



**ISHLT ACADEMY CORE COMPETENCIES COURSE  
MECHANICAL CIRCULATORY SUPPORT**

**Tuesday, April 26, 2016  
Marriott Wardman Park Hotel, Thurgood Marshall Ballroom East  
Washington DC, USA**

**Scientific Program Committee**

Chair: Jennifer Cowger, MD, MS, St. Vincent Heart Center of Indiana, Indianapolis, IN, USA

Co-Chair: Daniel Zimpfer, MD, Medical University of Vienna, Vienna, Austria

Co-Chair: Jennifer Beckman, MSN-FNP, RN, CHFN, University of Washington, Seattle, WA, USA

**Educational Goals**

The educational goals of this activity are to provide a concise review of clinical knowledge and essential professional skills to facilitate best practice of surgical and medical aspects involved in the care of patients during assessment as candidates and as recipients of mechanical circulatory support.

**Target Audience**

While all members are invited to enroll, this course is primarily designed to be of benefit for clinicians and allied professionals who are in the early stages of their careers or who are in training and/or are part of a new program or desire an update on the current state of the field. The information presented covers core competencies and is intended to provide a strong foundation of the overarching principles of mechanical support, rather than as a detailed update for those who are already proficient experts in the field.

**Accreditation Statement**

The International Society for Heart and Lung Transplantation (ISHLT) is accredited by the Accreditation Council for Continuing Medical Education (ACCME) to provide continuing medical education for physicians.

**Credit Designation Statement**

ISHLT designates this live activity for a maximum of 8.00 AMA PRA Category 1 Credits.™ Physicians should claim only the credit commensurate with the extent of their participation in the activity.

**ACPE Credit**

This activity may be eligible for ACPE credit, see final CPE activity announcement for specific details.

**Disclosure**

Current guidelines state that participants in CME activities must be made aware of any affiliation or financial interest that may affect the program content or a speaker's presentation. Planners, Faculty and Chairs participating in this meeting are required to disclose to the program audience any real or

apparent conflict(s) of interest related to the content of their presentations or service as Chair/Planner. These disclosures will be distributed at the meeting. Additionally, all speakers have been asked to verbally disclose at the start of their presentation if a product they are discussing is not labeled for the use under discussion or is still investigational.

### **Learning Objectives**

At the conclusion of this meeting, participants will have improved competence and professional performance in their ability to:

1. Understand how to risk stratify patient with advanced heart failure in order to assess MCS surgical risk and optimally time mechanical circulatory support (MCS) implantation.
2. Recognize the medical and social factors which impact patient outcomes during short- and long-term MCS.
3. Recognize the various types of MCS support available for patients with advanced single or biventricular heart failure and the technological differences that may impact pump selection and patient/device management.
4. Optimize MCS implantation techniques and patient/pump management during the index admission intensive care unit and inpatient general care periods.
5. Manage patients and the MCS during outpatient long-term support with an understanding of interventions that can reduce patient- and device-related adverse events during MCS.
6. Diagnose and manage common clinical dilemmas and adverse encountered after MCS.

### **SCIENTIFIC PROGRAM SCHEDULE**

**7:15 AM – 8:00 AM**

**REGISTRATION AND MORNING COFFEE**

**8:00 AM - 9:15 AM**

**SESSION 1: REVIEW OF THE CURRENT STATE OF MCS**

**Chair:** Stephan Schueler, MD, PhD, FRCS

**8:00 AM *Welcome and Overview***

Jennifer Cowger, MD, MS, St. Vincent Heart Center of Indiana, Indianapolis, IN, USA

**8:15 AM *MCS Technology 101***

Scott Silvestry, MD, Florida Hospital Transplant Institute, Orlando, FL, USA

*Review of current technologies available, pump behaviors with different loading conditions, and the TAH.*

**8:30 AM *BTT and DT Outcome***

Andreas O. Zuckermann, MD, PhD, University of Vienna, Vienna, Austria

*Review state of outcomes and adverse events with current technologies*

**8:45 AM *Short-term Support and Shock***

Jonathan Haft, MD, University of Michigan, Ann Arbor, MI, USA

*Overview of percutaneous technologies, biventricular support considerations, and ECMO.*

**9:00 AM Q&A**

**9:15 AM – 10:30 AM**

**SESSION 2: PATIENT SELECTION**

**Chair:** Scott Silvestry, MD

**9:15 AM *When Should Patients be Referred: Warning Signs***

Douglas Horstmanshof, MD, Integris Baptist Medical Center, Oklahoma City, OK, USA

*Risk factors which presage patient decline (renal function, intolerance of medications, hospitalizations, etc, helping to risk stratify patients based on HF severity and MCS operative risk.*

**9:30 AM *Assessing and Optimizing RV Function Preoperatively***

Anna Meyer, MD, University of Leipzig, Leipzig, Germany

*Impact of RV failure, pre-operative assessment and management of the RV including imaging and risk prediction.*

**9:45 AM *Quality of Life After VAD and the Impact of Frailty and Social Behaviors on VAD Success***

Susan Joseph, MD, Washington University School of Medicine, St. Louis, MO, USA

*Other factors that can have a significant impact on success after VAD and some screening tools available for risk assessment.*

**10:00 AM *Other Medical Co-Morbidities that May Impact VAD Success***

Douglas Horstmanshof, MD, Integris Baptist Medical Center, Oklahoma City, OK, USA

*Impact of peripheral vascular disease, end-stage renal failure, and other chronic medical illnesses on short and long term VAD success.*

**10:15 AM Q&A**

**10:30 AM – 10:45 AM**

**COFFEE BREAK**

**10:45 AM – NOON**

**SESSION 3: SURGICAL CONSIDERATIONS**

**Chair:** Vivek Rao, MD, PhD

**10:45 AM *Key Surgical Aspects of Implantation***

Nader Moazami, MD, Cleveland Clinic, Cleveland, OH, USA

*Overview of the most crucial surgical considerations: inflow cannula/pump placement, driveline, etc.*

**11:05 AM *How Much Else is Too Much?***

Daniel Zimpfer, MD, Medical University of Vienna, Vienna, Austria

*Concomitant operative procedures: TV, Aortic valve, prior Dor, congenitals*

**11:25 AM *Tailoring Pumps to Patients***

Christian Schlensak, MD, University Tuebingen, Tuebingen, Germany

*Case based discussion of considerations for pump-patient matching*

**11:45 AM Q&A**

**NOON – 1:00 PM**

**LUNCH BREAK** (a box lunch is included in the registration fee)

**1:00 PM – 2:15 PM**

**SESSION 4: POSTOPERATIVE CARE**

**Chair:** Andreas Zuckermann, MD

**1:00 PM *Managing the RV Postop***

Stephan Schueler, MD, PhD, Freeman Hospital, Newcastle upon Tyne, United Kingdom  
*Considerations for impact of LVAD pump speed on RV function and use of inotropes and pulmonary vasodilators*

**1:20 PM *Anticoagulation and Antiplatelet Therapy***

Vivek Rao, MD, PhD, Toronto General Hospital, Toronto, Canada  
*Current MCS recommendation on when to start anticoagulation, antiplatelet therapy regimens, as well as data on platelet function testing and heparin level monitoring.*

**1:40 PM *Pump Speed Optimization: The Role of Imaging and Hemodynamics***

Nir Uriel, MD, University of Chicago, Chicago, IL, USA  
*Overview of how to meld imaging and hemodynamics to optimize pump settings*

**2:00 PM Q&A**

**2:15-3:15 PM**

**SESSION 5: TRANSITION TO HOME**

**Chair:** Nir Uriel, MD

**2:15 PM *VAD Education: Patient/Caregiver Assessments and Strategies for Successful VAD Self-Care***

Thomas Schloeglhofer, BSc, Medical University of Vienna, Vienna, Austria  
*Approaches to education of the patient and caregiver prior to discharge, and strategies for educating the local medical community*

**2:30 PM *Starting New: How to Start and Succeed in MCS***

Michael Dickinson, MD, Spectrum Health, Grand Rapids, MI  
*Challenges to starting a VAD program and key elements of success.*

**2:45 PM *The Outpatient Clinic: Laboratory, Blood pressure, and Echo Monitoring***

Jennifer Beckman, MSN-FNP, RN, CHFNP, University of Washington, Seattle, WA, USA  
*Lab, blood pressure and echo monitoring of VAD patients in the outpatient setting.*

**3:00 PM Q&A**

**3:15 PM - 3:30 PM**

**COFFEE BREAK**

**3:30 PM - 5:20 PM**

**SESSION 6: LONG TERM MANAGEMENT OF PATIENTS AND COMPLICATIONS**

**Chair:** Nadir Moazami, MD, Cleveland Clinic, Cleveland, OH, USA

**3:30 PM LVAD Infections: Prevention, Diagnosis, and Management**

Margaret Hannan, MD, Mater Misericordiae University Hospital, Dublin, Ireland

*VAD infections, radiology studies important for diagnosis, and therapeutic recommendations*

**3:50 PM Stroke: Risk factors for Hemorrhagic and Embolic CNS Complications and Management Strategies**

Samer Najjar MD, MedStar Heart institute, Washington, DC, USA

*Discuss diagnosis, risk factors, and management strategies for CNS events in MCS patients.*

**4:10 PM Pump Thrombosis: Diagnostic Strategies and Management Algorithms**

Simon Maltais, MD, PhD, Mayo Clinic, Rochester, MN, USA

*Frequency, diagnosis, and management strategies for suspected pump thrombosis.*

**4:30 PM Aortic Insufficiency in LVAD Recipients: Incidence, Screening, and Management**

Jennifer Cowger, MD, MS, St Vincent Heart Center of Indiana, Indianapolis, IN, USA

*Cumulative incidence, clinical consequences, and management of AI after LVAD.*

**4:50 PM GI Bleeding**

Keyur Shah, MD, Virginia Commonwealth University, Richmond, VA, USA

*Frequency, diagnosis and management of GI bleeding after LVAD therapy, including new data on octreotide*

**5:10 PM Q&A**

**5:20 PM SUMMARY**

**5:30 PM ADJORN**