

POWER-PAK C.E.[®]

PHARMACY TECHNICIAN C.E. PROGRAM

DESCRIPTIONS AND LEARNING OBJECTIVES

HIV/AIDS Review for the Pharmacy Technician

FACULTY

Jeannette Wick, RPh, MBA, FASCP

Assistant Director, Office of Pharmacy Professional Development and Visiting Instructor
University of Connecticut School of Pharmacy
Storrs, CT

UAN: 0430-0000-18-015-H02-T

Credits: 2.0 hours (0.20 ceu)

GOAL

This activity's goal is to provide basic information about HIV and its treatment to pharmacy technicians, and help them recognize the most common problems that patients living with HIV experience.

EDUCATIONAL OBJECTIVES

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

1. **Summarize** the epidemiology, modes of transmission, and most frequent complications of HIV/AIDS
2. **List** prevention methods and infection control practices for HIV infection
3. **Describe** the HIV lifecycle and clinical management of HIV infection
4. **Identify** types of antivirals used to treat HIV and resources to identify drug interactions
5. **Review** HIV testing-related requirements of the Florida Omnibus AIDS Act.

Questions, Questions, Questions: Influenza Takes the Nation by Storm

FACULTY

Jeannette Wick, RPh, MBA, FASCP

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Storrs, CT

UAN: 0430-0000-18-012-H01-T

Credits: 1.5 hours (0.15 ceu)

GOAL

To educate pharmacy technicians on the 2017-2018 influenza season, treatment and preventative measures.



EDUCATIONAL OBJECTIVES

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

1. **Describe** 2017-2018 influenza season's epidemiology and the 2017-2018 influenza vaccine's efficacy
2. **Describe** influenza symptoms and potential complications
3. **List** the CDC criteria for antiviral drug use in individuals who have or are at risk for influenza infection
4. **List** preventative measures for patients who have influenza and households in which they live

Implementing and Providing Transitions of Care Among Health Care Settings

FACULTY

Julianna Burton, PharmD, BCPS, BCACP, FCSHP

Assistant Chief of Pharmacy

Department of Pharmacy

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Sacramento, CA

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Transitions of Care Pharmacist

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UAN: 0430-0000-16-044-H04-T

Credits: 2.0 hours (0.20 ceu)

GOAL

Inform and educate pharmacists and pharmacy technicians 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.

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

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Wilmington, North Carolina

REVIEWER/CONTENT ADVISOR

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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 Calculator

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

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

Credits: 2.0 hours (0.20 ceu)

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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 therapy management process;
3. **Articulate** positive verbal cues which facilitate pharmacist-patient interaction resulting in vaccination of the patient; and
4. **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

Jeanette 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. Ebiasab, PharmD, MS

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

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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.

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

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.

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.

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

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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

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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

Shalini 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:

1. **Outline** the various systems through which pharmacists can bill for medication therapy management (MTM) services;
2. **Identify** methods for billing through Medicare Part D for MTM; and
3. **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.