



Advances in Vascular Imaging and Diagnosis



Friday and Saturday, November 20-21, 2015

26th Symposium & Workshops

on Management
and Clinical Issues

Symposium Chairs:

George L. Berdejo, BA, RVT, FSVU

Natalie A. Marks, MD, RVT, RPVI

Symposium Co-Chairs:

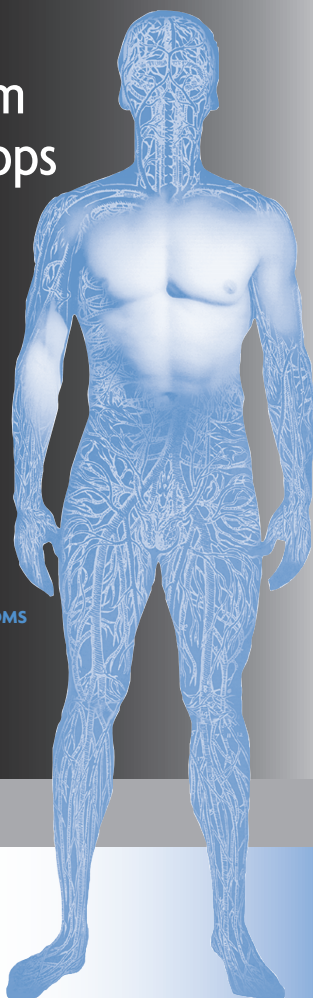
Nicos Labropoulos, BSc (Med), PhD, DIC, RVT

Laurence Needleman, MD

Frank J. Veith, MD

Honorary Chair:

Anne M. Jones, RN, BSN, RVT, RDMS, FSVU, FSDMS



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www.AVIDsymposium.org

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Advances in Vascular Imaging and Diagnosis

26TH SYMPOSIUM AND WORKSHOPS ON MANAGEMENT AND CLINICAL ISSUES

FRIDAY AND SATURDAY
NOVEMBER 20 – 21, 2015

SYMPOSIUM CHAIRS

George L. Berdejo, BA, RVT, FSVU
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Laurence Needleman, MD
Frank J. Veith, MD

HONORARY CHAIR

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CENTER FOR CONTINUING MEDICAL EDUCATION

Steven M. Kawczak, PhD

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GENERAL INFORMATION

NEEDS ASSESSMENT

Peripheral Vascular Disease (PVD) in the U.S. affects approximately 8 million to 12 million patients a year; some experts in the field believe this may be underestimated. The disease is associated with significant cardiovascular morbidity and mortality, with a high rate of fatal and non-fatal cardiovascular events such as myocardial infarction, stroke, renal failure, limb amputations, abdominal aortic aneurysms, pulmonary embolus and progressive ischemic end-organ dysfunction.

Since atherosclerosis is the most common cause of PVD, patients with PVD have a rate of cardiovascular mortality that is 3 to 4 times higher than age-matched controls. The cardiac mortality in symptomatic PVD is estimated to be 50% at 10 years. The reduction in quality of life from global vasculopathy in many patients can thus be significant.

Prompt and accurate diagnosis of these disease processes is of utmost importance. The AVIDsymposium is designed to address this need by providing the vascular community with continuing medical education in this area. The latest pharmacologic, radiologic, surgical and endovascular techniques and technologies will be presented, along with discussions of when these treatments are justified and indicated and when they are not. Updates on clinical trials and opportunities for dialogue with experts in the field provide insight along with the latest data on the results of the various diagnostic and treatment modalities.

EDUCATIONAL OBJECTIVES

Advances in Vascular Imaging and Diagnosis 26th Symposium and Workshops on Management and Clinical Issues is an intensive two-day course designed to provide a comprehensive update on the diagnosis of vascular disease using real time B-mode imaging, color and spectral Doppler and other noninvasive techniques. The course will also address important issues in the area of Vascular Laboratory management, vascular ultrasound education, reimbursement and laboratory accreditation. An internationally renowned faculty has been assembled to provide the latest in their respective areas of expertise. This will be accomplished via didactic lectures and will be enhanced by ample time for faculty panel discussions designed to provide interaction with the audience. In addition, live scanning demonstrations and hands-on workshops will be supervised by known experts in their fields and will utilize leading edge equipment.

Following this continuing medical education activity, the participants will:

- Describe recent developments in vascular ultrasound technology
- Incorporate the Vascular Laboratory into the management of patients with vascular disease
- Identify and compare noninvasive tests that are available to aid in the diagnosis of vascular disease
- Identify current therapy and their roles for the effective management of peripheral arterial/venous disease; and carotid artery disease
- Utilize duplex ultrasound prior to, during and after endovascular procedures
- Apply issues regarding Vascular Laboratory management, reimbursement and accreditation to their practice.

TARGET AUDIENCE

This course is intended for:

- Vascular Technologists
- Sonographers
- Vascular Surgeons
- Radiologists
- Neurologists
- Vascular Nurses
- Vascular Interventionalists
- Medical and Ultrasound Students
- and other physicians and allied health professionals with an interest in the diagnosis and treatment of vascular disease.

GENERAL INFORMATION

ACCREDITATION STATEMENT

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 this live activity for a maximum of 25 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.

FOR ARDMS AND CCI CREDENTIALLED VASCULAR TECHNOLOGISTS AND SONOGRAPHERS

For Vascular Technologists and Sonographers, Continuing Medical Education credit hours are available on an hour-for-hour basis and may be used to fulfill the continuing medical education requirements necessary to retain certification with the American Registry for Diagnostic Medical Sonography (ARDMS) ¹ and Cardiovascular Credentialing International (CCI) ² or for accreditation with the International Accreditation Commission (IAC).

1. http://www.ardms.org/registant_resources/cme_general_information/cme_general_information
2. <http://www.cci-online.org/content/ceu-providers>

PRE-SYMPOSIUM ULTRASOUND STUDENTS ONLY

Pre-Symposium Ultrasound Students Course will be held on Thursday, November 19, 2015. Students must be registered for the AVIDsymposium (Friday and Saturday) to be eligible to attend this course. Please refer to the AVIDsymposium web site (www.AVIDsymposium.org) for further details regarding this course.

CME CERTIFICATES AND COURSE EVALUATION FORMS

Your CME certificate will be available online at www.AVIDsymposium.org. An e-mail will be sent to all registered attendees immediately following the meeting with a unique password and instructions on how to obtain the certificate and complete a brief, optional course evaluation. ***CME Certificates must be claimed by February 29, 2016.*** Please note that the e-mail will be sent to the e-mail address that was used to register the attendee.

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.

ADA STATEMENT

The Cleveland Clinic Foundation Center for Continuing Education complies with the legal requirements of the Americans with Disability Act. If any participant of the AVIDsymposium requires special assistance, please send written request at least one month prior to the activity to admin@AVIDsymposium.org, or by fax to (845) 368-2324.

ONLINE ACCESS TO ABSTRACTS

Presentation slides will be used as abstracts and will be available on the program page of the AVIDsymposium web site at www.AVIDsymposium.org after the

HOTEL AND TRAVEL

A block of rooms has been reserved at the conference rate of \$399 plus taxes per night. This rate is available until the block is filled or until October 11, 2015. *Please request the VEITH rate when reserving your accommodations.*

New York Hilton-Midtown (Symposium Site)

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New York, NY 10019
(212) 586-7000 or
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THURSDAY, NOVEMBER 19, 2015

PRE-SYMPOSIUM ULTRASOUND STUDENTS COURSE

LOCATION: AMERICAS HALL 2, 3RD FLOOR

This pre-course for students only will be held on Thursday, November 19th from 8:00 a.m. to 4:30 p.m., and is limited to the first 40 registrants. The \$195 registration fee also covers attendance at AVIDsymposium on Friday and Saturday. To register, please visit the AVIDsymposium web site (www.AVIDsymposium.org).

Moderators: *Fernando Amador, RVT*

Joshua Cruz, BS, RVT

Richard Dubin, AAS-DMS, RVT, RDMS

8:00 – 8:05

Welcome And Introduction

SESSION 1

BASIC TECHNICAL PROTOCOLS FOR THE PRIMARY AREAS OF TESTING

Fernando Amador, RVT

Joshua Cruz, BS, RVT

Richard Dubin, AAS-DMS, RVT, RDMS

8:05 – 8:35

Physiologic Testing: Theory And Application

William N. Del Valle, RVT

8:35 – 9:05

Lower Extremity Venous Imaging For Deep Vein Thrombosis And Chronic Venous Insufficiency: Protocols, Pitfalls And Pearls

Nicos Labropoulos, BSc (Med), PhD, DIC, RVT

9:05 – 9:35

Basic Cerebrovascular Testing: Protocols, Pitfalls And Pearls

Richard Dubin, AAS-DMS, RVT, RDMS

9:35 – 9:50

Break

9:50 – 10:20

Upper Extremity Venous Imaging: Protocols, Pitfalls And Pearls

Joshua Cruz, BS, RVT

10:20 – 10:50

Rational Use Of Duplex Ultrasound For Evaluation Of The Patient With Suspected Arterial Occlusive Disease

George L. Berdejo, BA, RVT

10:50 – 11:20

Hemodialysis Access: Preoperative Mapping And Postoperative Surveillance

Susan M. Gustavson, RVT

11:20 – 11:40

Questions And Answers

11:40 – 1:00

Lunch On Your Own

SESSION 2

A REVIEW OF HEMODYNAMIC PRINCIPLES

This half-day lecture is a dynamic review and application of the laws of hemodynamics. In the first part of the lecture, we develop the hemodynamic equations in an interactive and intuitive manner. In the second part of the lecture, we learn how to apply these equations and how they predict the compensatory mechanisms of the body to stress. Specifically, we will review how the body can compensate for the stress of both exercise and disease.

Moderator: *Frank Miele, MSEE*

1:00 – 2:25

Hemodynamic Equations

2:25 – 2:45

Break

2:45 – 4:10

Practical Applications To Diagnostic Testing

4:10 – 4:30

Questions And Answers

FRIDAY, NOVEMBER 20, 2015

MAIN MEETING

7:45 – 7:55

Welcome And Opening Remarks

Navigating The Meeting; Getting The Most And What To Expect

George L. Berdejo, BA, RVT

Natalie A. Marks, MD, RVT, RPVI

SESSION 3

PRACTICAL PRINCIPLES, SOUND STRATEGIES, AND FLOW FUNDAMENTALS IN VASCULAR ULTRASOUND

Moderator: *George L. Berdejo, BA, RVT*

7:55 – 8:06

A Good Physical Examination Is Half The Battle: Physical Examination Of The Vasculopath With Relevance To Diagnostic Testing

Phillip J. Bendick, PhD, RVT

8:07 – 8:18

Recognizing And Compensating For Common Ultrasound And Doppler Artifacts: Case Study Presentations

Frederick Kremkau, PhD

8:19 – 8:30

A Discussion Of Doppler Waveform Descriptors: Nomenclature And Rationale

David M. Williams, MS, RDCS, RVT

8:31 – 8:42

The Effect Of Temperature And Vasodilatation On Arterial Blood Flow Waveform Analysis: Pulsatility And Large Arteries vs. Diastolic Flow And Capillary Network

Sergio X. Salles-Cunha, PhD, RVT

8:43 – 8:54

Impact Of Cardiac Dysfunction On The Vascular Ultrasound Examination – Common And Uncommon Occurrences In Common And Uncommon Findings

Carol Miranda, RVT, RDMS, RDCS

8:55 – 9:06

The Triad Of “Hemodynamically” Significant Stenosis: The Proof Is In The “Putting” It All Together

Laurence Needleman, MD

9:06 – 9:15

Panel Discussion

9:15 – 9:40

Break – Visit Exhibits (South Corridor, 2nd Floor)

SESSION 4

BEYOND THE CORE CONCEPTS IN VASCULAR TESTING: ARE YOU MEETING THE STANDARD: HOW TO DO IT CORRECTLY

This session will venture into advanced imaging related to the “big 3” areas of vascular testing as it relates to post-intervention follow-up and patient evaluation and will describe appropriate use, standard protocols, standard and non-standard image acquisition and other components that define the “complete” vascular examination.

Moderator: *Natalie A. Marks, MD, RVT, RPVI*

9:40 – 9:52

Physiologic Testing After Revascularization Procedures: Why And How; Controversies And Contraindications

Ann Marie Kupinski, PhD, RVT

9:53 – 10:05

Lower Extremity Imaging After Venous Procedures (Vein Excision, Thermal Venous Ablation, Saphenous Vein Harvesting): What To Expect And How To Report Your Findings

William B. Schroedter, BS, RVT, RPhS

10:06 – 10:18 Carotid Artery Imaging After Stenting And/Or Endarterectomy: Not Just The Usual Protocol
Phillip J. Bendick, PhD, RVT

SESSION 5

HANDS-ON REAL TIME IMAGING WITH THE EXPERTS – CAROTID AND LOWER EXTREMITY VEIN IMAGING

This will be a live scanning session designed to allow the audience opportunity to pose questions and interact with the speaker while the patient is being scanned.

Moderators: *George L. Berdejo, BA, RVT*
Joshua Cruz, BS, RVT

10:18 – 10:30 Lower Extremity Vein Imaging
William B. Schroedter, BS, RVT, RPhS

10:31 – 10:43 Intervention Carotid Artery Imaging
Natalie A. Marks, MD, RVT, RPVI

10:43 – 10:55 Panel Discussion (Combined Sessions 4 and 5)

SESSION 6

CEREBROVASCULAR I: CONSENSUS OR CONTINUED CHAOS AND CONTROVERSY IN CAROTID CRITERIA

Moderators: *Ann Marie Kupinski, PhD, RVT*
Laurence Needleman, MD

10:55 – 11:05 Update On The Ongoing Carotid Criteria Project: I'm All For It
Heather L. Gornik, MD

COMMENTARIES

11:05 – 11:10 I Agree But I'm Not So Sure It's Worth The Effort Or We Will Get The Buy-In That Is Needed
Joseph P. Hughes, RVT, RVS

11:10 – 11:15 Errors In Carotid Stenosis Quantification: Estimation Of Stenosis Based On Doppler Derived Velocity Is Not The Correct Measurement In The Majority Of Cases: We Need More Emphasis On Imaging Measurements
Sergio X. Salles-Cunha, PhD, RVT

11:15 – 11:20 Will Technologist, Technique And Equipment Challenges Pose A Problem?
Ann Marie Kupinski, PhD, RVT

11:20 – 11:25 Will Interpretive Challenges Pose A Problem?
Michael J. Singh, MD

11:25 – 11:30 What About Criteria For The CCA, ECA And Vertebrales...Or Does It Matter?
Laurence Needleman, MD

11:30 – 11:50 Panel Discussion

11:50 – 12:10 Lunch - Visit Exhibits (Pick up Lunch in the Exhibit Area, South Corridor, 2nd Floor)

SESSION 7

LUNCHEON LECTURE: PRINCIPLES TUNE-UP: HOW SHARP ARE YOU - PART I

Moderator: *Joshua Cruz, BS, RVT*

12:10 – 1:00 Principles Tune-Up – How Sharp Are You?
Frederick Kremkau, PhD

1:00 – 1:05 Transition to Workshops (Americas Hall 2, 3rd Floor)

SESSION 8 (Americas Hall 2, 3rd Floor)

WORKSHOP ROTATION I

1:05 – 2:00

ROOM 1	1. Interpreting With The Masters: Clinical Conundrums In Carotid Imaging: A Case Study Review <i>Laurence Needleman, MD</i> <i>Richard C. Pennell, MD</i> <i>Heather L. Gornik, MD</i>
ROOM 2	2. Interpreting With The Masters: Adventures In Unusual Abdominal And Upper Extremity Vein Cases <i>Leslie M. Scoutt, MD</i> <i>Bhagwan Satiani, MD, MBA</i>
ROOM 3	3. Interpreting With The Masters: Lower Extremity Arterial And Venous Cases <i>Natalie A. Marks, MD, RVT, RPVI</i> <i>Nicos Labropoulos, BSc (Med), PhD, DIC, RVT</i>
ROOM 4	4. More On Cardiac Effects On Peripheral Imaging: Cardiac Influence On Peripheral Vascular Arterial, Venous And Carotid Studies – A Case Study Analysis <i>Carol Miranda, RVT, RDMS, RDCS</i> <i>David M. Williams, MS, RDCS, RVT</i>
ROOM 5	5. Billing And Coding (This workshop will consist of case studies of common and not so common reimbursement/proper coding/denial issues in the vascular lab. Feel free to submit cases/questions before the meeting to admin@AVIDsymposium.org .) <i>Joseph P. Hughes, RVT, RVS</i> <i>William B. Schroedter, BS, RVT, RPhS</i>
ROOM 6	6. Test Taking Strategies <i>Frank Miele, MSEE</i>
ROOM 7	7. IAC Vascular Testing: New QI Requirements <i>Sandra L. Katanick, RN, RVT, CAE</i>
2:00 – 2:10	Transition to Plenary Sessions (Murray Hill Suites East and West, 2nd Floor)

SESSION 9

VASCULAR ULTRASOUND: CURVEBALLS AND CONTROVERSIES

Moderators: *Anne M. Jones, RN, BSN, RVT, RDMS*
Richard C. Pennell, MD

2:10 – 2:20	TCD And Sick Cell Anemia: Comparison Between Duplex Doppler And Classical Non-Imaging Doppler Used In Most Significant Research: Can We Use The Same Criteria? <i>Sergio X. Salles-Cunha, PhD, RVT</i>
2:20 – 2:30	Venous And Arterial Manifestations And Complications Of Thoracic Outlet Syndrome <i>Gregory L. Moneta, MD</i>
2:30 – 2:40	Should Point Of Care Ultrasound (POCUS) Be Incorporated In The Vascular Lab Practice? <i>Nicos Labropoulos, BSc (Med), PhD, DIC, RVT</i>
2:40 – 2:50	It's Not Always Cardiac... How Do you Know: Hemodynamic Changes Seen In Innominate, Proximal Common Carotid And Subclavian Artery Stenosis <i>Cindy A. Owen, RVT, RDMS</i>

SESSION 10

SCREENING FOR VASCULAR DISEASE PROCESSES

Moderators: *Anne M. Jones, RN, BSN, RVT, RDMS*
Richard C. Pennell, MD

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| 2:51 – 3:01 | What About Vascular Screening Programs In The Era Of ACOs?
<i>John (Jeb) W. Hallett, MD</i> |
| 3:02 – 3:12 | ABI And Cardiovascular Screening: Thresholds For Positive Findings, Highest Or Lowest Index, Posterior vs. Anterior Tibial ABI: Should All Patients Get An ABI?
<i>Sergio X. Salles-Cunha, PhD, RVT</i> |
| 3:13 – 3:23 | Screening For AAAs: What Are The Gender Differences? Is It Worthwhile In Women?
<i>Andrew N. Nicolaides, MS</i> |
| 3:24 – 3:34 | DEBATE: We Should Screen For Asymptomatic Carotid Stenosis: It Is Justified... In Some Patients
<i>Glenn Jacobowitz, MD</i> |
| 3:35 – 3:45 | DEBATE: Should We Screen For Asymptomatic Carotid Stenosis? Maybe... Maybe Not
<i>Nicos Labropoulos, BSc (Med), PhD, DIC, RVT</i> |
| 3:45 – 4:00 | Panel Discussion (Combined Sessions 9 and 10) |
| 4:00 – 4:15 | Break – Visit Exhibits (South Corridor, 2nd Floor) |

SESSION 11

HANDS-ON REAL TIME IMAGING WITH THE EXPERTS – THE CAROTID ARTERIES

This will be a live scanning session designed to allow the audience opportunity to pose questions and interact with the speaker while the patient is being scanned.

Moderators: *George L. Berdejo, BA, RVT*
Fernando Amador, RVT

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| 4:15 – 4:25 | Carotid Duplex Imaging – Screening Protocol And Pre-Operative Mapping
<i>Natalie A. Marks, MD, RVT, RPVI</i> |
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SESSION 12

PRACTICE ENHANCEMENTS: ISSUES RELATED TO EDUCATION, PRODUCTIVITY AND QUALITY

Moderator: *George L. Berdejo, BA, RVT*

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|--------------------|--|
| 4:25 – 4:35 | Measuring Quality In The Vascular Laboratory
<i>Michael P. Lilly, MD</i> |
| 4:36 – 4:46 | Vascular Lab Reporting That Makes Sense
<i>Laurence Needleman, MD</i> |
| 4:47 – 4:57 | Improving Efficiency In The Vascular Laboratory
<i>Bhagwan Satiani, MD, MBA</i> |
| 4:58 – 5:08 | Role Of The Vascular Lab In A Modern Telemedicine Practice
<i>Richard C. Pennell, MD, MBA</i> |
| 5:09 – 5:19 | Ultrasound Guided Access For Endovascular Therapy
<i>Deepak G. Nair, MD, MS, RVT</i> |
| 5:20 – 5:30 | What The Data Says: A Statistical Look At What Students Do And Do Not Know
<i>Frank Miele, MSEE</i> |
| 5:30 – 5:40 | Panel Discussion (Combined Sessions 11 and 12) |

SATURDAY, NOVEMBER 21, 2015

SESSION 13

PRINCIPLES TUNE-UP: HOW SHARP ARE YOU - PART II

Moderator: *Joshua Cruz, BS, RVT*

7:00 – 7:45 Principles Tune-Up
Frederick Kremkau, PhD

SESSION 14

LEARNING THROUGH REAL CLINICAL CASES

This session will cover most subjects on venous disease through clinical cases. It will be very interactive as the faculty will engage with the participants. The focus will be on history, physical exam, diagnosis, treatment and follow-up of the patients. Many pearls, tips and tricks will be given by renowned world experts. Emphasis will be given on applying such knowledge to routine practice.

Moderator: *Nicos Labropoulos, BSc (Med), PhD, DIC, RVT*

7:45 – 7:53 Superficial Venous Crossroads
Steve Elias, MD

7:53 – 8:01 The Nervous Side Of The Veins
Nicos Labropoulos, BSc (Med), PhD, DIC, RVT

8:01 – 8:09 I Have Good Pulses But My Left Leg Hurts When I Walk
Antonios P. Gasparis, MD

8:09 – 8:17 Connecting The Pelvis With The Lower Extremity
Mark H. Meissner, MD

8:17 – 8:25 This Is Not An Inguinal Hernia
Luis R. Leon, MD, RVT

8:25 – 8:33 Arm Swelling That Recently Became Worse
David L. Gillespie, MD

8:33 – 8:41 Swelling And Veins: How Good Is Your Physical Exam?
Peter J. Pappas, MD

8:41 – 8:49 Having Pain In The Left Flank
Thomas S. Maldonado, MD

8:49 – 8:57 Having A Belly Ache After A Remote DVT
Apostolos K. Tassiopoulos, MD

SESSION 15

HANDS-ON REAL TIME IMAGING WITH THE EXPERTS – CHRONIC VENOUS INSUFFICIENCY IMAGING (CVI)

This will be a live scanning session designed to allow the audience to pose questions and interact with the speaker while the patient is being scanned.

Moderators: *George L. Berdejo, BA, RVT*
Josh Cruz, BS, RVT

8:57 – 9:10 How To Perform The Examination For CVI
William B. Schroedter, BS, RVT, RPhS

9:10 – 9:20 Panel Discussion (Combined Sessions 14 and 15)

9:20 – 9:40 Break – Visit Exhibits (South Corridor, 2nd Floor)

SESSION 16

EFFECTS OF THE CHANGING HEALTHCARE ENVIRONMENT ON VASCULAR ULTRASOUND

Moderator: *Anne M. Jones, RN, BSN, RVT, RDMS*

9:40 – 9:48	What Happened To The CARE Bill And Where Do We Go From Here? <i>Anne M. Jones, RN, BSN, RVT, RDMS</i>
9:48 – 9:56	Financial Impact Of The ACA To Date And In The Future: What Will It Mean To Vascular Ultrasound And Surgery And The New Physician Fee Schedule (PFS) Issues? <i>Robert M. Zwolak, MD, PhD</i>
9:56 – 10:04	Update On Coding And Reimbursement Issues For Vascular Surgery: Now, In 2016 And Beyond <i>Sean P. Roddy, MD</i>
10:04 – 10:12	How Will IAC Enforce And Implement Mandatory Credentialing: What Will The Impact Be On Reaccreditation And LCDs? <i>Sandra L. Katanick, RN, RVT, CAE</i>
10:12 – 10:20	Sonography Credentialing: Recertification And “Advanced Practice” Status: What Is On The Horizon For The Sonography Professional <i>Michael P. Lilly, MD</i>
10:20 – 10:28	Lessons Learned From An Appeal Process With First Coast Insurance In Florida: What To Do If It Happens To You <i>William B. Schroedter, BS, RVT</i>
10:28 – 10:40	Panel Discussion
10:40 – 10:45	Transition to Workshops (Sutton Complex, 2nd Floor)

SESSION 17 (Sutton Complex, 2nd Floor)

WORKSHOP ROTATION II: IMAGING ESSENTIALS

10:45 – 11:45

REGENT PARLOR	1. Carotid Imaging <i>Richard Dubin, AAS-DMS, RVT, RDMS</i>
MADISON SUITE	2. LE Venous – DVT <i>William B. Schroedter, BS, RVT, RPhS</i> <i>Kelvin Portalatin, AA, RVT</i>
SUTTON PARLOR CENTER	3. LE Venous – Chronic Venous Insufficiency Testing <i>Nicos Labropoulos, BSc (Med), PhD, DIC, RVT</i>
NASSAU SUITE WEST	4. Hemodialysis Access <i>Susan M. Gustavson, RVT</i>
NASSAU SUITE EAST	5. Lower Extremity Arterial Imaging <i>Natalie A. Marks, MD, RVT, RPVI</i>
SUTTON PARLOR SOUTH	6. Renal Artery Imaging <i>Cindy A. Owen, RVT, RDMS</i>
GIBSON SUITE	7. Basic Echocardiography For The Vascular Sonographer/Technologist <i>David M. Williams, MS, RDCS, RVT</i>
CLINTON SUITE	8. Transcranial Doppler <i>Joseph P. Hughes, RVT, RVS</i>
MURRAY HILL SUITE	9. Case Interpretation Potpourri <i>Laurence Needleman, MD</i>
11:45 – 11:50	Lunch - Visit Exhibits (Pick up Lunch in the Exhibit Area, South Corridor, 2nd Floor)

SESSION 18

LUNCHEON PROGRAM: HEMODIALYSIS ACCESS

Moderators: *George L. Berdejo, BA, RVT*
William D. Suggs, MD

- | | |
|----------------------|---|
| 11:50 – 12:00 | Planning A Successful Dialysis Access Procedure: Strategic Use Of The Ultrasound Findings Is Paramount But It's A Multidisciplinary Collaborative Effort
<i>William D. Suggs, MD</i> |
| 12:01 – 12:11 | Ultrasound Evaluation Of AVF And Prosthetic Graft Complications - Vascular And Otherwise
<i>Leslie M. Scoutt, MD</i> |
| 12:12 – 12:22 | AVF For Hemodialysis: Is There A Relationship Between Very High Flow And Cardiac Damage?
<i>Sergio X. Salles-Cunha, PhD, RVT</i> |
| 12:23 – 12:33 | Balloon Assisted Maturation Of The Newly Created Arterio-Venous Fistulas In The Office
<i>Natalie A. Marks, MD, RVT, RPVI</i> |
| 12:34 – 12:45 | Transition to Workshops (Sutton Complex, 2nd Floor) |

SESSION 19 (Sutton Complex, 2nd Floor)

WORKSHOP ROTATION III: IMAGING ESSENTIALS

12:45 – 1:40

- | | |
|-----------------------------|--|
| REGENT PARLOR | 1. Carotid Imaging
<i>Richard Dubin, AAS-DMS, RVT, RDMS</i> |
| MADISON SUITE | 2. LE Venous Reflux
<i>William B. Schroedter, BS, RVT, RPhS</i> |
| SUTTON PARLOR CENTER | 3. LE Venous - DVT
<i>William N. Del Valle, RVT</i> |
| NASSAU SUITE WEST | 4. Hemodialysis Access
<i>Susan M. Gustavson, RVT</i> |
| NASSAU SUITE EAST | 5. Lower Extremity Arterial Imaging
<i>Ann Marie Kupinski, PhD, RVT</i> |
| SUTTON PARLOR SOUTH | 6. Renal Artery Imaging
<i>Cindy A. Owen, RVT, RDMS</i> |
| GIBSON SUITE | 7. Basic Echocardiography For The Vascular Sonographer/Technologist
<i>David M. Williams, MS, RDCS, RVT</i> |
| CLINTON SUITE | 8. Transcranial Doppler
<i>Joseph P. Hughes, RVT, RVS</i> |
| MURRAY HILL SUITE | 9. Case Interpretation Potpourri
<i>Laurence Needleman, MD</i> |
| 1:40 – 1:45 | Transition to Plenary Sessions
(Murray Hill Suites East and West, 2nd Floor) |

SESSION 20

VENOUS DISEASE CHALLENGES

Moderator: *Mark A. Oliver, MD, RVT, RPVI*

- | | |
|--------------------|--|
| 1:45 – 1:54 | Challenging The Paradigm: How The Vein Valves Really Work
<i>Mark H. Meissner, MD</i> |
| 1:54 – 2:03 | Manifestations Of Venous Hypertension In The Extremities: Unusual Venous Disease
<i>TBD</i> |
| 2:03 – 2:12 | Detection Of Chronic Venous Obstruction
<i>Nicos Labropoulos, BSc (Med), PhD, DIC, RVT</i> |

2:12 – 2:21	Calf Vein DVT Controversies <i>Laurence Needleman, MD</i>
2:21 – 2:30	Common Non-Thrombotic Pathology Encountered During The Leg Vein Evaluation: How To Evaluate And Report Your Findings <i>Leslie M. Scoutt, MD</i>
2:30 – 2:39	Evaluation Of Pelvic Congestion Syndrome <i>Mark H. Meissner, MD</i>
2:39 – 2:48	IVC Filters... Friend Or Foe? <i>Richard C. Pennell, MD</i>
2:48 – 2:57	How Long To Anticoagulate After DVT: Duplex Imaging Guides Treatment Duration <i>Gregory L. Moneta, MD</i>
2:57 – 3:10	Panel Discussion
3:10 – 3:20	Break – Visit Exhibits (South Corridor, 2nd Floor)

SESSION 21

ULTRASOUND BEFORE, DURING AND AFTER ENDOVASCULAR INTERVENTIONS

Moderators: *George L. Berdejo, BA, RVT*
Natalie A. Marks, MD, RVT, RPVI

3:20 – 3:29	Rational Use Of Duplex Ultrasonography For Surveillance Post-Endovascular Aneurysm Repair (EVAR) <i>Robert M. Zwolak, MD, PhD</i>
3:30 – 3:39	Ultrasound Imaging For EVAR Surveillance: Focus On Endoleak Or Aneurysm Size: Can The Examination Be Streamlined And Technical Tips To Facilitate The Exam <i>Phillip J. Bendick, PhD, RVT</i>
3:40 – 3:49	Endovenous Thermal Ablation: Lessons Learned Over A 12-Year Period <i>Anil P. Hingorani, MD</i>
3:50 – 3:59	Ultrasound Guided Foam Sclerotherapy: The Next Frontier For Endovenous Therapy <i>Natalie A. Marks, MD, RVT, RPVI</i>
4:00 – 4:09	Assessment And Treatment Of Iliac Vein Obstructions With IVUS And Venography <i>Enrico Ascher, MD</i>

SESSION 22

NOVEL TECHNIQUES AND EVOLVING CONCEPTS RELATED TO CEREBROVASCULAR CLINICAL ISSUES

Moderator: *Phillip J. Bendick, PhD, RVT*

4:10 – 4:20	Using Ultrasound To Diagnose Fibromuscular Dysplasia: Interesting Cases <i>Phillip J. Bendick, PhD, RVT</i>
4:21 – 4:31	Carotid Duplex Surveillance Is Over-Utilized And Is Not Necessary After CEA With Patch Closure <i>Ali F. AbuRahma, MD</i>
4:32 – 4:42	Contrast Enhanced 3D Duplex And Carotid Artery Flow Dynamics To Detect Plaque Changes And Identify High Risk Asymptomatic Patients For Invasive Treatment <i>Brajesh K. Lal, MD</i>
4:43 – 4:53	The Promise Of 3D Carotid Ultrasound And The Value Of Carotid Plaque Motion Analysis <i>Andrew N. Nicolaidis, MS</i>

SATURDAY SESSION 22

4:54 – 5:04

Alternate Parameters For Detecting Intracerebral Vasospasm Using Transcranial Doppler
Steven M. Hertz, MD, RVT

5:05 – 5:25

Panel Discussion (Combined Sessions 21 and 22)

5:25 – 5:35

Closing Remarks And Raffle Drawing (You Must Be Present To Win)

George L. Berdejo, BA, RVT

Natalie A. Marks, MD, RVT, RPVI

5:35

Symposium Ends

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