

**ISHLT ACADEMY MASTER CLASS IN PEDIATRIC MCS**

**18 April 2023, 8:00AM – 1:00 PM**

**PRELIMINARY PROGRAM SCHEDULE**

**8:00 – 8:05 a.m.**

**WELCOME AND OVERVIEW**

Holger Buchholz, MD, University of Alberta Hospital, Edmonton, AB Canada  
Matthew O'Connor, MD, Children's Hospital of Philadelphia, Philadelphia, PA USA

**8:05 – 9:10 a.m.**

**SESSION 1: BLEEDING, CLOTTING AND BEYOND**

**Moderator:** Christina VanderPluym, MD, Boston Children's Hospital, Harvard School of Med, Boston, MA USA

**8:05 a.m.**

***Summary of the State of the Science of the Session Topic and Its Most Pressing Challenges***

Christina VanderPluym, MD, Boston Children's Hospital, Harvard School of Medicine, Boston, MA USA

**8:10 a.m.**

***CASE SCENARIO 1A: From the Clotting Cascade to the Complication Cascade – How a Small Bleed Leads to a Small Clot and a BIG Problem***

Christina VanderPluym, MD, Boston Children's Hospital, Harvard School of Medicine, Boston, MA USA

***Teaching/Discussion Points***

1. What are common minor and major bleeding events in pediatric VAD patients?
2. How do you treat nuisance bleeding?
3. How to diagnose pump thrombosis and hemolysis?
4. Understand management strategies for hemolysis?

**8:40 a.m.**

***CASE SCENARIO 1B: To Bleed or Not to Bleed! Managing Anti-Thrombotic Medications after VAD-Related Stroke***

John Kim, MD, Children's Hospital of Colorado, University of Colorado, Aurora, CO USA

***Teaching/Discussion Points***

1. Understand the incidence and types of stroke in the current era of VAD support for children.
2. How is acute stroke managed in children with VADs in the outpatient and inpatient setting.
3. What are the pharmacological, interventional and surgical treatments of stroke in VAD patients?
4. When and what antithrombotic therapies are stopped and restarted after stroke?

**9:10 – 10:15 a.m.**

**SESSION 2: THE COMPLEXITY IS REAL – CURRENT STRATEGIES TO SUPPORT PATIENTS WITH CONGENITAL HEART DISEASE**

**Moderator:** Martin Schweiger, MD, Children's Hospital Zurich, Zurich, Switzerland

**9:10 a.m.**

***Summary of the State of the Science of the Session Topic and Its Most Pressing Challenges***

Martin Schweiger, MD, Children's Hospital Zurich, Zurich, Switzerland

**9:15 a.m.**

***CASE SCENARIO B12A: MCS Support of Patients in Heart Failure after a Senning/Mustard Operation***

Martin Schweiger, MD, Children's Hospital Zurich, Zurich, Switzerland

***Teaching/Discussion Points***

1. Understand the anatomy and physiology of patients suffering from heart failure related to atrial switch operation.
2. Learn different mechanical support strategies for this patient population.
3. Understand device selection in this patient population.
4. Discuss different implantation approaches for this patient population.

**9:45 a.m.**

***CASE SCENARIO 2B: When the "Failing" Fontan Patient Needs MCS***

Annemarie Kraus, German Heart Center Berlin, Berlin, Germany

***Teaching/Discussion Points***

1. Understand the physiology of "failing" Fontan patients and which patients may benefit from mechanical support.
2. Describe the physiology of mechanical support in Fontan patients.
3. Discuss different treatment options for "failing" Fontan patients.
4. Learn different device options for MCS for the "failing" Fontan patients.

**10:15 – 10:45 a.m.**

**COFFEE BREAK**

**10:45 – 11:50 a.m.**

**SESSION 3: WHEN THINGS DON'T GO AS PLANNED!**

**Moderator:** Jennifer Conway, MD, FRCPC, Stollery Children's Hospital / University of Alberta, Edmonton, AB Canada

**10:45 a.m.**

***Summary of the State of the Science of the Session Topic and Its Most Pressing Challenges***

Jennifer Conway, MD, FRCPC, Stollery Children's Hospital / University of Alberta, Edmonton, AB Canada

**10:50 a.m.**

***CASE SCENARIO 3A: The Great Masquerade – Infection or is it Just the Pump?***

Chet Villa MD, Cincinnati Children's Hospital Medical Center, Cincinnati, OH USA

***Teaching/Discussion Points***

1. What are the common infections in pediatric VAD patients.
2. What are some common problems seen in VAD patients secondary to inflammation.
3. How can inflammation and infection be differentiated?
4. Describe treatment strategies to target inflammation.
5. Are steroids a mainstay therapy now?

**11:20 a.m.**

**CASE SCENARIO 3B: Missed but Not Forgotten – What is Happening to the Right Ventricle?**

Jennifer Conway, MD, FRCPC, Stollery Children's Hospital / University of Alberta, Edmonton, AB Canada

**Teaching/Discussion Points**

1. Review predictors of RV failure following LVAD insertion.
2. Review the utility of RV scores in pediatrics.
3. Discuss recognition of RV failure post operatively.
4. Discuss prevention and management strategies for RV failure.

**11:50 a.m. – 12:55 p.m.**

**SESSION 4: PUSHING THE ENVELOPE – NEW DEVICES, NEW STRATEGIES AND NEW GOALS**

**Moderator:** Antonio Amodeo, MD, Bambino Gesù Children's Hospital, Rome, Italy

**11:50 a.m.**

**Summary of the State of the Science of the Session Topic and Its Most Pressing Challenges**

Antonio Amodeo, MD, Bambino Gesù Children's Hospital, Rome, Italy

**11:55 a.m.**

**CASE SCENARIO 4A: A New Scenario – Continuous Flow VAD in Small Children – Should We Push for LV Recovery?**

Antonio Amodeo, MD, Bambino Gesù Children's Hospital, Rome, Italy

**Teaching/Discussion Points**

1. Beyond the bridge to transplant: redefine new recovery strategies.
2. Short length of the disease and continuous flow LV unloading in small children.
3. How to assess the LV recovery in miniaturized continuous LVAD?

**12:25 p.m.**

**CASE SCENARIO 4B: Lung Support in Pediatric Patients with Pulmonary Hypertension**

Piroom Eghtesady, MD, St. Louis Children's Hospital / Washington University, St. Louis, MO USA

**Teaching/Discussion Points**

1. Device and Cannulation strategies for pulmonary support.
2. Possibilities related to long term support as bridge to transplant
3. Patient management and mobilization.
4. Discuss RV support and assessment of the RV prior to transplant.

**12:55 – 1:00 p.m.**

**CLOSING REMARKS**

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

Matthew O'Connor, Children's Hospital of Philadelphia, Philadelphia, PA USA

**1:00 p.m.**

**ADJOURN**