

**ISHLT ACADEMY
CORE COMPETENCY COURSE IN
PEDIATRIC AND ADULT CONGENITAL
MECHANICAL CIRCULATORY SUPPORT**

TUESDAY, APRIL 4, 2017

7:45AM–5:15PM

GRAND HALL A

The pediatric mechanical circulatory support (MCS) field continues to grow and has enough unique challenges to justify an entire session dedicated to learning about pediatric support strategies. The first pediatric MCS core academy has been designed to provide education to care providers of all experience levels. The basic principles of MCS, including patient/device selection, peri-operative management, and basics of transition to home will be discussed. The goal will be to learn from didactics but also allow for discussion in order to share experiences and learn from each other.

In addition to the core academy that will be conducted at the 2017 ISHLT annual meeting, an extensive document has been written by a diverse international committee and can be found on the ISHLT education website. This document is in outline form with current references and includes all topics that are important to the management of this unique patient population.

SCIENTIFIC PROGRAM COMMITTEE

- Chair:** **Angela Lorts, MD**
Cincinnati Children's Hospital Medical Center, Cincinnati, Ohio, USA
- Co-Chair:** **Holger Buchholz, MD**
University of Alberta, Stollery Children's Hospital, Edmonton, Alberta, Canada
- Members:** **Jenna Murray, MSN, RN, CPNP-AC**, Lucile Packard Children's Hospital, Palo Alto, CA, USA
- Leonardo Salazar, MD**, Fundacion Cardiovascular de Columbia, Bucaramanga, Columbia
- Martin Schweiger, MD, PhD**, FEBS Children's Hospital Zurich, Zurich, Switzerland
- Asif Hasan, MB, FRCS**, Freeman Hospital, Newcastle upon Tyne, United Kingdom

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 pediatric patients and adult congenital heart disease patients that require ventricular assist device support.

TARGET AUDIENCE

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.

LEARNING OBJECTIVES

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

1. Evaluate a patient for VAD implantation including preoperative assessment, preparation of patient prior to VAD implantation, and optimal timing of placement.
2. Understand device selection, strategies for VAD implantation, intraoperative assessment techniques and postoperative management.
3. Define device-specific anticoagulation management as well as the recognition and care of adverse events related to both temporary and chronic device therapy.

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 6.25 *AMA PRA Category 1 Credits*[™] Physicians should claim only the credit commensurate with the extent of their participation in the activity.

ANCC CREDIT

Amedco is accredited as a provider of continuing nursing education by the American Nurses Credentialing Center's Commission on Accreditation.

This course is co-provided by Amedco and the International Society for Heart and Lung Transplantation (ISHLT). Maximum of 4.25 contact hours.

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.

SCIENTIFIC PROGRAM SCHEDULE



7:00 AM – 7:45 AM
MORNING COFFEE AND
REGISTRATION

7:45 AM Welcome and Overview
Angela Lorts, MD, Cincinnati Children's
Hospital, Cincinnati, OH, USA
Holger Buchholz, MD, University of
Alberta Hospital, Edmonton, Canada

8:00 AM – 9:05 AM
**SESSION 1: Review of the Current
State of MCS in Pediatrics and Adult
Congenital Heart Disease**
Chair: **Richard Kirk, FRCP, FRCPC**

**8:00 AM Current State: Durable Device
Options, Indications and Outcomes
(Pulsatile)**
David Morales, MD, Cincinnati Children's
Hospital, Cincinnati, OH, USA
A review of current technologies avail-
able, update on future developments.

**8:15 AM Current State: Durable Device
Options, Indications and Outcomes
(Continuous)**
Martin Schweiger, MD, PhD, Children's
Hospital, Zurich, Switzerland
Overview of MCS in ACHD patients.

**8:30 AM Current State: Temporary
Device Options, Indications and
Outcomes**
Jennifer Conway, MD, Stollery Children's
Hospital, Edmonton, Canada
Overview of temporary support in variety
of scenarios as bridge to other forms of
support, transplantation or recovery.

**8:45 AM Case Presentation with
Discussion: Child Presenting with
Probable Myocarditis – Device Selection
for Size and Indication**
Leonardo Salazar, MD, Fundacion
Cardiovascular de Colombia, Bucaramanga,
Colombia

9:05 AM – 10:10 AM
SESSION 2: Patient Selection
Chair: **Angela Lorts, MD**

**9:05 AM An Art Not Always a Science –
When is the Right Time for Referral?**
Aamir Jeewa, MD, Texas Children's
Hospital, Houston, TX, USA
Evaluating timing for implantation.

**9:20 AM Pre-VAD Work Up Prior to
Implantation; Including Psychosocial
Considerations**

Oliver Miera, MD, Deutsches Herzzentrum
Berlin, Berlin, Germany

Pre-VAD evaluation to be done prior to
decision to implant.

**9:35 AM Medical Co-morbidities and
That may VAD Success and Potential
Strategies for Optimization**

Janet Scheel, MD, Children's National
Health System, Washington, DC, USA

End-organ dysfunction and the effect on
VAD patient outcome.

**9:50 AM Case Presentation With Discus-
sion: Infant With End-organ Dysfunc-
tion-patient Selection and Optimization
Prior to VAD Implantation**

Richard Kirk, FRCP, FRCPC, Children's
Medical Center, Dallas, TX, USA

10:10 AM – 10:30 AM
COFFEE BREAK

10:30 AM – 11:20 AM
**SESSION 3: Surgical Considerations for
Both Pediatrics and Adult Congenital**
Chair: **Martin Schweiger, MD, PhD**

**10:30 AM VAD Implantation (Extracor-
poreal Berlin Heart, Temporary Contin-
uous Flow Devices): Key Surgical Aspects**
Jake Jaquiss, MD, Duke Children's Heart
Center, Durham, NC, USA

Key surgical techniques to implanting
pulsatile devices in children.

**10:45 AM VAD Implantation (Intracor-
poreal HVAD, HeartMate II): Key
Surgical Aspects**

Antonio Amodeo, MD, Bambino Gesù
Pediatric Hospital, Rome, Italy

Key surgical techniques to implanting
continuous flow devices in children.

**11:00 AM Case Presentation With
Discussion: Assessment of Optimal
Inflow Placement with Hemodynamics
and Echocardiography in the Immediate
Peri-operative Setting**

Lucas Eastaugh, MBBS, Royal Children's
Hospital, Melbourne, Australia

11:20 AM – 12:00 PM

SESSION 4: “Unique Patient Population”

Chair: Jennifer Conway, MD

11:20 AM Case Presentation With Discussion: Adult Congenital VAD Case
Jake Jaquiss, MD, Duke Children’s Heart Center, Durham, NC, USA

11:40 AM Case Presentation with Discussion: Adolescent Risky Behavior
Jenna Murray, MSN, RN, CPNP-AC, Lucile Packard Children’s Hospital, Palo Alto, CA, USA

12:00 PM – 1:00 PM

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

1:00 PM – 2:05 PM

SESSION 5: Peri-Operative Care of the Vad Patient

Chair: Leonardo Salazar, MD

1:00 PM Managing the RV After LVAD Placement
Richard Kirk, FRCP, FRCPCH, Children’s Medical Center, Dallas, TX, USA

How to detect RV failure and to support the RV to prevent a Bi-VAD.

1:15 PM Is There a “Standard” for Post-operative Care?

Angela Lorts, MD, Cincinnati Children’s Hospital, Cincinnati, OH, USA

Routine post-operative care of the VAD patient in both the ICU and step down unit.

1:30 PM Pump Speed Optimization: Tailoring Post-operative Management to Clinical and Echocardiographic Assessment

Lucas Eastaugh, MBBS, Royal Children’s Hospital, Melbourne, Australia

Using hemodynamic monitoring to optimize the pump function.

1:45 PM Case Presentation with Discussion: Driveline Infection

Holger Buchholz, MD, University of Alberta Hospital, Edmonton, Canada

2:05 PM – 3:15 PM

SESSION 6: Hematologic Management of the Pediatric VAD Patient

Chair: Holger Buchholz, MD

2:05 PM Overview of Anticoagulation of the Various Pump Types

Christina Vanderpluym, MD, Boston Children’s Hospital, Boston, MA, USA

Brief overview of anticoagulation goals for various pump types and how the goals differ between adults and children.

2:20 PM Pump Thrombosis: Detection and Management

Jennifer Conway, MD, Stollery Children’s Hospital, Edmonton, Canada

How to determine if a pump is thrombosed and treatment options.

2:35 PM Stroke in Pediatric VAD Patients: What are Our Options?

Oliver Miera, MD, Deutsches Herzzentrum Berlin, Berlin, Germany

Characterizing pediatric strokes and discussing changes in therapy after they occur.

2:50 PM Case Presentation with Discussion: Tamponade Post HVAD Implantation

David Morales, MD, Cincinnati Children’s Hospital, Cincinnati, OH, USA

3:10 PM – 3:30 PM

COFFEE BREAK

3:30 PM – 5:00 PM

SESSION 7: Now We Are Going to Send Them Home?

Chair: Antonio Amodio, MD

3:30 PM The Beginning of a New Program: Necessary Team Components?

Christina Vanderpluym, MD, Boston Children’s Hospital, Boston, MA, USA

The building blocks to starting a pediatric VAD program, the challenges faced, and the key elements of success.

3:45 PM Preparing the Patient, Family and Community for Discharge

Jenna Murray, MSN, RN, CPNP-AC, Lucile Packard Children’s Hospital, Palo Alto, CA, USA

Creative multidisciplinary approaches to patient/caregiver education and comprehensive preparation for the local community.

4:00 PM The Outpatient Clinical Assessment: Blood Pressure, Laboratory Testing, Echo Monitoring and Rehabilitation

Aamir Jeewa, MD, Texas Children’s Hospital, Houston, TX, USA

Effective clinical assessment and monitoring strategies of the child outpatient on VAD support.

4:15 PM Destination/Palliative Care Considerations

Janet Scheel, MD, Children’s National Health System, Washington, DC, USA

Challenges in offering destination therapy to a child and how to maneuver failed VAD support.

4:30 PM – 5:00 PM

QUESTIONS/DISCUSSION

Panel members will reflect on day and open up for discussion.

5:00 PM – 5:15 PM

CLOSING ADDRESS

Angela Lorts, MD, Cincinnati Children’s Hospital, Cincinnati, OH, USA

Holger Buchholz, MD, University of Alberta Hospital, Edmonton, Canada

5:15 PM Adjourn