Thoracic Anesthesia Symposium – Learning Objectives

General Sessions

8 – 9 am  Panel 1: Thoracic Dramas
Moderator: Philip Hartigan, MD

At the end of the session participants will be better able to:
1. Describe the effect of induction of general anesthesia on tracheal lumen patency.
2. Describe the effects of spontaneous versus positive pressure ventilation on tracheal lumen patency.
3. Describe maneuvers to rescue the airway of patients who develop complete tracheal obstruction.

9 – 9:30 am  Three Best Papers in Thoracic Anesthesia
Moderator: Peter Slinger, MD

At the end of the session participants will be better able to:
1. Understand the incidence of chronic pain after thoracic surgery.
2. Review the prophylaxis of postoperative atrial fibrillation.
3. Develop a plan for intraoperative management of one-lung ventilation.

12:45 – 1:15 pm  Top Abstracts and Difficult Cases
Moderator: Alessia Pedoto, MD

At the end of the session participants will be better able to:
1. Understand cutting edge research and its potential impact on anesthetic care.
2. Critically analyze clinical cases where the patient’s native disease and the surgery affect the anesthetic.
3. Engage in a group discussion on the pathophysiology of the disease that prompted the specific management presented and see if there were acceptable alternatives.

2 – 3 pm  Session 1: Everyday Challenges
Moderator: Javier Campos, MD

At the end of the session participants will be better able to:
1. List characteristic pathophysiologic features of chronic obstructive pulmonary disease.
2. State how to optimize management of the COPD patient undergoing thoracic surgery.
3. Describe strategies for treatment of adverse outcomes following thoracic surgery.
4. Describe the anatomic and respiratory physiologic changes associated with the obese patient.
5. Describe the airway management and oxygenation in obese patients undergoing one-lung ventilation.
7. Describe the different non-invasive ventilation techniques along with their unique benefits and risks.
8. Discuss the evidence for non-invasive ventilation rescue of acute respiratory failure in thoracic surgery patients.
9. Propose indications for non-invasive ventilation in postoperative thoracic surgery patients and a how-to approach to implementing it.

Moderator: Wanda Popescu, MD

At the end of the session participants will be better able to:
1. Understand the utility and evidence of performing preoperative rehabilitation.
2. Interpret the data on enhanced recovery programs for thoracic surgery.
3. Identify changes in anesthetic management of thoracic surgical patients which promote an enhanced recovery.

3:15 – 4:15 pm Session 2: Experts and Controversies
Moderator: Wanda Popescu, MD

At the end of the session participants will be better able to:
1. Gain understanding of possible solutions to difficult thoracic anesthesia clinical scenarios.
2. Compare and discuss advantages/disadvantages of various management strategies in thoracic anesthesia.

6:10 – 6:55 pm Thoracic Jeopardy!
Moderator: Peter Slinger, MD

At the end of the session participants will be better able to:
1. Understand advances in the options for lung isolation in thoracic surgery.
2. Discuss the physiology of one-lung ventilation.
3. Review relevant pharmacology.

Workshops

Chest Decompression: Tubes, Needles, and Emergencies
Moderator: Emily Teeter, MD

At the end of the session participants will be better able to:
1. Describe the steps and demonstrate the technique for needle decompression (needle thoracostomy).
2. Describe the steps and demonstrate the technique for the placement of both standard chest tubes and pig tail chest tubes.
3. Describe the basic physiology of chest tubes, as well as review the basic components of the chest tube box.
4. Identify common chest tube issues and discuss ways to evaluate and treat these issues.
Lung Isolation: Normal and Challenging Airway  
Moderator: Kenichi Ueda, MD

At the end of the session participants will be better able to:
1. Describe the indications of lung separation techniques with a right or left-sided double-lumen tube (DLT) or bronchial blockers.
2. Recognize the role of flexible fiberoptic bronchoscopy.
3. Demonstrate Lung separation techniques for difficult airway patient.
4. List the various types of bronchial blockers (Arndt®, Cohen®, Fuji Blocker®, or EZ Blocker®).
5. Describe Airway related complications with lung separation devices.

Thoracic Ultrasound: Diagnosis and Management  
Moderator: Massimiliano Meineri, MD

At the conclusion of this session participants will:
1. Understand the common lung ultrasound planes of cut
2. Select the appropriate probe for all lung ultrasound applications
3. Obtain view of the pleura and the plural space
4. Understand the ultrasonographic diagnosis of pneumothorax
5. Understand the ultrasonographic diagnosis of pleural effusion

Problem-Based Learning Discussions (PBLDs)

PBLD 1: Optimal Pain Management for VATS  
Donn Marciniak, MD; Alessia Pedoto, MD

At the end of the session participants will be better able to:
1. Perform an appropriate preoperative evaluation of a patient coming for a thoracic procedure and identify the appropriate analgesic options.
2. Identify the possible indications/contraindications of the available analgesia modalities.
3. Consider the role adjuvants given in the preoperative, intraoperative and postoperative period.
4. Assess the analgesic plan as part of enhanced recovery pathway after surgery (ERAS) and perioperative surgical home (PSH) paths.
5. Possible role of different analgesics on cancer recurrence

PBLD 2: Carinal Resection: Nuts & Bolts  
Philip Hartigan, MD; Ju-Mei Ng

At the end of the session participants will be better able to:
1. Describe strategies for the safe induction of patients with severe tracheal obstruction.
2. Describe the options for ventilation during the phase of carinal resection surgery that the airway is divided.
3. Describe options for management of hypoxemia during the divided airway phase of carinal resection surgery.

PBLD 3: Lung Transplantation: Management Decisions  
Peter Slinger, MD; Kenichi Ueda, MD

At the end of the session participants will be better able to:
1. Describe the indications for lung transplantations and decision making related to single-versus double-lung transplantation
2. Describe the intraoperative transesophageal echocardiography (TEE) assessment for lung transplantation.
3. Describe operative management for lung transplantation, including indications for cardiopulmonary bypass.

PBLD 4: The Patient with Cardiac Disease for Pulmonary Resection
Diana Anca, MD; Wanda Popescu, MD

At the end of the session participants will be better able to:
1. Discuss preoperative cardiac evaluation for the patient undergoing thoracic surgery.
2. Examine anesthetic implications of potential preoperative cardiac interventions in relation with the proposed thoracic procedure.
3. Describe the potential complications of thoracic surgery in patients who have undergone preoperative cardiac interventions.

PBLD 5: Esophagectomy: Just a Belly Case in the Chest?
Stephen Collins, MD; Randal Blank, MD

At the end of the session participants will be better able to:
1. Understand the pathophysiologic implications of transthoracic esophagectomy surgery and risks factors for perioperative complications.
2. Appreciate the importance of anesthetic strategies in reducing postoperative respiratory and anastomotic complications.
3. Develop a rational approach to anesthetic management of esophagectomy patients in order to optimize perioperative outcomes.

PBLD 6: Post-Op Management of Complications from Pulmonary Resection
Chris Durkin, MD; Jens Lohser, MD

At the end of the session participants will be better able to:
1. Identify a list of common and serious complications after major lung resection.
2. Discuss considerations for appropriate disposition after lung resection in terms of location and duration.
3. Discuss an approach to the diagnosis and management of lobar torsion.
4. Discuss the etiology and treatment of bronchopleural fistula.
5. Discuss the etiology and treatment of atrial fibrillation after major lung resection.
6. Discuss the role of non-invasive ventilation in the management of acute respiratory failure after major lung resection.

PBLD 7: ECMO in Thoracic Surgery
Rebecca Klinger, MD; Eleanor Vega, MD

At the end of the session participants will be better able to:
1. Identify specific patient risk factors and thoracic surgical procedures that may benefit from extracorporeal membrane oxygenation (ECMO).
2. Develop a strategy for the initiation, management, and discontinuation of ECMO for thoracic surgery.
3. Identify and discuss the treatment of potential complications/hazards of ECMO.
4. Discuss the role of transesophageal echocardiography (TEE) for the management of ECMO.