10th Annual Comprehensive Review & Update of Perioperative Echo

Clinical Decision Making in the Cardiac Surgery Patient

Basic - February 5-7, 2007
Advanced - February 8-10, 2007
Sheraton San Diego Hotel & Marina
San Diego, CA

For Cardiologists, Cardiothoracic Surgeons, and Cardiovascular Anesthesiologists

Society of Cardiovascular Anesthesiologists
American Society of Echocardiography

American Society of Cardiovascular Anesthesiologists

Society of Cardiovascular Anesthesiologists
2209 Dickens Road
Richmond, VA 23230-2005
Phone (804) 282-0084
Fax (804) 282-0090
Email sca@societyhq.com
www.scahq.org

Watch the website for meeting updates and online registration
10th Annual Comprehensive Review & Update of Perioperative Echo

Statement of Need

Perioperative echocardiography has become an integral tool in the management of patients undergoing various cardiac surgical procedures. However, the development of expertise demands an understanding of ultrasound technology and its utilization in the evaluation and guidance of the surgical and medical management of cardiovascular dysfunction. The members of the Society of Cardiovascular Anesthesiologists (SCA) and the American Society of Echocardiography (ASE) have demanded interdisciplinary, patient-oriented educational programs to teach the requisite skills necessary to use this diagnostic and monitoring tool effectively, and assure a favorable impact on patient care. This interdisciplinary program sponsored by the SCA and offered in cooperation with ASE has been developed to meet the growing demand for such educational needs.

Target Audience

This course is designed for anesthesiologists, cardiologists, cardiac surgeons, and sonographers as a comprehensive review of perioperative echocardiography.

PROGRAM DIRECTORS

Gregg S. Hartman, MD
Professor of Anesthesiology
Dartmouth-Hitchcock Medical Center

Stanton K. Shernan, MD, FASE
Assistant Professor of Anesthesia
Harvard Medical School
Departments of Anesthesiology, Perioperative & Pain Medicine
Brigham & Women's Hospital

Bruce Bollen, MD
Cardiovascular Anesthesiologist
The International Heart Institute of Montana

PROGRAM COMMITTEE

Solomon Aronson, MD, FASE (Emeritus Co-Director)
Professor & Executive Vice Chair for Business Development
Department of Anesthesiology
Duke University Medical Center

Isobel A. Russell, MD, FASE
Professor, Department of Anesthesia
Duke University Medical Center

Robert F. Brooker, MD
Clinical Associate Professor of Anesthesiology
Wake Forest University
Bowman Gray School of Medicine

Kathryn E. Glas, MD, FASE
Assistant Professor
Director, Intraoperative Echo Service
Emory University School of Medicine

Katherine P. Grichnik, MD, FASE
Associate Professor of Anesthesia
Duke University Medical Center

Lori B. Heller, MD
Clinical Instructor
Swedish Medical Center
University of Washington

Isobel A. Russell, MD, PhD
Professor, Department of Anesthesia
Duke University Medical Center

Robert M. Savage, MD (Emeritus Co-Director)
Coordinator of Intraoperative Echo
Department of Cardiothoracic Anesthesia & Cardiology
Cleveland Clinic Foundation

Jack S. Shanevise, MD, FASE
Professor of Clinical Anesthesiology
Columbia University Medical Center

Douglas Shook, MD
Cardiac Anesthesiologist
Brigham & Women's Hospital
Harvard Medical School

Christopher A. Troianos, MD
Chair & Residency Program Director
Department of Anesthesiology
Western Pennsylvania Hospital

David A. Zvara, MD
Professor of Anesthesiology
Head, Section on Cardiothoracic Anesthesiology & Perioperative Echocardiography
Wake Forest University School of Medicine

FACULTY

Edwin G. Avery, MD
Instructor of Anesthesia
Massachusetts General Hospital
Harvard Medical School

Blaise Carabello, MD
Professor of Medicine
Vice-Chairman, Department of Medicine
The W.A. "Tex" and Deborah Moncrief, Jr. Baylor College of Medicine
Medical Care Line Executive
Veterans Affairs Medical Center

Albert T. Cheung, MD
Professor of Anesthesiology and Critical Care Medicine
University of Pennsylvania

Carlos M.G. Duran, MD, PhD
Chair of Cardiovascular Sciences
University of Montana

John A. Fox, MD
Director of Intraoperative Ultrasound
Brigham & Women's Hospital

Mario J. Garcia, MD, FACC
Professor of Medicine
Director of Cardiac Imaging
Cleveland Clinic Foundation

Steven N. Konstadt, MD
Chair, Department of Anesthesiology
Maimonides Medical Center
Professor of Anesthesiology
Mount Sinai Medical Center

Itzhak Kronzon, MD, FASE
Professor of Medicine
New York University School of Medicine

A. Stephane Lambert, MD, FRCP
Assistant Professor of Anesthesia
University of Ottawa Heart Institute

Martin J. London, MD
Professor of Clinical Anesthesia
University of California, San Francisco

Jonathan Mark, MD
Professor and Vice Chairman
Department of Anesthesiology
Duke University Medical Center and Veterans Affairs Medical Center

Andrew O. Maslow, MD
Associate Professor of Anesthesiology
Brown University Medical Center

Albert T. Perrino, Jr, MD
Professor of Anesthesiology
Yale University

James G. Ramsay, MD
Professor of Anesthesiology
Emory University School of Medicine

Scott T. Reeves, MD, FASE
Chair and Professor of Anesthesiology
Medical University of South Carolina

Kathryn Rouine-Rapp, MD
Professor of Anesthesia & Perioperative Care Medicine
University of California, San Francisco

David S. Rubenson, MD, FASE
Director, Cardiac Non-Invasive Laboratory
Scripps Clinic Medical Group

Linda Shore-Lesserson, MD
Associate Professor of Anesthesiology
Chief, Division of Cardiothoracic Anesthesiology
Montefiore Medical Center

Nikolaos Skubas, MD
Assistant Professor of Anesthesiology
Weill Medical College of Cornell University

Nicholas G. Smedira, MD
Cardiothoracic Surgeon
Cleveland Clinic Foundation

Brian C. Spence, MD
Assistant Professor of Anesthesiology
Dartmouth-Hitchcock Medical Center

Madhav Swaminathan, MD, FASE
Assistant Professor of Anesthesiology
Duke University Medical Center

Daniel M. Thys, MD
Professor and Chair, Department of Anesthesiology
St. Luke's-Roosevelt Hospital

Daniel Vezina, MD
Assistant Professor of Anesthesiology
& Cardiology
University of Utah
### Monday, February 5, 2007

**Cardiac Anatomy – Image Plane Correlation/ Basics of Echocardiography**

**Moderator:** GS Hartman

<table>
<thead>
<tr>
<th>Time</th>
<th>Event</th>
</tr>
</thead>
<tbody>
<tr>
<td>7:15 – 7:45 am</td>
<td>Continental Breakfast</td>
</tr>
<tr>
<td>7:45 – 8:00 am</td>
<td>Introductions and Overview</td>
</tr>
<tr>
<td>GS Hartman, SK Shernan</td>
<td></td>
</tr>
<tr>
<td>8:00 – 8:30 am</td>
<td>Principles of Ultrasound</td>
</tr>
<tr>
<td>AC Perrino, Jr.</td>
<td></td>
</tr>
<tr>
<td>8:30 – 9:00 am</td>
<td>Knobology for Image Optimization</td>
</tr>
<tr>
<td>ST Reeves</td>
<td></td>
</tr>
<tr>
<td>9:00 – 9:30 am</td>
<td>Probe Placement and Manipulation</td>
</tr>
<tr>
<td>GS Hartman</td>
<td></td>
</tr>
<tr>
<td>9:30 – 10:00 am</td>
<td>Comprehensive Exam</td>
</tr>
<tr>
<td>JS Shanewise</td>
<td></td>
</tr>
<tr>
<td>10:00 – 10:30 am</td>
<td>Coffee Break</td>
</tr>
</tbody>
</table>

**Anatomic Imaging Plane Workshop – Part I**

**Moderator:** GS Hartman

<table>
<thead>
<tr>
<th>Time</th>
<th>Event</th>
</tr>
</thead>
<tbody>
<tr>
<td>10:30 am – 12:30 pm</td>
<td>Workshop</td>
</tr>
<tr>
<td>Faculty: JA Fox; KP Grichnik; GS Hartman; MJ London; AC Perrino, Jr.; JS Shanewise; SK Sherman; M Swaminathan; CA Troianos</td>
<td></td>
</tr>
<tr>
<td>Luncheon Series</td>
<td></td>
</tr>
<tr>
<td>12:30 – 12:45 pm</td>
<td>Box lunches served</td>
</tr>
<tr>
<td>12:45 – 1:15 pm</td>
<td>Nuts &amp; Bolts of an Intraoperative Echo Service</td>
</tr>
<tr>
<td>CA Troianos</td>
<td></td>
</tr>
<tr>
<td>1:15 – 1:45 pm</td>
<td>Certification &amp; Recertification Update</td>
</tr>
<tr>
<td>DM Thys</td>
<td></td>
</tr>
</tbody>
</table>

**Luncheon Series**

<table>
<thead>
<tr>
<th>Time</th>
<th>Event</th>
</tr>
</thead>
<tbody>
<tr>
<td>12:00 – 12:15 pm</td>
<td>Box lunches served</td>
</tr>
<tr>
<td>12:15 – 1:00 pm</td>
<td>Performing an Exam: Structure-directed vs Esophageal Level</td>
</tr>
<tr>
<td>BC Spence</td>
<td></td>
</tr>
</tbody>
</table>

**Basic Principles of TEE**

**Moderator:** KP Grichnik

<table>
<thead>
<tr>
<th>Time</th>
<th>Event</th>
</tr>
</thead>
<tbody>
<tr>
<td>3:30 – 4:00 pm</td>
<td>Artifacts</td>
</tr>
<tr>
<td>LB Heller</td>
<td></td>
</tr>
<tr>
<td>4:00 – 4:30 pm</td>
<td>Anatomic Pitfalls</td>
</tr>
<tr>
<td>KP Grichnik</td>
<td></td>
</tr>
<tr>
<td>4:30 – 5:00 pm</td>
<td>Basic Hemodynamics</td>
</tr>
<tr>
<td>AC Perrino, Jr.</td>
<td></td>
</tr>
<tr>
<td>5:00 – 7:00 pm</td>
<td>Dinner on Own</td>
</tr>
</tbody>
</table>

### Tuesday, February 6, 2007

**Basic Transesophageal Echocardiography**

**Moderator:** CA Troianos

<table>
<thead>
<tr>
<th>Time</th>
<th>Event</th>
</tr>
</thead>
<tbody>
<tr>
<td>6:45 – 7:15 am</td>
<td>Continental Breakfast with Exhibitors</td>
</tr>
<tr>
<td>7:15 – 7:30 am</td>
<td>Announcements</td>
</tr>
<tr>
<td>SK Shernan</td>
<td></td>
</tr>
<tr>
<td>7:30 – 8:00 am</td>
<td>Left Ventricular Global Systolic Function</td>
</tr>
<tr>
<td>MJ London</td>
<td></td>
</tr>
<tr>
<td>8:00 – 8:30 am</td>
<td>Right Ventricular Global Systolic Function</td>
</tr>
<tr>
<td>JB Mark</td>
<td></td>
</tr>
<tr>
<td>8:30 – 9:00 am</td>
<td>Diastolic Function</td>
</tr>
<tr>
<td>M Swaminathan</td>
<td></td>
</tr>
<tr>
<td>9:00 – 9:30 am</td>
<td>Questions &amp; Answers with faculty</td>
</tr>
<tr>
<td>9:30 – 10:00 am</td>
<td>Coffee Break with Exhibitors</td>
</tr>
<tr>
<td>10:00 – 10:30 am</td>
<td>Aortic Regurgitation</td>
</tr>
<tr>
<td>CA Troianos</td>
<td></td>
</tr>
<tr>
<td>10:30 – 11:00 am</td>
<td>Aortic Stenosis</td>
</tr>
<tr>
<td>L Shore-Lesserson</td>
<td></td>
</tr>
<tr>
<td>11:00 – 11:30 am</td>
<td>Aortic Aneurysms and Dissections</td>
</tr>
<tr>
<td>DA Zvara</td>
<td></td>
</tr>
<tr>
<td>11:30 – 12 noon</td>
<td>Questions &amp; Answers with faculty</td>
</tr>
</tbody>
</table>

**Luncheon Series**

<table>
<thead>
<tr>
<th>Time</th>
<th>Event</th>
</tr>
</thead>
<tbody>
<tr>
<td>12:00 – 12:15 pm</td>
<td>Box lunches served</td>
</tr>
<tr>
<td>12:15 – 1:00 pm</td>
<td>Performing an Exam: Structure-directed vs Esophageal Level</td>
</tr>
<tr>
<td>BC Spence</td>
<td></td>
</tr>
</tbody>
</table>

**Basic Transesophageal Echocardiography**

**Moderator:** LB Heller

<table>
<thead>
<tr>
<th>Time</th>
<th>Event</th>
</tr>
</thead>
<tbody>
<tr>
<td>1:00 – 1:30 pm</td>
<td>Mitral Regurgitation</td>
</tr>
<tr>
<td>AS Lambert</td>
<td></td>
</tr>
<tr>
<td>1:30 – 2:00 pm</td>
<td>Mitral Stenosis</td>
</tr>
<tr>
<td>LB Heller</td>
<td></td>
</tr>
<tr>
<td>2:00 – 2:30 pm</td>
<td>Tricuspid Valve/Pulmonic Valve</td>
</tr>
<tr>
<td>JB Mark</td>
<td></td>
</tr>
<tr>
<td>2:30 – 3:00 pm</td>
<td>Questions &amp; Answers/Cases with faculty</td>
</tr>
<tr>
<td>3:00 – 3:30 pm</td>
<td>Coffee Break with Exhibitors</td>
</tr>
<tr>
<td>3:30 – 4:00 pm</td>
<td>Prosthetic Valves</td>
</tr>
<tr>
<td>AT Cheung</td>
<td></td>
</tr>
<tr>
<td>4:00 – 4:30 pm</td>
<td>Cardiac Masses</td>
</tr>
<tr>
<td>L Shore-Lesserson</td>
<td></td>
</tr>
<tr>
<td>4:30 – 5:00 pm</td>
<td>Basic Congenital</td>
</tr>
<tr>
<td>K Routine-Rapp</td>
<td></td>
</tr>
<tr>
<td>5:00 – 7:00 pm</td>
<td>Dinner on Own</td>
</tr>
</tbody>
</table>

### Demonstration of Imaging Principles

**Basic Hemodynamics**

**Fundamentals of Measurements**

**Moderators:** GS Hartman, SK Shernan

<table>
<thead>
<tr>
<th>Time</th>
<th>Event</th>
</tr>
</thead>
<tbody>
<tr>
<td>7:00 - 9:30 pm</td>
<td>Workshop #1: Basic Hemodynamics</td>
</tr>
<tr>
<td>BC Spence</td>
<td></td>
</tr>
<tr>
<td>7:00 - 9:30 pm</td>
<td>Workshop #2: Basic Measurements</td>
</tr>
<tr>
<td>NJ Skubas</td>
<td></td>
</tr>
<tr>
<td>10:00 – 10:30 am</td>
<td>Workshop #3: Hands-on Transthoracic</td>
</tr>
<tr>
<td>Faculty: BA Bollen, KE Glas, KP Grichnik, GS Hartman, LB Heller, ST Reeves, SK Sherman, D Shook, L Shore-Lesserson, DA Zvara</td>
<td></td>
</tr>
</tbody>
</table>

Participants will rotate through each workshop.
Regional Wall Motion Workshop  
Moderator: K Rouine-Rapp  
7:00 – 7:30 pm  Regional Wall Motion Evaluation  
D Vezina  
7:30 – 9:00 pm  Regional Wall Motion Case Presentations  
AS Lambert; K Rouine-Rapp; D Vezina  

Wednesday, February 7, 2007  
Cardiac Anatomy Wet Lab  
Moderator: GS Hartman  
6:45 – 7:15 am  Continental Breakfast with Exhibitors  
7:15 – 7:30 am  Announcements  
GS Hartman  
7:30 – 8:00 am  Overview of Cardiac Anatomy  
GS Hartman  
8:00 – 10:30 am  Wet Lab Heart Dissection  
C Duran  
Additional Faculty: BA Bollen, JA Fox, KE Glas, KP Grichnik, GS Hartman, LB Heller, RM Savage, SK Shernan, D Shook, NJ Smedira, International Montana Heart Institute Faculty  
10:30 – 11:00 am  TEE Correlations of Cardiac Anatomy  
BA Bollen  
11:00 am – 12:30 pm  Lunch on Own  

Non-cardiac Surgical Applications of Echocardiography  
Moderator: RM Savage  
1:30 – 2:00 pm  Echocardiography in the Emergency Room  
ST Reeves  
2:00 – 2:30 pm  Echocardiography in the ICU  
JG Ramsay  
2:30 – 3:00 pm  Echocardiography in the Cardiac Cath and EP Labs  
M Garcia  

TEE for Off-pump CABG  
3:00 – 3:30 pm  TEE for Off-pump CABG  
JS Shanewise  
3:30 – 4:00 pm  Coffee Break with Exhibitors  

Non-TEE Applications of Perioperative Echocardiography  
Moderator: KE Glas  
4:00 – 4:30 pm  Epicardial Echocardiography  
KE Glas  
4:30 – 5:00 pm  Ultrasound for Vascular Cannulation  
GS Hartman  

Industry-sponsored Case Discussions (No CME credit awarded)  
Moderators: GS Hartman, SK Shernan  
5:00 – 6:30 pm  Industry-sponsored Case Discussions Involving New Technology  

ADVANCED: FEBRUARY 8 - 10  

Thursday, February 8, 2007  
Advanced Echocardiography I  
7:00 – 7:45 am  Continental Breakfast  
7:45 – 8:00 am  Announcements  
GS Hartman, SK Shernan  

Ventricular Function  
Moderator: SK Shernan  
8:00 – 8:30 am  Advanced Systolic Function  
AT Cheung  
8:30 – 9:00 am  Advanced Diastolic Function: “Beyond the E- and A-Wave”  
M Garcia  
9:00 – 9:30 am  Non-invasive Catheterization  
I Kronzon  
9:30 – 10:00 am  Coffee Break with Exhibitors  

Echocardiography for Heart Failure and Cardiomyopathies  
Moderator: D Shook  
10:00 – 10:30 am  Echocardiographic Evaluation of Cardiomyopathies  
AD Maslow  
10:30 – 11:00 am  Intraoperative Echo for Assist Devices and Heart Transplantation  
TBA  
11:00 – 11:30 am  Pericardial Disease  
EG Avery  

Aortic Disease  
Moderator: NJ Skubas  
11:30 am – 12 noon  Atheromatous Disease and Neurological Outcomes  
I Kronzon  

Luncheon Series  
12:00 – 12:15 pm  Box lunches served  
12:15 – 1:30 pm  The Future of Echocardiography  
BA Carabello  

Advanced Echocardiography II  
New Technologies  
Moderator: D Shook  
1:30 – 2:00 pm  3D/4D Echocardiography  
D Shook  
2:00 – 2:30 pm  Tissue Doppler/Strain  
NJ Skubas  
2:30 – 3:00 pm  Coffee Break with Exhibitors
Aortic Valve – Advanced
Moderator: RM Savage
3:00 – 3:30 pm Utility of Echo for Timing of Surgery Intervention in Asymptomatic AV Disease
BA Carabello
3:30 – 4:00 pm Utility of Echo for Intraoperative Assessment of Aortic Valve Disease
SN Konstadt
4:00 – 4:30 pm Surgeon’s Approach to Aortic Valve Disease
NG Smedira

Aortic Valve Cases
Moderator: BA Bollen
4:30 – 5:30 pm Cases
BA Carabello, SN Konstadt, NG Smedira

Advanced Hemodynamic Workshop
Moderator: SK Shernan
7:00 – 7:30 pm Review of Advanced Hemodynamic Principles
JS Shanewise
7:30 – 9:30 pm Advanced Hemodynamic Case Discussions
SN Konstadt, AD Maslow, JS Shanewise, SK Shernan

Friday, February 9, 2007
Role of Echocardiography in Perioperative Clinical Decision-making
Moderator: RM Savage
7:00 – 7:45 am Continental Breakfast with Exhibitors
7:45 – 8:00 am Announcements
GS Hartman, SK Shernan
8:00 – 8:30 am Ischemic MR
D Rubenson
8:30 – 9:00 am Mitral Valve Dysfunction after Repair
SK Shernan
9:00 – 9:30 am PISA, Vena Contracta or Jet Area for MR?: Review of ASE Guidelines
TBA
9:30 – 10:00 am Coffee Break
10:00 – 10:30 am Surgery for MV Repair
TBA

Mitral Valve Cases
Moderator: RM Savage
10:30 – 11:30 am Cases
D Rubenson, SK Shernan, TBA
11:30 – 12 noon Echocardiography for Adult Patients with Congenital Heart Disease
IA Russell

Luncheon Series
12:00 – 12:15 pm Box lunches served
12:15 – 1:30 pm The Future of Cardiac Surgery
TBA

Advanced Perioperative Decision-making
Moderator: S Aronson
1:30 – 2:00 pm Echocardiography to Wean from CPB
RF Brooker
2:00 – 2:30 pm Echocardiography for Myocardial Viability
S Aronson
2:30 – 3:00 pm Unanticipated Ascending Aortic Dilation: How Big is Too Big?
AT Cheung
3:00 – 3:30 pm Echocardiographic Evaluation of Unanticipated Intracardiac Mass
Endocarditis, Thrombus, Tumor, Artifact
AD Maslow
3:30 – 4:00 pm Coffee Break

“Test Yourself”
Moderator: DA Zvara
4:00 – 5:30 pm “Test Yourself” Mock Test
Faculty: EG Avery, RF Brooker, BC Spence, DA Zvara
5:30 – 7:30 pm Dinner on Own
7:30 – 9:30 pm Mock Exam Review

Saturday, February 10, 2007
You’re the Intraoperative Echocardiography Consultant
Moderator: GS Hartman, SK Shernan
6:45 – 7:30 am Continental Breakfast with Exhibitors
6:45 – 7:30 am You’re the Intraoperative Echocardiography Consultant
Faculty: EG Avery, RF Brooker, GS Hartman, AD Maslow, IA Russell, SK Shernan

The Society of Cardiovascular Anesthesiologists is accredited by the Accreditation Council for Continuing Medical Education to provide continuing medical education for physicians.
Scientific Program Registration

10th Annual Comprehensive Review & Update of Perioperative Echo

February 5-10, 2007

(Please print or type)

Name ______________________________________________________________________

☐ MD ☐ PhD ☐ Other _____________

Last     First    MI

Address ____________________________________________________________________________________________________

City, State, Zip _______________________________________________________________________________________________

Office Phone ( ) ___________________________________________ Home Phone ( ) _______________________________________

Fax ( ) ___________________________________________ Email ___________________________________________

☐ Anesthesiologist ☐ Cardiologist ☐ Surgeon ☐ Resident (CA 1, CA 2, CA 3) ☐ Other _____________

Basic  Advanced

(check one) (February 5-7) (February 8-10)

<table>
<thead>
<tr>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>Member (SCA)</td>
<td>$750</td>
<td>$800</td>
<td>$750</td>
<td>$800</td>
</tr>
<tr>
<td>Member (ASE)</td>
<td>$750</td>
<td>$800</td>
<td>$750</td>
<td>$800</td>
</tr>
<tr>
<td>Non-Member (MD, DO, PhD)</td>
<td>$950</td>
<td>$1,000</td>
<td>$950</td>
<td>$1,000</td>
</tr>
<tr>
<td>Resident/Fellow*</td>
<td>$550</td>
<td>$600</td>
<td>$550</td>
<td>$600</td>
</tr>
<tr>
<td>Allied Health</td>
<td>$850</td>
<td>$900</td>
<td>$850</td>
<td>$900</td>
</tr>
</tbody>
</table>

If attending both the basic and advanced sessions, please add both registration fees and place a total here.

$ ____________  +  ______________ = $ _____________

Total $ _____________

*When accompanied by a letter from Department Chairperson, verifying Resident/Fellow Status.

Included in the registration fee are:

Basic: Continental Breakfasts, Coffee Breaks, Lunches, Course Syllabus and Wet Lab.

Advanced: Continental Breakfasts, Coffee Breaks, Lunches, and Course Syllabus.

Optional Evening Sessions: Beverages and Snacks.

SCA members only: As a member benefit, SCA will directly forward your CME credits that you earn from this meeting to your own personal Maintenance of Certification in Anesthesiology (MOCA) account at the American Board of Anesthesiology.

ABA #: _____________________________________________

☐ Check (Made payable to SCA) ☐ Credit Card: ☐ VISA ☐ MasterCard ☐ Discover ☐ American Express

Card No. __________________________ Exp. Date __________________________

Signature __________________________ Printed Name on Card __________________________

Refund Policy: A full refund through December 4, 2006; 80% refund from December 5, 2006 through December 19, 2006; no refunds after December 19, 2006. Refunds will be determined by date written cancellation is received.

Americans with Disabilities Act: The Society of Cardiovascular Anesthesiologists has fully complied with the legal requirements of the ADA and the rules and regulations thereof. If any participant in this educational activity is in need of accommodations, please contact SCA at (804) 282-0084 by January 4, 2007 in order to receive service.

Mail or Fax to:

SCA, 2209 Dickens Road, Richmond, VA 23230-2005
Phone (804) 282-0084 • Fax (804) 282-0090

If you do not receive a confirmation letter from the SCA office within 30 days of submitting your registration form, please call the office to confirm that your registration material has been received.
Hotel Reservation Form

10th Annual Comprehensive Review & Update of Perioperative Echo

February 5-10, 2007

The Sheraton San Diego Hotel and Marina Welcomes the Society of Cardiovascular Anesthesiologists

Sheraton San Diego Hotel and Marina

Reservations Department
1380 Harbor Island Drive
San Diego, CA  92101-1092
Reservations: Phone (877) 734-2726 • Fax (619) 692-2312
Guest: Phone (619) 291-2900 • Fax (619) 692-2337

Send Reservations to

Please Reserve:

_______ Rooms  My Arrival Date is: ________________  Arrival Time: ________________  My Departure Date is: ________________

Check in time is 3:00 pm, but we try to accommodate early arrivals, check out time is 12 noon. For suites, please contact hotel directly.

Name ______________________________________________________________________________________________________
Last  First   MI
Preferred Mailing Address _____________________________________________________________________________________
City, State, Zip ______________________________________________  Email Address ____________________________________
Office Phone ___________________________  Home Phone ___________________________  Fax # ___________________________
Accompanying Person(s) Name(s) __________________________________________________
#Adults _______  #Children ______
Extra Adults in a room are $20 per night. There is no additional charge for children under the age of eighteen.

<table>
<thead>
<tr>
<th>Room Type</th>
<th>Single</th>
<th>Double</th>
</tr>
</thead>
<tbody>
<tr>
<td>Standard Room</td>
<td>$245</td>
<td>$265</td>
</tr>
<tr>
<td>Premium Room</td>
<td>$255</td>
<td>$275</td>
</tr>
<tr>
<td>(Guaranteed Views)</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Club Room</td>
<td>$275</td>
<td>$295</td>
</tr>
<tr>
<td>Suites</td>
<td>$500</td>
<td>$750</td>
</tr>
</tbody>
</table>

(Club Rooms and Suites include: Continental Breakfast for 2, Health Club Access, Local Phone Calls, and Self Parking)
(If your requested room and bedding type is not available, an alternate will be assigned.)

☐  Non Smoking   ☐  Smoking   ☐  King   ☐  2 Double Beds   ☐  Request Crib   (Based on availability)

Special Requests: ____________________________________________  Starwood Preferred Guest # ___________________________

All reservations must be accompanied by a deposit for the first night room and 10.565% tax. There is no penalty for cancellations 7 days prior to the date of arrival. The deposit will be non refundable if the reservation is not cancelled 7 days prior to arrival.

Reservations include complimentary use of the Health Club and a high-speed internet connection.

☐ Enclosed is my Check/Money Order in the amount of $___________ (Please make payable to Sheraton San Diego Hotel & Marina)

Please charge first night’s deposit to my:  ☐  VISA  ☐  MasterCard  ☐  Discover  ☐  American Express
☐  Enroute  ☐  JBC  ☐  Diners Club

Card No. ___________________________________________  Exp. Date ______________________________________
Signature ___________________________________________  Printed Name on Card ______________________________

Cut-off date: January 4, 2007
All rooms are subject to availability
Basic (February 5-7)

Course Objectives
The program will focus on the basic physical principles and perioperative applications of ultrasound technology. The program will include didactics and interactive case discussions to review the role of perioperative echocardiography in diagnosing cardiac and great vessel pathology in patients undergoing cardiac and non-cardiac surgical procedures. A “wet lab” experience with pig hearts will be available to demonstrate surgical cardiac anatomy and highlight the technical issues which should be addressed during an intraoperative echocardiographic examination.

Upon completion of this course, the participant will be capable of understanding the application of basic echocardiographic diagnostic principles in the surgical patient including the correlation of surgical and echocardiographic anatomy of the heart, and the technical considerations involved in mitral valve repair, aortic valve/root repair or replacement, obstructive hypertrophic cardiomyopathy, and surgical management of congestive heart failure.

After attending the Basic Transesophageal Echo educational activity the participant will:

- Understand the basic principles of 2D echo, spectral and color Doppler echocardiography;
- Recognize the components of the comprehensive perioperative echocardiographic examination;
- Learn to recognize basic cardiac and great vessel anatomy, and evaluate basic function of the ventricles and heart valves;
- Be aware of common artifacts and misinterpretations of cardiac anatomy;
- Have the basic knowledge necessary to establish an Echo Service that incorporates quality assurance as part of a perioperative TEE program and enhances patient care.

Designation Statement
The Society of Cardiovascular Anesthesiologists designates this educational activity for a maximum of 27.5 AMA PRA Category 1 Credit(s)™. Physicians should only claim credit commensurate with the extent of their participation in the activity.

Advanced (February 8-10)

Course Objectives
The program will focus on advanced physical principles and perioperative applications of ultrasound technology. The program will include an in-depth review of the influence of perioperative echocardiography on the anesthetic management and surgical decision-making process of patients undergoing cardiac and non-cardiac surgical procedures utilizing didactics and interactive case presentations.

Upon completion of this course, the participant will be capable of understanding the application of advanced echocardiographic diagnostic principles in the surgical patient including:

- The physics of ultrasound and its incorporation into current echocardiographic technology;
- Ventricular function and regional wall motion assessment and its correlation with other diagnostic studies such as coronary angiography;
- The pathophysiology of valvular heart disease and its perioperative assessment;
- Newer echocardiographic techniques including three-dimensional echocardiography, strain and strain rate, myocardial viability assessment;
- The role of perioperative echocardiography used in guiding surgical decision making for cardiac surgical patients undergoing myocardial revascularization, valve repair or replacement, myectomy for left ventricular outflow tract obstruction, congenital heart disease, thoracic aorta repair, biventricular resynchronization and procedures for heart failure.

Designation Statement
The Society of Cardiovascular Anesthesiologists designates this educational activity for a maximum of 24.5 AMA PRA Category 1 Credit(s)™. Physicians should only claim credit commensurate with the extent of their participation in the activity.