History and Overview

TEE is now recognized as the best modality for evaluating cardiac and vascular function and provides real-time information that is invaluable in the management of patients in the perioperative period. While its proving grounds have been the cardiac surgical environment, improvements in technology, imaging capacity, miniaturization and price reduction of platforms have all contributed to an expanded utilization of TEE to now include the non-cardiac surgical cases, post-operative wards and critical care units. In 2007, the American Society of Anesthesiologists (ASA) House of Delegates passed a resolution mandating the development of a program to facilitate the education and training in TEE for all anesthesiologists. Recognizing this need, the ASA and the Society of Cardiovascular Anesthesiologists (SCA) have joined forces to initiate such a program to provide comprehensive instruction in Basic TEE for all anesthesiologists. The initial plan is to offer four such courses annually.

This course is designed to introduce practitioners to the fundamental principles and applications of TEE. The curriculum of this TEE introductory course is constructed to start with the most basic concepts of ultrasound imaging, fundamental physics and knobology, scan plane TEE probe manipulation and progress to basic hemodynamic analysis. Integrated throughout the program are case examples and discussions relevant to the application of TEE to non-cardiac surgical case management. Incorporation of hemodynamic data from traditional sources such as a pulmonary artery catheter with cardiac images and pressures obtained from TEE will illustrate the utility of TEE in this setting.

The course is meant to be a first step, an introduction and a cornerstone upon which a novice can progress towards a complete understanding and enable him or her to feel comfortable and confident about integrating TEE into the anesthetic management of his or her patients.

Those interested in advancing their knowledge further may elect to stay in San Diego and continue their education by attending the Basic and/or Advanced courses.

Designation Statement

The Society of Cardiovascular Anesthesiologists designates this educational activity for a maximum of 17.25 AMA PRA Category 1 Credit(s)™. Physicians should only claim credit commensurate with the extent of their participation in the activity.

Please visit SCA’s web site at www.scahq.org for registration and hotel information.
Overview and Introduction to TEE

SATURDAY, APRIL 18, 2009

Welcome and Introduction: Why you are here
- GS Hartman

What You Know Now
- GS Hartman, Sk Shernan

Pre-test

Basics of Ultrasound Imaging of the Heart

How are TEE Images Created?
- JS Shanewise

2-D Image Generation Doppler Imaging Modalities

Making a Perfect Picture
- SK Shernan

Knobology

Image Optimization

TEE Probe Manipulation
- GS Hartman

Probe Manipulations and Scan Planes

Coffee Break

You're in the Driver's Seat
- SK Shernan, GS Hartman

Knobology and Image Optimization Workshop - Discussion

The Fundamentals of a TEE Examination

Let's Have a Look at Your Heart
- D Shook, RM Savage

Cardiac Anatomy: Surface and Internal Anatomy
Lecture plus Anatomical Sections (Pro-section)
Surface Anatomy and TEE Views
LV & RV, Aortic Valve and Ascending Aorta

Images that aren't real
- SK Shernan

11:30 - 12:00 pm
What You Should Examine
- JS Shanewise

Basic Examination and Standard Views

12:00 - 12:15 pm
Lunch
(Boxed lunch provided)

Open Panel: Cases and Questions

The Roster
Identification of Cardiac Structures
Aortic Valve - GS Hartman
Mitral Valve - SK Shernan
Left Ventricle - RM Savage
Thoracic Aorta/Pericardium - JS Shanewise
Right Ventricle - CA Troianos
Pulmonary Veins/Lung Arteries - A Cheung
Liver – A Cheung

1:30 - 2:00 pm
It's All in the Motion
- SK Shernan

LV and RV RWMA

2:00 - 2:30 pm
Ultrasound for Vascular Access
- CA Troianos

2:30 - 3:00 pm
Why is My Patient Blue?
- D Shook

ASDs, PFOs, Shunts

3:00 - 3:30 pm
Show me the Money
- CA Troianos

A non-cardiac TEE Service
Setup/Remuneration/Staffing/Billing

3:30 - 4:00 pm
Coffee Break

4:00 - 4:30 pm
My Patient is Sick, What Can I Do?
Case Examples: RM Savage, SK Shernan, KE Glas, AT Cheung

5:00 - 5:15 pm
Post Test and Wrap-up
- SK Shernan

6:00 - 7:00 pm
Cases and Questions - Panel

SUNDAY, APRIL 19, 2009

Welcome and Announcements

8:00 - 8:30 am
Cardiac Anatomy
- D Shook, RM Savage

Heart Prosection Demonstration
Mitral Valve, Tricuspid & Pulmonic Valves, Right and Left Atrial Structures

8:30 - 9:00 am
The Pressure is On
- D Shook

Quantitative Echo I - Principles

9:00 - 9:30 am
Basic Hemodynamics
- CA Troianos

Quantitative Echo II

Basic Hemodynamic Calculations & Examples

9:30 - 10:00 am
Coffee Break

10:00 am - 12:00 pm
The Broken Heart
Cardiac Pathology Workshop
Pericardial/Pericardial Effusions - KE Glas
Aortic Stenosis - RM Savage
Aortic Insufficiency - JS Shanewise
Mitral Stenosis - D Shook
Mitral Regurgitation - SK Shernan
LV + RV Global Function – AT Cheung

12:00 - 12:15 pm
Lunch
(Boxed lunch provided)

Why, where, and for whom
- RM Savage

What Do All Those Letters Mean? iTEE vs. PTEE
Exam Goals for Introduction to Echo/TEE Certification

1:00 - 1:30 pm
Rescue TEE
- RM Savage

Paediatric TEE - KE Glas
Non-cardiac case studies

1:30 - 2:00 pm
It's All in the Motion
- SK Shernan

LV and RV RWMA

2:00 - 2:30 pm
Ultrasound for Vascular Access
- CA Troianos

2:30 - 3:00 pm
Why is My Patient Blue?
- D Shook

ASDs, PFOs, Shunts

3:00 - 3:30 pm
Show me the Money
- CA Troianos

A non-cardiac TEE Service
Setup/Remuneration/Staffing/Billing

3:30 - 4:00 pm
Coffee Break

4:00 - 5:00 pm
My Patient is Sick, What Can I Do?
Case Examples: RM Savage, SK Shernan, KE Glas, AT Cheung

5:00 - 5:15 pm
Post Test and Wrap-up
- SK Shernan