

2021 ASTCT Virtual Fundamentals of HCT Training Course

April 24-25, 2021

Activity Overview

The Fundamentals of HCT Training Course is a 2-day conference that provides a broad overview and introduction of hematopoietic cell transplantation (HCT), also referred to as blood and marrow transplantation (BMT), as well as cellular immunotherapy (CI). Throughout the lectures, participants will be introduced to numerous aspects of the HCT-CI processes, which are designed to develop or enhance skills required in the management of patients undergoing these procedures. This course incorporates case-based learning to emphasize application of concepts taught through didactic lecture with a strong focus on the pharmacotherapeutic management.

Target Audience

The target audience for this course includes new practitioners, residents, fellows, pharmacists, nurses, and those training in this discipline.

Statement of Need:

The Fundamentals of HCT Training Course is designed to inform attendees about the latest developments in 1) treatment guidelines; 2) therapeutic regimens; 3) diseases state management; 4) supportive care therapies; 5) controversial care issues; and 6) clinical trial data.

Planning Committee, Activity Faculty, and Peer Reviewers

	Planning Committee	Activity Faculty	Peer Reviewer
Laura Whited, PharmD, BCOP-CHAIR MD Anderson Cancer Center	X	X	
Benjamin Andrick, PharmD, BCOP Geisinger Medical Center	X		X
Christina Bachmeier, PharmD, BCOP Moffitt Cancer Center		X	
Joseph Bubalo, PharmD, BCPS, BCOP Oregon Health & Science University Hospital			X
Ashley Teusink-Cross, PharmD, MBA, BCPS Cincinnati Children's Hospital Medical Center			X
Lauren DeRespiris, PharmD, BCOP Memorial Sloan Kettering Cancer Center			X
Elizabeth DiMaggio, PharmD, BCOP Moffitt Cancer Center	X		X
Jason Ernstberger, PharmD, BCOP UC Health			
Katie Gatwood, PharmD, BCOP Vanderbilt University		X	
Suzanne Carlene Gettys, PharmD, BCOP MD Anderson Cancer Center	X		
Arpita Gandhi, PharmD, BCOP Emory, Winship Cancer Institute			X

Rebecca Gonzalez, PharmD, BCOP Moffitt Cancer Center		X	
Tatjana Grgic, PharmD, BCOP, CPP University of North Carolina			X
Alison Gulbis, PharmD, BCOP MD Anderson Cancer Center		X	
Lauren Ice, PharmD, BCOP Spectrum Health	X		X
Cathryn Jennisen, PharmD, BCOP University of Minnesota	X		
LeAnne Kennedy, PharmD, BCOP, CPP, FHOPA Wake Forest Baptist Health		X	X
Helen Leather, BPharm University of Florida		X	
Susan Long, PharmD University of Minnesota Masonic Children's Hospital	X	X	
Mariana Lucena, PharmD, BCOP Cleveland Clinic		X	
Zahra Mahmoudjafari, PharmD, BCOP, DPLA University of Kansas Health System		X	
Anthony J. Perissinotti, PharmD, BCOP University of Michigan			X
Julianna Roddy, PharmD, BCOP Arthur G. James Cancer Hospital and Richard J. Solove Research Institute	X		
Terri Lynn Shigle, PharmD, BCPS, BCOP The University of Texas MD Anderson Cancer Center			X
Theresa Thakar, PharmD, BCOP Indiana University Health		X	
Jason Yeh, PharmD, BCOP MD Anderson Cancer Center	X	X	

Accredited Provider

This activity is jointly provided by The France Foundation and the American Society for Transplantation and Cellular Therapy.



Program Agenda–Day 1: Saturday, April 24, 2021

***NOTE–ALL TIMES IN CENTRAL TIME ZONE**

Time	Presentation and Faculty	Learning Objectives	UAN	Hours (CEUs)
9:00–9:15 AM	Welcome–Opening Remarks Dr. Laura Whited, PharmD, BCOP University of Texas MD Anderson Cancer Center, Houston, TX			
9:20–10:20 AM	Introduction to Transplant Dr. Alison Gulbis, PharmD, BCOP University of Texas MD Anderson Cancer Center, Houston, TX	<ol style="list-style-type: none"> 1. Briefly describe the history of the hematopoietic cell transplantation (HCT) field 2. Identify medical conditions in which HCT is indicated 3. Describe sources of stem cells utilized in HCT and their comparative advantages and disadvantages 4. Describe different donor types available for allogeneic HCT 5. List important resources to aid healthcare professionals caring for HCT patients 	0391-9999-21-022-L04-P	1.0
10:25–11:40 AM	Stem Cell Mobilization Dr. Teresa Thakrar, PharmD, BCOP Indiana University Health-Melvin and Bren Simon Cancer Center, Indianapolis, IN	<ol style="list-style-type: none"> 1. Identify different stem cell sources and understand the advantages and disadvantages of using peripheral blood, bone marrow, and umbilical cord blood in HCT 2. Describe pharmacologic approaches for stem cell mobilization 3. Identify pharmacoeconomic factors to consider with stem cell mobilization 4. Summarize risk factors associated with poor stem cell mobilization and strategies for management 	0391-9999-21-023-L04-P	1.25
11:40–11:50 AM	Break			
11:50–12:50 PM	Principles of Conditioning in HCT (Including Busulfan Pharmacokinetics) Dr. Mariana Lucena, PharmD, BCOP Cleveland Clinic, Cleveland, OH	<ol style="list-style-type: none"> 1. Explain the foundation of conditioning regimens in both autologous and allogeneic hematopoietic stem cell transplantation (HCT) 2. Discuss the various therapies used in HCT conditioning regimens and doses utilized in each setting 3. Describe the different toxicity profiles of the therapies used in HCT conditioning regimens 4. Identify the key differences between reduced intensity (RIC), non-myeloablative (NMA), and myeloablative (MA) conditioning regimens 	0391-9999-21-024-L04-P	1.0
12:50–1:30 PM	Lunch			

1:30– 2:45 PM	Immune Effector Cell Therapy Basics and Toxicities Dr. Christina Bachmeier, PharmD, BCOP Moffitt Cancer Center, Tampa, FL	<ol style="list-style-type: none"> 1. Compare and contrast the following immune effector cell (IEC) therapy products: chimeric antigen receptor cell therapy (CAR T), tumor infiltrating lymphocytes (TIL), and genetically modified T cell receptor therapy (TCR) 2. Summarize the differences between CD19 directed CAR T cell products 3. Explain the onset, symptoms, and grading of cytokine release syndrome (CRS) and CAR T cell related neurological toxicities 4. Outline the prevention and management of other adverse effects associated with CAR T cell therapy 	0391-9999-21-025-L04-P	1.25
2:50PM–3:20 PM	SOS/VOD Dr. Katie Gatwood, PharmD, BCOP Vanderbilt University, Nashville, TN	<ol style="list-style-type: none"> 1. Describe the pathophysiology of VOD/SOS 2. Recognize the risk factors for developing VOD/SOS 3. Identify appropriate preventative strategies for VOD/SOS 4. Outline treatment options available for and outcomes managing VOD/SOS 	0391-9999-21-026-L04-P	0.5
3:20–3:30 PM	Break			
3:30–4:15 PM	Post HCT Maintenance Strategies Dr. Jason Yeh, PharmD, BCOP University of Texas MD Anderson Cancer Center, Houston, TX	<ol style="list-style-type: none"> 1. Discuss guideline recommendations and maintenance therapies utilized after autologous hematopoietic cell transplantation (aHCT) in multiple myeloma (MM), Hodgkin lymphoma (HL), and Non-Hodgkin lymphoma (NHL) 2. Explain the use of donor lymphocyte infusions (DLI) for disease management after allogeneic hematopoietic cell transplantation (alloHCT) 3. Review the evidence for the use of maintenance therapies after alloHCT in acute myeloid leukemia (AML), myelodysplastic syndromes (MDS), chronic myeloid leukemia (CML), and acute lymphoblastic leukemia (ALL) 	0391-9999-21-027-L04-P	0.75

Program Agenda–Day 2: Sunday, April 25, 2021

***NOTE–ALL TIMES IN CENTRAL TIME ZONE**

Time	Topic	Learning Objectives	UAN	Hours (CEUs)
9:00–10:00 AM	Viral Infections Following HCT Dr. LeAnne Kennedy, PharmD, BCOP	<ol style="list-style-type: none"> 1. Define the differences between viremia, viral infection, and viral disease 	0391-9999-21-028-L04-P	1.0

	Wake Forest University, Winston-Salem, NC	<ol style="list-style-type: none"> 2. Identify clinical and laboratory findings associated with various viral infections in the HCT population 3. Recognize risk factors associated with various viral infections in the HCT population and the associated period of risk 4. Discuss prophylactic strategies to prevent viral infections in HCT recipients 5. Review management strategies and supportive care of HCT patients with viral infections 6. Identify appropriate monitoring parameters for patients receiving antiviral therapy 		
10:05–11:00 AM	<p style="text-align: center;">Fungal Infections Prophylaxis and Management Dr. Laura Whited, PharmD, BCOP University of Texas MD Anderson Cancer Center, Houston, TX</p>	<ol style="list-style-type: none"> 1. Describe the epidemiology and risk factors associated with various invasive fungal infections (IFI) in the setting of hematopoietic stem cell transplant (HCT) 2. Review prophylaxis and treatment options for Candida, Aspergillus, Mucormycosis, and Pneumocystis jirovecii pneumonia (PJP) 3. 3. Outline special considerations related to the treatment of fungal infections in HCT recipients including combination therapy, therapeutic drug monitoring, secondary prophylaxis, and dosing in obesity 	0391-9999-21-029-L04-P	1.0
11:00–11:20 AM	Break			
11:20 AM–12:20 PM	<p style="text-align: center;">Acute GVHD Helen Leather, PharmD, BCOP University of Florida, Gainesville, FL</p>	<ol style="list-style-type: none"> 1. Describe the pathophysiology of acute graft-versus-host-disease (aGVHD) 2. Recognize risk factors for developing aGVHD 3. Understand prophylaxis approaches available for aGVHD 4. Describe treatment options for aGVHD and steroid-refractory aGVHD 	0391-9999-21-030-L04-P	1.0
12:20 – 12:50 PM	Lunch			
12:50 – 1:50 PM	<p style="text-align: center;">Chronic GVHD Dr. Rebecca Gonzalez, PharmD Moffitt Cancer Center, Tampa, FL</p>	<ol style="list-style-type: none"> 1. Distinguish the difference between "classic" acute graft-versus-host disease (aGVHD), 	0391-9999-21-031-L04-P	1.0

		<p>persistent aGVHD, "classic" chronic graft-versus-host disease (cGVHD), and overlap syndrome</p> <ol style="list-style-type: none"> Identify risk factors and clinical manifestations for cGVHD Outline treatment, supportive care, and monitoring plans for organ-specific cGVHD complications 		
1:55 – 2:30 PM	<p style="text-align: center;">Vaccinations</p> <p>Dr. Zahra Mahmoudjafari, PharmD, BCOP Kansas University Medical Center, Kansas City, KS</p>	<ol style="list-style-type: none"> Identify key physiologic changes and clinical considerations following hematopoietic stem cell transplant (HCT) that warrant re-vaccination of HCT recipients Outline an appropriate vaccination schedule for an HCT recipient, while taking clinical considerations into account 	0391-9999-21-032-L04-P	0.75
2:30 – 2:45 PM	Break			
2:45 – 3:45 PM	<p style="text-align: center;">Special Populations in HCT Panel Discussion</p> <ul style="list-style-type: none"> Pediatrics: Dr. Susie Long, PharmD, University of Minnesota, Minneapolis, MN Geriatrics: Dr. Laura Whited, PharmD, BCOP; University of Texas MD Anderson Cancer Center, Houston, TX 	<p>Pediatrics:</p> <ol style="list-style-type: none"> Identify indications for HCT that are unique for pediatric patients Describe the impact of newborn screening on HCT in the pediatric population Identify challenges specific to pediatric dosing, pharmacokinetics, and pharmacodynamics <p>Geriatrics:</p> <ol style="list-style-type: none"> Describe appropriate conditioning regimens for the elderly population Recognize the differences in side effects and dosing for supportive care management for geriatric patients 	0391-9999-21-033-L04-P	1.0

Accreditation-Pharmacists



The France Foundation is accredited by the Accreditation Council for Pharmacy Education as a provider of continuing pharmacy education and will award up to 11.5 CEUs to pharmacists who complete the activity and evaluation forms. There are both knowledge-based and application-based sessions in this activity. Please see the agenda above for a listing of the ACPE Universal Activity Numbers (UANs) associated with each session.

Your CE credits will be submitted electronically to the CPE Monitor. CE providers must upload participant information within 60 days from the date the participant completed the live activity. **Please submit all evaluations and credit requests no later than June 8, 2021 to ensure your credit fulfillment. CE credit cannot be awarded past 60 days from the activity date.**

METHOD OF PARTICIPATION/HOW TO RECEIVE CREDIT

1. Review the activity objectives and CE information
2. Participate in the CE activity
3. Complete the CE evaluation form. This form provides each participant with the opportunity to comment on how participating in the activity will affect their professional practice; the quality of the instructional process; the perception of enhanced professional effectiveness; the perception of commercial bias; and his/her views on future educational needs.
 - **NOTE: There is ONE evaluation for the entire program, not one for each individual session**
 - **Click here to complete the evaluation and request CE credit:**
<https://survey.alchemer.com/s3/6268909/Fundamentals-of-HCT-2021>
4. Your CE credits will be submitted electronically to the CPE Monitor. The submission is manual, so please be advised it may take up to 2 weeks before you see your credit in your profile.
 - If there are any questions please contact Heather Tarbox at htarbox@francefoundation.com

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Activity Staff Disclosures

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The planners, reviewers, editors, staff, CME committee, and other members at The France Foundation who control content have no relevant financial relationships to disclose.

Disclosures: Planning Committee, Activity Faculty, and Peer Reviewers

The planners and faculty listed below report that they have no relevant financial relationships to disclose:

- Benjamin Andrick, PharmD, BCOP
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- Rebecca Gonzalez, PharmD, BCOP
- Tatjana Grgic, PharmD, BCOP, CPP
- Lauren Ice, PharmD, BCOP
- Cathryn Jennisen, PharmD, BCOP
- LeAnne Kennedy, PharmD, BCOP, CPP, FHOPA
- Helen Leather, BPharm
- Susan Long, PharmD

- Mariana Lucena, PharmD, BCOP
- Lauren DeRespiris, PharmD, BCOP
- Terri Lynn Shigle, PharmD, BCPS, BCOP
- Teresa Thakrar, PharmD, BCOP
- Laura Whited, PharmD, BCOP
- Jason Yeh, PharmD, BCOP

The following faculty report that they have relevant financial relationships to disclose:

- Christina Bachmeier, PharmD, BCOP, has conducted non-CE Consulting for Kite/GILEAD and Legend Biotech. She has also served on a non-CE speakers bureau for Novartis.
- Joseph Bubalo, PharmD, BCPS, BCOP, has done non-CE consulting for EUSA Pharma
- Jason Ernstberger, PharmD, BCOP, has served on a non-CE speakers bureau for Seattle Genetics
- Katie Gatwood, PharmD, BCOP, has served on a non-CE speakers bureau for Jazz Pharmaceuticals and has done contract research for AstraZeneca
- Alison Gulbis, PharmD, BCOP, has served as an advisor to EUSA Pharma
- Zahra Mahmoudjafari, PharmD, BCOP, DPLA, has conducted non-CE Consulting for Celgene, Incyte, Novartis and Omeros
- Ashley Teusink-Cross, PharmD, MBA, BCPS, has served on a non-CE speakers bureau for Jazz Pharmaceuticals
- Anthony J. Perissinotti, PharmD, BCOP, has done non-CE consulting for Astellas
- Julianna Roddy, PharmD, BCOP, has served on a non-CE speakers bureau for Astellas and Alexion. She has served as an advisor to Novartis.

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