

ECHO FLORIDA™

12th ANNUAL



FINAL PROGRAM

October 12 – 14, 2024

Disney's Grand Floridian Resort & Spa

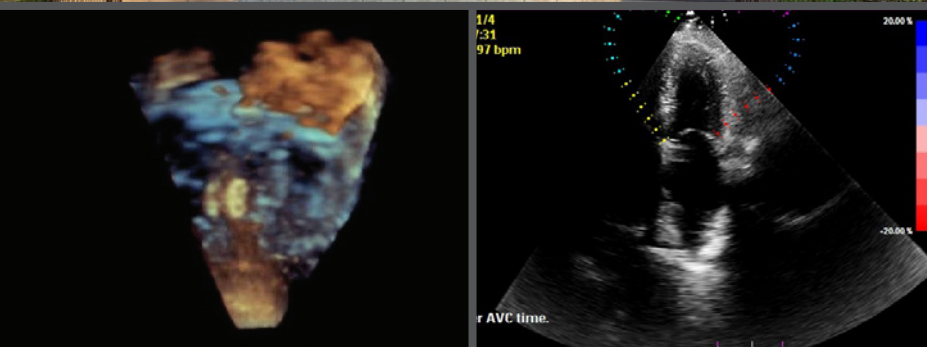
Walt Disney World® Resort - Lake Buena Vista, FL

Course Director

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LUMASON®

(sulfur hexafluoride lipid-type A microspheres)
for injectable suspension, for intravenous
use or intravesical use

VISUALLY DECISIVE

STUDY BY FILIPPONE ET AL^{1*}

- Data from prospective studies with LUMASON UEA in patients at higher than usual risk for developing cardiopulmonary reactions suggested:
 - No detrimental effects on cardiac electrophysiology in patients with coronary artery disease; no significant effects on pulmonary hemodynamics in patients with pulmonary hypertension or congestive heart failure
 - No effects on several assessments of pulmonary function in patients with chronic obstructive pulmonary disease, and no clinically meaningful changes in oxygen saturation or other safety parameters in patients with diffuse interstitial pulmonary fibrosis
- Post-marketing surveillance data up to February 2023 revealed very low reporting rates for all serious adverse events (<1 every 10,000 exposures), of which part were due to hypersensitivity to the agent

UNLOCKING THE INVISIBLE

*LUMASON® is known globally as SonoVue®.

¹As of January 2023. The numbers shown represent the combined global market data for both LUMASON and SonoVue. The individual who appears is for illustrative purposes. The person depicted is a model and not a real patient.

LUMASON® (sulfur hexafluoride lipid-type A microspheres) for injectable suspension, for intravenous use or intravesical use

Indications

LUMASON® (sulfur hexafluoride lipid-type A microspheres) for injectable suspension, for intravenous use or intravesical use is an ultrasound contrast agent indicated for use:

- in echocardiography to opacify the left ventricular chamber and to improve the delineation of the left ventricular endocardial border in adult and pediatric patients with suboptimal echocardiograms
- in ultrasonography of the liver for characterization of focal liver lesions in adult and pediatric patients
- in ultrasonography of the urinary tract for the evaluation of suspected or known vesicoureteral reflux in pediatric patients

IMPORTANT SAFETY INFORMATION

WARNING: SERIOUS CARDIOPULMONARY REACTIONS

Serious cardiopulmonary reactions, including fatalities, have occurred uncommonly during or following the injection of ultrasound contrast

agents, including sulfur hexafluoride lipid microspheres. Most serious reactions occur within 30 minutes of administration.

- Assess all patients for the presence of any condition that precludes administration
- Always have resuscitation equipment and trained personnel readily available

Contraindications

LUMASON (sulfur hexafluoride lipid-type A microspheres) for injectable suspension, for intravenous use or intravesical use is contraindicated in patients with known or suspected hypersensitivity to sulfur hexafluoride lipid microsphere or its components, such as polyethylene glycol (PEG).

Warnings

Serious cardiopulmonary reactions, including fatalities, have occurred uncommonly during or shortly following administration of ultrasound contrast agents, including LUMASON. Always have cardiopulmonary resuscitation personnel and equipment readily available prior to LUMASON administration and monitor all patients for acute reactions.

LEARN MORE
BY VISITING
LUMASON.COM/SAFETY



OVER
12 MILLION
DOSES
ADMINISTERED
WORLDWIDE^{2†}

 **Bracco Diagnostics**

LUMASON[®]

(sulfur hexafluoride lipid-type A microspheres)
for injectable suspension, for intravenous
use or intravesical use

Rx ONLY
Please see full
prescribing information.
A brief summary follows.

WARNING: SERIOUS CARDIOPULMONARY REACTIONS
Serious cardiopulmonary reactions, including fatalities, have occurred uncommonly during or following the injection of ultrasound contrast agents, including sulfur hexafluoride lipid microspheres [see Warnings and Precautions (5.1)]. Most serious reactions occur within 30 minutes of administration [see Warnings and Precautions (5.1)].

- Assess all patients for the presence of any condition that precludes administration [see Contraindications (4)].
- Always have resuscitation equipment and trained personnel readily available [see Warnings and Precautions (5.1)].

1 INDICATIONS AND USAGE

Echocardiography Lumason is indicated for use in adult patients with suboptimal echocardiograms to opacify the left ventricular chamber and to improve the delineation of the left ventricular endocardial border.

Ultrasonography of the Liver Lumason is indicated for use with ultrasound of the liver in adult and pediatric patients to characterize focal liver lesions.

Ultrasonography of the Urinary Tract Lumason is indicated for use in ultrasonography of the urinary tract in pediatric patients for the evaluation of suspected or known vesicoureteral reflux.

2 DOSAGE AND ADMINISTRATION

2.1 Important Administration Instructions Do not administer Lumason by intra-arterial injection [see Warnings and Precautions (5.3)].

2.2 Recommended Dosage

Echocardiography The recommended dose of Lumason after reconstitution is 2 mL administered as an intravenous bolus injection during echocardiography. During a single examination, a second injection of 2 mL may be administered to prolong contrast enhancement. Follow each Lumason injection with an intravenous flush using 5 mL of 0.9% Sodium Chloride Injection.

Ultrasonography of the Liver

Adults The recommended dose of Lumason after reconstitution in adult patients is 2.4 mL administered as an intravenous injection during ultrasonography of the liver. During a single examination, a second injection of 0.03 mL per kg may be administered, if needed. Do not exceed 2.4 mL per injection. Follow Lumason injection with an intravenous flush of 0.9% Sodium Chloride Injection.

Pediatric Patients The recommended dose of Lumason after reconstitution in pediatric patients is 0.03 mL per kg administered as an intravenous injection during ultrasonography of the liver. During a single examination, a second injection of 0.03 mL per kg may be administered, if needed. Do not exceed 2.4 mL per injection. Follow Lumason injection with an intravenous flush of 0.9% Sodium Chloride Injection.

Ultrasonography of the Urinary Tract

Pediatric Patients The recommended dose of Lumason after reconstitution is 1 mL. The bladder may be refilled with normal saline for a second cycle of voiding and imaging, without the need of a second Lumason administration.

2.3 Reconstitution Instructions

- Inspect the Lumason kit and its components for signs of damage. Do not use the kit if the protective caps on the Lumason vial and prefilled syringe with 5 mL Sodium Chloride 0.9% Injection are not intact or if the kit shows other signs of damage.

- Under aseptic conditions, reconstitute Lumason by injecting the prefilled syringe with 5 mL Sodium Chloride 0.9% Injection into the Lumason vial using the following steps:

1. Connect the plunger rod to the prefilled syringe barrel by screwing it clockwise into the syringe.
2. Open the Mini-Spike blister and remove the syringe tip cap.
3. Open the Mini-Spike green cap and connect the syringe to the Mini-Spike by screwing it in clockwise.
4. Remove the flip cap plastic protective cap from the vial, remove the Mini-Spike spike protection and position the spike in the center of the rubber stopper of the vial. Press firmly inward until the spike is fully inserted in the stopper.
5. Empty the content of the syringe into the vial by pushing on the plunger rod.
6. Shake vigorously for 20 seconds, mixing all the contents in the vial. A homogeneous white milky liquid indicates formation of sulfur hexafluoride lipid microspheres.
7. For preparation of doses greater than or equal to 1 mL, invert the system and slowly withdraw the intended volume of suspension into the syringe. For preparation of doses less than 1 mL, withdraw 2 mL of the reconstituted suspension into the 5 mL syringe and measure the volume of Lumason to inject by using the 0.2 mL graduations between the 1 mL and 2 mL marks.
8. Unscrew the syringe from the Mini-Spike. Peel and remove the diluent label to display the reconstituted product label. For intravenous administration, immediately connect the syringe to a dose administration line (20 G) and administer as directed under the Administration Instructions. For intravesical administration, immediately connect the syringe to a sterile urinary catheter (8 French to 8 French) and administer as directed under the Administration Instructions.
- Following reconstitution, Lumason suspension contains 1.5 to 5.6 x10¹⁰ microspheres/mL with 45 mcg/mL of sulfur hexafluoride.

- Use immediately after reconstitution. If the suspension is not used immediately after reconstitution, resuspend the microspheres for a few seconds by hand agitation before the suspension is drawn into the syringe. Reconstituted suspension within a vial may be used for up to 3 hours from the time of its reconstitution. Maintain the vial containing the reconstituted suspension at room temperature.

2.4 Administration Instructions

Inspect visually for particulate matter and discoloration prior to administration, whenever solution and container permit. The reconstituted suspension is milky-white, and does not contain visible particulate matter. Do not use the single-patient use vial for more than one patient.

Intravenous Administration

Administer Lumason as an intravenous bolus injection.

Intravesical Administration in Pediatric Patients

1. Insert a sterile 6 French to 8 French urinary catheter into the bladder under sterile conditions;
2. Empty the bladder of urine, and then fill the bladder with saline (sterile 0.9% sodium chloride solution) to approximately one third or half of its predicted total volume. The total bladder volume in children is calculated as [(age in years + 2) x 30] mL;
3. Administer Lumason as an intravesical bolus injection through the urinary catheter;
4. Continue filling the bladder with saline until the patient has the urge to micturate or at the first sign of back pressure to the infusion.
5. Immediately following the first voiding, the bladder may be refilled with normal saline for a second cycle of voiding and imaging, without the need of a second Lumason administration

4 CONTRAINDICATIONS

Lumason is contraindicated in patients with:

- history of hypersensitivity reactions to sulfur hexafluoride lipid microsphere components or to any of the inactive ingredients in Lumason

5 WARNINGS AND PRECAUTIONS

5.1 Cardiopulmonary Reactions

Serious cardiopulmonary reactions, including fatalities have occurred uncommonly during or shortly following administration of ultrasound contrast agents, including Lumason. These reactions typically occurred within 30 minutes of administration. The risk for these reactions may be increased among patients with unstable cardiopulmonary conditions (acute myocardial infarction, acute coronary artery syndromes, worsening or unstable congestive heart failure, or serious ventricular arrhythmias). Always have cardiopulmonary resuscitation personnel and equipment readily available prior to Lumason administration and monitor all patients for acute reactions.

The reported reactions that may follow the administration of ultrasound contrast agents include: fatal cardiac or respiratory arrest, shock, syncope, symptomatic arrhythmias (atrial fibrillation, tachycardia, bradycardia, supraventricular tachycardia, ventricular fibrillation, and ventricular tachycardia), hypertension, hypotension, dyspnea, hypoxia, chest pain, respiratory distress, stridor, wheezing, loss of consciousness, and convulsions.

5.2 Hypersensitivity Reactions

Hypersensitivity reactions such as skin erythema, rash, urticaria, flushing, throat tightness, dyspnea, or anaphylactic shock have uncommonly been observed following the injection of Lumason. These reactions may occur in patients with no history of prior exposure to sulfur hexafluoride lipid containing microspheres. Always have cardiopulmonary resuscitation personnel and equipment readily available prior to Lumason administration and monitor all patients for hypersensitivity reactions.

5.3 Systemic Embolization

When administering Lumason to patients with cardiac shunts, microspheres can bypass filtering by the lung and enter the arterial circulation. Assess patients with shunts for embolic phenomena following Lumason administration. Lumason is only for intravenous and/or intravesical administration; do not administer Lumason by intra-arterial injection [see Dosage and Administration (2.1)].

5.4 Ventricular Arrhythmia Related to High Mechanical Index

High ultrasound mechanical index values may cause microsphere cavitation or rupture and lead to ventricular arrhythmias. Additionally, end-systolic triggering with high mechanical indices has been reported to cause ventricular arrhythmias.

Lumason is not recommended for use at mechanical indices greater than 0.8.

6 ADVERSE REACTIONS

The following serious adverse reactions are discussed elsewhere in the labeling:

- Cardiopulmonary reactions [see Warnings and Precautions (5.1)]
- Hypersensitivity reactions [see Warnings and Precautions (5.2)]

6.1 Clinical Trials Experience

Because clinical trials are conducted under widely varying conditions, adverse reaction rates observed in the clinical trials of a drug cannot be directly compared to rates in the clinical trials of another drug and may not reflect the rates observed in practice.

In completed clinical trials, a total of 6984 adult subjects (128 healthy volunteers and 6856 patients) received Lumason at cumulative doses ranging from 0.2 to 161 mL (mean 9.8 mL). Lumason was administered mainly as single or multiple injections; however, some subjects received infusion dosing. The majority (75%) of subjects received

Lumason at cumulative doses of 10 mL or less. There were 64% men and 36% women, with an average age of 59 years (range 17 to 99 years). A total of 79% subjects were Caucasian, 4% were Black, 16% were Asian; <1% were Hispanic; and <1% were in other racial groups or race was not reported.

In the clinical trials, serious adverse reactions were observed in 2 subjects: one who experienced a hypersensitivity-type rash and presyncope and another who experienced anaphylactic shock shortly following Lumason administration.

The most commonly reported adverse reactions among patients

(occurring among at least 0.2% of patients) are listed below (Table 1). Most adverse reactions were mild to moderate in intensity and resolved spontaneously.

TABLE 1. ADVERSE REACTIONS IN PATIENTS* n = 6856

Number (%) of Patients with Adverse Reactions	340 (5%)
Headache	65 (1%)
Nausea	37 (0.5%)
Dyspnea	29 (0.4%)
Injection site pain	23 (0.3%)
Feeling Hot	18 (0.3%)
Chest discomfort	17 (0.2%)
Chest pain	12 (0.2%)
Dizziness	11 (0.2%)
Injection Site Warmth	11 (0.2%)

*occurring in at least 0.2% of patients

6.2 Postmarketing Experience

In the international postmarketing clinical experience and clinical trials, serious adverse reactions have uncommonly been reported following administration of Lumason. Because these reactions are reported voluntarily from a population of uncertain size, it is not always possible to reliably estimate their frequency or establish a causal relationship to drug exposure. The serious adverse reactions include fatalities, especially in a pattern of symptoms suggestive of anaphylactoid/hypersensitivity reactions. Other serious reactions included arrhythmias and hypotensive episodes. These reactions typically occurred within 30 minutes of Lumason administration.

8 USE IN SPECIFIC POPULATIONS

8.1 Pregnancy

Risk Summary There are no data with Lumason use in pregnant women to inform any drug-associated risks. No adverse developmental outcomes were observed in animal reproduction studies with administration of sulfur hexafluoride lipid-type A microspheres in pregnant rats and rabbits during organogenesis at doses up to at least 10 and 20 times, respectively, the maximum human dose of 4.8 mL based on body surface area (see Data).

In the U.S. general population, the estimated background risk of major birth defects and miscarriage in clinically recognized pregnancies is 2-4% and 15-20%, respectively.

Data

Animal Data Lumason was administered intravenously to rats at doses of 0.2, 1, and 5 mL/kg (approximately 0.4, 2, and 10 times the recommended maximum human dose of 4.8 mL, respectively, based on body surface area). Lumason doses were administered daily for about 30 consecutive days, from two weeks before pairing until the end of organogenesis. Lumason was administered intravenously to rabbits at doses of 0.2, 1, and 5 mL/kg (approximately 0.8, 4, and 20 times the recommended maximum human dose, respectively, based on body surface area). Lumason doses were administered daily from gestation day 6 to day 19 inclusive. No significant findings on the fetus were observed.

8.2 Lactation

Risk Summary There are no data on the presence of Lumason in human milk, the effects on the breastfed infant, or the effects on milk production. The developmental and health benefits of breastfeeding should be considered along with the mother's clinical need for Lumason and any potential adverse effects on the breastfed infant from Lumason or from the underlying maternal condition.

8.4 Pediatric Use

Ultrasonography of the Liver Effectiveness in pediatric patients has been established for use in ultrasonography of the liver for characterization of focal liver lesions from adequate and well controlled trials in adult patients and a clinical study of 44 pediatric patients [see Clinical Studies (14)]. Safety of intravenous use of Lumason was based on evaluation of published literature involving use of Lumason in over 900 pediatric patients. Non-fatal anaphylaxis was reported in one pediatric patient.

Ultrasonography of the Urinary Tract Effectiveness in pediatric patients has been established for use in ultrasonography of the urinary tract for the evaluation of suspected or known vesicoureteral reflux from two published studies comprising a total of 411 pediatric patients [see Clinical Studies (14)]. Safety of intravenous use of Lumason was based on evaluation of published literature involving use of Lumason in over 6000 pediatric patients. No adverse reactions were reported.

Echocardiography Safety and effectiveness in pediatric patients have not been established for use in echocardiography.

8.5 Geriatric Use

Of the total number of 6856 adult patients in clinical studies of Lumason, 39% were 65 and over, while 11% were 75 and older. No overall differences in safety or effectiveness were observed between these subjects and younger subjects, and other reported clinical experience has not identified differences in responses between the elderly or younger patients, but greater sensitivity of some older individuals cannot be ruled out.

17 PATIENT COUNSELING INFORMATION

Advise patients to inform their healthcare provider if they develop any symptoms of hypersensitivity after LUMASON administration including rash, wheezing, or shortness of breath.

Rx Only

LUMASON is manufactured for Bracco Diagnostics Inc., Monroe Township, NJ 08831 by Bracco Suisse S.A., Plan-les-Ouates Geneve, Switzerland (LUMASON lyophilized powder vial-25 mg lipid-type A/60.7 sulfur hexafluoride gas); Vetter Pharma-Fertigung GmbH & Co. KG, 88212 Ravensburg, Germany (Sodium Chloride 0.9% Injection, USP); B. Braun Melsungen AG, 34212 Melsungen, Germany (Mini-Spike).

This product is covered by US Patent No. 5,686,060

Post-marketing hypersensitivity reactions, including serious hypersensitivity reactions, have been observed during use or shortly following LUMASON administration. These reactions may occur in patients with no history of prior exposure to sulfur hexafluoride lipid-containing microspheres. LUMASON contains PEG. There may be increased risk of serious reactions including death in patients with prior hypersensitivity reaction(s) to PEG.

Systemic embolization may occur in patients with cardiac shunts. Assess patients with cardiac shunts for embolic phenomena following LUMASON administration.

There is a risk of **ventricular arrhythmia related to high mechanical index** in patients administered LUMASON. LUMASON is not recommended for use at mechanical indices greater than 0.8.

The most common adverse reactions (incidence \geq 0.5%) are headache (1%) and nausea (0.5%).

You are encouraged to report negative side effects of prescription drugs to the FDA. Visit www.fda.gov/medwatch or call 1-800-FDA-1088.

Please see BRIEF SUMMARY of Prescribing Information for LUMASON

ultrasound contrast agent, including BOXED WARNING on Serious Cardiopulmonary Reactions.

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LUMASON and SonoVue are registered trademarks of Bracco Diagnostics Inc. and its affiliated entities.

Reference: 1. Filippone A, Kirchin MA, Monteith J, et al. Safety of LUMASON[®] (SonoVue[®]) in special populations and critically ill patients. *Front Cardiovasc Med.* 2023 Aug 2;10:1225654. doi: 10.3389/fcvm.2023.1225654. PMID: 37600063; PMCID: PMC10433219. 2. Data on file. Bracco Diagnostics Inc.

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Welcome Message and Faculty

Welcome Message

Welcome to the 12th Annual Echo Florida live course, sponsored by ASE. Along with our expert faculty and the ASE team, we have prepared a comprehensive and entertaining review of echocardiography as currently practiced.

The goal of Echo Florida is to introduce you to the basics of the newest applications of echocardiography while emphasizing the strengths and weaknesses of routine echocardiography. We intend to insert our unique tips and tricks to help you to use echo to its full capability. Recognizing that Echo is a team sport, we are excited to have a Sonographer and a Physician serve as your Course Directors which ensures that this team-model is rigorously represented throughout this Program. There are multiple sessions that highlight this important relationship which we wholeheartedly believe is a necessary model to have a successfully operating echo lab.

As course directors, it is our goal to make sure the presentations you receive are relevant to the day-to-day practice of high-quality, clinically meaningful echocardiography. We have designed the sessions to be engaging and interactive, while simultaneously adhering to our published, evidence-based guidelines. We encourage each of you to use the Whova App to pose thoughtful questions during each presentation and throughout the entire program. We will address every question and will use your insights to prepare future educational material.

The Course Faculty have been recruited because they are superb clinicians, approachable people, and, like us, they each share a passion for teaching. Our participating faculty are exceptionally diverse and have been encouraged to be open and transparent as they highlight their skills and expertise. We have all made interpretation errors and suffered from clinical misadventures where a valuable lesson was learned and we want you to learn from those experiences.

A brief review of the program: Saturday, Sunday, and Monday will all include interactive presentations with a case-based flavor. Additionally, Saturday and Sunday afternoon will feature optional small group sessions with a focus on strain, hands-on TEE simulator training, 3D for sonographers, and fascinating cases from the archives of CASE.

When looking at this upcoming program, you will quickly see that there are multiple opportunities to actively participate with the expert faculty during Interactive Case Reviews, Read with the Expert Sessions, and Small Group Workshops. There is a heavy reliance on actual Clinical Case Studies, Pro and Con Debates and Computer-based Cases. On Saturday, the program includes Chamber Quantifications – Follow the Guidelines with dedicated presentations on LV and RV systolic and diastolic function, strain imaging, the left atrium, and 3D echo. The day concludes with a Break-Out session that allows you to have hands-on TEE simulator training experience with our experts and a Cases from CASE session that highlights fascinating and educational reports from the CASE Editor-in-Chief. On Sunday we will switch to Valvular Heart Disease – Follow the Guidelines with presentations on Aortic Stenosis, Mitral Regurgitation, the Tricuspid Valve including the important Role of CCT and CMR. Additional presentations will include Cardiomyopathies, Intra-operative and 3D TEE, Intra-Cardiac Echocardiography (ICE) Prosthetic Valves, and the Pericardium. Once again, the day concludes with Break-Out sessions on TEE, 3D TTE, and ICE. On Monday, we finish with dedicated sessions on Mechanical Assist Devices, Ultrasound Enhancing Agents, CAD and Infarct Complications, Adults with Congenital Heart Disease, the Aorta, Cardiomyopathies and an update from the recent Chest Pain Guidelines. We will close the day with more Cases, Cases, and Cases including an opportunity for you to share your own Cases that you have brought with you for the Expert Panel to weigh in on and learn from. We won't conclude the program until all of your questions have been answered.

Welcome to Orlando! We plan to leave time in the afternoon and evening for you to meet your family for fun and entertainment. We hope that our faculty's passion for echocardiography is evident and that you walk away with renewed energy and new knowledge as you return to your own echo labs. We are so pleased you chose to join us for Echo Florida – your active engagement helps us achieve our stated goals!



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Program Information

Overview of Echo Florida

Echo Florida is a comprehensive review of echocardiography, including dedicated sessions on cardiomyopathies, coronary artery disease (including stress testing), valvular heart disease, pericardial disease, heart failure, emerging technologies, complex congenital heart disease and case-based demonstrations on the role of 2D, and real time 3D/4D echocardiography, as well as strain imaging.

Target Audience

This course is designed for adult and pediatric cardiologists, cardiovascular surgeons, cardiovascular anesthesiologists, cardiac radiologists, fellows in training, cardiovascular sonographers, cardiovascular nurse specialists, internists, intensivists, and emergency physicians with a special interest in clinical cardiology and echocardiography.

Course Learning Objectives

Upon completion of these sessions, participants will be better able to:

1. Know the echocardiographic features of aortic, mitral, tricuspid, and pulmonic valve disease (stenosis and regurgitation).
2. Be able to quantitate valve stenosis and regurgitation and help select appropriate interventions.
3. Identify hypertrophic cardiomyopathy and HCM-mimickers.
4. Identify simple and complex congenital disease.
5. Use echocardiography to diagnose and manage pericardial diseases.
6. Use echocardiographic strain, 3D imaging, and ultrasound enhancing agents to optimize the information obtained from echocardiography.
7. Guide optimal clinical and procedural management decisions.

Workshops – Small Group Sessions

Small group workshops offer registered participants the opportunity to get one-on-one time with faculty in a hands-on learning experience. Workshops are included with registration and in the total number of CME credits offered.

Disclaimer

The information provided during this accredited CE activity is for continuing education purposes only and is not meant to substitute for the independent medical judgment of a healthcare provider relative to diagnostic and treatment options of a specific patient's condition.

Accreditation and Designation

The American Society of Echocardiography is accredited by the Accreditation Council for Continuing Medical Education to provide continuing medical education for physicians.

The American Society of Echocardiography designates this in-person activity for a maximum of **21.5 AMA PRA Category 1 Credits™**.

To claim all 21.5 CME credits you must attend two of the workshop sessions. Participants should claim only the credit commensurate with the extent of their participation in the activity.

Successful completion of this CME activity, which includes participation in the evaluation component, enables the participant to earn up to **21.5 MOC points in the American Board of Internal Medicine's (ABIM) Maintenance of Certification (MOC) program, the American Board of Pediatrics (ABP) MOC program, and/or The American Board of Anesthesiology® (ABA) Maintenance of Certification in Anesthesiology Program® or MOCA® (pending approval)**.

Participants will earn MOC and/or MOCA points equivalent to the amount of CME credits claimed for the activity. It is ASE's responsibility to submit participant completion information to ACCME for the purpose of granting ABA MOCA, ABP MOC, and/or ABIM MOC points.

ARDMS, CCI, and Sonography Canada recognize ASE's certificates and have agreed to honor the CME credit hours toward their registry requirements for sonographers.



Maintenance of Certification in Anesthesiology Program® and MOCA® are registered certification marks of the American Board of Anesthesiology®. MOCA 2.0® is a trademark of the American Board of Anesthesiology®.

Daily Breakdown of CME/MOC Credits:

Saturday General Session = 6.25

Saturday Workshop = 1.00 per workshop

Sunday General Session = 6.75

Sunday Workshop = 1.25 per workshop

Monday General Session = 6.25

Participants should claim only the credit commensurate with the extent of their participation in the activity. To claim all 21.5 credits/points you must attend two workshop sessions.

Disclosure

ASE is committed to ensuring that its educational mission and all accredited continuing educational programs provide a protected space to learn, teach, and engage in scientific discourse free from influence from organizations that may have an incentive to insert commercial bias into education.

While a monetary or professional affiliation with an ineligible company does not necessarily influence a speaker's presentation, the Standards for Integrity and Independence in Accredited Continuing Education and policies of the ACCME require that all financial relationships with ineligible companies be identified and mitigated prior to engaging in an accredited CE activity. In accordance with these policies, ASE actively identified relevant financial relationships between faculty in control of this accredited CE activity and ineligible companies and implemented mitigation strategies to eliminate any potential influence from persons or organizations that may have an incentive to insert commercial bias in this activity. Disclosure information is referenced and can be found on page 14 of this program.

Commercial Support Disclosure Statement

Educational Grants: This accredited CE activity is supported in part by unrestricted educational grants from Abbott, Alnylam, BridgeBio, Edwards Lifesciences, and Pfizer.

In-Kind Donations: This accredited CE activity is supported in part by in-kind donations. These donations are for the following activities and purposes. Elevate Health, TEE simulators for the TEE workshops; GE Healthcare, CV Ultrasound machine for support of the Scan with Me Session; Philips, ICE simulators for the ICE workshop and CV Ultrasound machine for support of the Scan with Me Session.

How to Claim CME/MOC

The deadline to claim credits/points is **November 13, 2024**.

On October 14, 2024, you will receive an email containing the link to the CME/MOC Evaluation Form for Echo Florida (email subject will be "ASE Echo Florida CME/MOC Evaluation"). Firewalls and security features on your email account may block or direct these emails to your spam/junk folder. Please be sure to thoroughly check your email account. If you are not able to locate the email, please contact CME@ASEcho.org.

The evaluation will include the opportunity to provide your registry board information to allow us to submit your credits or points on your behalf. ASE submits credits/points to ABIM, ABA, ABP, ARDMS and CCI on behalf of the learner. Credits for Echo Florida will be sent to these boards on November 19, 2024. At this time, your CME/MOC Certificate will be uploaded to your ASE Learning Hub account. Instructions to accessing your ASE Learning Hub account will be included in the email.

Registration Location and Hours

The ASE Registration desk is located in the Grand Floridian Convention Center. The Registration desk will be staffed during the following hours:

Friday, October 11, 2024 4:00 PM – 6:00 PM
Saturday, October 12, 2024 6:30 AM – 5:30 PM
Sunday, October 13, 2024 6:30 AM – 5:30 PM
Monday, October 14, 2024 6:30 AM – 3:30 PM

Food Functions

ASE will provide breakfast, lunch, and coffee breaks for all registered attendees Saturday–Monday in Grand Floridian Salons 1-4. Please refer to the program schedule beginning on page 9 for the times.

Disney's Grand Floridian Resort & Spa offers their guests a variety of dining options. Please see page 8 for more details.

Internet Access

There is complimentary wireless internet available throughout Disney's Grand Floridian Resort & Spa. Attendees of this course also receive complimentary wireless internet in their guest rooms.

Business Center

The Business Center is located in the Convention Center and is open daily. It offers fax, photo-copier, mail, and computer services.

Safety

Audience seating is on a first-come, first-served basis. According to fire code, a session must be closed if the room fills to capacity. Inappropriate behavior or undesirable conduct, including, but not limited to, verbal or physical abuse, whether threatened or performed, will not be permitted or tolerated. You must wear your name badge at all times when attending the session or events.

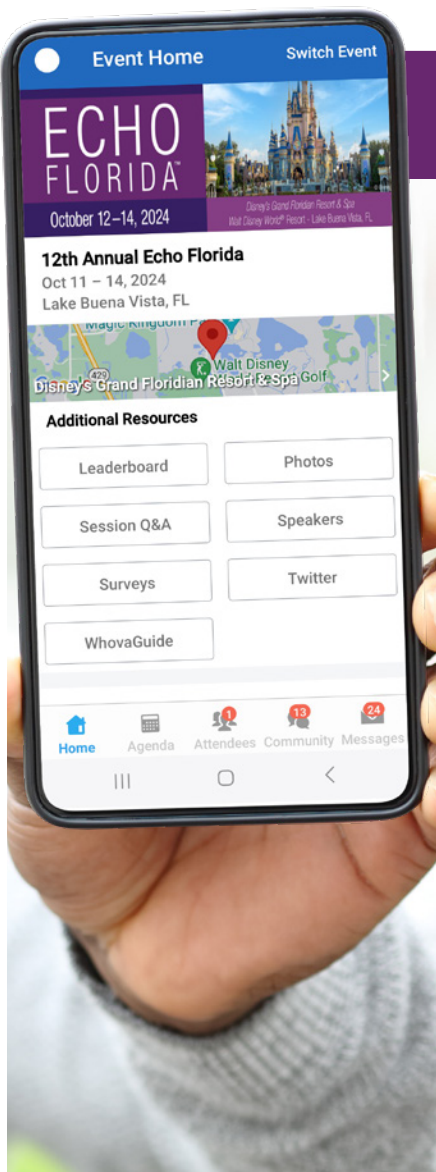


Attendee Information and Regulations

Photography/AV Policy

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Download Whova, ASE's New Live Course App

ASE is using the online platform Whova as its 2024 live courses app. Whova will give you access to the entire meeting program at your fingertips. You can also use the app to ask questions during the sessions you attend. Search "Whova" in the Google Play and Apple Stores to download.

Whova allows for more interaction among participants at the meeting including:

- Finding others who are attending Echo Florida and reaching out to them at any time.
- Planning social activities such as a morning run, coffee hours, or meet-ups with your fellow attendees.

Important course information like:

- The event agenda and planning your personal schedule.
- Access to documents and slides shared by organizers or speakers.
- Updates like possible last minute session changes from the organizers.

If you have already used the Whova app, just double-check it is installed on your phone, tablet, or computer, and log in using your existing account email and password.

First Time Whova User?

MOBILE APP

After downloading Whova, you will be prompted to create an account. We suggest that you use the email address you used when registering for Echo Florida and create a strong password. By using the email address you used when registering for Echo Florida, the platform will automatically associate you with the event and take you to your event page automatically.

WEB PORTAL

Once you have downloaded and signed into the Whova app on your mobile device, you will receive an email from Whova with the web portal URL. Open your email on your laptop/tablet and click the web portal link to access the app through your browser.

If you are not automatically connected to the event and you are prompted for an event code, please reference the email you were sent on Monday, October 7, from "event-noreply@whova.io", or visit the registration desk in the Grand Floridian Ballroom 5-6.

Location Information

Disney's Grand Floridian Resort & Spa

Victorian elegance meets modern sophistication at this lavish Disney Resort hotel. Unwind outdoors, indulge in a luxurious massage and watch evening fireworks light up the sky over Cinderella Castle. Just one stop to Magic Kingdom park on the complimentary Resort Monorail, this timeless Victorian-style marvel evokes Palm Beach's golden era.

1. No need to travel to another venue — everything takes place under one roof!
2. The Walt Disney World monorail stops at Disney's Grand Floridian Resort & Spa and provides service to Magic Kingdom.
3. Dine at more than 10 onsite restaurants and lounges, including options to dine alongside beloved Disney Characters and waterside bars.
4. Journey across The Seven Seas Lagoon on a water taxi between Disney's Grand Floridian Resort & Spa and Magic Kingdom park.
5. Enjoy a huge array of family-friendly activities, including a 181-foot-long water slide as it curves down the mountain, zips past trees and slips under a walking bridge before plunging you into the pool.

Make Time for the Magic!

As a Disney Resort Guest, you will enjoy special benefits that make your Walt Disney World® stay easier and more relaxing than ever. These benefits provide everything from extra time in the Theme Parks to convenient transportation.

Special ticket options are available for meeting attendees. You must purchase online at [MyDisneyGroup.com/EchoFL2024](https://www.mysdisneygroup.com/echofl2024) or call **407-939-4686** to receive these special Theme Park tickets. If you plan on visiting a Theme Park, please be aware that to enter a park both a park reservation and valid admission for the same park on the same date are required for all guests ages 3 and up.

Plan your Walt Disney World vacation by setting up a My Disney Experience account. You can manage your Disney Resort reservation, purchase your Theme Park tickets and, access Resort transportation routes all with the touch of your finger. Set up an account at [MyDisneyExperience.com](https://www.mysdisneyexperience.com) and download the mobile app from the Apple Store or Google Play.

Disney's Grand Floridian Resort & Spa Dining Options

Citricos: Dine underneath the lovely London sky in this newly re-imagined restaurant inspired by *Mary Poppins Returns*.

Narcoossee's: Slip away to this waterfront setting for coastal cuisine with spectacular panoramic views.

Grand Floridian Cafe: For casual American dining at Disney's Grand Floridian Resort & Spa, this elegant yet unpretentious eatery can't be beat.

Gasparilla Island Grill: Relax and refuel in this casual dining restaurant. Start your day with Mickey Waffles or a breakfast platter. Enjoy a variety of entrees available for lunch and dinner. Selections include an artisan burger, flatbreads and sandwiches featuring bread made fresh daily at the Grand Floridian Bakery. Beer and wine are available.

1900 Park Fare: Delight in breakfast and dinner buffets while celebrating the magical power of a wish alongside beloved Disney Characters.

The Dining Room at Victoria & Albert's: An epicurean odyssey awaits. Come experience the ultimate in fine dining—with just one seating each evening.

Chef's Table at Victoria & Albert's: Join our world-class culinary team in the kitchen as they personally prepare your one-of-a-kind feast—one mouthwatering course at a time.

Queen Victoria's Room at Victoria & Albert's: Savor a luxurious and intimate dining experience at the award-winning Victoria & Albert's.



© Disney

Schedule of Events

Friday, October 11, 2024

4:00 – **Registration**
Grand Floridian Ballroom Lobby

Saturday, October 12, 2024

6:30 AM **Registration, Breakfast, and Visit Exhibits**
Grand Floridian Ballroom Lobby and Salons 1-4

Chamber Quantifications- Follow the Guidelines

Moderators: *V. Sorrell, M. Umland*
Grand Floridian Ballroom
Salons 5-6

7:15 AM **Welcome and Logistics**
M. Umland

7:30 AM **President's Welcome**
T. Abraham

7:45 AM **Approaches to Assessing Left Ventricular Systolic Function**
V. Sorrell

8:05 AM **Strain Imaging: What, How, Why and When**
G. Aurigemma

8:25 AM **Computer Based Cases: How to Optimize Strain Imaging**
G. Aurigemma, M. Umland

9:00 AM **Optimizing Left Atrial Chamber Assessment in 2D and 3D**
L. Sugeng

9:20 AM **Diastolic Physiology and Assessment**
S. Nagueh

9:40 AM **Computer Based Cases: Assessing and Interpreting Diastolic Function**
S. Nagueh, M. Schweitzer

10:15 AM **Question and Answer**
All Session Presenters

10:30 AM **Break and Visit Exhibits**
Salons 1-4

Moderators: *R. Jain, L. Sugeng*

10:50 AM **Latest on Right Ventricular and Right Atrial Assessment**
R. Jain

11:10 AM **3D: Acquisition, Cropping, and Display**
L. Sugeng

11:30 AM **Case Studies: 3D How-To Acquisition, Crop, and Display**
L. Sugeng, E. Kruse

12:15 PM **Question and Answer**
All Session Presenters

12:30 PM **Lunch and Visit Exhibits**
Salons 1-4

1:00 – 2:00 PM **Science & Technology Theater Presentation**
Sponsored by Bracco
(This session is not included in the CME/MOC for this course.)
Grand Floridian Ballroom
Salons 5-6

2:00 PM **Break and Visit Exhibits**
Salons 1-4

2:30 PM **Artificial Intelligence: How Will It Effect the Echo Lab**
T. Abraham

2:50 PM **Read with the Experts Part I: Interactive Session**
Moderator: *M. Umland*
Presenters: *M. Schweitzer, M. Bond, L. Howard*
Panel: *V. Sorrell, R. Jain, L. Sugeng, G. Aurigemma*

3:40 PM **General Session Adjourn**

Workshops – Optional Small Group Sessions

4:00 PM **TEE Simulation: How to Get Those Hard-to-Get Views**
R. Jain, J. Kotter, M. Martinez, L. Sugeng, M. Saric
Salon 7

Cases from CASE
V. Sorrell
Salons 5-6

5:00 PM **Adjourn**

Schedule of Events

Sunday, October 13, 2024

6:30 AM	Breakfast and Visit Exhibits Salons 1-4
Valvular Heart Disease: Follow the Guidelines Moderators: <i>G. Aurigemma, V. Sorrell</i> Grand Floridian Ballroom Salons 5-6	
7:30 AM	Aortic Valve Stenosis: Area, Gradients, Flow? Core Concepts in Aortic Stenosis <i>J. Kotter</i>
7:50 AM	Multi-Modality Imaging in Aortic Stenosis <i>N. Quader</i>
8:10 AM	Aortic Regurgitation: What Should We Measure and Report? <i>G. Aurigemma</i>
8:30 AM	Interactive Cases: Aortic Stenosis and Regurgitation <i>J. Kotter, M. Bond, M. Schweitzer</i>
9:10 AM	The Tricuspid: How to Assess <i>L. Sugeng</i>
9:30 AM	Question and Answer <i>All Session Presenters</i>
9:45 AM	Break and Visit Exhibits Salons 1-4
Moderators: <i>M. Martinez, S. Nagueh</i>	
10:00 AM	Mitral Regurgitation: How to Get It Right <i>M. Martinez</i>
10:20 AM	DEBATE: Mitral Regurgitation PISA <i>Moderator: L. Sugeng</i> PRO: It's a Must <i>S. Nagueh</i> CON: Don't Need It <i>V. Sorrell</i> Rebuttal <i>S. Nagueh, V. Sorrell</i>
10:55 AM	Computer Based Cases: Mitral Valve <i>M. Martinez, M. Schweitzer</i>
11:30 AM	Question and Answer <i>All Session Presenters</i>
11:45 AM	Lunch and Visit Exhibits Salons 1-4

Moderators: *G. Aurigemma, N. Quader*

1:00 PM	Constrictive Pericarditis: How to Assess <i>S. Nagueh</i>
1:20 PM	Prosthetic Valves: What Do the New Guidelines Say? <i>N. Quader</i>
1:40 PM	Cardiomyopathies: Multi-Modality Imaging <i>M. Martinez</i>
2:00 PM	Valvular Heart Disease: The Important Contributions of CT and MRI <i>N. Quader</i>
2:20 PM	Break and Visit Exhibits Salons 1-4
2:40 PM	Intraoperative TEE: When Called to the OR <i>G. Aurigemma</i>
3:00 PM	Case Studies: 3D TEE: How We Do It In Our Lab <i>L. Sugeng, E. Kruse</i>
3:30 PM	Debate ICE Support <i>Moderator: M. Umland</i> PRO: Support from Echo Lab Personnel <i>R. Jain</i> CON: Against Support from Echo Lab <i>M. Saric</i> Rebuttal <i>R. Jain, M. Saric</i>
4:00 PM	General Session Adjourn

Workshops – Optional Small Group Sessions

4:15 PM	TEE Simulation: How to Get Those Hard-to-Get Views <i>J. Kotter, V. Sorrell, M. Martinez, L. Sugeng, M. Saric</i> Salon 7
	DIY 3D TTE: How to Acquire and Display Key Views <i>M. Schweitzer, L. Howard, M. Bond, E. Kruse</i> Salons 5-6
	ICE Simulators: How to Get the Echo Views <i>R. Jain</i> Salon 9
5:30 PM	Adjourn

Monday, October 14, 2024

6:30 AM **Breakfast and Visit Exhibits**
Salons 1-4

Echocardiographic Potpourri

Moderators: *J. Kotter, M. Saric*
Grand Floridian Ballroom
Salons 5-6

7:30 AM **Assist Devices: How to Assess and Interpret Pre- and Post-Procedure**

J. Kotter

7:55 AM **Ultrasound Enhancing Agents: How Can We Obtain the Best Images?**

E. Kruse

8:20 AM **CAD and Infarction Complications: Case Based**

V. Sorrell

8:50 AM **Diseases of the Aorta**

M. Martinez

9:20 AM **ACHD: What to Know**

M. Saric

9:45 AM **Question and Answer**

All Session Presenters

10:00 AM **Break and Visit Exhibits**

Salons 1-4

Moderators: *M. Martinez, V. Sorrell*

10:25 AM **Hypertrophic Cardiomyopathy and Treatment**
M. Martinez

10:50 AM **Amyloid Heart Disease and Hypertrophic Cardiomyopathy Mimickers: A Multimodality Approach**

V. Sorrell

11:10 AM **Chest Pain Guidelines: Role of Echo, Stress, and CT**
M. Saric

11:25 AM **Computer Based Cases: Cardiomyopathies**

M. Martinez, L. Howard

12:15 PM **Question and Answer**

All Session Presenters

12:30 PM **Lunch and Visit Exhibits**

Salons 1-4

Cases, Cases, and Cases

Moderators: *V. Sorrell, M. Umland*

Grand Floridian Ballroom

Salons 5-6

1:30 PM **Most Interesting Cases: Attendees Bring Your Cases to Share**

Panel to Review Case Submissions

1:55 PM **Read with the Experts Part II: Best Case Examples... Remember These!**

Moderator: M. Umland

Presenters: E. Kruse, M. Bond, L. Howard

Panel: V. Sorrell, R. Jain, M. Martines, G. Aurigemma

2:30 PM **Last Call for Questions**

All Faculty

3:00 PM **Adjourn**



Exhibit Information

Exhibits are located in the Grand Floridian Ballroom, Salons 1-4 during the dates and hours listed below:

Saturday, October 12..... 6:30 AM – 2:30 PM

Sunday, October 13 6:30 AM – 2:40 PM

Monday, October 14 6:30 AM – 1:30 PM

Exhibitor Descriptions



LIFE FROM INSIDE

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United States

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Irvine, CA 92614

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UVA Health is a world-class Magnet Recognized academic medical center and health system with a level 1 trauma center. 2023-2024 U.S. News & World Report "Best Hospitals" guide rates UVA Health University Medical Center "High Performing" in 5 adult specialties and 14 conditions/procedures.

Faculty Disclosures

The following faculty members do not have any relationships with industry/commercial supporters to disclose:

Theodore Abraham, MD, FASE
Gerry Aurigemma, MD, FASE
Melissa Bond, BHS, ACS, RDCS
Lauren Howard, RDCS, FASE
John Kotter, MD, FASE
Sherif Nagueh, MD, FASE
Nishath Quader, MD, FASE
McKenzie Schweitzer, BS, RDCS, FASE
Lissa Sugeng, MD, MPH, FASE

The following faculty members do have financial relationships with industry/commercial supporters to disclose:

Eric Kruse, BS, ACS, RDCS, RVT, FASE, Institution: University of Chicago Medical Center Disclosure Company: Lantheus (Consultant/Advisor)
Renuka Jain, MD, FACC, FASE, Institution: Aurora St. Luke's Medical Center Disclosure Company: Medtronic (Consultant/Advisor)
Matthew W. Martinez, MD (TBA)
Muhamed Saric, MD, PhD, FASE (Speaker/Speaker's Bureau)

The following members of the ASE CME Committee (not serving as faculty) do not have any relationships with industry/commercial supporters to disclose:

Mary Corretti, MD, FASE – Chair
Bruce Landeck, II, MD, FASE – Co-Chair
Kelly Boegel, ACS, RCCS, RCS, FASE – Member at Large
Michael Boisen, MD, FASE – Member at Large
Mahesh Chandrasekhar, MD – Rising Star Representative
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Loren Francis, MD, FASE – Perioperative Representative
Ihab Hamzeh, MD, FASE – Member at Large
Carlton Hartwell, ACS, RDCS, FASE – Member at Large
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Tracy Ralston, RDCS, FASE – Member at Large
Nidhish Tiwari, MD, FASE, FACC, FACP – Member at Large

All members of the ASE staff who were involved in the planning and implementation of this activity do not have any relationships with industry/commercial supporters to disclose:

Christina LaFuria - Vice President of Educational Activities
Kerry Wilson - Education Specialist
Danielle Urbina - Director of Meetings
Pam Riley - Meeting Specialist

Use & Effectiveness of CEUS for Echocardiography



Saturday, October 12th

1:00 pm – 2:00 pm

Grand Floridian Ballroom | Salons 5 and 6
Disney's Grand Floridian Resort & Spa



*CME/SDMS CME credit must be claimed separately through Northwest Imaging Forums. Attendance is open to ASE Echo Florida registrants.



Jess Stout BS, RDCS, ACS, FASE
Technical Director and Clinical Manager,
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Zara Babayan, MD, PhD, FACC
Cardiologist and Medical Director,
Noninvasive Cardiac Imaging Services
and Women's Heart Center,
St. Joseph's Hospital of Tampa
BayCare Medical Group Cardiology
Tampa, FL



Agenda

- 1:00-1:25 Building A Contrast Program the 'How & Why'**
-Jessica Stout BS, RDCS, ACS, FASE
- 1:25-1:50 Microbubbles in Clinical Practice**
-Zara Babayan, MD, PhD, FACC
- 1:50-2:00 Q&A**

Objectives

1. Be able to understand the best approach to optimize machine settings and scanning techniques to achieve diagnostic contrast enhanced images
2. Discuss indications for UEA use and evidence base for efficacy in practice
3. Understand the best practices for use of UEAs in echocardiography laboratories and the role of decision aides

Accreditation

Statement of Need / Program Description:

This session will discuss a practical overview of UEA imaging principles, understanding UEA quantification, and reviewing the developing technology with potential clinical applications tailored to individual patients. The purpose of this session is to provide Sonographers, Imaging Nurses, Administrators, Researchers, and Others with current clinical data to make informed decisions in their clinical settings.

Target Audience:

The content of this CME/SDMS CME symposium is intended for healthcare professionals including Cardiologists, Sonographers, Imaging Nurses, Administrators, Researchers, and Others.

Accreditation Credit Statements:

This CME activity has been planned and implemented in accordance with the Essential Areas and Policies of the Accreditation Council for Continuing Medical Education (ACCME) through the sponsorship of Northwest Imaging Forums. NWIF is accredited by the ACCME to provide CME for physicians. NWIF designates this educational activity for 1.0 AMA PRA Category 1 Credits™. Physicians should only claim credit commensurate with the extent of their participation in the activity for which they attended.

Nurses may claim credit for activities approved for AMA PRA Category 1 Credits™ in most states, for up to 50% of the nursing requirement for recertification. This course is designated for 1.0 AMA PRA Category 1 Credits™.

This SDMS CME activity has been planned and submitted for approval of 1.0 hour of SDMS CME Credit Category AE by the Society of Diagnostic Medical Sonographers (SDMS).

Faculty and Planner Disclosures:

As an accredited provider of continuing medical education, it is the policy of Northwest Imaging Forums, Inc. (NWIF) to ensure balance, independence, objectivity, and scientific rigor in all of its live activities. In accordance with this policy, faculty and planners must disclose any financial relationships with ineligible companies. Additionally, in the event a relevant financial relationship does exist, it is the policy of NWIF to ensure that the relevant financial relationship is mitigated in order to ensure the integrity of the CME/SDMS CME activity. The planner has nothing to disclose.

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