



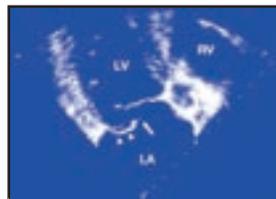
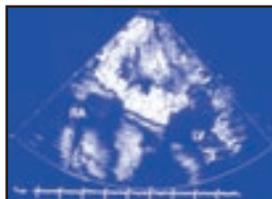
ASE American Society of
Echocardiography
Heart & Circulation Ultrasound Specialists

*6th Annual
Team Echocardiography®:
The Heart of Cardiovascular Medicine*



April 23-26, 2009

**The Westin Resort
Hilton Head Island, SC**



Directors:

Bijoy K. Khandheria, MD, FACC, FESC, FASE

Pamela R. Burgess, BS, RDCS, RDMS, RVT, FASE

Co-directors:

Dalane W. Kitzman, MD, FACC

Roger L. Click, MD, PhD, FACC

To register or for more information:

Phone: 336-716-4505

Fax: 336-716-2447

E-mail: cmu@wfubmc.edu



Co-sponsored by:
**American Society of Echocardiography and
Wake Forest University School of Medicine**



WAKE FOREST
UNIVERSITY
SCHOOL of MEDICINE

In collaboration with Mayo Clinic



MAYO CLINIC

General Information

OVERVIEW

This program is designed for sonographers, students of sonography, cardiology trainees, echocardiographers, and clinical cardiologists who interpret cardiovascular ultrasound. This program is co-sponsored by the American Society of Echocardiography and Wake Forest University School of Medicine in collaboration with the Mayo Clinic.

Topics include quantitative echocardiography, valvular and ischemic heart disease, stress echocardiography, advances in imaging in coronary disease, diastology, physiological disease management, and myopericardial diseases. There will be workshops on contrast for left ventricular opacification, 3-D echocardiography, CRT, basic and advanced measurements. For sonographers there will be workshop on scanning technique. At no additional charge, special workshops are available on focused topics of interest to the general as well as specialty participants.

Unique Features:

Faculty members are clinical sonographers and echocardiologists. Easy access to faculty members during the entire conference.

Workshops which encourage one-on-one interaction.

OBJECTIVES

Upon completion of this CME activity, attendees should be better able to:

- Demonstrate two-dimensional and Doppler methods to assess left ventricular systolic and diastolic function
- Define and project the performance of 3-D echocardiography
- Utilize the proper technique for the assessment of valvular heart disease
- Illustrate the appropriate use of echo Doppler in myocardial and pericardial disease
- Integrate the application of echocardiography in heart failure and treatment of heart failure
- Differentiate technique and pitfalls of contrast echocardiography
- Summarize proper techniques and clinical applications of stress echocardiography
- Apply Doppler principles and hemodynamics to the assessment of valvular heart disease and systematic assessment of prosthetic valves
- Recognize pitfalls associated with contrast, and avoiding them in daily practice

WHO SHOULD ATTEND

This course is designed for cardiologists, sonographers and students in sonography, and fellows in training. Participants should have practical knowledge of echocardiography.



General Information

CREDIT

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 educational activity for a maximum of 21.75 *AMA PRA Category 1 Credits*[™]. Physicians should only claim credit commensurate with the extent of their participation in the activity.

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

The American Society of Echocardiography adheres to ACCME Standards regarding industry support of continuing medical education. Disclosure of faculty and commercial support sponsor relationships, if any, will be made known at the symposium.

LODGING

The Westin Resort, Hilton Head Island is located on the Atlantic Ocean nestled amid lush landscaping along a pristine stretch of white-sand beach providing guests an elegant seaside setting. Enjoy breathtaking views from your private balcony, a vigorous workout at the full-service health club featuring The Westin Resort **WORKOUT**[®] Powered by Reebok Gym, or a soothing massage from one of their professionally trained therapists. The resort is a relaxing retreat yet still provides an abundance of outdoor recreational activity. Bicycle rides on white-sand beaches, three championship golf courses, and sixteen tennis courts featuring all three Grand Slam surfaces are available within the resort area. Kayaking, sailing, deep-sea fishing, and horseback riding are just a short trip away. Experience the famous Seafood Extravaganza buffet in the Carolina Café, or watch the moon rise over the Atlantic Ocean from Turtles Beach Bar & Grill.

LODGING - continued

To secure your room at The Westin Resort, please call 843-681-4000 and state that you will be attending the Echo program. The rooms are as follows:

Island View \$225.00 (single/double)
Ocean View \$241.00 (single/double)

In addition, state and local taxes as well as a nightly \$10.00 Resort Services Fee (includes shuttle service to resort golf, tennis and local shopping mall, local and 800 phone calls, access to resort fitness center, pool and recreation amenities, complimentary parking and access to Troon Golf Course and the Greenbrier Spa in Savannah).

In the event a guest who has reserved a guest room within the Group's guest room block checks out prior to the guest's reserved checkout date, an early departure fee of \$75.00 will be charged to that guest's individual account. Guests wishing to avoid this fee must advise hotel at or before check-in of any change in the scheduled length of stay. Check-in time is 4:00 p.m. Check-out time is 12:00 p.m.

The hotel room block is scheduled to be held until **Friday, March 20, 2009** but may be sold out before this date. Therefore, we advise you to reserve your lodging as soon as possible and register for the program. Please refer to the group code of ECHO for the discount.

For further information regarding the area and its attractions, please contact the Hilton Head Chamber of Commerce at 843-785-3673 or <http://www.hiltonheadisland.org>

We encourage participation by all individuals. If you have a disability, advance notification of any special needs will help us better serve you.

General Information

LOCAL ATTRACTIONS

- Palmetto Dunes
(2.0 mi/3.2 km)
- Fort Mitchell
(2.0 mi/3.2 km)
- Oyster Reef Golf Club
(3.0 mi/4.8 km)
- Pinckney Island Wild Refuge
(3.0 mi/4.8 km)
- Shelter Cove Mall
(4.0 mi/6.4 km)
- Country Club of Hilton Head
(4.0 mi/6.4 km)
- Harbour Town Golf Links/
Lighthouse/Yacht Basin
(7.0 mi/11.3 km)
- Waterfun Park and Mini-Golf
(9.0 mi/14.5 km)
- Daufuskie Island
(9.0 mi/14.5 km)
- Rose Hill Country Club
(9.0 mi/14.5 km)
- Hilton Head Factory Outlet Stores
(14.0 mi/22.5 km)
- Historic Beaufort Waterfront
(40.0 mi/64.4 km)
- Savannah Historic District
(40.0 mi/64.4 km)

SPECIAL AIRFARE

Special airfare discounts are available by contacting:

Northwest/KLM
800-328-1111
(7:00 a.m. – 7:30 p.m. Central Time)
World File Number NM2W7

AIRPORTS

Hilton Head Island Airport is located approximately ten minutes from The Westin Resort and is serviced by USAirways Express and Delta Connection.

Savannah/Hilton Head International Airport is located approximately 45 minutes from Hilton Head Island.

TRANSPORTATION

Taxi or rental car is the recommended mode of transportation.



FEE

Early registration saves \$100 in each status category. See the application for details. Receipt of your registration fee will be confirmed by mail. Registration fee includes continental breakfasts, refreshment breaks, lunches, and the syllabus. The deadline to register in advance is **Friday, March 20, 2009**. After this date, you will be charged the late registration fee posted accordingly on the registration form.

CANCELLATIONS

Because of advance planning requirements, a full refund will be given if you cancel in writing before **Friday, March 20, 2009**. A full refund minus a \$100 processing fee will be given for written cancellations received after **Friday, March 20, 2009**. No refund will be given for no-shows.

In the unlikely event that the program is canceled, course registration fees will be refunded, less a \$100 processing fee; however, the Wake Forest University School of Medicine, Mayo Clinic, or American Society of Echocardiography are not responsible for any travel or hotel costs you may incur.

PLEASE NOTE

Smoking is prohibited in all conference rooms.

EDUCATIONAL GRANTS

This activity is supported in part by unrestricted educational grants from various commercial firms. At the time of printing, a complete list of supporters was not available. Appropriate acknowledgement of support will be provided at the time of the activity.

Faculty

DIRECTORS

Bijoy K. Khandheria, M.D., FESC, FACC, FASE

Past President, American Society of Echocardiography; Professor of Medicine, Mayo Clinic; Consultant, Division of Cardiovascular Diseases and Internal Medicine, Mayo Clinic; Chair, Division of Cardiovascular Diseases, Mayo Clinic, Scottsdale, AZ

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Clinical Manager, Cardiac Ultrasound and Stress Testing Lab, Wake Forest University/NC Baptist Hospital, Winston-Salem, NC

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Roger L. Click, M.D., Ph.D., FACC

Associate Professor of Medicine, Mayo Clinic; Consultant, Division of Cardiovascular Diseases and Internal Medicine, Mayo Clinic, Rochester, MN

GUEST FACULTY

Joseph L. Blackshear, M.D., FACC

Professor of Medicine, Mayo Clinic; Co-Director, Echocardiography Laboratory, and Consultant, Division of Cardiovascular Diseases and Internal Medicine, Mayo Clinic, Jacksonville, FL

Ronald J. Buono, RDCS, RDMS, RVT

Supervisor, Clinical and Research Sonographer, Cardiovascular Ultrasound Imaging and Hemodynamic Laboratory, Mayo Clinic, Scottsdale, AZ

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Clinical Sonographer, Cardiovascular Ultrasound Imaging and Hemodynamic Laboratory, Mayo Clinic, Scottsdale, AZ

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Natesa G. Pandian, M.D., FACC

Professor of Medicine, Tufts University School of Medicine; Director, New England Heart Valve Center; Co-Director, Center for Cardiovascular Imaging; Director, Cardiovascular Ultrasound Research, Tufts Medical Center, Boston, MA

Vinay Thohan, M.D.

Associate Professor of Cardiology/Medicine, Medical Director of Heart Failure and Cardiac Transplantation, Wake Forest University/NC Baptist Hospital, Winston-Salem, NC

Matt M. Umland, RDCS, FASE

Advanced Clinical and Research Sonographer, Cardiovascular Ultrasound Imaging and Hemodynamic Laboratory, Mayo Clinic, Scottsdale, AZ



Program Schedule

Team Echocardiography®: The Heart of Cardiovascular Medicine

All sessions will be held at the The Westin Resort, Two Grasslawn Avenue, Hilton Head Island, SC 29928. Meeting site telephone: 843-681-4000; Guest Fax: 843-681-1096.

Views expressed in this program are those of the individual speaker and do not necessarily reflect views of American Society of Echocardiography, Wake Forest University School of Medicine or Mayo Clinic.

THURSDAY, APRIL 23, 2009

6:30 a.m. Registration and Continental Breakfast

For Registry Examination

Those wishing to take the registry or certification examination will find this session very useful. There will be didactic as well as question and answer to prepare for the examination.

7:00 a.m. Principles of Echocardiography
Frederick W. Kremkau, Ph.D.

7:45 a.m. Echo Artifacts
Frederick W. Kremkau, Ph.D.

8:00 a.m. Doppler Principles
Frederick W. Kremkau, Ph.D.

8:45 a.m. Self-Assessment Exam
Frederick W. Kremkau, Ph.D.

9:30 a.m. Refreshment Break and Visit Exhibits

FOR SONOGRAPHERS, SONOGRAPHERS IN TRAINING BASIC 2-D ECHOCARDIOGRAPHY AND HEMODYNAMIC WORKSHOP

Ms. Pamela R. Burgess, presiding

10:00 a.m. Basic 2-D Echocardiography Measurements for a Standard Report:
Wall Thickness, LV Volume, Ejection Fraction, Right Ventricle. How
to Measure, What to Measure
Matt M. Umland, RDCS

10:30 a.m. Doppler Hemodynamics
Cardiac Output, Cardiac Index, Mean Versus Maximum Gradient,
Pulmonary Artery Pressure, RIMP, LIMP
Ronald J. Buono, RDCS, RDMS, RVT

11:00 a.m. Regurgitant Lesions
Step-by-Step Approach to ERO, Vena Contracta, Regurgitant
Volume – Guidelines on Quantification of Valvular Regurgitation
From ASE. What Does ICAEL Want?
Pamela R. Burgess, BS, RDCS, RDMS, RVT

11:30 a.m. Stenotic Lesions
Step-by-Step Approach to Quantification of Aortic Stenosis, Mitral
Stenosis. What Are the Pitfalls?
Christopher J. Kramer, RDCS

12:00 p.m. Lunch (Ocean Front Deck)

Program Schedule

- 1:00 p.m. Advanced Cardiac Imaging
Principles of Strain, Strain Rate, Speckle Tracking, VVI
Bijoy K. Khandheria, M.D.
- 1:30 p.m. Evaluation of LV Filling Pressure, Diastolic Function
Ronald J. Buono, RDCS, RDMS, RVT
- 2:00 p.m. Cases to Illustrate Diastolic Function, Strain, Strain Rate, Speckle, VVI
Ms. Susan Hamrick and Mr. Ronald J. Buono
- 2:30 p.m. Adjourn

FRIDAY, APRIL 24, 2009

7:30 a.m. Continental Breakfast and Visit Exhibits

8:20 a.m. **WELCOME**
Course Description
Dr. Click and Ms. Burgess

CONTRAST ECHOCARDIOGRAPHY: 2009

Dr. Joseph L. Blackshear, presiding

8:30 a.m. Clinical Applications of Contrast. ASE Consensus Statement Key Points
Pamela R. Burgess, BS, RDCS, RDMS, RVT

8:55 a.m. Left Ventricular Pacifications: How It Helps. How to Overcome
Black Box.
Bijoy K. Khandheria, M.D.

9:20 a.m. Case Studies in Contrast Enhanced Imaging
Joseph L. Blackshear, M.D.

9:45 a.m. Panel Discussion
Ms. Burgess and Dr. Khandheria; Dr. Blackshear, moderator

10:00 a.m. Refreshment Break – Visit Exhibits

ISCHEMIC HEART DISEASE

Dr. Bijoy K. Khandheria, presiding

10:30 a.m. Complications of MI and Implications in Clinical Practice
Natesa G. Pandian, M.D.

10:55 a.m. Stress Echocardiography – Principles, Technique, Accuracy.
Role of Contrast. Role of Strain. 3-D Imaging.
Joseph L. Blackshear, M.D.

11:20 a.m. Illustrative Cases in Stress and Dobutamine Echocardiography
Where It Went Wrong, Use in Valvular Heart Disease, Hypertensive
Response
Ms. Susan Hamrick, Mr. Matt M. Umland, and Dr. Joseph L. Blackshear

12:00 p.m. Lunch (Ocean Front Deck)

Program Schedule

APPROPRIATE USE OF ECHOCARDIOGRAPHY IN HEART FAILURE.

CRT 2009

Dr. Vinay Thohan, presiding

- 1:00 p.m. Echocardiography in the Patient With Heart Failure. When Is It Appropriate to Perform the Examination? How Often Should It Be Performed? Is Limited Echo Appropriate?
Vinay Thohan, M.D.
- 1:25 p.m. Evaluating the Patient for Dyssynchrony: A Protocol for Dyssynchrony
Pamela R. Burgess, BS, RDCS, RDMS, RVT
- 1:45 p.m. Case Studies in CRT. CRT: What Went Wrong. What Went Right
Christopher J. Kramer, RDCS
- 2:15 p.m. Echo Evaluation of VAD, Artificial Hearts
Vinay Thohan, M.D.
- 2:35 p.m. Panel Discussion
Ms. Burgess and Mr. Kramer, Dr. Thohan, moderator
- 3:00 p.m. Adjourn

SATURDAY, APRIL 25, 2009

7:30 a.m. Continental Breakfast and Visit Exhibits

VALVULAR HEART DISEASE: INFORMATION TO KNOW, USE OF GUIDELINES

AORTIC VALVE

Aortic Stenosis

Dr. Vinay Thohan, presiding

- 8:00 a.m. Aortic Stenosis: Evaluation of Aortic Stenosis by 3-D Echo/Doppler. A Standard Structured Report Must Contain... What Constitutes Appropriate and Inappropriate Use of Echo in AS?
Bijoy K. Khandheria, M.D.
- 8:20 a.m. Clinical Challenges That Can Be Resolved With Cardiovascular Ultrasound. Case Based Learning
1. What Do I Do About the Patient With Low Gradient/Low Output? Aortic Stenosis? What About the Patient With Mild/Moderate Aortic Stenosis Who Is Going to Undergo CABG? ACC/AHA Guidelines Say...
Joseph L. Blackshear, M.D.
 2. Asymptomatic Moderate/Severe Aortic Stenosis: Necessary Echo/Doppler Evidence to Support Valve Operation in Asymptomatic Patients. ACC/AHA Guidelines Say...
Bijoy K. Khandheria, M.D.

Program Schedule

- 8:40 a.m. Rapid Fire Cases
Bicuspid Aortic Valve – *Dr. Bijoy K. Khandheria*
Unicuspid Aortic Valve – *Mr. Matt M. Umland*
Quadricuspid Aortic Valve – *Dr. Roger L. Click*
Aortic Dissection and Aortic Regurgitation – *Dr. Bijoy K. Khandheria*
What Is the Cause of AR in This Patient? – *Dr. Roger L. Click*

Mitral Valve

- 9:15 a.m. Asymptomatic Severe Mitral Regurgitation – To Operate or Not to Operate. What Do the Guidelines From ACC/AHA/ESC Say?
Bijoy K. Khandheria, M.D.
- 9:35 a.m. Pathoanatomy of the Mitral Valve. Intraoperative Echo in Mitral Valve Disease. The Need To Go Back on the Pump Is? Oops, Found Something New
Roger L. Click, M.D., Ph.D.
- 9:55 a.m. Cases, Cases and Cases
Quantification of AR: That's the Way To Do It – *Ms. Pamela R. Burgess*
Quantification of MR: This Is How ASE Recommends –
Mr. Matt M. Umland
How Severe Is the Stenosis of this Mitral Valve – *Mr. Ronald J. Buono*
How to Evaluate PA Pressure – *Ms. Susan Hamrick*

- 10:30 a.m. Refreshment Break and Visit Exhibits

VALVE DISEASE, RIGHT VENTRICLE

Dr. Roger L. Click, presiding

- 11:00 a.m. Evaluating the Patient With Prosthetic Valve
Bijoy K. Khandheria, M.D.
- 11:20 a.m. Tricuspid Valve: What Can Go Wrong? Pathognomonic Echo Features
Roger L. Click, M.D., Ph.D.
- 11:40 a.m. How Do I Evaluate Right Ventricle
Natesa G. Pandian, M.D.
- 12:00 p.m. Illustrative Cases of Prosthetic Valve Abnormalities, Tricuspid Valve Abnormalities. Prosthetic Valve Stenosis
Drs. Khandheria and Pandian; Dr. Click, moderator
- 12:30 p.m. Lunch (Ocean Front Deck)

MYOCARDIUM, PERICARDIUM, STATE OF 3-D ECHOCARDIOGRAPHY

Dr. Bijoy K. Khandheria, presiding

- 1:30 p.m. Myocardial Function and Architecture: New Concepts
Bijoy K. Khandheria, M.D.
- 1:50 p.m. Diastolic Heart Failure: Fact or Fiction
Dalane W. Kitzman, M.D.
- 2:10 p.m. Practical Approach to Evaluation of Diastolic Function
Bijoy K. Khandheria, M.D.

Program Schedule

- 2:30 p.m. Constrictive Pericarditis: Evaluation and Management in 2009
Bijoy K. Khandheria, M.D.
- 2:50 p.m. Illustrative Cases of Pericardial Disease, Myocardial Disease
Drs. Thohan and Kitzman and Ms. Knoll and Mr. Umland
- 3:30 p.m. Refreshment Break – Visit Exhibits
- 4:00 p.m. 3-D Echocardiography: State-of-the-Art 2009
Natesa G. Pandian, M.D.
- 4:20 p.m. Illustrative Cases to Highlight the Value of 3-D Echo
Ms. Pamela R. Burgess and Dr. Natesa G. Pandian
- 5:00 p.m. Panel Discussion
Drs. Kitzman, Thohan, and Pandian; Dr. Khandheria, moderator
- 5:15 p.m. Adjourn

SUNDAY, APRIL 26, 2009

- 7:30 a.m. Continental Breakfast
and Visit Exhibits

SUNRISE SPECIAL

- 8:00 a.m. Scanning Workshops
Adult Transthoracic:
Uncommon Views
*Ms. Pamela R. Burgess,
Ms. Susan Hamrick, and
Mr. Matt M. Umland*

Location:
Main Ballroom

Carotid IMT
Mr. Ronald J. Buono
Location: Elliot

- 9:30 a.m. Are You Ready? How to
Ace ICAEL Certification
*Ms. Pamela R. Burgess
and Ms. Susan Hamrick*

- 11:30 a.m. Closing Remarks and
Course Evaluation
*Pamela R. Burgess, RDCS,
RDMS, RVT*



Team Echocardiography®:
The Heart of Cardiovascular Medicine

Mail Form and Payment To:
Center for Medical Ultrasound
Wake Forest University Health Sciences
Medical Center Blvd.
Winston-Salem, NC 27157-1039

Phone or Fax Application to:
Telephone: 336-716-4505
Fax: 336-716-2447
E-mail: cmu@wfubmc.edu

Online registration at: www.wfubmc.edu/ultrasound

(Please print or type all information. You may duplicate this form for multiple registrations.)

Name _____

First Name

Middle Name or Initial

Last Name

Degree [] MD [] DO [] PhD [] RN [] RCS [] RDCS [] Other _____

Institution _____

Medical Specialty _____

E-mail Address _____

Which is your preferred mailing address: [] Work/Business [] Home

Street Address _____

City _____ State/PV _____ ZIP/Postal Code _____ Country _____

Telephone (_____) _____ FAX(_____) _____

[] If you need disability accommodations, please check here and advise us of your needs.

Special Meal Request: _____

Payment Received:

Early Tuition received on or before March 20, 2009 Tuition received after March 20, 2009

- [] ASE Physician Member (Membership # _____) [] \$550 [] \$650
[] Non-Member Physician [] \$625 [] \$725
[] ASE Sonographer Member* (Membership # _____) [] \$425 [] \$525
[] Reduced Fee for Non-Member* [] \$450 [] \$550
[] Fellow in Training [] Resident [] Nurse
[] Physician Assistant [] Sonographer [] Emeritus Staff

*Registrants in the reduced fees category are required to submit with the registration form proof of licensure, a business card, or a letter written on official letterhead and signed by a department supervisor verifying status. Reduced fee includes: Fellow/Resident in Training, Physician Assistant, Nurse, Sonographer, or Emeritus Staff.

[] One Day Fee (check the one day you plan on attending) - \$250 (no refund given)
[] Thursday [] Friday [] Saturday [] Sunday

P A Y M E N T

Payment must accompany application.

- [] Check (payable to Wake Forest University Health Sciences-Ultrasound in U.S. dollars drawn on a U.S. bank)
[] Credit Card: [] Visa [] MasterCard

Cardholder's Name _____

Card Number _____ V-Code (3 digits on back of credit card) _____ Expiration Date _____

Office Use Only:

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