



The Utah Society of Health-System Pharmacists Presents:
 Resident Continuing Pharmacy Education Series
 Spring 2020

Target Audience: Pharmacists, pharmacy technicians, and pharmacy students

Date/Time Location	Presenter	Title, Objectives & ACPE UAN
Saturday, November 7th 8:00am WebEx Only	Stephani Halloran, PharmD Mentor: <i>Ashley Cline, PharmD, BCPS Clinical Pharmacist, Internal Medicine, University of Utah Health</i>	<p align="center">No Strings Attached: Long-acting lipoglycopeptides considerations for gram positive infections in high-risk patients (0.1CEU) #A-0167-0000-20-022-L01-P/T</p> <p><u>Pharmacist Objectives:</u></p> <ol style="list-style-type: none"> 1. Explain the mechanism of action and pharmacokinetics of long acting lipoglycopeptides 2. Evaluate literature for utilization of long acting lipoglycopeptides 3. Identify high-risk patient characteristics who may benefit from long acting lipoglycopeptides 4. Describe the pros and cons of long acting lipoglycopeptides use for treatment <p><u>Technician Objectives:</u></p> <ol style="list-style-type: none"> 1. Describe the compounding process for long-acting lipoglycopeptides 2. Apply beyond-use-dating requirements to compounded long-acting lipoglycopeptide products 3. Locate long acting lipoglycopeptides in central pharmacy 4. Assess the cost associated with long acting lipoglycopeptides
Saturday, November 7th 9:00am WebEx Only	Shannon Jones, PharmD Mentor: <i>Jim Ruble, PharmD, JD Assistant Professor, University of Utah</i>	<p align="center">Weeding Out Uncertainty of Medical Marijuana in Utah (0.1CEU) #A-0167-0000-20-023-L03-P/T</p> <p><u>Pharmacist Objectives:</u></p> <ol style="list-style-type: none"> 1. Recall four (4) indications which qualify for decriminalized use of medical cannabis. 2. Identify and analyze two (2) potentially dangerous drug interactions for patients who are recommended to use medical cannabis. 3. Recognize three (3) fundamental operational requirements for physical location and dispensing in a medical cannabis pharmacy. 4. Evaluate a recent publication which forecasts future implications on the use of medical cannabis. <p><u>Technician Objectives:</u></p> <ol style="list-style-type: none"> 1. Recall two (2) types of practitioners who can become a qualified medical provider (QMP). 2. Locate the Utah Medical Cannabis Program website and identify a page on the website where other resources can be found. 3. Apply two (2) key criteria of the Utah Medical Cannabis Law to determine how patients may qualify to purchase medical cannabis.
Saturday, November 7th 10:15am WebEx Only	Bryn Lindley, PharmD Mentors: <i>Jennifer Babin, PharmD, BCPS; Ashley Crosby, PharmD, BCPS; Heather Nyman, PharmD, BCPS Clinical Pharmacists, Internal Medicine University of Utah Health</i>	<p align="center">Let's CIWAt We Know About Withdrawal: Alcohol Withdrawal Management Updates (0.1CEU) #A-0167-0000-20-024-L01-P/T</p> <p><u>Pharmacist Objectives:</u></p> <ol style="list-style-type: none"> 1. Differentiate between the four stages of acute alcohol withdrawal. 2. Interpret CIWA and PAWSS scores for a patient with acute alcohol withdrawal. 3. Explain the mechanism of action for the medications used to treat alcohol withdrawal. 4. Design an appropriate drug regimen for the treatment of alcohol withdrawal based on patient specific factors <p><u>Technician Objectives:</u></p> <ol style="list-style-type: none"> 1. Apply appropriate storage and handling of common medications used for the treatment of alcohol withdrawal. 2. Identify medications used for alcohol withdrawal on a patient's medication list. 3. Recognize common administration instructions for medications used for the treatment of alcohol withdrawal

Date/Time Location	Presenter	Title, Objectives & ACPE UAN			
Saturday, November 7th 11:15am WebEx Only	Mikayla Mills, PharmD Mentor: <i>Hanna Raber, PharmD, BCPS, BCACP</i> <i>Clinical Pharmacist, Ambulatory University of Utah Health</i>	<p style="text-align: center;">Ch-ch-ch-changes: Gender-Affirming Hormone Therapy (0.1CEU) #A-0167-0000-20-025-L01-P/T</p> <table border="0" style="width: 100%;"> <tr> <td style="width: 50%; vertical-align: top;"> <u>Pharmacist Objectives:</u> <ol style="list-style-type: none"> 1. Examine medical and social concerns that transgender patients face 2. Compare medications used for gender-affirming hormone therapy 3. Outline monitoring parameters for gender-affirming hormone therapy 4. Discuss best practices when caring for transgender patients </td> <td style="width: 50%; vertical-align: top;"> <u>Technician Objectives:</u> <ol style="list-style-type: none"> 1. Examine medical and social concerns that transgender patients face 2. Review medications used for gender-affirming hormone therapy 3. Discuss best practices when caring for transgender patients </td> </tr> </table>		<u>Pharmacist Objectives:</u> <ol style="list-style-type: none"> 1. Examine medical and social concerns that transgender patients face 2. Compare medications used for gender-affirming hormone therapy 3. Outline monitoring parameters for gender-affirming hormone therapy 4. Discuss best practices when caring for transgender patients 	<u>Technician Objectives:</u> <ol style="list-style-type: none"> 1. Examine medical and social concerns that transgender patients face 2. Review medications used for gender-affirming hormone therapy 3. Discuss best practices when caring for transgender patients
<u>Pharmacist Objectives:</u> <ol style="list-style-type: none"> 1. Examine medical and social concerns that transgender patients face 2. Compare medications used for gender-affirming hormone therapy 3. Outline monitoring parameters for gender-affirming hormone therapy 4. Discuss best practices when caring for transgender patients 	<u>Technician Objectives:</u> <ol style="list-style-type: none"> 1. Examine medical and social concerns that transgender patients face 2. Review medications used for gender-affirming hormone therapy 3. Discuss best practices when caring for transgender patients 				
Tuesday, November 10th 3:00pm WebEx Only	Michael Konietzko, PharmD Mentors: <i>Jane Chandramouli, PharmD</i> <i>Clinical Pharmacist, Ambulatory University of Utah Health</i>	<p style="text-align: center;">Pharmacoeconomics: A Primer (0.1CEU) #A-0167-0000-20-026-L04-P/T</p> <table border="0" style="width: 100%;"> <tr> <td style="width: 50%; vertical-align: top;"> <u>Pharmacist Objectives:</u> <ol style="list-style-type: none"> 1. Describe what pharmacoeconomics is and why it is necessary 2. Distinguish when it is appropriate to use each of the different types of pharmacoeconomic analysis 3. Evaluate pharmacoeconomic information for two drugs and make an appropriate recommendation from presented information </td> <td style="width: 50%; vertical-align: top;"> <u>Technician Objectives:</u> <ol style="list-style-type: none"> 1. Define pharmacoeconomics 2. Discuss the importance of a pharmacoeconomic analysis 3. Interpret the outcome of a cost-benefit analysis </td> </tr> </table>		<u>Pharmacist Objectives:</u> <ol style="list-style-type: none"> 1. Describe what pharmacoeconomics is and why it is necessary 2. Distinguish when it is appropriate to use each of the different types of pharmacoeconomic analysis 3. Evaluate pharmacoeconomic information for two drugs and make an appropriate recommendation from presented information 	<u>Technician Objectives:</u> <ol style="list-style-type: none"> 1. Define pharmacoeconomics 2. Discuss the importance of a pharmacoeconomic analysis 3. Interpret the outcome of a cost-benefit analysis
<u>Pharmacist Objectives:</u> <ol style="list-style-type: none"> 1. Describe what pharmacoeconomics is and why it is necessary 2. Distinguish when it is appropriate to use each of the different types of pharmacoeconomic analysis 3. Evaluate pharmacoeconomic information for two drugs and make an appropriate recommendation from presented information 	<u>Technician Objectives:</u> <ol style="list-style-type: none"> 1. Define pharmacoeconomics 2. Discuss the importance of a pharmacoeconomic analysis 3. Interpret the outcome of a cost-benefit analysis 				
Tuesday, November 10th 4:00pm WebEx Only	Kyle Finnerty, PharmD, MBA Mentor: <i>Lauren Lowery, PharmD</i> <i>Clinical Pharmacist, Acute Care University of Utah Health</i>	<p style="text-align: center;">It's Not You, It's Just Culture (0.1CEU) #A-0167-0000-20-027-L05-P/T</p> <table border="0" style="width: 100%;"> <tr> <td style="width: 50%; vertical-align: top;"> <u>Pharmacist Objectives:</u> <ol style="list-style-type: none"> 1. Explain the differences between punitive culture, no-blame culture, and just culture 2. Analyze the role of shared accountability in process improvement and system design 3. Apply system design strategies to reduce risk and prevent human error </td> <td style="width: 50%; vertical-align: top;"> <u>Technician Objectives:</u> <ol style="list-style-type: none"> 1. Discuss the benefits of just culture in health care 2. Identify ways to monitor and assess system design changes 3. Design process improvement initiatives using just culture principles </td> </tr> </table>		<u>Pharmacist Objectives:</u> <ol style="list-style-type: none"> 1. Explain the differences between punitive culture, no-blame culture, and just culture 2. Analyze the role of shared accountability in process improvement and system design 3. Apply system design strategies to reduce risk and prevent human error 	<u>Technician Objectives:</u> <ol style="list-style-type: none"> 1. Discuss the benefits of just culture in health care 2. Identify ways to monitor and assess system design changes 3. Design process improvement initiatives using just culture principles
<u>Pharmacist Objectives:</u> <ol style="list-style-type: none"> 1. Explain the differences between punitive culture, no-blame culture, and just culture 2. Analyze the role of shared accountability in process improvement and system design 3. Apply system design strategies to reduce risk and prevent human error 	<u>Technician Objectives:</u> <ol style="list-style-type: none"> 1. Discuss the benefits of just culture in health care 2. Identify ways to monitor and assess system design changes 3. Design process improvement initiatives using just culture principles 				
Tuesday, November 10th 5:00pm WebEx Only	Suzie Chen, PharmD Mentor: <i>Dallas Moore, RPh, MS</i> <i>Informatics Pharmacist University of Utah Health</i>	<p style="text-align: center;">Technology and COVID-19 Tracking and Tracing (0.1CEU) #A-0167-0000-20-028-L04-P/T</p> <table border="0" style="width: 100%;"> <tr> <td style="width: 50%; vertical-align: top;"> <u>Pharmacist Objectives:</u> <ol style="list-style-type: none"> 1. Discuss the advantages and disadvantages of various technology initiatives used in pandemic tracking and tracing. 2. Examine the application of artificial intelligence in pandemic tracking and tracing 3. Assess the risk of privacy concerns with various technology initiatives </td> <td style="width: 50%; vertical-align: top;"> <u>Technician Objectives:</u> <ol style="list-style-type: none"> 1. Describe tracking and tracing 2. List technology initiatives that can be used in pandemic tracking and tracing. 3. Assess the benefits and risks of utilizing technology used in pandemic tracking and tracing. </td> </tr> </table>		<u>Pharmacist Objectives:</u> <ol style="list-style-type: none"> 1. Discuss the advantages and disadvantages of various technology initiatives used in pandemic tracking and tracing. 2. Examine the application of artificial intelligence in pandemic tracking and tracing 3. Assess the risk of privacy concerns with various technology initiatives 	<u>Technician Objectives:</u> <ol style="list-style-type: none"> 1. Describe tracking and tracing 2. List technology initiatives that can be used in pandemic tracking and tracing. 3. Assess the benefits and risks of utilizing technology used in pandemic tracking and tracing.
<u>Pharmacist Objectives:</u> <ol style="list-style-type: none"> 1. Discuss the advantages and disadvantages of various technology initiatives used in pandemic tracking and tracing. 2. Examine the application of artificial intelligence in pandemic tracking and tracing 3. Assess the risk of privacy concerns with various technology initiatives 	<u>Technician Objectives:</u> <ol style="list-style-type: none"> 1. Describe tracking and tracing 2. List technology initiatives that can be used in pandemic tracking and tracing. 3. Assess the benefits and risks of utilizing technology used in pandemic tracking and tracing. 				
Thursday, November 12th 3:00pm WebEx Only	Helen Hou, PharmD Mentors: <i>Cole Sloan, PharmD, BCPS, BCGP</i> <i>Clinical Pharmacist, Emergency Medicine University of Utah Health</i>	<p style="text-align: center;">Keeping It Cool in Post-Cardiac Arrest Patients (0.1CEU) #A-0167-0000-20-029-L01-P/T</p> <table border="0" style="width: 100%;"> <tr> <td style="width: 50%; vertical-align: top;"> <u>Pharmacist Objectives:</u> <ol style="list-style-type: none"> 1. Recognize the benefits and adverse effects of targeted temperature management 2. Select the most appropriate pharmacological interventions to manage shivering during targeted temperature management 3. Compare the evidence and outcomes between lower versus higher temperature targets (33C vs 36C) </td> <td style="width: 50%; vertical-align: top;"> <u>Technician Objectives:</u> <ol style="list-style-type: none"> 1. Describe the physiologic effects of hypothermia and hyperthermia in post-cardiac arrest patients 2. Identify medications used during the different phases of targeted temperature management 3. Examine how to prioritize safe and efficient delivery of medications for patients receiving targeted temperature management </td> </tr> </table>		<u>Pharmacist Objectives:</u> <ol style="list-style-type: none"> 1. Recognize the benefits and adverse effects of targeted temperature management 2. Select the most appropriate pharmacological interventions to manage shivering during targeted temperature management 3. Compare the evidence and outcomes between lower versus higher temperature targets (33C vs 36C) 	<u>Technician Objectives:</u> <ol style="list-style-type: none"> 1. Describe the physiologic effects of hypothermia and hyperthermia in post-cardiac arrest patients 2. Identify medications used during the different phases of targeted temperature management 3. Examine how to prioritize safe and efficient delivery of medications for patients receiving targeted temperature management
<u>Pharmacist Objectives:</u> <ol style="list-style-type: none"> 1. Recognize the benefits and adverse effects of targeted temperature management 2. Select the most appropriate pharmacological interventions to manage shivering during targeted temperature management 3. Compare the evidence and outcomes between lower versus higher temperature targets (33C vs 36C) 	<u>Technician Objectives:</u> <ol style="list-style-type: none"> 1. Describe the physiologic effects of hypothermia and hyperthermia in post-cardiac arrest patients 2. Identify medications used during the different phases of targeted temperature management 3. Examine how to prioritize safe and efficient delivery of medications for patients receiving targeted temperature management 				

Date/Time Location	Presenter	Title, Objectives & ACPE UAN
Thursday, November 12 th 4:00pm WebEx Only	Colton P Radford, PharmD Mentor: <i>Brianne M Wolfe, PharmD, BCPS, BCCCP Clinical Pharmacist, Critical Care University of Utah Health</i>	<p style="text-align: center;">Breathing HazARDS: A Comprehensive Review of Acute Respiratory Distress Syndrome (0.1CEU) #0167-0000-20-030-L01-P/T</p> <p><u>Pharmacist Objectives:</u></p> <ol style="list-style-type: none"> 1. Discuss basic acute respiratory distress syndrome (ARDS) pathophysiology 2. Recognize underlying risk factors for ARDS development 3. Identify non-pharmacological therapies for ARDS management 4. Evaluate the risks and benefits of pharmacological treatment strategies (sedation, paralysis, glucocorticoids, etc.) for ARDS 5. Develop a patient-specific pharmacological regimen for the management of a patient with ARDS <p><u>Technician Objectives:</u></p> <ol style="list-style-type: none"> 1. Define ARDS 2. Identify risk factors for ARDS 3. Distinguish medication which may be utilized in the treatment of ARDS
Thursday, November 12 th 5:00pm WebEx Only	Sabrina Schneider, PharmD Mentor: <i>Jeffrey Gilreath, PharmD Clinical Pharmacist, Hematology Huntsman Cancer Institute</i>	<p style="text-align: center;">Friends in Low Places: A Clinical Review of Hematopoietic Growth Factors (0.1CEU) #A-0167-0000-20-031-L01-P/T</p> <p><u>Pharmacist Objectives:</u></p> <ol style="list-style-type: none"> 1. Develop an appropriate therapeutic management and monitoring plan for each class of hematopoietic growth factors based on a patient case. 2. Distinguish appropriate and inappropriate uses for hematopoietic growth factors in common clinical settings. 3. Review the pathophysiology of hematopoiesis and describe the mechanism of action for each class of hematopoietic growth factors. <p><u>Technician Objectives:</u></p> <ol style="list-style-type: none"> 1. Compare and contrast the different classes of hematopoietic growth factors and determine which cell lineage each agent stimulates to grow. 2. Define the term “biosimilar” and provide examples of both biosimilar hematopoietic growth factors and their originator product. 3. Identify brand and generic names of common hematopoietic growth factors.
Saturday, November 14 th 8:00am WebEx Only	R. Dawn Tagare, PharmD Mentor: <i>Russell Benefield, PharmD, BCPS-AQ ID Clinical Pharmacist, Infectious Disease University of Utah Health</i>	<p style="text-align: center;">No Mo’ Cystis! <i>Pneumocystis jirovecii</i> Treatment in the Non-HIV-infected Population (0.1CEU) #A-0167-0000-20-032-L01-P/T</p> <p><u>Pharmacist Objectives:</u></p> <ol style="list-style-type: none"> 1. Review the relevant history of <i>Pneumocystis jirovecii</i> pneumonia (PJP) therapy 2. Evaluate primary literature for current PJP management recommendations 3. Differentiate the mechanisms of action and potential adverse effects of medications used for PJP treatment 4. Develop a therapeutic treatment plan for a patient with PJP <p><u>Technician Objectives:</u></p> <ol style="list-style-type: none"> 1. Describe safety considerations with <i>Pneumocystis</i> medications 2. Recognize proper storage and stability of agents used for treatment of PJP 3. Choose the correct product size of a sulfamethoxazole-trimethoprim formulation necessary to prepare a given dose
Saturday, November 14 th 9:00am WebEx Only	Danielle Rustem, PharmD Mentors: <i>Jordan McPherson, PharmD, BCOP; Dan Sageser, BS, PharmD, Clinical Pharmacists, Oncology Huntsman Cancer Institute</i>	<p style="text-align: center;">Checking-in with the Immune Checkpoint Inhibitors (0.1CEU) #A-0167-0000-20-033-L01-P/T</p> <p><u>Pharmacist Objectives:</u></p> <ol style="list-style-type: none"> 1. Describe new first-line and novel indications for immune checkpoint inhibitors and their current impact on health care costs in the US. 2. Develop an immune checkpoint inhibitor-containing treatment regimen based on a patient’s diagnosis, FDA-approved indications, and toxicity profile. 3. Assess appropriateness of immune checkpoint inhibitor therapy based on oncologic history, genetic testing, and immunotherapy biomarkers. <p><u>Technician Objectives:</u></p> <ol style="list-style-type: none"> 1. Recognize the current impact of increased immune checkpoint inhibitor utilization on health care costs in the US. 2. Compare and contrast the toxicities expected with chemotherapy-based, immunotherapy-based, and combined regimens. 3. Discuss immunotherapy biomarkers used to predict response to immune checkpoint inhibitors.

Date/Time Location	Presenter	Title, Objectives & ACPE UAN	
Saturday, November 14th 10:15am WebEx Only	Bestis Wasef, PharmD Mentor: <i>Sara deHoll, PharmD, BCOP Clinical Pharmacist, Hematology/Oncology and PGY2 Residency Coordinator Huntsman Cancer Institute</i> <i>Joshua Jacobs, PharmD, BCCP Clinical Pharmacist, Cardiology University of Utah Health</i>	<p align="center">The Heart Will Go On: Preventing and Managing Anthracycline and anti-HER2 Cardiotoxicity (0.1CEU) #A-0167-0000-20-034-L01-P/T</p> <p><u>Pharmacist Objectives:</u></p> <ol style="list-style-type: none"> Describe the mechanisms behind anthracycline and anti-HER2 induced cardiotoxicity Differentiate between the different types of anthracycline and anti-HER2 cardiotoxicities Design a therapeutic regimen that entails preventive measures against anthracyclines and anti-HER2 cardiotoxicities Develop a plan regarding anthracyclines and anti-HER2 adjustments in cardiotoxicity 	<p><u>Technician Objectives:</u></p> <ol style="list-style-type: none"> Recognize which chemotherapy agents and classes are associated with cardiotoxicity Differentiate between brand and generic of the chemotherapies mentioned Recall the maximum lifetime doses of cardiotoxic chemotherapies mentioned Identify the classes of cardiac medications used as preventive management of anthracycline and anti-HER2 cardiotoxicity
Saturday, November 14th 11:15am WebEx Only	Jaelyn Westfield, PharmD Mentors: <i>Courtney Cavalieri, PharmD, BCOP Clinical Pharmacist, Oncology Huntsman Cancer Institute</i>	<p align="center">A Breath of Fresh Air: New Drugs in Lung Cancer (0.1CEU) #A-0167-0000-20-035-L01-P/T</p> <p><u>Pharmacist Objectives:</u></p> <ol style="list-style-type: none"> Describe potential side effects of entrectinib, selpercatinib, capmatinib, and lurbinectedin. Demonstrate understanding of how new agents fit into the treatment algorithms for small cell and non-small cell lung cancer. Compare the mechanism of action of entrectinib, selpercatinib, capmatinib, and lurbinectedin. 	<p><u>Technician Objectives:</u></p> <ol style="list-style-type: none"> Differentiate preparation processes for lurbinectedin administered through central versus a peripheral line. Discuss the role of patient assistance programs for selpercatinib, capmatinib, and entrectinib. Recognize which new medications used in lung cancer treatment are oral and which are intravenous.
Saturday, November 14th 12:30pm WebEx Only	Jessi Clark, PharmD Mentor: <i>Irene Pan, PharmD Clinical Pharmacist, Cardiology University of Utah Health</i>	<p align="center">Making Cardiac Amyloidosis Drugs Ta-famous-dis: A Review of Cardiac Amyloidosis Therapies (0.1CEU) #A-0167-0000-20-036-L01-P/T</p> <p><u>Pharmacist Objectives:</u></p> <ol style="list-style-type: none"> Describe the clinical characteristics and manifestations of light chain, wild type, and variant type cardiac amyloidosis. Manage disease modifying therapies for cardiac amyloidosis. Prepare treatment plans for cardiac amyloidosis-associated comorbid conditions. 	<p><u>Technician Objectives:</u></p> <ol style="list-style-type: none"> Recall the clinical manifestations of cardiac amyloidosis. List brand and generic names of agents used in the treatment of cardiac amyloidosis. Assess the cost of a patient's cardiac amyloidosis medications.

Registration, Info & Fees: All presentations are one hour. The cost is FREE for USHP members; otherwise, it is \$110 for pharmacists and \$25 for technicians to attend regardless of the number of hours or sessions attended. This fee can be paid online at www.ushp.org. If you are interested in joining USHP, please visit our website www.ushp.org and join online.

WebEx Meeting Information: DUE TO COVID-19, THE ENTIRE SERIES WILL BE PRESENTED VIA WEBEX. Please see the USHP website

Credit Hours: Through attending this program, up to 15.0 contact hours (0.15 CEUs) can be attained. All participants must register and, if applicable, pay for the series, obtain individual session CE codes, and complete evaluation surveys for each day attended. The links to these surveys are available on the USHP website and must be completed within 7 days of each day of CE attendance. A participation code will be required to get credit for each day. You must register and pay for the CE Series by November 14th 2020.

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

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

Questions? Emma Jones (emma.jones@hci.utah.edu), or Jennifer Bishop (Jennifer.Bishop@MountainStarHealth.com)



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