State-of-the-Art Echocardiography

September 14-16, 2018
Hilton Downtown Cleveland

Attend and Get MOC Points!

State-of-the-Art Echocardiography

Featuring:
- Reduced fees for ASE members
- Hands-On Workshops
- Case Discussions

Register Today! ccfcme.org/EchoCardio
Join us at State of the Art Echocardiography

This State-of-the-Art Echocardiography course highlights practical issues in echocardiography using a case-based format that is salient to all aspects of cardiovascular clinical practice. The focus will be on providing guidance for optimal utilization of echocardiography in the management of valvular heart disease, heart failure and device therapies, cardiomyopathies and endocarditis. Special sessions will be dedicated to structural heart interventions, adult congenital cardiology, innovative imaging technologies and multimodality imaging.

Attendees will also learn about the most current, relevant research studies along with updates on new guidelines and hear experts’ analyses of cutting-edge technical innovations. Interact with multidisciplinary panels of experts including cardiologists with expertise in structural heart interventions, heart failure, electrophysiology and multi-modality imaging, cardiac surgeons, and cardiothoracic anesthesiologists as they debate management of challenging cases.

Learning Objectives

• Describe the most appropriate methods for imaging and quantifying complex valvular heart disease using basic and advanced imaging techniques including 2D and 3D echocardiography, strain and multimodality imaging
• Discuss the role of echocardiography to diagnose and evaluate complications of endocarditis
• Describe the use of echocardiography in the diagnosis and management of special populations including those with adult congenital heart disease, cardiomyopathies, athletes and advanced heart failure
• Discuss the challenges and limitations in the assessment of diastolic function
• Describe the utility of 2D and 3D echo in guiding structural heart interventions
• Discuss specific challenges with individual structural interventions and the value of echocardiography to address these
• Review the utility of echocardiography in the management of device therapy in heart failure
• Recognize procedure specific complications of structural interventions and device therapies and how to identify these using echocardiography to improve outcomes
• Critically appraise new ACC and ASE valve guidelines and assess their impact on clinical practice

Who Should Attend?

This activity is designed for cardiologists, cardiac surgeons, anesthesiologists, sonographers, internists, intensive care/critical care, and other practicing health care professionals who desire an update on state-of-the-art advancements in echocardiography.
Heart and Vascular Institute
Cardiovascular Imaging
Cleveland Clinic

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Cardiovascular Medicine

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Section Head
Cardiovascular Imaging
Cardiovascular Medicine

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Lars Svensson, MD, PhD
Maran Thamilarasan, MD, FACC
Suma Thomas, MD
Bo Xu, MD
Kenneth Zahka, MD
Agenda
Friday, September 14, 2018

6:15 AM  Registration, Continental Breakfast, and Visit Exhibits

7:20 AM  Introduction and Welcome

Aortic Stenosis Diagnosis and Management

7:30 AM  Echo Doppler Evaluation of Aortic Stenosis – Pitfalls, Tricks, Tips

7:50 AM  Low Flow, Low Gradient Aortic Stenosis with Reduced EF – Multimodality Evaluation and Management

8:10 AM  Low Flow, Low Gradient Aortic Stenosis with Preserved EF – Evaluation and Management

8:30 AM  Indications for Intervention for Aortic Stenosis: TAVR vs SAVR

8:50 AM  Prosthetic Aortic Valve Stenosis and PPM – Evaluation and Management

9:10 AM  Special Cases, Complications, and Follow-up

9:30 AM  Panel Discussion and Q&A

9:45 AM  Refreshment Break and Visit Exhibits

Mitral Regurgitation Diagnosis and Management

10:00 AM  Echo Doppler Quantification of Mitral Regurgitation

10:20 AM  Mechanisms of Mitral Regurgitation and Impact on Management, Use of 3D imaging

10:40 AM  Indications for Surgery in Primary and Secondary MR

11:00 AM  Approach to Echo Diagnosis of Mixed Valve Disease

11:20 AM  Stress Echocardiography as a Tool in Refining Timing of Surgery for Valvular Heart Disease

11:40 AM  Panel Discussion and Q&A

12:00 PM  Lunch On Own

Simultaneous Session
Attendees have the option to attend Workshop A or didactic lectures

Echo in the Management of Device Therapies for Heart Failure

1:00 PM  Echo in Left Ventricular Assist Device Management

1:20 PM  Right Ventricular Interrogation in VAD Selection and Management

1:40 PM  Echo in the Management of Circulatory Support: ECMO, Impella

2:00 PM  Echo in CRT Selection, Optimization, Non Responders

2:20 PM  Echocardiography in Management of Cardiac Implantable Electrical Device Infection

2:40 PM  Panel Discussion and Q&A

Optional Workshop A*
1:00 – 3:00 PM

A. 3D Image Reconstruction and Cropping ($150 additional fee)

3:00 PM  Refreshment Break and Visit Exhibits

Optional Workshops B or C*
3:30 – 5:30 PM

Choose One:

B. How to Employ Strain and 3D Volumes/EF in Your Practice ($150 additional fee)

C. Echocardiography Simulation Lab: TTE, TEE ($75 additional fee)

5:30 PM  Adjourn

*All workshops require additional registration fee, are first-come, first-served and are limited space.
### Saturday, September 15, 2018

<table>
<thead>
<tr>
<th>Time</th>
<th>Event</th>
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<tbody>
<tr>
<td>7:00 AM</td>
<td>Registration, Continental Breakfast, and Visit Exhibits</td>
</tr>
<tr>
<td>7:30 AM</td>
<td>Clinical and Echocardiographic Diagnosis of Endocarditis</td>
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<tr>
<td>7:50 AM</td>
<td>Management of Endocarditis and the Critical Role of Imaging</td>
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<tr>
<td>8:10 AM</td>
<td>The Changing Face of Prosthetic Valve Endocarditis</td>
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<tr>
<td>8:30 AM</td>
<td>Surgical Management for Endocarditis and Value of Imaging</td>
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<tr>
<td>8:50 AM</td>
<td>Complications of Endocarditis and the Role of Imaging</td>
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<tr>
<td>9:10 AM</td>
<td>Panel Discussion and Q&amp;A</td>
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<tr>
<td>9:30 AM</td>
<td>Refreshment Break and Visit Exhibits</td>
</tr>
<tr>
<td>10:00 AM</td>
<td>Echo in Adult Congenital Heart Disease</td>
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<tr>
<td>10:00 AM</td>
<td>Atrial and Ventricular Septal Defects</td>
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<td>10:20 AM</td>
<td>Transposition of the Great Arteries and Tetralogy of Fallot</td>
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<td>10:40 AM</td>
<td>Cyanotic Heart Disease: A Primer in Shunts</td>
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<td>11:00 AM</td>
<td>Transcatheter Interventions in CHD</td>
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<tr>
<td>11:20 AM</td>
<td>Postoperative Congenital Heart Disease</td>
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<tr>
<td>11:40 AM</td>
<td>Panel Discussion and Q&amp;A</td>
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<tr>
<td>12:00 PM</td>
<td>Lunch (provided)</td>
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<tr>
<td>12:30 PM</td>
<td>Refreshment Break and Visit Exhibits</td>
</tr>
<tr>
<td>1:00 PM</td>
<td>Case 1: Left Ventricular Hypertrophy</td>
</tr>
<tr>
<td>1:20 PM</td>
<td>Case 2: Left Ventricular Hypertrophy – Again!</td>
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<tr>
<td>2:10 PM</td>
<td>Case 3: Left Ventricular Dilation</td>
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<tr>
<td>2:30 PM</td>
<td>Case 4: Right Ventricular Dilation</td>
</tr>
<tr>
<td>2:50 PM</td>
<td>Case 5: Biventricular Dilation</td>
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<tr>
<td>3:10 PM</td>
<td>Panel Discussion and Q&amp;A</td>
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<tr>
<td>3:30 PM</td>
<td>Refreshment Break and Visit Exhibits</td>
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### Sunday, September 16, 2018

<table>
<thead>
<tr>
<th>Time</th>
<th>Event</th>
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<tbody>
<tr>
<td>7:30 AM</td>
<td>Continental Breakfast and Visit Exhibits</td>
</tr>
<tr>
<td>8:00 AM</td>
<td>Septal Puncture – How to Guide the Interventionalist</td>
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<tr>
<td>8:20 AM</td>
<td>The Evolving Role of Echo for TAVR</td>
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<tr>
<td>8:40 AM</td>
<td>Multimodality Pre-Procedural Planning for TAVR</td>
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<tr>
<td>9:00 AM</td>
<td>TEE Guidance of LAA Occluder Implantation</td>
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<tr>
<td>9:20 AM</td>
<td>Mitra-clip and Evolving Mitral/Tricuspid Devices</td>
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<tr>
<td>9:40 AM</td>
<td>Panel Discussion and Q&amp;A</td>
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<tr>
<td>10:00 AM</td>
<td>Refreshment Break and Visit Exhibits</td>
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<tr>
<td>10:30 AM</td>
<td>Paravalvular Leak Closure Planning and Guidance</td>
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<tr>
<td>10:50 AM</td>
<td>PFO/ASD Closure</td>
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<tr>
<td>11:10 AM</td>
<td>Recognizing Complications in SHD</td>
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<tr>
<td>11:30 AM</td>
<td>Future Directions in Structural Heart Disease</td>
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<tr>
<td>11:50 AM</td>
<td>Role of Imaging in the Cath Lab in 2020</td>
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<tr>
<td>12:10 PM</td>
<td>Panel Discussion and Q&amp;A</td>
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<tr>
<td>12:30 PM</td>
<td>Adjourn</td>
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</table>
General Information

Location
Hilton Cleveland Downtown
100 Lakeside Avenue East
Cleveland, OH
216.413.5000

Hotel Accommodations
A limited block of rooms has been reserved at the Hilton Cleveland Downtown only until August 16, 2018.

To make your reservations, book online at www.ccfcme.org/EchoHotel for special rate of $179.00 per night for a standard room.

Visit www.positivelycleveland.com for additional information on attractions and entertainment.

Parking
Valet parking is available at the Hilton and self-parking is also available at the Huntington Garage on Lakeside Avenue.

Information
For further information about this activity, contact the Cleveland Clinic Center for Continuing Education.

Website: ccfcme.org/EchoCardio
Local: 216.448.8715

Faculty Disclosure
The Cleveland Clinic Foundation Center for Continuing Education has implemented a policy to comply with the current Accreditation Council for Continuing Medical Education Standards for Commercial Support requiring resolution of all faculty conflicts of interest. Faculty declaring a relevant commercial interest will be identified in the activity syllabus.

Americans with Disabilities Act
The Cleveland Clinic Foundation Center for Continuing Education fully intends to comply with the legal requirements of the Americans with Disabilities Act. If you need assistance, please notify us at least two weeks prior to the activity.

Study References
Faculty presentations will be available online in PDF format on a password protected website. You will have access prior to the activity to allow you to download or print the slides.

Accreditation
The Cleveland Clinic Foundation Center for Continuing Education is accredited by the Accreditation Council for Continuing Medical Education to provide continuing medical education for physicians.

The Cleveland Clinic Foundation Center for Continuing Education designates
• State-of-the-Art Echocardiography live activity for a maximum of 18.75 AMA PRA Category 1 Credits™.
• Optional 3D Image Reconstruction and Cropping live activity for a maximum of 2 AMA PRA Category 1 Credits™
• Optional How to Employ Strain and 3D Volumes/EF in Your Practice live activity for a maximum of 2 AMA PRA Category 1 Credits™
• Optional Echocardiography Simulation Lab: TTE, TEE live activity for a maximum of 2 AMA PRA Category 1 Credits™

Physicians should claim only the credit commensurate with the extent of their participation in the activity.

Participants claiming CME credit from this activity may submit the credit hours to the American Osteopathic Association for Category 2 credit.

MOC/Maintenance of Certification
Successful completion of this CME activity, which includes participation in the evaluation component, enables the participant to earn up to 20.5 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.

MOC is available for full course registration only.
MOC is not available for workshops.

Other Health Care Professionals
A certificate of attendance will be provided to other health care professionals for requesting credits in accordance with state nursing boards, specialty societies, or other professional associations.
Registration

Register Online at www.ccfcme.org/EchoCardio

Fee includes: continental breakfast, refreshment break(s), lunch on Saturday, September 15, 2018, faculty presentations in PDF format, available online. Optional workshops are and additional fee.

<table>
<thead>
<tr>
<th>Category</th>
<th>Fee Early/Before 8/17/18</th>
<th>Fee After 8/17/18</th>
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</thead>
<tbody>
<tr>
<td>Physician</td>
<td>$675</td>
<td>$775</td>
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<tr>
<td>ASE Physician</td>
<td>$540</td>
<td>$620</td>
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<tr>
<td>Alumni</td>
<td>$608</td>
<td>$698</td>
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<tr>
<td>Resident*/Fellow*</td>
<td>$275</td>
<td>$375</td>
</tr>
<tr>
<td>Sonographer/Non-Physician</td>
<td>$450</td>
<td>$550</td>
</tr>
<tr>
<td>ASE Sonographer/Non-Physician</td>
<td>$360</td>
<td>$460</td>
</tr>
</tbody>
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*Letter from program director is required to receive the discounted fee. If letter is not received two weeks prior to the activity, the full physician fee will be charged.

Group Discount Available

Groups of 3 or more from the same office/institution will receive a $100.00 discount off the full registration fee. Registrants must call 216.448.8710 to receive a promotional code for special pricing.

Visit www.ccfcme.org/echocardio for complete registration information.

Registration and Cancellation

Preregistrations are accepted until 12:00 pm ET September 13, 2018. Register on site after this date. In case of cancellation, email notification is required to process your refund. A full refund will be issued if canceled by August 14, 2018. After August 14, 2018, a $250.00 cancellation fee will be deducted from your refund. No refunds will be issued after September 7, 2018.

For questions about registration or cancellation, email us at cmeregistration@ccf.org or call 216.448.8710.

Cleveland Clinic Center for Continuing Education reserves the right to cancel or postpone an activity at our sole discretion. In the unlikely event that this occurs, any registration fee(s) paid will be refunded. Be advised that Cleveland Clinic is not responsible for related costs including airline tickets, hotel costs, or any similar fee penalties incurred as a result of any meeting cancellations or changes.
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