



ISHLT

A Society that Includes Basic Science, the Failing Heart, & Advanced Lung Disease

Embargoed until 8:00 AM EST, Saturday, 26 April, 2025

FIRST-EVER CARIOGENIC SHOCK ACADEMY FEATURES SIMULATION LAB

26 April 2025, Boston—Healthcare practitioners from around the world received hands-on training for treating patients in cardiogenic shock (CS) during a first-ever simulation lab at today's Annual Meeting and Scientific Sessions of the International Society of Heart and Lung Transplantation (ISHLT) in Boston.

The simulation lab was part of ISHLT's inaugural Cardiogenic Shock Academy, a day-long session featuring a case-based forum and discussion of hot topics and anticipated developments in the treatment of CS. More than 160 healthcare practitioners from around the world attended the academy, which was designed to address the lack of conclusive research for managing CS.

CS is a life-threatening condition that occurs when the heart is unable to pump enough blood and oxygen through the body. It may be caused by a severe heart attack (50 percent of cases), end-stage heart failure, certain arrhythmias, and viral infections. If not identified or treated quickly, it can lead to organ failure, brain injury, or death.

CS is the number one reason patients end up in the cardiac care unit (CCU). Despite significant medical advances, 40-50 percent of patients in CS remain at risk of dying during their hospitalization.

"Treatment focuses on getting blood flowing properly and protecting organs from damage," said Manreet Kanwar, MD, Cardiogenic Shock Academy co-chair and director for the Division of Heart Failure, University of Chicago.

Using computer software, a mannequin, and mechanical circulatory support (MCS) devices, the lab simulated various patient scenarios that presented practitioners with decision-making opportunities. The MCS devices involved in the training were extracorporeal membrane oxygenation, or ECMO, and an intravascular microaxial blood pump. These devices support the function of the heart and improve systemic circulation.

"The Simulation Lab provides actionable information to help practitioners improve patient management and outcomes," Dr. Kanwar said. "Attendees left the academy with practical skills to take home and use at the patient's bedside."

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“This patient population is very high risk, so there have been very few clinical trials,” said Dr. Kanwar. “As a result, there are few guidelines on managing CS patients.”

As an international and multidisciplinary organization, ISHLT was able to bring together key opinion leaders from around the world to discuss and share best practices.

“We designed the Cardiogenic Shock Academy to be clinically relevant and translatable across different regions and medical systems,” she said. “I think there’s enough momentum in the field that with more science, technology, medical therapies, and exchange of information, we will begin to make a dent in the bigger picture.”

Alexander Bernhardt, MD, attending cardiac surgeon at the University Heart and Vascular Center in Hamburg, Germany, co-chaired the Cardiogenic Shock Academy. Jose Gonzalez-Costello, MD, MSc, PhD, Team Leader/Cardiology Representative at Bellvitge Hospital in Barcelona, Spain, hosted the Simulation Lab.

According to the World Heart Federation, deaths from cardiovascular disease were 20.5 million in 2021, surging 60 percent over the past three decades. In the US alone, approximately 805,000 heart attacks occur every year (American Heart Association). Based on those numbers, up to 56,000 patients may experience CS annually in the US alone.

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About ISHLT

The International Society for Heart and Lung Transplantation (ISHLT) is a not-for-profit, multidisciplinary, professional organization dedicated to improving the care of patients with advanced heart or lung disease through transplantation, mechanical support, and innovative therapies via research, education, and advocacy. ISHLT members focus on transplantation and a range of interventions and therapies related to advanced heart and lung disease.

The ISHLT Annual Meeting and Scientific Sessions will be held from 27 to 30 April at the John B. Hynes Veterans Memorial Convention Center in Boston.

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