An Overview of Perioperative Medicine 2017:  
From Outpatient Preoperative Assessment to Inpatient Postoperative Care

WEDNESDAY, OCTOBER 25, 2017

6:00 a.m.  Continental Breakfast and Registration

7:30 a.m.  Welcome and Course Overview

7:45 a.m.  Perspectives on the Multi-Disciplinary Approach to Perioperative Medicine  
Margaret Beliveau, M.D., David R. Danielson, M.D., Deanne T. Kashiwagi, M.D., and Tad M. Mabry, M.D.
- What are the roles of the medical consultant?
- What should a preoperative evaluation include?
- How can a multidisciplinary approach optimize patient care?

8:15 a.m.  Anesthesia Alerts for the Non-Anesthesiologist  
David R. Danielson, M.D.
- What does the medical consultant need to know about paralytic agents and the physiologic effects of anesthesia?
- Do we still need to perform flexion and extension films of the neck for patients with RA or Down Syndrome?
- What evidence is there to guide the “infield” vs “outfield” decision?
- What are the updates to the fasting guidelines?
- How do I accurately assign an ASA score?

8:45 a.m.  Cardiac Risk Assessment: Using Guidelines to Direct Practice  
Karen F. Mauck, M.D.
- How do I apply the current ACC/AHA guidelines to preoperative cardiac risk assessment?
- Should I use the Gupta or the RCRI cardiac risk calculator?
- Does it matter which stress test I order?
- When should I order a preoperative ECG?

9:30 a.m.  Question and Answer Session  
Margaret Beliveau, M.D., David R. Danielson, M.D., Deanne T. Kashiwagi, M.D., Karen F. Mauck, M.D., and Tad M. Mabry, M.D.

9:45 a.m.  Refreshment Break

10:00 a.m.  Cardiac Risk Reduction Strategies – Medical and Interventional  
Howard H. Weitz, M.D.
- What are the risks of general vs spinal anesthesia with respect to cardiac outcomes?
- What is the evidence for perioperative beta-blocker, statin and alpha-2-agonist use?
- When is cardiac revascularization indicated prior to non-cardiac surgery?
- When is a resting echocardiogram indicated prior to surgery?
- How long should patients wait to have surgery after MI or revascularization?
10:45 a.m.  Perioperative Medication Management: Prescription & Non-Prescription Medication
Moderator: Karna K. Sundsted, M.D.
Panel: Margaret Beliveau, M.D., David R. Danielson, M.D., Geno J. Merli, M.D., and Howard H. Weitz, M.D.
  • What issues need to be considered with perioperative medication management?
  • What are some drugs that need to be held for surgery?
  • What are the issues with some of the newer weight loss drugs?
  • What should I recommend to my patients regarding dietary supplements perioperatively?

11:30 a.m.  Understanding Perioperative Fluid Management
John B. Bundrick, M.D.
  • What is unique about fluid management perioperatively?
  • Which is better-- liberal or restrictive fluid management?
  • What type of fluid is optimal?

12:00 p.m.  Question and Answer Session
John B. Bundrick, M.D., Karna K. Sundsted, M.D., and Howard H. Weitz, M.D.

12:15 p.m.  Lunch on your own

1:45 p.m.  Management of Non-CAD Heart Disease in Non-Cardiac Surgery
Howard H. Weitz, M.D.
  • How do I manage a patient with valvular heart disease perioperatively?
  • How soon after valve replacement can non-cardiac surgery be performed?
  • What issues need to be considered for a patient with heart failure preoperatively?
  • What are the issues with preoperative hypertension?
  • What are the preoperative issues for patients with chronic atrial fibrillation?
  • What perioperative issues need to be considered in a patient with hypertrophic cardiomyopathy?
  • What perioperative issues need to be considered in a patient with pulmonary hypertension?
  • What are the indications for a temporary pacemaker in the perioperative period?
  • How do I manage pacemakers and CIEDs in the perioperative period?

2:45 p.m.  Preoperative Pulmonary Risk Stratification and Risk Reduction Strategies
Robert H. Lohr, M.D.
  • Which factors contribute to pulmonary risk in non-cardiac surgery?
  • Which pulmonary risk index best predicts postoperative pulmonary complications: ARISCAT, Arozullah, Gupta or LIPPSMAck POP?
  • When is pulmonary testing recommended preoperatively?
  • What measures can be employed to help minimize postoperative pulmonary complications in at-risk patients?
  • Do pre-habilitation and inspiratory muscle training have a role in some patients?
  • What are the basic tests to consider when evaluating a patient for lung resection surgery?
• Which patients should be referred to a pulmonary specialist for preoperative evaluation?
• How long should surgery be postponed after pneumonia or other upper respiratory infections?

3:30 p.m. Management of Postoperative Pulmonary Complications
Deanne T. Kashiwagi, M.D.
• What are the most common postoperative pulmonary complications?
• How do I diagnose and treat fat embolism syndrome?
• How do I minimize or treat pulmonary complications in the postoperative period?
• When should non-invasive ventilation considered?

4:00 p.m. High Yield Clinical Shorts: Part 1
• An evidence based approach to preoperative laboratory testing
  Robert H. Lohr, M.D.
• Physiologic effects of laparoscopic surgery and patient positioning
  David R. Danielson, M.D.
• Perioperative considerations in the pregnant patient
  Katherine W. Arendt, M.D.

4:30 p.m. Question and Answer Session
Katherine W. Arendt, M.D., David R. Danielson, M.D., Deanne T. Kashiwagi, M.D., Robert H. Lohr, M.D., and Howard H. Weitz, M.D.

4:45 p.m. Adjourn

5:00 p.m. Optional: Reception and the “Consult Guys”: Myths of Perioperative Care
(no CME provided for this event)
Geno J. Merli, M.D. and Howard H. Weitz, M.D.

THURSDAY, OCTOBER 26, 2017

6:30 a.m. Continental Breakfast

7:00 a.m. Breakfast with the Professor Case Discussions:
Informal Q & A with course faculty
Katherine W. Arendt, M.D. (Perioperative Pregnancy Issues)
Margaret Beliveau, M.D. (Medical Consultation)
David R. Danielson, M.D. (Anesthesiology)
Deanne T. Kashiwagi, M.D. (Perioperative Pulmonary Medicine)
Robert H. Lohr, M.D. (Preop Testing/Preop Pulmonary Risk Stratification)
Karen F. Mauck, M.D. (Cardiac Stress Testing Guidelines)
Karna K. Sundsted, M.D. (Perioperative Medication Management)
Howard H. Weitz, M.D. (Perioperative Cardiology)

7:55 a.m. Announcements
8:00 a.m.  Managing Postoperative Cardiac Complications
Howard H. Weitz, M.D.
- Which patients should have an ECG and/or troponin surveillance for postoperative MI?
- How do I manage hyper- and hypotension postoperatively?
- What are the precipitating factors for postoperative arrhythmias and conduction disorders and how do I manage them?
- Which surgeries and patients have high risk for postoperative atrial fibrillation? Are there ways to prevent postoperative atrial fibrillation? How do I manage postoperative atrial fibrillation?
- How do I diagnose and manage postoperative myocardial ischemia and infarction?
- How important is “troponin leak” postoperatively?
- What special perioperative management is needed for patients with heart failure (systolic heart failure and heart failure with preserved ejection fraction)?

8:45 a.m.  Management of Documented or Suspected Obstructive Sleep Apnea in Patients Undergoing Non-Cardiac Surgery
Eric J. Olson, M.D.
- What are the consequences of OSA in the perioperative period?
- What factors increase risk of postoperative complications in patients with OSA?
- How should patients be screened for OSA?
- What are the risks of obesity hypoventilation syndrome?
- Which patients need to be tested prior to surgery to decrease the risk of potential complications?
- Which patients can be treated as “presumed” OSA and proceed with surgery with additional precautions?
- Are there guidelines available to help guide management of patients with OSA in the perioperative period?
- What postoperative monitoring is recommended for patients with suspected or confirmed OSA?

9:30 a.m.  Question and Answer Session
Eric J. Olson, M.D. and Howard H. Weitz, M.D.

9:45 a.m.  Refreshment Break

10:00 a.m.  DVT/PE Prophylaxis in the Surgical Patient I: The ACCP Guidelines and the Internist’s Perspective
Geno J. Merli, M.D.
- What are the patient- and surgery-related risk factors for perioperative DVT: Caprini vs ACCP risk stratification?
- What do the ACCP guidelines recommend for DVT prophylaxis in surgical patients?
- When is extended DVT prophylaxis indicated?
- How does renal function affect the management of DVT prophylaxis?
- How to prophylaxis patients with hereditary coagulation disorders or previous history of VTE not taking long term oral anticoagulants undergoing major surgery?
10:45 a.m.  DVT/PE Prophylaxis in the Surgical Patient II  
The AAOS Guidelines and the Orthopedist’s Perspective  
**Tad M. Mabry, M.D.**  
- What concerns do orthopedists have about DVT prophylaxis as recommended by the ACCP?  
- What are the AAOS Guideline recommendations for DVT prophylaxis in orthopedic surgical patients?  
- When is extended DVT prophylaxis indicated and which agent is best?

11:15 a.m.  High Yield Clinical Shorts: Part 2  
- Perioperative management of antiplatelet agents  
  **Michael Mikhail, M.D.**  
- Preoperative bleeding risk assessment  
  **Rajiv K. Pruthi, M.D.**  
- Non-cardiac surgery in the patient with pulmonary hypertension  
  **Brian M. Dougan, M.D.**

11:45 a.m.  Question and Answer  
**Brian M. Dougan, M.D., Tad M. Mabry, M.D., Geno J. Merli, M.D., Michael Mikhail, M.D., and Rajiv K. Pruthi, M.D.**

12:00 p.m.  Lunch on your own

1:30 p.m.  Perioperative Management of Anticoagulants (Warfarin): To Bridge or Not to Bridge  
**Paul R. Daniels, M.D.**  
- Which patients with atrial fibrillation need bridging anticoagulation perioperatively?  
- Which patients with mechanical heart valves need bridging anticoagulation perioperatively?  
- Can you recommend an approach to anticoagulation dosing and the timing of bridging?  
- How and when should anticoagulation be restarted after surgery?

2:00 p.m.  Perioperative Management of Target Specific Oral Anticoagulants  
**Geno J. Merli, M.D.**  
- How long should I hold dabigatran, rivaroxaban or apixaban before surgery?  
- Now that some reversal agents are available, should we routinely be using these to expedite DOAC reversal preoperatively in patients who need urgent surgery?  
- When should target specific oral anticoagulants be restarted postoperatively?  
- Do patients on target specific oral anticoagulants need to be bridged?  
- How do I manage prolonged DVT prophylaxis in patients who are also taking dabigatran, rivaroxaban, edoxaban or apixaban?  
- How should we reverse these agents if major bleeding occurs?

2:45 p.m.  Question and Answer  
**Paul R. Daniels, M.D. and Geno J. Merli, M.D.**
3:00 p.m.  Common Hematology Issues in the Perioperative Period  
Rajiv K. Pruthi, M.D.  
- Which transfusion strategy is best in the perioperative period—conservative or liberal?  
- What should trigger transfusion in the postop period?  
- When is FFP indicated preoperatively?  
- What is the role of platelet transfusion in patients taking antiplatelet agents who need emergent or urgent surgery?  
- How do I diagnose and treat heparin induced thrombocytopenia in the perioperative period?  
- How do I manage non-HIT thrombocytopenia?  
- How do I manage patients with sickle cell disease perioperatively?

3:45 p.m.  High Yield Clinical Shorts: Part 3  
- Which patients might benefit from a nutrition consultation preoperatively?  
  Dennis W. Regan, M.D.  
- Three most important perioperative rheumatology considerations  
  Kevin G. Moder, M.D.  
- Perioperative management of non-cardiac devices  
  Katherine W. Arendt, M.D.  
- Perioperative management of rheumatologic medications  
  Kevin G. Moder, M.D.  
- Special perioperative considerations in cancer patients  
  Brian M. Dougan, M.D.

4:35 p.m.  Question and Answer Session  
Katherine W. Arendt, M.D., Brian M. Dougan, M.D., Kevin G. Moder, M.D., and Dennis W. Regan, M.D.

4:50 p.m.  Adjourn

FRIDAY, OCTOBER 27, 2017

6:30 a.m.  Continental Breakfast

7:00 a.m.  Breakfast with the Professor Case Discussions:  
Informal Q & A with course faculty  
Katherine W. Arendt, M.D. (Anesthesiology, Devices, Pregnancy)  
Paul R. Daniels, M.D. (Anticoagulation Bridging)  
Brian M. Dougan, M.D. (Pulmonary Hypertension)  
Tad M. Mabry, M.D. (VTE Prophylaxis and Orthopedic Surgery)  
Geno J. Merli, M.D. (VTE Prophylaxis and Target Specific Anticoagulants)  
Michael Mikhail, M.D. (Antiplatelet Agents)  
Kevin G. Moder, M.D. (Rheumatology)  
Eric J. Olson, M.D. (Pulmonary, Sleep Apnea)  
Rajiv K. Pruthi, M.D. (Hematology/ Bleeding)  
Dennis W. Regan, M.D. (Nutrition)  
Howard H. Weitz, M.D. (Cardiology)

7:55 a.m.  Announcements
8:00 a.m.  **High Yield Clinical Shorts: Part 4**
- Peripheral vascular disease in orthopedic surgery
  *Geno J. Merli, M.D.*
- Special considerations in the bariatric surgery patient
  *Margaret Beliveau, M.D.*
- Perioperative “hard stops”
  *Michael A. Mikhail, M.D.*

8:30 a.m.  **Managing the Diabetic Patient in the Perioperative Period**
*Vinaya Simha, M.B.B.S., M.D.*
- Should I be screening for diabetes preoperatively in patients who are at risk?
- When would I recommend postponing an elective surgical procedure because of poor diabetic control?
- How should I manage patients on insulin therapy in the perioperative period?
- How should I manage patients on oral hypoglycemics in the perioperative period?
- How should I manage patients on insulin pumps in the perioperative period?
- What is the optimal glycemic control in the postop setting?

9:15 a.m.  **Perioperative Management of the Patient with Kidney Disease**
*Amy W. Williams, M.D.*
- What perioperative issues do I need to consider for a patient with advanced kidney disease?
- How do I prevent acute kidney injury in the perioperative period?

10:00 a.m.  **Perioperative Care of the Elderly Patient**
*Margaret Beliveau, M.D.*
- How old is too old to consider surgery?
- How is the frailty index used to identify patients at risk of postoperative complications?
- What are the risk factors and preventive measures for postoperative delirium?
- What diagnostic workup is recommended for patients with suspected postoperative delirium?
- Do DNR orders need to be suspended prior to surgery and if so, when should DNR orders be reinstituted postoperatively?

10:30 a.m.  **Question and Answer Session**
*Margaret Beliveau, M.D., Geno J. Merli, M.D., Michael A. Mikhail, M.D., Vinaya Simha, M.B.B.S., M.D., and Amy W. Williams, M.D.*

10:45 a.m.  **Refreshment Break**

11:00 a.m.  **Perioperative Management of Endocrine Issues:**
**Stress Dose Steroids, Adrenal Insufficiency, Thyroid Disease**
*Vinaya Simha, M.B.B.S., M.D.*
- What issues do I need to consider in patients with hypothyroidism or hyperthyroidism in the perioperative period?
- Who is at risk for adrenal insufficiency perioperatively?
- How do I determine the need for and the dose of stress dose steroids in the surgical patient?
11:30 a.m.  Managing Patients with Neurologic Disease in the Perioperative Period
Andrea N. Leep Hunderfund, M.D.
- How do I manage patients with seizure disorder in the perioperative period?
- How do I manage patients with Parkinson’s disease perioperatively?
- What do I do if I find an asymptomatic carotid bruit during a preoperative evaluation?
- How do I determine appropriate timing for elective surgery after ischemic stroke?
- What are the symptoms and risk factors for serotonin syndrome in the perioperative setting?

12:00 p.m.  Perioperative Infectious Disease Issues
Mary J. Kasten, M.D.
- How do I approach the postoperative fever workup?
- Which patients need antibiotic prophylaxis perioperatively and for how long?
- Do I need to order a urinalysis and culture prior to total joint surgery?
- How are patients with penicillin allergy managed in the perioperative period?
- How do I manage common postoperative infectious disease issues?
- Is there a role for the use of probiotics to prevent postoperative infections?

12:30 p.m.  Question and Answer Session
Andrea N. Leep Hunderfund, M.D., Mary J. Kasten, M.D., and Vinaya Simha, M.B.B.S., M.D.

12:45 p.m.  Adjourn

SATURDAY, OCTOBER 28, 2017

6:30 a.m.  Continental Breakfast

7:00 a.m.  Breakfast with the Professor Case Discussions:
Informal Q & A with course faculty
Margaret Beliveau, M.D. (Geriatric Medicine, Bariatric Surgery Issues)
Andrea N. Leep Hunderfund, M.D. (Neurology)
Mary J. Kasten, M.D. (Infectious Disease)
Geno J. Merli, M.D. (Peripheral Vascular Disease)
Michael A. Mikhail, M.D. (Perioperative Hard Stops)
Susan Moeschler, M.D. (Pain Medicine)
Vinaya Simha, M.B.B.S., M.D. (Endocrinology)
Amy W. Williams, M.D. (Nephrology)

7:55 a.m.  Announcements

8:00 a.m.  Perioperative Management of the Patient with Liver Disease
William Sanchez, M.D.
- How do I approach preoperative risk assessment in a patient with liver disease?
- Which patients with liver disease may not be good candidates for elective surgery due to significant increase perioperative morbidity and mortality?
- What are the common postoperative management challenges for patients with advanced liver disease?
- What do I need to know about managing the transplant patient undergoing non-cardiac surgery?
8:30 a.m.  Management of Postoperative Gastrointestinal Complications  
Arya B. Mohabbat, M.D.  
• How do I prevent and manage postoperative nausea and vomiting?  
• How should I evaluate a patient with postoperative diarrhea?  
• What agents are recommended to prevent stress related mucosal disease in the surgical patient?  
• How do I manage postoperative constipation and postoperative ileus?  
• How do I approach preoperative risk assessment in a patient with liver disease?  
• Which patients with liver disease may not be good candidates for elective surgery due to significant increase perioperative morbidity and mortality?  
• What is the appropriate timing for transplant referral prior to surgery?  
• What are the common postoperative management challenges for patients with advanced liver disease?  

9:00 a.m. Managing the Patient with Perioperative Substance Abuse  
Charles P. Reznikoff, M.D.  
• How do I screen for substance abuse preoperatively?  
• What are the specific issues with common drugs of abuse such as methamphetamine, heroin, cocaine and alcohol?  
• When should an elective surgery be postponed in a patient with substance abuse?  
• How do I manage patients on Suboxone and methadone perioperatively?  
• How can I use prescription monitoring programs in the perioperative setting?  

9:45 a.m. Question and Answer Session  
Arya B. Mohabbat, M.D., Charles P. Reznikoff, M.D., and William Sanchez, M.D.  

10:00 a.m. Refreshment Break  

10:15 a.m. Pain Management in the Perioperative Period  
Susan M. Moeschler, M.D.  
• What are the commonly used opioids in the postoperative setting and what issues should I consider when prescribing these?  
• What are the common PCA doses for postoperative pain control?  
• When should I consider adjunctive analgesic therapies to help with pain control?  
• How should patients on multiple sedating medications postoperatively be monitored?  

11:00 a.m. Enhanced Recovery After Surgery (ERAS)  
Robert R. Cima, M.D.  
• What are the key elements of ERAS?  
• What is the rationale for the ERAS model?  
• Are patient outcomes better with ERAS?  
• What is the future of “fast-track” programs?  

11:45 a.m. Question and Answer Session  
Robert R. Cima, M.D. and Susan M. Moeschler, M.D.  

12:00 p.m. Adjourn