The Utah Society of Health System Pharmacists and University of Utah Hospitals and Clinics Present:
2016 Resident Continuing Pharmacy Education Series

Target Audience: Pharmacists, pharmacy technicians, pharmacy students, and other health professionals

Date	Time & Location	Presenter	Title, Objectives & ACPE UAN
3/8 Tue.	HSEB 3515B at 3:00 pm	Tonya Smith, PharmD Mentor: Michael Filtz, PharmD, BCOP	**The DIFFiculty with *Clostridium difficile*: Treating and Preventing the Spread of Infection** **0167-0000-16-023-L01-P/T** Pharmacist Objectives: 1. Identify antibiotics and risk factors that may contribute to the development of *Clostridium difficile* infections. 2. Classify the severity of Clostridium difficile infection. 3. Compare and contrast the various treatment options for *Clostridium difficile* infections. 4. Understand the role of the microbiome in prevention and treatment of *Clostridium difficile* infection. Technician Objectives: 1. Describe the ongoing burden of Clostridium difficile infections. 2. Recognize antibiotics that are commonly implicated in causing *Clostridium difficile* infections. 3. Compare cost and availability of various products used for the treatment of *Clostridium difficile* infections.
3/8 Tue.	HSEB 3515B at 4:00 pm	Vidya Pugazhenthi, PharmD Mentor: Zubin Bhakta, PharmD & Dave Young, PharmD	**What's the "D"eal with Vitamin D? 0167-0000-16-022-L01-P/T** Pharmacist Objectives: 1. Define what constitutes vitamin D insufficiency and deficiency 2. Compare and contrast the various forms of vitamin D supplementation and dosing regimens 3. Evaluate the role of vitamin D supplementation for two extra-skeletal health benefits 4. Identify two unique patient populations for whom assessing vitamin D status may be beneficial based on current literature Technician Objectives 1. Recall two common risk factors that can lead to vitamin D deficiency 2. Recognize the differences between various forms of vitamin D supplementation available 3. List two potential adverse effects associated with vitamin D Supplementation
3/10 Thur.	HSEB 2110 at 3:00 pm	Stacy Prelewicz, PharmD Mentor: Jeff Gilreath, PharmD, BCOP	**ITP Wars: Return of the Petechiae? See TPO! 0167-0000-16-019-L01-P/T** Pharmacist Objectives: 1. Explain the patholphysiology of immune thrombocytopenic purpura (ITP) 2. Determine criteria required for prescribing a thrombopoietin (TPO) receptor agonist to patients with ITP 3. Develop 2 common side effects of the TPO receptor agonist, romiplostim and eltrombopag Technician Objectiv 1. Define ITP and its clinical presentation 2. Recognize common medications used for treatment of ITP 3. Describe 2 common side effects of the TPO receptor agonists, romiplostim and eltrombopag

3/10 Thur.	HSEB 2110 at 4:00 pm	Alyson Clough, PharmD Mentor: Michael Filtz, PharmD, BCOP	**You Down With PJP? Yeah You Know. . .PJP Prophylaxis in Oncology and Corticosteroid Patients 0167-0000-16-005-L01-P/T** Pharmacist Objectives: 1. Identify patient risk factors for *Pneumocystis jiroveci* pneumonia (PJP) 2. Compare and contrast available drug agents for the prevention of PJP including mechanism of action, dosing, and side effect profile of each agent 3. Construct a prophylaxis plan for a patient requiring PJP prophylaxis 4. Formulate a monitoring plan for a patient requiring PJP prophylaxis Technician Objectives: 1. List drug agents used for the prevention of PJP 2. Describe cost differences between agents used for prevention of PJP 3. Recognize appropriate storage and dispensing procedure for medications used for PJP prophylaxis
3/15 Tue.	HSEB 3515B at 3:00 pm	Emma Carroll, PharmD Mentor: Cole Sloan, PharmD, BCPS	**Yes, we NarCAN! Pharmacy's Antidote to Opioid Overdoses 0167-0000-16-004-L01-P/T** Pharmacist Objectives: 1. Describe the mechanism of action and monitoring parameters of naloxone 2. Compare and contrast the utilization of naloxone in the outpatient and inpatient setting 3. Evaluate pharmacokinetics of naloxone and common opioids 4. Educate patients and caregivers to properly administer naloxone Technician Objectives: 1. Describe the FDA approved dosage forms of naloxone 2. Identify patients who may benefit from naloxone counseling from a pharmacist 3. Interpret the laws related to pharmacy and dispensing of naloxone in Utah 4. Manage the distribution of naloxone in the inpatient and outpatient settings
3/15 Tue.	HSEB 3515 at 4:00 pm	Sarah Yeager, PharmD Mentor: Nicole Kenyon, PharmD	**Tic – TAC – Toe: How to Pick a Winning Tacrolimus Formulation for your Patient 0167-0000-16-026-L01-P/T** Pharmacist Objectives: 1. Compare and contrast the pharmacokinetics of all three tacrolimus formulations 2. Describe the different side effect profiles of each tacrolimus formulation 3. Formulate dosing recommendations for safe and equivalent conversions between oral and IV formulations 4. Discuss possible compliance benefits with one-daily tacrolimus Technician Objectives: 1. Identify available tacrolimus formulations and the differences in available dosing 2. Recognize which formulations come as IV, suspension, or can be crushed 3. List a benefit of using a once-daily tacrolimus formulation
3/17 Thurs.	HSEB 3515B at 3:00 pm	Lauren Holesh, PharmD Mentors: Kavish Choudhary, PharmD & Sarah Bamford, PharmD	**Don't be the Weakest Link: Understanding Supply Chain and Inventory Management 0167-0000-16-011-L04-P/T** Pharmacist Objectives: 1. Define supply chain and describe the different ways to procure drug product 2. Analyze inventory principles and how they impact purchasing patterns 3. Evaluate cost containment opportunities with inventory initiatives 4 Assess challenges facing supply chain today Technician Objectives: 1. Discuss the different ways to procure drug product 2. Outline cost containment opportunities through inventory management 3. List three challenges facing the pharmacy supply chain today

3/17 Thurs.	HSEB 3515B at 4:00 pm	Benjamin Witt, PharmD, BCPS Mentor: Erin Fox, PharmD, FASHP	**Can't Touch This! USP Chapter <800>: Handling of Hazardous Drugs 0167-0000-16-025-L03-P/T** Pharmacist Objectives: 1. Summarize the background and purpose of USP <800> 2. Discuss the impact USP <800> will have on USP <795> and USP <797> 3. Differentiate between and apply the recommendations for proper deactivation, decontamination, cleaning, and disinfection as outlined in USP <800> 4. Recommend appropriate personal protective equipment (PPE) for a given scenario Technician Objectives: 1. Summarize the background and purpose of USP <800> 2. Identify the characteristics that would classify a drug as hazardous, according to National Institute for Occupational Safety and Health (NIOSH) 3. Identify the personal protective equipment (PPE) recommendations listed with USP <800>
3/29 Tue.	HSEB 3515B at 3:00 pm	Dawnyle Kelley, PharmD Mentor: Dave ElHalta, PharmD	**To Err is not Always Entirely Human - Key Considerations of the Medication Use System: A Pharmacy Informatics Perspective 0167-0000-16-020-L04-P/T** Pharmacist Objectives: 1. Evaluate human factor impact on clinical decision support design 2. Analyze the psychology of new technology adoption in health care 3. Describe the key factors influencing satisfaction with technology and workflow 4. Outline 3 considerations when developing a clinical decision support tool Technician Objectives: 1. Evaluate human factor impact on clinical decision support design 2. Analyze the psychology of new technology adoption in health care 3. Understand the key factors influencing satisfaction with technology and workflow
3/29 Tue.	HSEB 3515B at 4:00 pm	Nicholas Cox, PharmD Mentor: Erin Fox, PharmD, FASHP	**Bio-Law-gy 101: Biosimilars and the Law 0167-0000-16-007-L03-P/T** Pharmacist Objectives 1. Summarize the federal and state legislation that relates to the approval and use of biosimilars 2. Describe the potential clinical, legal, and financial challenges/impacts of the emerging biosimilar market 3. Develop a strategy to appropriately interchange a biosimilar and a biologic 4. Identify resources available for additional information on biotherapeutic agents Technician Objectives: 1. Define the following terms: biologic, biosimilar, competitive biologic, bioequivalence, interchangeable 2. Provide an example of three biologics 3. Describe the financial impacts of the emerging biosimilar market
3/30 Wed.	HSEB 3515BB at 3:00 pm	Erik Harrington, PharmD Mentors: Sara Deholl, PharmD, BCOP	**Onc Wars - A Mechanistic Awakening: Review of Palbociclib, Cobimetinib, Elotuzumab, Trifluridine/Tipiracil 0167-0000-16-021-L01-P/T** Pharmacist Objectives: 1. Describe the FDA indication, mechanism of action, and pertinent ADME for newly approved oncology drugs 2. Evaluate potential significant drug interactions and appropriate management of therapy 3. Design treatment plans and monitoring parameters for the new agents 4. Determine appropriate place in therapy based on current available treatments Technician Objectives: 1. Recall brand and generic names for newly approved oncology drugs 2. Demonstrate knowledge of proper storage and preparation of newly approved oncology drugs 3. Describe product formulations and costs of newly approved oncology drugs

3/30 Wed.	HSEB 3515B at 4:00 pm	Shelly Hummert, PharmD Mentor: David Stenehjem, PharmD & Courtney Cavalieri, PharmD, BCOP	**Checking the Brakes on Cancer: Advances in Immunotherapy 0167-0000-16-012-L01-P/T** Pharmacist Objectives: 1. Differentiate the mechanisms of checkpoint inhibitors in the immune system 2. Evaluate the role of checkpoint inhibitors and their place in the treatment of oncologic diseases 3. Identify unique disease response patterns associated with checkpoint inhibitors 4. Compare and recognize toxicity profiles of checkpoint inhibitors and recommend a management plan Technician Objectives: 1. Describe the rationale for checkpoint inhibitors 2. Distinguish between specific checkpoint inhibitors and their associated administration schedules and costs 3. Explain the proper storage, handling, and preparation of checkpoint inhibitors 4. Select an appropriate patient assistance program for immunotherapy and identify patient specific medications
4/5 Tue.	HSEB 3515B at 3:00 pm	Abby Coleman, PharmD Mentor: Gary Davis, PharmD	**Turn the *Bleed* Around 0167-0000-16-006-L01-P/T** Pharmacist Objectives: 1. Review traditional direct oral anticoagulant (DOAC) reversal strategies 2. Describe the mechanisms of action for the new DOAC reversal agents 3. Evaluate the literature available for the new DOAC reversal agents 4. Develop a therapeutic plan for utilizing these agents in clinical practice Technician Objectives: 1. Review the direct oral anticoagulants (DOAC) currently available 2. Describe how the new DOAC reversal agents should be stored 3. Recall the costs of the new DOAC reversal agents
4/5 Tue.	HSEB 3515B at 4:00 pm	Ashley Hedges, PharmD, BCPS Mentor: Heidi Simons, PharmD, BCPS Wayne Shipley, PharmD, BCPS	**I'm Clear, You're Clear, We're All Clear: Lactate Clearance as a Marker of Sepsis Therapy 0167-0000-16-010-L01-P/T** Pharmacist Objectives: 1. Identify the traditional makers of inadequate tissue oxygenation in septic patients 2. Recognize the mechanisms contributing to hyperlactemia in sepsis 3. Evaluate the advantages and disadvantages of using lactate clearance to gauge prognosis of septic patients 4. Describe effects of select medications on lactate levels Technician Objectives: 1. Define lactate and why monitoring of lactate is important in critically ill patients 2. Identify intravenous fluids and solutions that contain lactate 3. List medications that may influence lactate levels

4/07 Thur.	HSEB 2110 at 3:00 pm	Katherine Bliven PharmD Mentor: Russell Benefield, PharmD	**Invasive Aspergillosis: A Review of the Fungus Among Us 0167-0000-16-002-L01-P/T** Pharmacist Objectives: 1. List risk factors for invasive aspergillosis 2. Interpret fungal biomarkers to determine the probability of invasive aspergillosis 3. Compare the mechanism of action, doses and monitoring for different medication classes used in the treatment of invasive aspergillosis 4. Develop an appropriate treatment strategy for a patient with invasive aspergillosis Technician Objectives: 1. Recognize brand and generic names for medications used to treat aspergillosis 2. List formulations available for the medications used to treat aspergillosis 3. Describe the proper preparation and storage of the common medications used to treat aspergillosis
4/07 Thur.	HSEB 2110 at 4:00 pm	Hoa Huynh, PharmD Mentor: Ann Marie Prazak, PharmD, BCPS Donald Alexander, PharmD	**Can You Overcome the Resistance? New Agents for Resistant Gram-negative Bacteria 0167-0000-16-017-L01-P/T** Pharmacist Objectives: 1. Describe the mechanisms of resistance of gram-negative bacteria 2. Compare and contrast the pharmacokinetic and spectrum of activity of new antibiotics for resistant gram-negative bacteria 3. Analyze the roles of new antibiotic agents for resistant gram-negative infection 4. Formulate an antibiotic regimen for a patient with a resistant gram-negative infection Technician Objectives: 1. List the 4 mechanisms of resistance of gram-negative bacteria 2. Identify the brand names, generic names, and cost of the new agents for resistant gram-negative bacteria 3. Describe the preparation and storage of the new antibiotic agents for resistant gram-negative bacteria
Saturday Session Requires Online Registration by April 2, 2015 to reserve your seat since seating is limited! Go to www.ushp.org to register			
4/9 Sat.	HSEB 3515B at 8:00 am	Katie Traylor, PharmD Mentor: Laura Shane- McWhorter, PharmD, BCPS, BC-ADM, CDE, FASCP, FAADE	**Old Dogs and New Tricks: A Comparison of Available Insulin Preparations 0167-0000-16-024-L01-P/T** Pharmacist Objectives: 1. Review recent changes to the insulin market in the United States 2. Discuss clinical pearls and cost information for available insulin preparations 3. Analyze comparative efficacy and safety data available for various insulin preparations 4. Individualize the selection of insulin preparation for patients based on clinical and financial data Technician Objectives: 1. Review recent changes to the insulin market in the United States 2. Discuss clinical pearls and cost information for available insulin preparations 3. Apply available financial resources to help patients receive affordable insulin

4/9 Sat.	HSEB 3515B at 9:00 am	Kelsee Geurts, PharmD Mentor: Anthony Dalpiaz, PharmD	**It's Gut Check Time: New Treatment Options for Irritable Bowel Syndrome 0167-0000-16-009-L01-P/T** Pharmacist Objectives: 1. Describe irritable bowel syndrome (IBS) 2. Compare and contrast the classification types of IBS 3. Analyze the symptoms of IBS and specific alarm features that might require further evaluation 4. Evaluate new pharmacologic treatment options available for IBS 5. Design a treatment plan for a patient who presents with symptoms of irritable bowel syndrome Technician Objectives: 1. Define irritable bowel syndrome (IBS) 2. Differentiate between IBS-C (constipation predominant) and IBS-D (diarrhea predominant) 3. Identify the brand and generic names of medications available to treat IBS
4/9 Sat.	HSEB 3515B at 10:00 am	Breanne Garcia-Walthers, PharmD Mentor: Laura Shane Mc-Whorter, PharmD, BCPS, BC-ADM, CDE, FASCP, FAADE	**NASH in a Flash: Causes, Treatment, and Relevance in Primary Care 0167-0000-16-027-L01-P/T** Pharmacist Objectives: 1. State why pharmacists should demonstrate knowledge of non-alcoholic steatohepatitis (NASH), including definitions, prevalence, and associated co-morbidities 2. Distinguish patient-specific criteria that may justify screening and diagnosis of NASH 3. Evaluate the pros and cons of different drugs used to treat NASH 4. Formulate a treatment regimen for NASH, including pharmacologic and non-pharmacologic modalities Technician Objectives: 1. Demonstrate a working knowledge of NASH and its causes 2. Identify non-pharmacologic strategies for managing NASH 3. Recognize drugs used and their therapeutic role in treating NASH
4/9 Sat.	HSEB 3515B at 11:00 am (Followed by time to purchase lunch on your own.)	Ashley Kappenman, PharmD Mentor: Barbara Crouch, PharmD	**One Pill Can Kill: The Role of the Poison Control Center and Medications Toxic in Small Doses 0167-0000-16-018-L05-P/T** Pharmacist Objectives: 1. Evaluate the role and impact of poison control centers 2. Describe medications or compounds that can be toxic in a single pill or dose as well as the mechanism of toxicity 3. Formulate a treatment plan for patients who have ingested medications or compounds that can be toxic in a single pill or dose 4. Identify strategies that pharmacists can utilize to help prevent poisonings Technician Objectives: 1. State the role of poison control centers 2. Identify medications or compounds that can be toxic in a single pill or dose 3. Describe strategies that can be used to help prevent poisonings
4/9 Sat.	HSEB 3515B at 1:00 pm	William Black, PharmD Mentor: Linda Tyler, PharmD, FASHP	**I D.A.R.E. You to Care: Preventing, Detecting, and Acting on Controlled Substance Diversion 0167-0000-16-001-L03-P/T** Pharmacist Objectives: 1. Identify individuals showing behavior indicative of diversion 2. Develop strategies to decrease the risk of diversion 3. Evaluate the potential for diversion given a set of circumstances 4. Explain the Drug Enforcement Agency's requirements for disclosing diversion events Technician Objectives: 1. List the negative impacts of controlled substance diversion 2. Identify individuals showing behavior indicative of diversion 3. List the medication classes most likely to be diverted

4/9 Sat.	HSEB 3515B At 2:00 pm	Ashley Bowden, PharmD Mentors: Joshua Sessions, PharmD	**A Heart to Heart about Newly Approved Cardiovascular Medications in 2015 0167-0000-16-003-L01-P/T** Pharmacist Objectives: 1. Discuss the pharmacologic categories and mechanisms of action for cardiovascular medications approved in 2015 2. Communicate key clinical information when counseling patients on the new cardiovascular medications 3. Integrate the evidence presented to select the appropriate therapy based on three clinical examples 4. Consider where the new cardiovascular agents fit within current guideline-based standard therapies Technician Objectives: 1. List the brand and generic names for cardiovascular therapeutic agents approved in 2015 2. Discuss the labeled indications for the newly approved agents 3. Identify the proper storage and handling for cardiovascular medications approved in 2015
4/9	HSEB 3515B At 3:00 pm	Kristine Ferreira, PharmD Mentor: Dave Young, PharmD	**Don't Hold Your Breath – A Review of New Aerosolized Agents and Delivery Devices in COPD 0167-0000-16-008-L01-P/T** Pharmacist Objectives: 1. Classify patients according to risk and determine proper therapy 2. Compare and contrast the mechanism of action and adverse effects of long acting bronchodilators 3. Formulate a treatment and monitoring plan for new COPD medication based on patient specific factors 4. Explain patients on the proper use of all inhaled drug delivery systems Technician Objectives: 1. Identify two risk factors for COPD 2. Identify the generic name when given a brand name of a new COPD medication 3. Describe the difference between a metered dose inhaler (MDI) and a drug powder inhaler

Registration, Info & Fees: All classes are one hour. The cost is $60 for pharmacists and $20 for technicians to attend regardless of the number of hours or sessions attended, and this fee can be paid online at www.ushp.org. No RSVP is required for the weekday sessions, but registration for the Saturday event on 4/9 is required to ensure a sufficient number of handouts are printed. Seating is limited. To receive CE (Continuing Education) credit, you must be a USHP member. If you are interested in joining USHP, please visit our website www.ushp.org and join online.

Credit Hours: Through attending this program, up to 23.0 contact hours (0.23 CEUs) can be attained. Participants must be a member of USHP, sign in at each program, complete evaluation forms, complete and pass the post-test with a 75% or better, and complete an Attendance Verification Form at the conclusion of all programs.

Special Accommodations: If you are in need of any special accommodation, please contact us a minimum of 2 days prior to the program in order to make arrangements at the below listed contact.

Commercial Support: No commercial support was received for this program.

Questions? Contact Shantel Mullin at shantel.mullin@hsc.utah.edu or (801) 587-3966.

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