

AHN Center for Continuing Medical Education

# Western Pennsylvania Cardiogenic Shock Initiative 2026

**Saturday, August 29, 2026**

**Fairmont Pittsburgh  
510 Market Street  
Pittsburgh, PA 15222**

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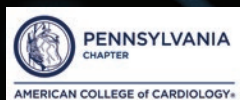
Allegheny General Hospital  
Cardiovascular Institute

**In collaboration with**

UPMC Heart and Vascular Institute  
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# TREATING STRUCTURAL HEART CONDITIONS

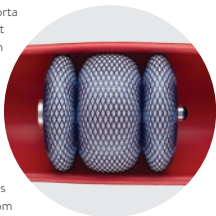
## CONGENITAL DEFECTS

Several types of congenital heart disease involve openings or holes that allow blood to flow in the wrong direction.

### PATENT DUCTUS ARTERIOSUS (PDA)

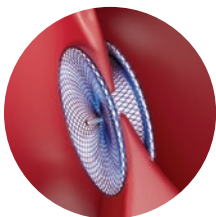
Before birth, there is a blood vessel in the heart, connecting the aorta with the pulmonary artery that allows oxygen-rich blood from the mother to circulate through the baby's body. Normally, the vessel closes shortly after birth but when this vessel remains open, it is called a patent ductus arteriosus, or PDA. When a PDA is present excess blood flow is diverted away from the body and back to the lungs, which causes lung congestion with difficulty breathing.

An occlusion device may be placed in the ductus through a minimally invasive, catheter-based technique to prevent blood from flowing back to the lungs.



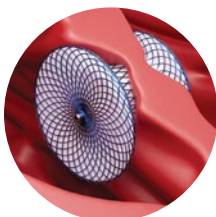
### ATRIAL SEPTAL DEFECT (ASD)

An ASD may allow abnormal flow of blood between the upper chambers of the heart and usually results in too much blood flow to the lungs. This may result in difficulty breathing. A percutaneous transcatheter device is a treatment option for closure of an ASD.



### VENTRICULAR SEPTAL DEFECT (VSD)

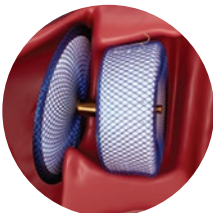
A VSD is a hole in the wall that separates the right ventricle and the left ventricle. A VSD allows oxygen-rich blood to mix with oxygen-poor blood and causes too much blood flow to the lungs, creating extra work for the heart and making it harder to breathe. A percutaneous transcatheter device is a therapeutic option for closure of a VSD.



## STROKE RISK REDUCTION

### LEFT ATRIAL APPENDAGE (LAA) AND ATRIAL FIBRILLATION

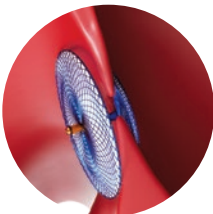
When the upper chambers of the heart (atria) are unable to contract properly in patients with atrial fibrillation, clots are able to form in the LAA. LAA closure can reduce the risk of stroke in nonvalvular atrial fibrillation patients.



### PATENT FORAMEN OVALE (PFO)

In rare cases, a PFO opening can allow a blood clot to pass from the right side of the heart to the left side, and then travel to the brain, where the clot can block a blood vessel, resulting in a stroke.

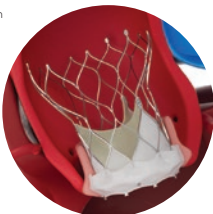
Percutaneous closure of the PFO may be considered as an option to reduce the risk of recurrent ischemic stroke.



## VALVE THERAPIES

### AORTIC STENOSIS

Aortic stenosis is a condition in which the aortic valve leaflets become thick or stiff, reducing their ability to fully open and close, resulting in reduced blood flow from the left ventricle to the aorta. Transcatheter aortic valve implantation (TAVI) is a minimally invasive option to treat severe aortic stenosis by placing an artificial valve within the diseased aortic valve.



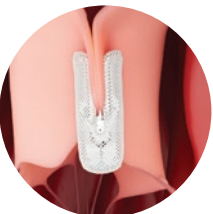
### MITRAL REGURGITATION

Mitral transcatheter edge-to-edge repair (M-TEER) is a minimally invasive procedure to repair a leaky mitral valve by placing a clip on the leaflets.



### TRICUSPID REGURGITATION

Tricuspid edge-to-edge repair (T-TEER) is a minimally invasive procedure to repair a leaky tricuspid valve by placing a clip on the leaflets.



LEARN MORE

The information provided is not intended for medical diagnosis or treatment or as a substitute for professional medical advice. Consult with a physician or qualified healthcare provider for appropriate medical advice.

This material is intended for use with healthcare professionals only.

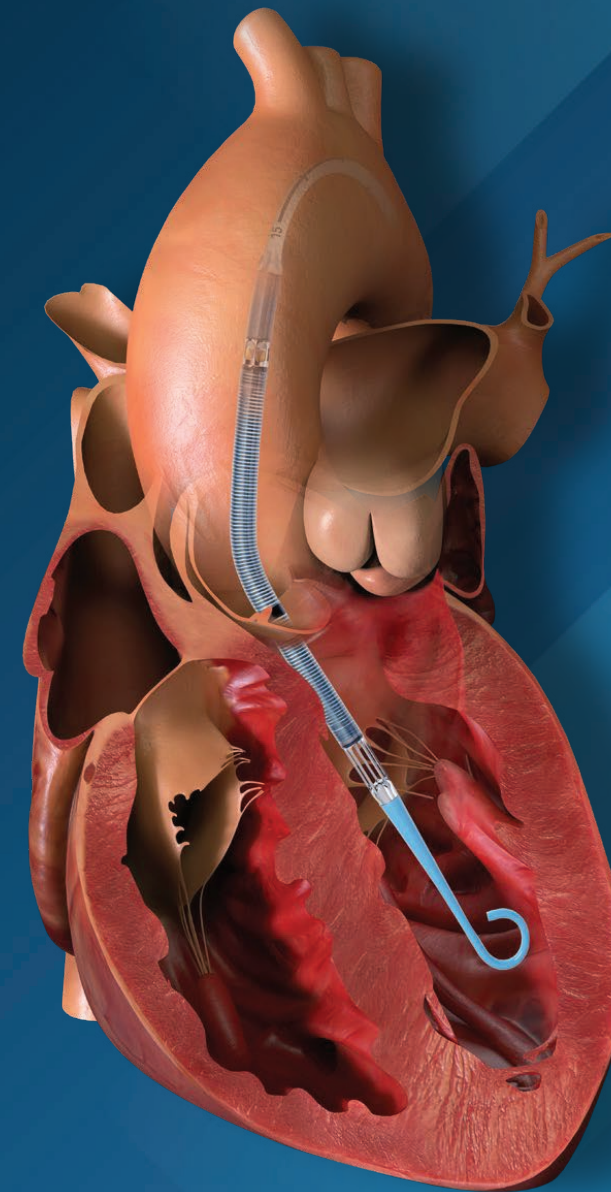
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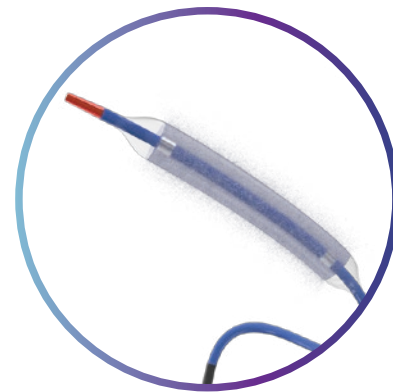
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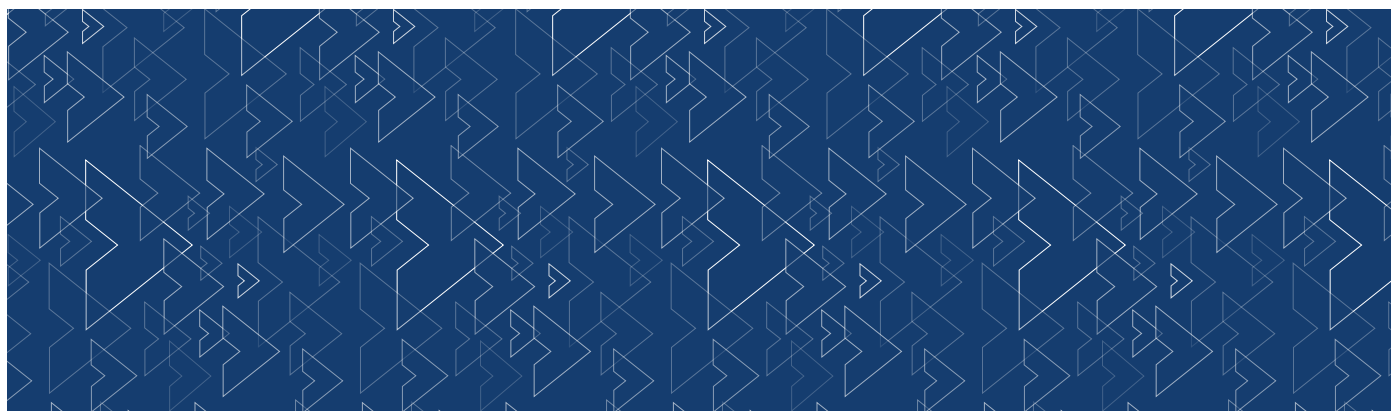
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At Edwards Lifesciences we are driven by a passion for patients and dedicated to improving lives.

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9

Overview

The AHN Cardiovascular Institute in collaboration with the UPMC Heart and Vascular Institute, West Virginia Heart and Vascular Institute, Independence Health, and St. Clair Health present this exciting educational opportunity highlighting diagnosis and treatment of cardiogenic shock (CS). Participants will learn from our internationally renowned guest speakers, as well as regional faculty, about how to diagnose and treat CS, with a focus on best practices and systems of care.

Objectives

- Review how to wean TMCS in shock patients.
- Discuss survivorship in cardiogenic shock.
- Review post-arrest resuscitation.

CME accreditation

Physicians

Allegheny General Hospital is accredited by the Accreditation Council for Continuing Medical Education (ACCME) to provide continuing medical education for physicians.

Allegheny General Hospital designates this live activity for a maximum of 5.0 *AMA PRA Category 1 Credits™*. Physicians should claim only the credit commensurate with the extent of their participation in this activity.

Successful completion of this CME activity, which includes participation in the evaluation component, enables the participant to earn up to 5.0 MOC points in the American Board of Internal Medicine’s (ABIM) Maintenance of Certification (MOC) program. It is the CME activity provider’s responsibility to submit participant completion information to ACCME for the purpose of granting ABIM MOC credit.

Nurses

Allegheny Health Network is approved as a provider of nursing continuing professional development by Pennsylvania State Nurses Association, an accredited approver by the American Nurses Credentialing Center’s Commission on Accreditation. Credits pending.

American Nurses Credentialing Center (ANCC) accepts *AMA PRA Category 1 Credits™* from organizations accredited by the ACCME.

NPs and PAs

American Academy of Nurse Practitioners (AANP) accepts *AMA PRA Category 1 Credits™* from organizations accredited by the ACCME.

The National Commission on Certification of Physician Assistants (NCCPA) states that the *AMA PRA Category 1 Credits™* are acceptable for continuing medical education requirements for recertification.

Non-physicians

Allegheny General Hospital has approved this activity for 5.0 contact hours for non-physicians.

Program agenda

|                                                                                                                                |                                                                                                                                   |
|--------------------------------------------------------------------------------------------------------------------------------|-----------------------------------------------------------------------------------------------------------------------------------|
| 7 – 8 a.m.                                                                                                                     | Registration, breakfast, and visit exhibits                                                                                       |
| 8 – 8:10 a.m.                                                                                                                  | Welcome and introduction<br><b>David Lasorda, DO</b>                                                                              |
| 8:10 – 8:20 a.m.                                                                                                               | Patient success story<br><b>Cardiac arrest survivor</b>                                                                           |
| <b>Session 1</b>                                                                                                               |                                                                                                                                   |
| <b>CARDIAC ARREST: RESUSCITATION TO RECOVERY</b>                                                                               |                                                                                                                                   |
| <b>Moderators: Ramzi Khalil, Ramesh Daggubatti</b><br><b>Panelists: Tyler VanDyck, Brian Carey, Phil Nawrocki, Aniket Rali</b> |                                                                                                                                   |
| 8:30 – 8:45 a.m.                                                                                                               | Cardiac arrest in the United States:<br>Bystander CPR and improving survival in western PA<br><b>Amelia Morgan, MD</b>            |
| 8:45 – 8:55 a.m.                                                                                                               | Discussion and Q & A                                                                                                              |
| 8:55 – 9:10 a.m.                                                                                                               | Cardiac arrest in the cath lab<br><b>Saraschandra Vallabhajosyula, MD</b>                                                         |
| 9:10 – 9:25 a.m.                                                                                                               | Post-arrest resuscitation<br><b>Jonathan Elmer, MD</b>                                                                            |
| 9:25 – 9:35 a.m.                                                                                                               | Discussion and Q & A                                                                                                              |
| 9:35 – 9:50 a.m.                                                                                                               | ECPR, Mobile ECMO and TeleShock:<br>Building an integrated shock and arrest response system<br><b>Karthikeyan Ranganathan, MD</b> |
| 9:50 – 10 a.m.                                                                                                                 | Discussion and Q & A                                                                                                              |
| 10 – 10:30 a.m.                                                                                                                | Break and visit exhibits                                                                                                          |

Session 2

MCS IN HIGH-RISK PCI: ARE WE ASKING THE WRONG QUESTION?

**Moderators: Amber Makani, Vik Jagadeesan**  
**Panelists: Masaki Tsukashita, David Kaczorowski, Ryan Zuzek, Greg Suero**

|                    |                                                                 |
|--------------------|-----------------------------------------------------------------|
| 10:30 – 10:40 a.m. | The evidence says no benefit<br><b>Ramesh Daggubati, MD</b>     |
| 10:40 – 10:50 a.m. | How to use MCS to demonstrate benefit<br><b>Jared Romeo, DO</b> |

Program agenda (continued)

|                    |                                                                                 |
|--------------------|---------------------------------------------------------------------------------|
| 10:50 – 11:05 a.m. | Discussion and Q & A                                                            |
| 11:05 – 11:20 a.m. | Cardiac arrest in acute PE: How to predict and avoid<br><b>Adnan Khalif, MD</b> |
| 11:20 – 11:30 a.m. | Discussion and Q & A                                                            |
| 11:30 – 11:45 a.m. | Impella 5.5 as a bridge to recovery<br><b>Candice Lee, MD</b>                   |
| 11:45 – noon       | Discussion and Q & A                                                            |
| Noon – 1 p.m.      | Lunch and visit exhibits                                                        |

Session 3

CARDIAC RECOVERY

Moderators: Harsha Madgula, Gavin Hickey  
Panelists: Candice Lee, Nishanth Koradia, Matt Lander, Dan Cormican

|                  |                                                                     |
|------------------|---------------------------------------------------------------------|
| 1 – 1:15 p.m.    | Weaning tMCS in shock patients. How to?<br><b>Jaskirat Gill, MD</b> |
| 1:15 – 1:25 p.m. | Discussion and Q & A                                                |
| 1:25 – 1:40 p.m. | Cardiac arrest at level 2 centers<br><b>Jay Ambrose, MD</b>         |
| 1:40 – 1:50 p.m. | Discussion and Q & A                                                |
| 1:50 – 2:10 p.m. | Survivorship in cardiogenic shock<br><b>Aniket Rali, MD</b>         |
| 2:10 – 2:20 p.m. | Discussion and Q & A                                                |
| 2:20 – 2:30 p.m. | Closing remarks<br><b>Gavin Hickey, MD</b>                          |

Course directors

|                                                                                                                                                                                                                                                      |                                                                                                                                                                                                                                                                               |
|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| <b>David M. Lasorda, DO, FACP, FACC, FSCAI</b><br>AHN CVI System Director for Interventional Cardiology<br>AHN Vice-Chairman for the Department of Cardiovascular Medicine<br>Professor of Medicine, Drexel University College of Medicine           | <b>Gavin W. Hickey, MD</b><br>Assistant Professor, University of Pittsburgh School of Medicine<br>Medical Director, VAD Program, UPMC Heart and Vascular Institute<br>Program Director, UPMC Advanced Heart Failure/ Transplant and Pulmonary Hypertension Fellowship Program |
| <b>Karthikeyan Ranganathan, MD, FACC, FSCAI</b><br>System Director, AHN Cardiogenic Shock Program<br>Associate PD, Cardiovascular Disease Fellowship<br>Assistant Professor, Drexel University College of Medicine                                   | <b>Ramesh Daggubati, MD, FACC, FSCAI</b><br>Professor and Vice-Chair, Department of Cardiology<br>West Virginia University<br>Chief of Interventional Cardiology Services<br>WVU Heart & Vascular Institute and Service Line<br>WVU Medicine                                  |
| <b>Jeffrey Fowler, DO, FACC, FSCAI</b><br>Director, Interventional Cardiology Fellowship Program<br>Assistant Professor of Medicine, University of Pittsburgh School of Medicine<br>Director, Interventional Cardiology, VA Pittsburgh Health System | <b>Brian C. Carey, MD, FACC, FSCAI</b><br>Medical Director, Cardiac Catheterization Lab<br>Independence Health System, Butler Campus                                                                                                                                          |

Planning member

|                                                                                                                                                     |
|-----------------------------------------------------------------------------------------------------------------------------------------------------|
| <b>Kathy Delac, MSN, RN, CNS</b><br>Department of Professional Practice and Education<br>AHN Allegheny General Hospital<br>Allegheny Health Network |
|-----------------------------------------------------------------------------------------------------------------------------------------------------|

Invited faculty

|                                                                                                                                                                                                                      |                                                                                                                                                                                                                                                                              |
|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| <b>Jay Ambrose, MD, FACC, MS</b><br>Medical Director, Heart Center<br>Penn Highlands Healthcare<br>DuBois Regional Cardiology Associates                                                                             | <b>David Kaczorowski, MD</b><br>Associate Professor, Cardiothoracic Surgery<br>Surgical Director of the Advanced Heart Failure Center<br>University of Pittsburgh Medical Center                                                                                             |
| <b>Daniel S. Cormican, MD, FCCP</b><br>AHN System Director, Cardiovascular/Surgical Critical Care<br>Medical Director, Critical Care Services   West Penn Hospital<br>AHN Anesthesiology<br>Allegheny Health Network | <b>Adnan Khalif, MD, FACC, FSCAI</b><br>Director, Cardiac Intensive Care Unit (CICU)<br>Associate Program Director, Interventional Cardiology Fellowship<br>Interventional and Critical Care Cardiology<br>AHN Cardiovascular Institute<br>Allegheny General Hospital        |
| <b>Jonathan Elmer, MD, MS</b><br>Associate Professor of Emergency Medicine, Critical Care Medicine and Neurology,<br>University of Pittsburgh Medical Center                                                         | <b>Ramzi Khalil, MD, FACC, FSCAI</b><br>Medical Operation Officer, AHN Cardiovascular Institute<br>Director, Cardiac Catheterization Lab<br>Allegheny General Hospital<br>Allegheny Health Network<br>Associate Professor of Medicine, Drexel University College of Medicine |
| <b>Jaskirat Gill, MD</b><br>Emergency Medicine<br>Critical Care Medicine<br>Allegheny Health Network                                                                                                                 | <b>Nishant I. Koradia, MD</b><br>Interventional and Structural cardiologist<br>Director, CNICU and Cardiogenic Shock Program<br>AHN Saint Vincent Hospital                                                                                                                   |
| <b>Vikrant Jagadeesan, MD, FACC, FSCAI</b><br>Associate Professor of Medicine<br>Coronary and Structural Interventions<br>Heart and Vascular Institute<br>WVU Medicine                                               |                                                                                                                                                                                                                                                                              |

### Invited faculty (continued)

**Matthew Lander, MD**

Advanced Heart Failure and Transplant Cardiology  
Allegheny Health Network  
Assistant Professor of Medicine, Drexel University of Medicine

Candice Lee, MD

Surgical Director, CTEPH Program, Division of Cardiac Surgery  
Allegheny Health Network  
Assistant Professor, Department of Surgery  
Drexel University College of Medicine

Anantha Madgula, MD

Assistant Professor, Advanced Heart Failure and Transplant  
Department of Cardiology  
West Virginia University

Amber Makani, MD, FACC

Clinical Assistant Professor of Medicine  
Interventional and Structural Cardiology  
UPMC heart and Vascular Institute

Aniket S. Rali, MD, FCCP, FACC

Associate Professor of Medicine and Anesthesiology  
Advanced Heart Failure and Transplantation  
Critical Care Medicine  
Vanderbilt University Medical Center

## Philip S. Nawrocki, MD, FAEMS

Interim System EMS Medical Director, Allegheny Health Network  
Associate Medical Director, LifeFlight & AHN Critical  
Care Transport  
Program Director, AHN EMS Fellowship

Jared Romeo, DO

Interventional Cardiology  
UPMC Heart and Vascular Institute

Gregory Suero Abreu, MD, FSCAI

Medical Director, Invasive Cardiology Medical  
Director, Chest Pain Center  
Trinity Health System, CommonSpirit Health

## Masaki Tsukashita, MD

Cardiac Surgery  
Allegheny Health Network

**Saraschandra Vallabhajosyula, MD, MSc, FACP,  
FCCP, FCCM, FAHA, FACC, FSCAI**

Assistant Professor of Medicine, Warren Alpert Medical School of  
Brown University Interventional and Critical Care Cardiology  
Medical Director, Coronary Care Unit,  
Brown University Health Cardiovascular Institute

Tyler VanDyck, MD

Medical Director, ECMO Services  
Director, Division of Surgical Critical Care and CTSICU  
Assistant Professor of Medicine and Emergency Medicine, Drexel  
University College of Medicine  
Department of Cardiovascular and Thoracic Surgery  
AHN Allegheny General Hospital

Ryan Zuzek, MD

Interventional Cardiologist  
St. Clair Health

## Notes

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**Disclosure of significant relationships:** In accordance with the Accreditation Council for Continuing Medical Education (ACCME) and the policy of Allegheny General Hospital, presenters must disclose all relevant financial relationships, which, in the context of their presentation(s), could be perceived as a real or apparent conflict of interest (e.g., ownership of stock, honoraria, or consulting fees). Any identifiable conflicts will be resolved prior to the activity. Any such relationships will be disclosed to the learner prior to the presentation(s).

