAN IN MEDICATION THERAPY MANAGEMENT SERVICES AND THE IMPORTANCE OF THE COMPLETE MEDICATION REVIEW

FACULTY

Susan B. Sloane, RPh, CDE, CPT

Clinical Editor

Postgraduate Healthcare Education, LLC

Clifton, NJ

UAN: 0430-0000-16-114-H04-T

Credits: 1.0 hours (0.10 ceu)

GOAL

To provide pharmacy technicians with information on how medication therapy management services can be provided at the pharmacy level and describe how technicians can be directly involved in the medication review process.

EDUCATIONAL OBJECTIVES

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

1. Recognize when a complete medication review (CMR) may be useful for a patient;
2. List benefits of medication synchronization;
3. Define key terms used in medication therapy management (MTM) services;
4. Explain advantages of using a CMR as part of MTM services.