# ISHLT CARDIOGENIC SHOCK ACADEMY
# 26 April 2025|8:00AM – 3:00 PM EST
# John B. Hynes Veterans Memorial Convention Center, Boston, MA USA

## ACADEMY CHAIRS

**Manreet Kanwar, MD**
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## FACULTY

- TBD

## COURSE DESCRIPTION

This course is designed to enhance the understanding of cardiogenic shock through dynamic and varied teaching methods, ensuring participants leave with actionable knowledge and practical skills. Time has been built into the program for attendees to ask questions and receive guidance from experts from around the globe.

**Case Studies:** Explore real-world scenarios to address challenges in diagnosing and treating:

- Acute Myocardial Infarction (AMI)-related cardiogenic shock.
- Heart failure (HF)-related cardiogenic shock.
- Post-cardiotomy (PS)-related cardiogenic shock.

**Lectures:** Gain insights into cardiogenic shock hot topics, including:

- Current research in cardiogenic shock.
- Therapeutic targets for treatment beyond mechanical circulatory support (MCS)
- Healthcare economics in cardiogenic shock management.

**Debates:** Engage in discussions on complex clinical decisions, such as:

- Managing patients with SCAI Stage C cardiogenic shock.
- The pros and cons of venting in specific cases.

## EDUCATIONAL GOALS

This course is designed to provide the target audience with the knowledge and strategies needed to effectively manage cardiogenic shock and improve patient outcomes.

## TARGET AUDIENCE

Any member of the patient care team that is involved in treating patients with cardiogenic shock.

## LEARNING OBJECTIVES

After completion of this course, participants will have improved competence and professional performance in their ability to:

1. Analyze findings from recent randomized controlled trials (RCTs) in AMI-CS to determine approaches for escalation of care.
2. Evaluate and manage patients on VA ECMO by identifying and preventing common complications, implementing evidence-based weaning protocols, and developing individualized exit strategies to optimize patient outcomes.
3. Define PC-CS, identify its clinical presentation, and anticipate associated risk factors to enhance early recognition and management strategies.
4. Evaluate the role of registries and machine learning in advancing research focused on cardiogenic shock.
5. Explain targeted therapies for cardiogenic shock, focusing on immune mechanisms and microcirculation.
6. Discuss the implications of health economics and the role of regulatory bodies in the management of cardiogenic shock.
7. Examine the options for managing patients with SCAI Stage C cardiogenic shock, including the use of Inotropes and Vasopressors (ino-pressors) and intra-aortic balloon pumps (IABP).
8. Determine the criteria for evaluating cardiogenic shock patients to decide if venting is an appropriate treatment strategy.

## SCIENTIFIC PROGRAM SCHEDULE

**8:00 AM – 8:15AM**
**Welcome and Introductions/ Overview**

**8:15 AM – 12:00 PM**
**SESSION 1 (1A – 1C) Cases in Cardiogenic Shock**

**8:15AM – 9:20 AM**
**SESSION 1A: A Case of Acute Myocardial Infarction Related Cardiogenic Shock**

**8:15 AM – 8:21 AM**:
**Case presentation:**

**8:23 AM – 8:33 AM**
**Risk Stratification in AMI-CS**
**Teaching/Discussion Points**

1. Contemporary tools in AMI-CS risk stratification
2. Gaps in current risk assessment
3. Role of machine learning in CS risk stratification

**Case continues (2 minutes)**

**8:35 AM – 8:45 AM**
**Mechanical Circulatory Support in AMI-CS**
**Teaching/Discussion Points**

1. Lessons learnt from recent RCT in AMI-CS
2. Approach to escalation of care in AMI-CS
3. Unloading in AMI-CS

**Case continues (2 minutes)**

**8:47 AM – 8:57 AM**
**Outcomes in AMI-CS: Recovery / Advanced Therapies**
**Teaching/Discussion Points**

1. De-escalation of MCS (with GDMT) with goal for recovery
2. Transition to advanced therapies (for those who fail to recover)
3. Complications of tMCS

**8:57 AM – 9:20 AM**
**Panel Discussion/Audience Q&A**

**9:20 AM – 9:30 AM**
**Break**

**9:30 AM – 10:30 AM**
**SESSION 1B: A Case of heart failure related cardiogenic shock**

**9:30 AM – 9:36 AM**
**Case presentation:**

**9:36 AM – 9:46 AM**
**Role of IABP in HF (non-AMI) Cardiogenic Shock**
**Teaching/Discussion Points**

1. Highlight phenotyping in CS
2. Who is a responder to IABP?
3. Gaps in guidelines for CS approach and management

**Case continues (2 minutes)**

**9:48 AM – 9:58 AM**
**Approach to Bi-Ventricular Failure in Cardiogenic Shock**
**Teaching/Discussion Points**

1. RV failure in setting of LV failure
2. End-organ (dys)function in CS
3. MCS therapies of RV failure

**Case continues (2 minutes)**

**10:00 AM – 10:10 AM**
**The Utility and Futility of VA ECMO in Cardiogenic Shock**
**Teaching/Discussion Points**

1. Common complications of VA ECMO and how to prevent them
2. The art of weaning VA ECMO
3. Exit strategies in VA ECMO

**10:10 AM – 10:30 AM**
**Panel Discussion/Audience Q&A**

**10:30 AM – 10:45 AM**
**Refreshment Break**

**10:45 AM – 11:45 AM**
**SESSION 1C: A Case of post-cardiotomy cardiogenic shock**
**Moderator:**

**10:45 AM – 10:50 AM:**
**Case presentation:**

**10:50 AM – 11:00 AM**
**Topic: Defining Post- Cardiotomy Cardiogenic Shock (PC-CS)**
**Teaching/Discussion Points**

1. Incidence/ prevalence of PC-CS
2. How should PC-CS be defined
3. Risk-stratification of PC-CS – do SCAI stages apply?

**Case continues (2 minutes)**

**11:02 AM – 11:12 AM**
**Topic: Prevention Strategies to Avoid Post Cardiotomy Cardiogenic Shock (PC-CS)**
**Teaching/Discussion Points**

1. How to anticipate PC-CS (risk factors)
2. How to prevent profound vasodilation/ PC-CS in elective surgeries
3. OR strategies for management of PC-CS (beyond MCS)

**Case continues (2 minutes)**

**11:14 AM – 11:24 AM**
**Topic: Options for MCS in Post-Cardiotomy Cardiogenic Shock (PC-CS)**
**Teaching/Discussion Points**

1. Approach to device therapy in PC-CS
2. Timing of MCS in PC-CS
3. Access sites for MCS devices in PC-CS

**11:24 AM – 11:45 AM**
**Panel Discussion/Audience Q&A**

**11:45AM – 11:55 PM**
**Morning Session Wrap Up**

**11:55 PM – 1:00 PM**
**LUNCH BREAK**

**1:00 PM – 2:00 PM**
**Session 2: Hot topics in Cardiogenic Shock**

**1:00 PM – 1:15 PM**
**Research in Cardiogenic Shock – Where We Are and Where We Need to Go**
**Teaching points:**

1. Future of RCTs in CS
2. Role of registries and nested trials in CS
3. Role of machine learning in CS research

**1:15 PM – 1:30 PM**
**Targets of therapies in CS – Moving beyond MCS**
**Teaching points:**

1. Immune mechanisms in CS
2. Microcirculation in CS
3. Beyond “One Size Fits All Approach to CS

**1:30 PM – 1:45 PM**
**Health Care Economics of Cardiogenic Shock**
**Teaching points:**

1. Implications of health economics of cardiogenic shock
2. Who should be keeping an eye on the cost of CS and how?
3. Role of regulatory bodies in CS management

**1:45 PM – 2:00 PM**
**Panel Discussion/Audience Q&A**

**2:00 PM – 2:55 PM**
**Session 3: Great Debates in Cardiogenic Shock**
**Moderator:** Shelley Hall

**2:00 PM – 2:16 PM**
**Debate 1: Managing a patient with SCAI Stage C Cardiogenic Shock**
**Ino-pressors**
**IABP**
**Impella**

**Teaching points:**
1. Device selection in management of CS
2. Highlight device selection based on shock phenotype
3. Timing of MCS in CS

**2:16 PM – 2:26 PM**
**Discussion**

**2:28 PM – 2:45 PM**
**Debate 2: To Vent or Not to Vent**
**Pro:**
**Con:**
**Teaching points:**
1. Role of venting in VA-ECMO
2. Differences between unloading and venting
3. Venting strategies

**2:45 PM – 2:55 PM**
**Discussion**

**2:55 PM – 3:00 PM**
**Wrap Up and Next Steps**