

2008 Annual Meeting Learning Objectives

WEDNESDAY, JUNE 18, 2008

Refresher Course Lectures

Ischemic preconditioning: Where are we after 10 years

Speaker: J Kersten

At the conclusion of this lecture the participant will understand the scientific basis for ischemic preconditioning and its ability to clinical practice

Cardiopulmonary Bypass Catastrophes: When Seconds Count

Speaker: G Gravlee

At the conclusion of this lecture the participant will have an appreciation of the treatment diagnostic and options available for cardiopulmonary bypass catastrophes

Regional Anesthesia on the Frontline: Lessons learned from Iraq

Speaker: I Black

At the conclusion of this lecture the participant will have an appreciation of regional anesthesia techniques, utility of factor VII and anesthesia hardships encountered in times of war.

Thrilla in Manila, the Aprotinin controversy continues

Speaker: D Mazer

At the conclusion of this lecture the participant will be updated on the status of the literature supporting the use of Aprotinin

Renal Failure after Cardiothoracic Surgery

Speaker: M Stafford-Smith

At the conclusion of this lecture the participant will gain an appreciation of the significance of postoperative renal dysfunction following cardiac surgery and ways to minimize it.

Pharmacoepidemiology of Cardioprotective Medications: Implications for the Clinician

Speaker: M London

At the conclusion of this session the participants should be able to: 1) Review the literature on indications for and efficacy of Cardioprotective orally administered preoperative medications (antianginals, antihypertensives, statins and antiplatelet agents) in general medical populations using large scale pharmacoepidemiologic analyses and practice guidelines. 2) Consider the implications for individual clinicians performing a preoperative anesthesia assessment focusing on vascular, thoracic and cardiac surgery. 3) Consider the implications for hospitals and health care organizations of compliance with (or not) such information. 4) Correlate such data with smaller perioperative studies used for perioperative guideline development.

THURSDAY, JUNE 19, 2008

Evidence-Based Practice

Moderators: C Spies/D Mazer

Evidence based cardiology interventions (stent update)

Speaker: M Knudtson

At the end of this session, the participant will understand the latest evidence for percutaneous interventions including stenting, and will learn about evidence based cardiologic interventions that can affect the perioperative management of cardiovascular patients.

Evidence based perfusion practice

Speaker: K Shann

At the end of this session the new paradigm of evidence-based perfusion practice will be reviewed. A framework for interdisciplinary collaboration and the creation of the International Consortium for Evidence-Based Perfusion (ICEBP) will be discussed.

Evidence based transfusion practice

Speaker: C Koch

At the conclusion of this session, the participant will understand the benefits and risks of allogeneic transfusion, and will understand the evidence for recent practice guidelines for transfusion of blood products.

Evidence based monitoring

Speaker: H Grocott

At the conclusion of this session, the participant will learn about different techniques for intraoperative monitoring of neurologic function and understand the rationale for their use.

Session A: Professional Development: When Patient Care is the Easy Part

Moderator: D Zvara

Dealing with the disruptive colleague: record keeping, counseling and steps to dismissal

Speaker: S Barker

At the conclusion of this session, techniques for recognizing and establishing appropriate guidelines for performance will be discussed for the disruptive employee. Steps toward dismissal will be reviewed from an ethical and legal perspective.

Narcotic and substance abuse in clinical practice: How to recognize it and what to do about it

Speaker: K Turner

At the conclusion of this session the participant will learn the clues suggesting substance abuse in the work place and the appropriate steps to create and implement an action plan to deal with an impaired colleague.

Session B: DHCA - Strategies to Improve Outcomes after Deep Hypothermic Circulatory Arrest

Moderator: A Cheung

At the conclusion of this session the participants should be able to: 1) Understand the current controversies surrounding the safe conduct of deep hypothermic circulatory arrest such as: a) what is the safe duration of circulatory arrest? b) what is the optimal temperature for deep hypothermia? c) what is the best way to perfuse the brain? d) how should cerebral metabolism be monitored? and e) should pH be managed using alpha-stat or pH-stat? 2) Learn the evidence from published clinical studies that support what the best practices are for the conduct of deep

hypothermic circulatory arrest. 3) Learn what experimental evidence exists to support what the best practices are for the conduct of deep hypothermic circulatory arrest.

Session A: Contemporary Management of the Thoracic Surgical Patient

Moderator: K Turner

At the conclusion of this session, the participant will: 1) Understand respiratory physiology as it applies to the practice of anesthesiology; distribution and determining factors of ventilation and perfusion in the normal, diseased and anesthetized lung, commonly used pulmonary function tests, anatomy of the bronchial tree and ways of lung isolation 2) Understand pathophysiology, treatment and prevention of acute lung injury: determine role of fluid perioperative fluid management as cause and preventive measure; outline evidence based postoperative care in a patient with acute lung injury. 3) Understand current trends in lung transplantation: review of donor and recipient selection; indication of single vs. double lung transplant; perioperative management of the patient presenting for lung transplantation; outcome studies and future therapy options for end-stage lung disease.

Session B: CCAS: Adults with Congenital Heart Disease: Overview, non-Echocardiographic Imaging and the Pregnant Patient

Moderators: K Rouine-Rapp/C Ramamoorthy

An attendee of this session will be able to explain common congenital heart lesions. He/she will compare and contrast non-echocardiographic imaging technologies used to evaluate adults with such lesions. In addition, he/she will assess a pregnant patient with a single ventricle, plan her management, and estimate her perioperative risk.

Overview of CHD

Speaker: H Holtby

Following this lecture the participant will describe the most common congenital heart lesions. He/she will recognize associated defects and summarize the physiology associated with lesions discussed. A “classic” echocardiographic image will be included for each lesion to enable the participant to visualize the congenital defect.

Non-echocardiographic imaging technologies

Speaker: F Chan

Following this lecture, the participant will be able to explain non-echocardiographic imaging technologies used currently to evaluate adult patients with CHD. He/she will list the indications for the use of MRI and MRA to evaluate these patients and anticipate information provided by non-echocardiographic technologies discussed.

The pregnant patient with a single ventricle

Speaker: S Sundar

Following this lecture the participant will define consensus recommendations for the care of a pregnant patient with a single ventricle. He/she will use these recommendations to choose the most appropriate location for the pregnant patient with a single ventricle to deliver her baby. He/she will discuss the options of her anesthetic care provider and assess her lesion-specific perioperative risk.

Session A: Gender Issues in Cardiovascular Medicine - Why can't women be more like men?

Moderator: M Brady

At the conclusion of this session, participants will be able to: 1) Summarize the differences between the female and male profiles of patients presenting for coronary artery bypass grafting. Specifically, participants will be able to recognize the extent to which these differences are related to gender per se, individual risk factors, or the methodology behind evaluating these differences. 2) Identify the differences in outcome between men and women in terms of the short and long term benefits of coronary artery bypass grafting. In addition, participants will be able to summarize the reasons why these differences occur. 3) Better understand the current controversies of estrogen replacement therapy in cardiovascular surgery including its effect on perioperative risk, short and long term outcome, and the pharmacodynamic and pharmacokinetic responses to perioperative and intraoperative medications.

Session B: Pharmacology: Novel Pharmacology for Cardiac Anesthesia

Moderators: A Fox/J Takeda

At the conclusion of this session, participants will be able to: 1) understand the evidence for and against using propofol for myocardial protection in cardiac surgery. 2) understand the evidence from published clinical studies regarding the efficacy of both inhaled milrinone and prostacyclin for treating perioperative pulmonary hypertension and to review the advantages and disadvantages of these therapies as compared to inhaled nitric oxide and intravenously administered pulmonary vasodilators. 3) learn what the evidence shows regarding the pros and cons of perioperative ACE-inhibitor and angiotensin receptor blocker use with cardiovascular surgery.

Session C: Crazy Stuff and Wild Times

Moderator: K Rehfeldt

At the conclusion of this session, participants will be able to evaluate the potential benefits as well as the limitations inherent to minimally invasive surgical approaches to cardiovascular diseases. Also, participants will be able to review the current status of percutaneous treatments available for coronary artery and aortic valve disease.

OPCAB revisited: Is there really any benefit?

Speaker: D Cheng

At the conclusion of this lecture, participants will be able identify the potential benefits of coronary surgery without cardiopulmonary bypass. Also, participants will review the data related to graft patency following OPCAB procedures.

Coronary stents: Are we going back to bare-metal?

Speaker: H Ramikrishna

At the conclusion of this lecture, participants will understand the rationale for the placement of drug-eluting coronary stents. In addition, the participant will recognize the risks of stent thrombosis and develop a framework for the perioperative management of patients who have undergone coronary stent procedures.

Percutaneous aortic valve replacement: Is this the way of the future or the way out future?

Speaker: R Savage

At the conclusion of this lecture, the participant will understand the current status of percutaneous aortic valve replacement. In addition, the participant will recognize which patients might benefit from the procedure and how echocardiography is used to evaluate the outcome in the cath lab.

FRIDAY, JUNE 20, 2008

Monograph Session: Medically Challenging Patients Undergoing Cardiothoracic Surgery

Moderator: N Cohen

This panel will include a discussion of selected underlying medical conditions and their impact on the perioperative management of patients undergoing cardiothoracic surgery. The discussion will highlight the clinical issues posed by these conditions and define strategies to address them.

Session A: Contemporary Issues in Vascular Surgery

Moderator: B Donahue

After this session, the participant should be able to: Discuss epidemiology of major vessel vascular disease and the general surgical approaches to its management. Identify criteria for selection of endovascular vs open techniques. Describe an algorithmic approach to perioperative management of the vascular surgery patient. Discuss current literature on management of both carotid and coronary vascular disease. Provide rationale for the use of TEE in major vascular surgery and endovascular stent procedures.

Anesthesia and the endovascular stenting patient

Speaker: M Andritsos

After this presentation, the participant should be able to: Discuss patient selection for endovascular stenting of abdominal and thoracoabdominal aneurysms. Discuss the indications for endovascular stent-grafts in abdominal and thoracoabdominal aneurysms. Compare anesthetic techniques and address considerations for endovascular stenting of abdominal and thoracoabdominal aneurysms. Compare morbidity rates following endovascular and open procedures.

Carotid disease and CABG: recent data on surgical timing and outcome

Speaker: J Ellis

After this presentation, the participant should be able to: Describe the epidemiology for concordance of carotid artery disease and coronary artery disease. Describe the mechanisms and risk of cerebrovascular accident following cardiopulmonary bypass. Compare on-pump and off-pump CABG for neurological outcome. Compare staged to combined procedures for treating combined carotid-coronary disease. Manage patients for carotid angioplasty and stenting and/or percutaneous coronary intervention and/or minimally invasive coronary bypass surgery. Describe use of TEE and epi-aortic scanning to detect aortic atherosclerosis

Evidence-based perioperative evaluation in vascular surgery patients

Speaker: A Ochroch

After this presentation, the participant should be able to: Discuss the current standard for assessment of cardiac risk. Review the impact on perioperative preparation on postoperative

renal function. Outline a cost effective preoperative testing regimen. Analyze the appropriate use of consultants.

The use of ultrasound during vascular anesthesia: from line placement to LV assessment

Speaker: G Hartman

After this presentation, the participant should be able to: Understand the indications and applications of surface ultrasound for vascular access, including central venous, peripheral venous and arterial cannulations. Discuss the utility of TEE for non cardiac cases, specifically patients undergoing vascular surgery. Develop a better understanding of the pathophysiology than that afforded by pulmonary artery catheterization. Discuss utility of TEE for endovascular stent placement procedures

Session B: Anesthesia & Analgesia - Aprotinin in Cardiac Surgery and the FDA

Moderator: C Hogue

At the conclusion of this lecture the attendee will: 1) Have an understanding of the safety monitoring of aprotinin by the FDA 2) Be informed of the current standing of aprotinin for use in cardiac surgery.

Session C: ASCCA/SCA Joint Session Critical Care 2008

Moderator: M Wall

At the conclusion of this session, the participant will: 1) Understand how intraoperative mechanical ventilation may affect normal and abnormal lungs, and the role of intra-operative ventilation and acute lung injury; 2) Understand the role and current controversies around vasopressin and steroid use in sepsis and septic shock 3) Be exposed to the top critical care papers from 2007-2008 that are of interest to cardiothoracic and vascular anesthesiologists and intensivists.

Session A: HIT

Moderators: D Royston/C Koch

Incidence and methods of presentation of HIT

Speaker: C Carter

At the conclusion of this session the participants should be able to: 1) Review the diagnostic criteria for suspicion of HIT based on the various published guidelines (ACCP Chest 2004/British Society BJ Haematol 2006) and with particular reference to monitoring of platelet count the 4T's system. 2) Discuss the various tests available to confirm the diagnosis of HIT to include: Diamed particle gel (results in 1-2 hrs); PF4 antibody testing (results in days to weeks) Heparin induced platelet aggregation (not available in most centres); Serotonin release (research test unavailable in nearly all centres). This section would include sensitivity and specificity of these test systems.

Session: B: SAGA/SCA Joint Session: Controversies in Preoperative Evaluation of the Elderly Patient

Moderator: G. A. Rooke

By the end of the session, the participant should understand factors that increase risk of perioperative complications, especially in older patients. The participant should also understand

what steps can be taken to prevent such complications as heart failure, delirium, cognitive decline and myocardial infarction

Session C: SCA Debates: Workforce Paradigms in Cardiothoracic and Vascular Anesthesiology

Moderator: D Zvara

The SCA should recommend credentialing guidelines to hospitals for CT Anesthesiologists

Speakers: G Gravlee/G Roach

By the end of the session, the participant will review the pros and cons of credentialing guidelines of CT anesthesiologists. The information will assist in developing local and regional guidelines for care.

The SCA should recommend that low volume programs close

Speakers: M Chaney/ B Murphy

By the end of the session, the participant will review the pros and cons of providing care in low volume cardiovascular centers. The information will assist in developing local and regional guidelines for care.

SATURDAY, JUNE 21, 2008

Ischemic MR

Moderators: S Lambert/S Reeves

At the end of the session, the participants will be familiar with the pathophysiology and mechanism of ischemic mitral regurgitation. They will better appreciate the challenges associated with the echocardiographic evaluation and therapeutic decision making in the operating room. Finally, they will have a good understanding of the surgical management options in ischemic MR.

Understanding Ischemic MR

Speaker: D Rubenson

At the end of the session, the participant will better understand the mechanism and pathophysiology of ischemic MR, as well as the preoperative work up of these patients. They will understand the functional and prognostic implications of MR in patients requiring coronary revascularization.

Intraoperative Evaluation of Ischemic MR

Speaker: S Sherman

At the end of the session, the participant will learn echocardiographic evaluation of ischemic MR, with an emphasis on the special challenges associated with anesthetized patients. They will become familiar with new diagnostic modalities available to the clinician and they will understand the intraoperative decision making process and the postoperative evaluation.

The Surgical Approach to Ischemic MR

Speaker: S Bolling

The participants will understand the various issues surrounding the surgical management of ischemic MR, including when to repair or not to repair, various techniques used to address ischemic MR and the literature to support them.

Session A: How's Your Sugar, Daddy?

Moderator: F Beique

Intraoperative Glycemic Control: It Just Makes Sense!

Speaker: B Kohl

By the end of this discussion, the participant should be able to: Understand the etiology of perioperative hyperglycemia in the cardiac surgical patient 2) Summarize the pertinent literature regarding perioperative glycemic control 3) Incorporate the knowledge gained into a rational, 'take-home' intraoperative glycemic control strategy

Intensive Insulin Therapy During Cardiac Surgery Does Not Reduce Perioperative Death or Morbidity

Speaker: M Abel

To convince the audience that aggressive control of blood glucose during cardiac surgery may be more dangerous than helpful

Session B: Research: Multicenter Trials and Research Consortia: The Whole is Bigger Than the Sum of the Parts

Moderator: H Grocott

The participants will: 1) Gain an understanding of who are some of the leading multicenter groups performing research in cardiovascular anesthesia and surgery; 2) Better understand the need for large multicenter trials and how some of the important questions in our specialty can only be addressed with these large consortia; 3) Understand some of the nuances of how a multicenter trial group is organized, including their advantages, unique capabilities, as well as intrinsic logistical and other difficulties.

Session A: The Forgotten Ventricle: Understanding Right Ventricular Function

Moderators: B Drenger/M Stone

At the conclusion of this session, the participant will be able to: 1) Explain the physiology underlying normal right ventricular function, 2) Describe the pathophysiology of right ventricular failure, 3) Explain how transesophageal echocardiography can be used to assess pulmonary hypertension and right ventricular failure 4) Discuss the current medical management of pulmonary hypertension 5) Discuss surgical options for the management of right ventricular failure

Issues in Blood Banking That Impact Outcomes: Leukoreduction Depletion, Female Plasma Donors: What's the Data?

Speaker: G Growe

There are changes in blood banking that impact the blood product administered in the perioperative period. The objective of the session is to become aware of the rationale for changes as they relate to blood products and patient outcomes. At the conclusion of the session the participant should be able to understand: 1) The rationale for the practice of leukocyte depletion of blood products; 2) The data on patient outcomes associated with non-leukocyte depleted blood products; and 3) The rationale for the practice excluding of female plasma donors.

Age of Red Cells: Does Shelf Life Matter?

Speaker: C. D. Mazer

There are a number of hemorheological changes that occur with red blood cells as the duration of storage increases. Some of these changes are time-dependent, others are not. At the conclusion of this session the participants should be able to: 1) To review hemorheological properties associated with red blood cells as the red cell unit shelf life increases. 2) To critically evaluate current data relating patient outcomes to age of the red cell product.

Red Cell Alternatives: Are We Any Closer or Just One Day Older?

Speaker: B Spiess

Rationale for finding an alternative to the donor red blood cell are many and relate to economics, limited resources, and associated morbidity. While there is no currently available red cell substitute in clinical practice, technological advancements have created a potential for new substitutes in the future. At the conclusion of this session the participants should be able to: 1) Provide background information and current status of research related to red cell substitutes: hemoglobin-based oxygen and perfluorocarbon-based oxygen carriers. 2) Better understand limitations and complications related to the use of synthetic red cell alternatives. 3) Provide information on the future direction of red cell substitutes- on the operating room shelf soon?

Emerging Recombinant Clotting Factors: When, in Whom, and How Much

Speaker: L Shore-Lesserson

While recombinant clotting factors have been successfully developed, specific indications for use of these factors in patients undergoing cardiovascular surgery is unclear. At the conclusion of this session the participants should be able to: 1) Understand the mechanism of action for recombinant factors 7 and 13. 2) Understand the clinical indications as well as side effects of factors 7 and 13. 3) Discuss clinical paradigms for the use of recombinant factors in clinical practice.

Echo Jeopardy

Speakers: A Maslow/ P Panzica/R Savage/F Mahmood

To present and review wide range of echocardiographic images and cases in a game format. At the end of the session the audience will have reviewed a wide array of echocardiographic topics in a game format. They will also have had some fun.

SUNDAY, JUNE 22, 2008

Headaches, Heart Aches and Hangovers: A rapid fire case based TEE conference on the images that drive us all crazy

Moderators: Maslow/Cheung

The objectives of this Post SCA Party session are to: Present and discuss the management of an array of challenging cardiac, thoracic, and vascular cases. The audience will be encouraged to actively participate in the evaluation, planning, and management of such patients. The presentations will include available laboratory and imaging data pertinent to each case. Literary references applicable for each of the cases will be cited.