Sample Oral Examination 1
Session 1  (35 minutes)
Session 2  (35 minutes)
A 55-year-old 80 kg woman is brought to the operating room for an anterior communicating artery aneurysm clipping.

**HPI:**
Severe headache and lapse of consciousness occurred 2 days ago.
No apparent neurological deficit at present time.
Cerebral angiogram yesterday did not show cerebral vasospasm.

**MEDS:**
Nimodipine, enalapril and furosemide.

**PMH:**
20 year history of hypertension.
Patient told of difficulty with tracheal intubation for laparoscopic procedure 5 years ago.
No known allergies.

**PHYS EXAM:**
P 92, BP 150/90 mmHg, R 16, T 37.2° C
Awake and oriented, very apprehensive.
Micrognathic, full dentition and mildly limited TMJ mobility, cervical spine normal.
Neurologic exam normal.
No peripheral edema.

**CXR:**
LV concentric hypertrophy.

**ECG:**
LVH with nonspecific ST-T wave changes.

**LABS:**
Hgb 12.2 gm/dL, Na 145 mEq/L, K 3.2 mEq/L, creatinine 0.9mg/dL, BUN 17 mg/dL.
ABA ORAL EXAMINATION QUESTION – SAMPLE 1 - SESSION 1  (Continued)

A. INTRA-OPERATIVE MANAGEMENT – 10 Minutes
2. Airway mgmt and induction: Do you require further airway evaluation? If so, how will it alter your mgmt? Is IV induction followed by fiberoptic intubation acceptable? Why/why not? If awake intubation chosen, how will you minimize hemodynamic effects?

B. POST-OPERATIVE CARE – 15 Minutes
1. Hypothermia: At conclusion of surgery, patient's temperature is 34.5\textdegree}C. Is this a problem? Why/why not? Will you warm the patient? Why? How? Effect of hypothermia on muscle relaxant reversal?
2. Decision to extubate vs. ventilate: Are criteria for extubation different than for healthy patient after appendectomy? What are important differences? What are your criteria for extubation for this patient? Explain.
3. Persistent somnolence: On POD #2 patient is responsive only to painful stimuli. A few hours ago she was arousable to her name being called. Your concerns? How can cause be evaluated? Is transcranial doppler indicated? Angiography? Why for each?
5. SIADH: On POD #3, serum sodium is 125 mEq/dL. DDX? What is mechanism of SIADH in this patient? How will you confirm Dx? Rx? Why?
6. Severe hoarseness post-extubation: On day 5, patient’s neurologic and physiologic status near normal. On extubation patient has severe hoarseness progressing to stridor. Your plan? Patient cyanotic. Your plan? Racemic epinephrine vs. steroids vs. cricothyroidotomy vs. re-intubation?

C. ADDITIONAL TOPICS – 10 Minutes
1. Cesarean delivery in a patient with asthma: A 38-year-old, 55 kg parturient with a history of asthma presents for urgent C-delivery due to cephalopelvic disproportion. What are effects of pregnancy on her pulmonary status? What of labor? How do these affect your choice of anesthetic technique? Suppose epidural. Following local anesthetic administration the level rises to C8 and she complains of difficulty breathing. How would you treat? Explain.
2. Complication of retrobulbar block: You are called STAT to the ophthalmology suite by the surgeon who has just performed a retrobulbar block on an 82-year-old woman for cataract extraction. The pt is unconscious and apneic. Cause? Evaluation? How proceed? Mgmt?
A 60-year-old 120 kg man scheduled for an exploratory laparotomy for a suspected ruptured diverticulum. 8-year history of chronic renal failure and is hemodialyzed 3 times a week. Meds include clonidine and metoprolol for hypertension and epoetin for anemia. BP 165/110 mmHg, P 90, R 24, T 38° C, Hgb 10.5 gm/dL, K 5.2 Meq/L.

A. PRE-OPERATIVE EVALUATION - 10 Minutes
2. Metabolic assessment: Concerned about his creatinine level? Why/why not? If it were 6.0 mEq/L, your plan? Why? What would you expect patient's arterial pHa, PaCO₂, HCO₃⁻ to be and why?

B. INTRA-OPERATIVE MANAGEMENT – 15 Minutes
1. Monitors: Arterial catheter attempted in arm without shunt without success. Your plan? What are advantages of mass spectrometry over capnography in this patient? Any patient? Pulse oximeter reading not obtainable in any extremity or ear. Your plan?
5. Mgmt of intraop hypotension: BP continues to be in 80-90 mmHg systolic range despite fluid replacement. Why could this happen? How will you determine the Dx? Differentiate blood loss vs. cardiac cause vs. sepsis? Rx of each?
6. Electrosurgical Unit: Surgeon requests ESU power to be increased. Does this concern you? What will you do? Patient has a burn under dispersive pad at end of case. Could this happen without any intraop signs? How?

C. ADDITIONAL TOPICS – 10 Minutes
1. Carotid surgery: You are asked to evaluate a 60-year-old man scheduled for a right carotid thromboendarterectomy for TIA's. In the PACU following a left carotid TEA 2 weeks ago, he had an episode of ST segment depression in leads V4-6 that resolved with intravenous propranolol and nitroglycerin ointment. Do you desire further information? Be specific. Why? Will you insist on any further evaluation prior to surgery? Explain.
Sample Oral Examination 2

Session 1  (35 minutes)
Session 2  (35 minutes)
A 50-year-old 58 kg woman is brought to the operating room for nephrectomy and transplantation of a cadaveric kidney harvested 16 hours ago.

**HPI:**
- Chronic renal failure secondary to hypertension.
- Hemodialysis for 8 years; last dialysis 36 hours ago.
- Hypertension for 24 years with an episode of acute pulmonary edema one year ago.

**MEDS:**
- Nifedipine, lisinopril (ACE inhibitor), ranitidine and antacids.

**PMH:**
- Symptomatic hiatal hernia for 4 years.
- Allergy to PCN (hives).
- Nonsmoker.

**PHYS EXAM:**
- Airway appears adequate.
- Lungs clear to auscultation.
- AV fistula for dialysis in left forearm.

**CXR:**
- Left ventricular concentric hypertrophy.
- Prominent vascular markings.

**ECG:**
- LVH with nonspecific ST-T wave changes.

**LABS:**
- Hgb 8.0 gm/dL; Na 135 mEq/L; K 5.6 mEq/L; BUN 49 mg/dL, creatinine 5.0 mg/dL.

On arrival to the operating room a 20 gauge IV catheter is present in the right dorsal hand. The patient is extremely anxious.
ABA ORAL EXAMINATION QUESTION – SAMPLE 2 - SESSION 1 (Continued)

A. INTRA-OPERATIVE MANAGEMENT – 10 Minutes
1. Monitoring: Does history suggest using other than the standard 3 lead ECG? Explain. Modification to the 3 lead ECG? Why? How use an ECG monitor that measured ST segment changes in mgmt? Surgeon asks to avoid radial artery catheterization. Reasonable request? Will an automated BP cuff be adequate?
4. Severe hypertension: Coincident with the surgical incision, the BP increases to 240/140 mmHg. Why important to treat hypertension of this degree? If ST segments have changed, reasonable to deepen the inhalation anesthetic? What drugs to control the hypertension? Explain your choice.
5. Extubation: Special concerns for extubation result from renal failure? Muscle relaxants more likely to result in a prolonged block? Will a train of four give reliable results in a patient with renal failure? Concerns of a hiatal hernia present at this time?

B. POST-OPERATIVE CARE – 15 Minutes
2. Ventricular ectopy, tachycardia: Several hours after resolution of the respiratory problem, onset of frequent, multifocal PVCs. Metabolic problems in this setting contribute to the occurrence of PVCs? How could hypertension cause PVCs? Hypoxia? What indications to treat? What if the dysrhythmia is SVT? First drug choice? Explain. How to decide to use electrical cardioversion?
3. Oliguria (transplant): In the first few hours after transplantation, urine output is only 10 cc/hr. Would urine lab studies help with a Dx? Surgeon suggests increasing CO. Reasonable? Your approach in light of her heart disease? How to decide if filling pressures are adequate?
4. Postop analgesia: Does regional postop analgesia offer special advantages? Special concerns? Explain. Would a thoracic epidural offer any advantages over a lumbar epidural? The patient is agreeable but wants to be asleep for catheter placement. Your response? Infuse local anesthetic, opioids or both? How decide?
5. Nerve injury: 2 days later patient complains of numbness and tingling in the right 4th and 5th fingers. What motor deficits to look for? Diagnostic studies indicated? What is likely injury? What is likely mechanism? Recommended Rx? What to tell patient about the injury?

C. ADDITIONAL TOPICS – 10 Minutes
ABA ORAL EXAMINATION QUESTION – SAMPLE 2

SESSION 2 – 35 Minutes (total time)

A 58-year-old 55 kg woman is scheduled for exploratory laparotomy for ovarian cancer. She smoked 2-2.5 ppd until 2 years ago. Stopped because of increasing dyspnea and exercise intolerance. Uses nasal oxygen for night sleeping and cannot walk more than 30 steps without severe shortness of breath. Meds include albuterol and ipratroprium inhalers. She has moderate ascites. BP 130/85 mmHg, P 104, R 18, T 37.4°C, Hgb 14.8 gm/dL. ABG (room air) - pHa 7.36, PaO$_2$ 54 mmHg, PaCO$_2$ 46 mmHg.

A. PRE-OPERATIVE EVALUATION - 10 Minutes

1. Analysis of ABGs: How to interpret her ABGs? What is the significance of hypercarbia to anesthetic mgmt? Why is she not acidemic? Receive nasal O$_2$ continuously rather than just for night sleeping? Why/why not?
2. Pulmonary evaluation: Presume last PFTs were done six months ago. Should new PFTs be ordered? Why/why not? What specific information do you seek that is not evident from the hx and ABGs? Can you rule out pulmonary infection without sputum culture? Why? Why is this an important consideration preop?

B. INTRA-OPERATIVE MANAGEMENT – 15 Minutes

5. Management of intraop ventilation, ABGs: Would ventilation settings of V$_T$ = 550 ml, RR = 16, I:E ratio = 1:1 be appropriate for this case? Why/why not? Your preferred settings? Why? 45 min into case ABGs are PaO$_2$ 202 mmHg, (FiO$_2$ 1.0), PaCO$_2$ 52 mmHg, pHa 7.41. Appropriate? Would you alter ventilation? How? Why? What if PaCO$_2$ 65 mmHg and bilateral wheezing is prominent?

C. ADDITIONAL TOPICS – 10 Minutes

Sample Oral Examination 3
Session 1  (35 minutes)
Session 2  (35 minutes)
A 54-year-old 100 kg, 5'9" man is brought to the operating room for CABG.

**HPI:** The patient was asymptomatic until 4 days ago when he developed severe chest pain with exertion that responded to NTG and metoprolol. ECG demonstrates anterolateral ST segment depression. CK MB enzymes were elevated and cardiac catheterization revealed 90% left main coronary artery stenosis. EF is 45% and LVEDP rose from 18 mmHg to 28 mmHg during ventriculography. He has had hypertension for 15 years.

**MEDS:** Nitroglycerin and heparin infusions, metoprolol, diltiazem, NPH insulin q AM and PM

**PMH:** Poorly controlled type 2 diabetes mellitus for 6 years. Smoker 1 ppd for 30 years until 4 years ago.

**PHYS EXAM:** P 60, BP 130/82 mmHg, R 18, T 37.2°C
Airway appears adequate, teeth intact.
Moderately obese.
Asymptomatic (R) carotid bruit.
Lungs clear.
No peripheral edema.

**CXR:** Left ventricular prominence, poor inspiratory effort.

**ECG:** V3-V6 ST segment depression, no Q waves.

**LABS:** Hgb 14 gm/dL, serum glucose 197 mg/dL, Na 140 mEq/L, K 4.2 mEq/L
ABA ORAL EXAMINATION QUESTION – SAMPLE 3 - SESSION 1 (Continued)

A. INTRA-OPERATIVE MANAGEMENT – 10 Minutes
1. Monitoring:
   Will you select a CVP or PA catheter? Why? Place before or after induction? Why? Would use of TEE obviate the need for a PA catheter? Why/why not? Does the heparin infusion need to be discontinued before insertion of a central catheter? Why/why not? Possible adverse consequences of discontinuing heparin? Does right carotid bruit lead you to avoid the right internal jugular vein? Why/why not?

2. Anesthetic induction:

3. Post-induction bradycardia and hypotension:
   Prior to chest incision BP 80/50 mmHg, P 50. Etiology? Assume nodal rhythm. Do you need to treat? Why/why not? If sinus bradycardia, how treat? How do you rule out ischemia as a cause?

4. ST-segment alteration:
   During aortic root dissection, ST segments become depressed in II, aVF. How treat? Difference if P 60 vs. 90, BP normal vs. elevated?

5. CPB mgmt and weaning:
   Glucose is 300 mg/dL during CPB. Treat? Why/why not? How will you treat? Potential complications of hyperglycemia? Difficulty inflating/deflating lungs just prior to separation from CPB. How will you proceed? How do you determine need for inotropic support prior to separation? Explain.

B. POST-OPERATIVE CARE – 15 Minutes
1. Heart block after chest closure:
   Patient becomes hypotensive on arrival in ICU. BP 90/65 mmHg. DDx? ECG shows HR 40 with PVCs. Rx? Pacemaker wires in place. How to set? If not operating, what will you do?

2. Chest tube bleeding - surgical vs. coagulopathic:

3. Oliguria:
   Urine output 25 cc/hr x 2 hours. Why is patient oliguric? How will you treat? End point? Rationale?

4. Failure to awaken at 10 hours postop:
   6 hours after arrival in ICU, patient has not yet shown any signs of awakening. Concerned? Possible causes? How will you investigate delayed emergence?

5. Ventilatory weaning and extubation:
   On POD #1 patient awakens. \( S_O_2 \) is 60%, \( Sp_O_2 \) 98% with \( F_I_O_2 \) = 0.4. Reasonable to start weaning? Why/why not? Next steps?

6. Intraop awareness:
   Despite slow awakening, patient complains on POD #2 that he was awake during surgery. Reasons? Why did awareness possibly occur in this patient? What will you tell patient?

7. Ulnar nerve injury:
   Patient also complains of numbness over right ulnar nerve distribution. Etiology? Natural course? How treat?

C. ADDITIONAL TOPICS – 10 Minutes
1. Pediatrics:

2. Peritonsilar abscess:

3. Eye surgery:
   A 88-year-old man is to have a cataract extraction. He is anxious and he has chronic bronchitis. How would you make the decision whether to use regional or general anesthesia? Assume regional. Administer IV sedation while surgeon places block? Why/why not? Immediately following placement of block the patient becomes unconscious and apneic. DDx? Rx? Continue with case? Why/why not?
ABA ORAL EXAMINATION QUESTION – SAMPLE 3

SESSION 2 – 35 Minutes (total time)
A 20-year-old 60 kg, 5’4” tall primigravida is scheduled for urgent Cesarean delivery at 37 weeks gestation. She presented one hour ago in labor and is pre-eclamptic. She has received one dose of hydralazine and magnesium sulfate. She admits to frequent heroin use. The obstetrician has just notified you that late decelerations of FHR are occurring. P 110, BP 170/110 mmHg, R 22, T 37.5° C, Hgb 9.8 gm/dL.

A. PRE-OPERATIVE EVALUATION - 10 Minutes
1. Pre-eclampsia: What are the anesthetic implications of pre-eclampsia? Why is the fetus at increased risk when pre-eclampsia occurs? Volume status of preeclamptic patient? Is this patient adequately treated? Additional therapy? Endpoint to Rx of BP?
2. FHR - late decelerations: Significance of late decelerations? Other diagnostic tests of fetal distress? Is the next 30 minutes better spent medically treating mother or delivering baby? Why?
3. Heroin use: Last heroin use was 24 hours ago. How will this affect anesthetic mgmt? How will this affect fetus? Affect neonate?

B. INTRA-OPERATIVE MANAGEMENT – 15 Minutes
1. Monitoring: Do you need a CVP catheter for procedure? Why/why not? Possible complications that are more likely to occur associated with CVP placement because of her medical history?
4. Severe post-induction hypertension: Following intubation, BP 240/140 mmHg. Possible adverse consequences to mother, fetus? How treat?

C. ADDITIONAL TOPICS – 10 Minutes
2. Pain management: A 68-year-old woman is referred to you with acute herpes zoster and pain involving the T₆ – T₇ dermatomes on the right. She has COPD requiring nasal oxygen. How does her COPD affect your therapeutic options? Explain. What therapy would you offer her? Role of antiviral medications? Does your Rx plan differ if the herpes zoster is chronic vs. acute? Explain.
Sample Oral Examination 4
Session 1  (35 minutes)
Session 2  (35 minutes)
ABA ORAL EXAMINATION QUESTION – SAMPLE 4

SESSION 1 – 35 Minutes (total time)

A 70-year-old 80 kg woman is brought to the operating room for urgent left carotid endarterectomy.

HPI: The patient has experienced recurrent unilateral transient ischemic attacks over the past week. Carotid angiogram demonstrated 90% stenosis with an ulcerated plaque.

MEDS: Digoxin, furosemide, nifedipine, aspirin and NTG prn.

PMH: Hypertension for 20 years. Anterior wall MI one year ago with mild CHF following infarct. Cardiac catheterization 8 months ago demonstrated EF of 30%. Occasional exertional angina and 2 pillow orthopnea. No known allergies.

PHYS EXAM: P 68, BP 170/105 mmHg, R 20, T 37°C
Airway appears adequate; edentulous.
Loud left carotid bruit.
Minimal rales at both bases.
Questionable S₃ gallop.
1+ peripheral edema.

CXR: Prominent vascular markings, cardiothoracic ratio 0.6.

ECG: NSR, LVH, Q waves V₁-V₄, nonspecific ST-T wave changes.

LABS: Hgb 12.5 gm/dL; Na 134 mEq/L; K 3.1 mEq/L; digoxin level 2.2 ng/ml (normal 0.5 ng/ml - 2.0 ng/ml)
A. INTRA-OPERATIVE MANAGEMENT – 10 Minutes
1. Anesthetic technique - regional vs. GA: 
   Is regional anesthesia your choice for this patient? Why/why not? Major risks of deep cervical block? How would you detect problems? Rx of total spinal (BP 80/40 mmHg, P 40)?
2. Monitoring: 
3. Induction (assume GA): 
4. Mgmt of BP during procedure: 
   During dissection pulse slows to 50. How will you evaluate? Rx? Carotid cross clamp is imminent. Is IV bolus of thiopental indicated? Why/why not? Should BP be increased or decreased during cross clamp? Why? Clamp is on and EEG slowing is noted bilaterally. Why? Rx?
5. ST segment depression in inferior leads: 
   As surgeon is closing wound, you notice ST segment depression in inferior leads. What will you do? Why?

B. POST-OPERATIVE CARE – 15 Minutes
1. Severe hypertension with emergence: 
   As patient emerges, BP increases to 190/120 mmHg. Of concern? Why? Mechanism? Rx? How will you determine whether patient has had an MI? Compare CK enzymes and ECG. Patient develops frequent PVCs. Etiology? Rx?
2. Delayed awakening: 
   Patient does not follow commands at the end of anesthetic. DDx? How will you R/O intracranial problem? Patient received midazolam at beginning of anesthetic. Will you administer flumazenil? Why/why not?
3. Dyspnea and hypoxemia in PACU: 
   Patient has awakened more and complains of shortness of breath. Respiratory rate 24/min. How will you evaluate? SpO\textsubscript{2} is 92% on face mask. DDx? Rx?
4. Cervical hematoma 4 hours postop: 
   Assume patient has had an uneventful recovery for 4 hours. She now complains of pressure in her neck near incision. How will you determine dx? As you are examining her she complains of difficulty breathing. What will you do? Why? Will you open wound or reintubate? In PACU? In OR? Explain choices.
5. Ischemic left hand (arterial catheter location): 
   Later in evening, nurse notifies you that left hand is cold and pale. DDx? Rx? Is local anesthetic infiltration at the wrist indicated? Why/why not? Are warm compresses advisable? What will you do? Why? Stellate ganglion block not effective. How will you determine if sympathectomy occurred? Your plan?

C. ADDITIONAL TOPICS – 10 Minutes
1. Obstetrics - placenta previa: 
   A 25-year-old, 110 kg woman G-2, P-1, presents for emergency Cesarean delivery due to placenta previa with moderate bleeding. Her first baby was delivered by cesarean section. BP 100/80; P 110. What is the significance of the previous cesarean section? The patient had planned on an epidural for her delivery. How will you advise her regarding choice of anesthesia? Why? How would you induce general anesthesia if such is deemed best? Rationale? How manage massive blood loss? Cell-saver?
2. Pain management: 
3. Mask anesthesia: 
   You are asked to serve as an expert witness on a malpractice case. A 30-year-old woman with steroid-dependent asthma underwent a vaginal hysterectomy. She had a cup of black coffee 3 hrs previously. The anesthesiologist elected not to intubate the trachea and used a laryngeal mask airway. The patient aspirated during the procedure and developed pneumonia. Was the anesthesiologist negligent? Why/why not? Describe appropriate fasting guidelines.
ABA ORAL EXAMINATION QUESTION – SAMPLE 4

SESSION 2 – 35 Minutes (total time)
A 30-year-old 110 kg, 5’7” woman is scheduled for a repeat C-section at term pregnancy. History includes asymmetric septal hypertrophy (IHSS) and mental depression. Medications include propranolol and amitriptyline. CXR and ECG demonstrate left ventricular hypertrophy. P 64, BP 130/85 mmHg, R 18, T 37° C. Hgb 10.4 gm/dL.

A. PRE-OPERATIVE EVALUATION - 10 Minutes
4. Antidepressants anesthesia implications: What anesthetic implications of amitriptyline? Should this be discontinued preop? Why/why not? What side effects may occur in conjunction with amitriptyline?
5. Preop medication: Pre-medicate this patient? If so, why? What to use for pre-medications? Would the pre-medication have any effect on the fetus? Explain.

B. INTRA-OPERATIVE MANAGEMENT – 15 Minutes
1. Monitoring: Does this patient require any special monitoring? A colleague suggests that you place an arterial catheter and a PA catheter. Do you agree? Why/why not?
2. Induction: How will you induce anesthesia? Why did you select that technique? How would your choice affect a patient with IHSS?
3. Difficult intubation: You are unable to visualize the larynx at the time of laryngoscopy. What do you do? You are having difficulty ventilating the patient and the SpO2 has fallen to 80%. What do you do? You can now ventilate the patient and attempt a fiberoptic assisted intubation. Will you select an oral or nasal approach? Why? Suppose you choose the nasal route and marked epistaxis occurs. What do you do now?
5. Severe hypotension: Immediately after delivery of the fetus the patient's heart rate climbs to 140 bpm and the BP falls to 70/40 mmHg. DDx? How to differentiate? Rx?
6. Neonatal resuscitation: Neonate is limp and cyanotic. Gasping intermittently, with heart rate of 60 bpm and covered with thick meconium. An associate is able to manage the mother. How to resuscitate the baby? Mgmt of airway in relationship to meconium? Effects of meconium aspiration? When is cardiac massage indicated? You ventilate after suctioning the trachea and placing an endotracheal tube. Heart rate remains at 60 bpm despite ventilation and cardiac massage. Is drug therapy indicated? If so, what and why?

C. ADDITIONAL TOPICS – 10 Minutes
1. ICU consult - pulmonary insufficiency: You are consulted about a 72-year-old man being resuscitated from septic shock secondary to a urinary tract infection. Developed respiratory distress with bilateral pulmonary infiltrates and ABG shows PaO2 50mmHg, PaCO2 33mmHg, pH 7.32 while breathing 100% oxygen by mask. DDx? Differentiate cardiogenic edema from ARDS? Assume ARDS, how manage? Intubate? Controlled ventilation vs. IMV vs. pressure support? What is "best PEEP"?
trait? Why/why not?
Sample Oral Examination 5
Session 1  (35 minutes)
Session 2  (35 minutes)
A 68-year-old 110 kg man is brought to the operating room for cervical laminectomy in the prone position.

**HPI:**
- The patient has long-standing, severe osteoarthritis and symptomatic cervical stenosis.
- Bilateral upper extremity pain and paresthesias have been present for 6 months.
- Mild cervical extension increases symptoms.

**Meds:**
- Diltiazem, furosemide and aspirin.

**PMH:**
- Hypertension since age 40.
- Inferior wall MI 10 years ago without CHF or subsequent symptoms.
- Type 2 diabetes for 3 years under poor dietary control.
- Anesthetic record from cholecystectomy 8 years ago unavailable.
- No known allergies.

**Phys Exam:**
- P 80, BP 170/95 mmHg, R 18, T 37° C
- Anxious appearing obese man.
- TMJ mobility mildly restricted, tongue large, full dentition, base of uvula visualized.
- C-spine extension minimal due to paresthesias.
- Chest exam WNL.
- No peripheral edema.

**CXR:**
- LV concentric hypertrophy.

**ECG:**
- NSR, Q waves - lead II, III, AVF; nonspecific ST-T wave changes.

**LABS:**
- Fasting a.m. blood sugar 210 mg/dL; Hgb 14.0 gm/dL; SpO₂ (room air) 94%.

The patient has a 16 gauge peripheral IV catheter.
A. INTRA-OPERATIVE MANAGEMENT – 10 Minutes
4. Diabetic management: One hour after induction blood glucose is 300 mg/dL. Necessary to treat? If so, why/how? If excess insulin inadvertently administered, what would be manifestations of hypoglycemia during anesthesia? How treat?

B. POST-OPERATIVE CARE – 15 Minutes
1. Criteria for extubation: Spinal cord was traumatized during surgical procedure and SSEPs were lost for 30 minutes. How to decide whether or not to extubate patient at end of procedure? If choose to wait until patient is responsive, how prevent coughing on tube, tachycardia and hypertension? How does a NIF of -25 cm H2O compare to that achievable by an awake healthy person? Implications?
3. Severe hypertension: While endotracheal tube in place and patient being ventilated, BP rises abruptly to 250/110 mmHg and HR is 120. DDx? Rx? Choice for therapy be different if the HR = 75? If so, how/why?
4. ST segment depression in anterior leads: While nurse is obtaining medications to treat elevated BP, ST segment depression in anterior leads on ECG. Would this alter your therapy? If so, how/why? Is PA catheter indicated at this time? Why/why not? Assume TEE available, what would you look for? Draw blood for any lab analyses at this time? If so, which/why?
5. Pain management: How to assess and manage the pt’s pain while being mechanically ventilated? Would protocol change after the pt extubated? If so, how/why? Does meperidine offer any advantages or disadvantages in this patient? Why/why not? Dilaudid (hydromorphone)?
6. Nausea and vomiting: 24 hrs postop the patient has been extubated but he has nausea and occasionally vomits. How would you assess and treat this problem?

C. ADDITIONAL TOPICS – 10 Minutes
ABA ORAL EXAMINATION QUESTION – SAMPLE 5

SESSION 2 – 35 Minutes (total time)
An 11-year-old 65 kg boy is scheduled for urgent ORIF of an open fractured olecranon sustained in motor vehicle accident 90 minutes ago. He has a history of asthma treated with cromolyn sodium and an albuterol inhaler. He required hospitalization and prednisone for status asthmaticus 6 weeks ago. He ate a full lunch before the accident. Bilateral diffuse expiratory wheezes are noted. BP 125/80 mmHg, P 104, R 22, T 36.8° C.

A. PRE-OPERATIVE EVALUATION - 10 Minutes
3. Assessment of associated trauma: Additional assessment given recent MVA? Which? If trauma limited to elbow fx, do you need any lab studies? Explain.

B. INTRA-OPERATIVE MANAGEMENT – 15 Minutes
1. Regional vs. general anesthesia: If child cooperative and calm, would you consider upper extremity block? Why/why not? If so, axillary vs. interscalene? Explain. Presume parents and patient request general anesthetic. Your priorities for patient as you plan for GA?

C. ADDITIONAL TOPICS – 10 Minutes
3. Emergent burn management: A 71-year-old male fell asleep while smoking in bed brought to ER with third degree burns over his face, neck and upper trunk. He is obtunded, stridorous with face and neck swelling. He has O2 saturation of 91% while receiving 40% oxygen by mask, and stable vital signs (BP 140/80, P 95). How to assess airway? Why? Respiration? How might a 30% carboxyhemoglobin level be relevant? How could this be consistent with the SpO2? Mgmt of his airway?
Sample Oral Examination 6
Session 1  (35 minutes)
Session 2  (35 minutes)
A 58-year-old 90 kg, 5'4” woman is brought to the operating room for resection of a 10 cm infrarenal AAA.

**HPI:** The patient was admitted 2 hours ago with severe back pain. Vital signs have been stable but workup, including aortogram, demonstrates a 10 cm infrarenal AAA.

**MEDS:** Metoprolol, Dyazide, diltiazem, NPH insulin q a.m. and p.m., occasional NTG.

**PMH:** Hypertension and obesity for more than 20 years. Occasional angina began 3 years ago. Cardiac catheterization at that time revealed a 60% RCA stenosis and normal LV ejection fraction. Type 2 diabetes mellitus for 7 years treated with insulin; control is described by patient as erratic.

**PHYS**

**EXAM:** P 80, BP 160/95 mmHg, R 22, T 37.2° C. Obese, apprehensive woman with back pain. Airway - full dentition, uvula visible to tip, TMJ mobile, C-spine extension mildly limited. No peripheral edema.

**CXR:** Prominent left ventricle, poor inspiratory effort.

**ECG:** NSR, nonspecific ST-T wave abnormalities.

**LABS:** Hgb 12.8 gm/dL, creatinine 2.4 mg/dL, BUN 32 mg/dL, Na 142 mEq/L, K 3.8 mEq/L, blood sugar 215 mg/dL. PT, PTT, platelet count WNL.

The patient has two 16 gauge peripheral IV catheters in place. She ate lunch approximately 5 hours ago.
ABA ORAL EXAMINATION QUESTION – SAMPLE 6 - SESSION 1 (Continued)

A. INTRA-OPERATIVE MANAGEMENT – 10 Minutes

B. POST-OPERATIVE CARE – 15 Minutes
3. Oliguria - dx and mgmt: During first 3 hours in recovery room, urine output is 40 ml. Adequate? Why/why not? Cause(s)? How to investigate etiology? PAoP is 14 mmHg and CO is 4.0 L/min. Should fluids be administered? Which? How much fluid appropriate? Surgeon recommends furosemide. Agree/disagree? Explain. Therapy if oliguria continuous?

C. ADDITIONAL TOPICS – 10 Minutes
3. Laryngoscopy: A healthy 25-year-old vocalist for laryngoscopy and removal of recurrent vocal cord
ABA ORAL EXAMINATION QUESTION – SAMPLE 6

SESSION 2 – 35 Minutes (total time)
A 5-year-old boy is scheduled for bilateral inguinal hernia repair. Mother states the child was febrile a week ago and has had a "runny nose". Several relatives are known to have experienced fever during surgery and one cousin died 15 years ago in an operating room. The patient has not had a prior anesthetic. P 100, BP 95/60 mmHg, R 22, T 37.5° C. Hgb 14 gm/dL.

A. PRE-OPERATIVE EVALUATION - 10 Minutes

1. Significance of recent fever: Should procedure be postponed due to upper respiratory infection? Why/why not? Does a URI increase intraop risks? Which? What are your criteria for postponement on a case such as this? What to tell family about the fever one week ago and the rhinorrhea?


B. INTRA-OPERATIVE MANAGEMENT – 15 Minutes


6. Postop pain relief: Is a caudal injection of local anesthetic appropriate for postop analgesia? Risks/benefits for child? Surgeon asks if recent viral infection a contraindication to caudal technique? Your response? Possible to produce a subarachnoid block when doing a caudal technique? Explain. How would you know that it occurred? What would you do?

C. ADDITIONAL TOPICS – 10 Minutes


2. Chronic pain: A 45-year-old woman with invasive cervical cancer is referred to you because her pelvic pain is not controlled by oral or parenteral opioids. Alternative therapy? Factors influencing choice? Explain. What minimum work-up would be required before you begin therapy? Explain.
3. **Hypothyroidism**: A 30-year-old woman scheduled for emergency drainage of a perirectal abscess while in the prone position. Hypothyroidism was diagnosed 12 hours preop. Total T₄ was less than 3 mcg/dL (normal value is 6.1-11.8 mcg/dL). Anesthetic concerns? Anesthetic technique you select? Why? Are there specific post-op complications you would anticipate? How to minimize the sequelae? Rationale.
Sample Oral Examination 7
Session 1  (35 minutes)
Session 2  (35 minutes)
A 55-year-old 52 kg woman is brought to the operating room for an urgent exploratory laparotomy for small bowel obstruction.

**HPI:** The patient presented 2 days ago with vomiting and abdominal distention. She underwent a hemicolecotony for colon cancer 2 years ago and current workup has demonstrated small bowel obstruction, probably secondary to adhesions. She is very uncomfortable and has required intravenous hydration since admission.

**MEDS:** Digoxin, furosemide, KCl.

**PMH:** Long-standing mitral stenosis with limited exercise tolerance. Episode of pulmonary edema with new-onset Afib 8 months ago. Tolerated general anesthetic for colectomy 2 years ago without difficulty. No known allergies.

**PHYS EXAM:** Patient appears cachectic, dyspneic with a grossly distended abdomen. Airway appears adequate for intubation. Lungs - slight basilar rales bilaterally. 1+ pitting edema at distal lower extremities.

**CXR:** Right ventricular prominence, increased pulmonary vascular markings.

**ECG:** Atrial fibrillation.

**LABS:** Hgb 10.5 gm/dL, Na 132 mEq/L, K 2.8 mEq/L. ABG (room air): PaO$_2$ 50 mmHg, PaCO$_2$ 28 mmHg, pHa 7.36.

On arrival to the operating room, the patient has an 18 gauge peripheral IV catheter and a right internal jugular vein double lumen CVP catheter in place.
ABA ORAL EXAMINATION QUESTION – SAMPLE 7 - SESSION 1 (Continued)

A. INTRA-OPERATIVE MANAGEMENT – 10 Minutes
5. Pulmonary edema - management: During procedure, Afib occurs with heart rate 150 bpm. Dangers? Rx? Despite FiO₂ 1.0, SpO₂ decreases 98% to 85% over 15 minutes. Etiology? How to treat? Assume pulmonary edema. Rx? PEEP decreases BP. Response? P₆¢CO₂ 32 mmHg but PaCO₂ 48 mmHg. Cause of increase difference?

B. POST-OPERATIVE CARE – 15 Minutes
1. Extubation vs. ventilation: Assume hemodynamic stability with pulmonary edema resolved. Do you plan to extubate at end of surgery? Why/why not?
4. Exubation criteria: How will you wean from ventilator? What if on PEEP? Exubation criteria? With FiO₂ 0.4, PaO₂ 70 mmHg, PaCO₂ 45 mmHg, pHa 7.33 during spontaneous ventilation. Interpret. Is this adequate? Why/why not?
5. Oliguria - dx and management: Urine output 0.5 ml/kg/hr. Is this adequate? Why not? How will you decide between fluid and a diuretic? Is dopamine appropriate? Why/why not?
6. Intraop awareness: On POD #3, patient is extubated and states that she was awake during the surgery. How is this possible? What will you tell her?

C. ADDITIONAL TOPICS – 10 Minutes
3. Pediatrics - epiglottitis: You are called to the ER for consultation for a 5-year-old girl with a sore throat, high fever, sternal retraction and stridor on inspiration. DDx? How to determine Dx? Immediate mgmt prior to Dx? Rationale. Suppose Dx of epiglottitis is made and stridor worsens with SpO₂ intermittently as low as 91%. What to do now? Why? Airway obstruction worsens. How proceed? Explain.
SESSION 2 – 35 Minutes (total time)
A 23-year-old, 130 kg, 5’10” man was involved in a motor vehicle accident 2 hours ago sustaining a femoral fracture. He is scheduled for insertion of an intramedullary rod. He complains of pain in the posterior cervical area and is slightly dyspneic. He has a history of hypertension treated with captopril (ACE-inhibitor) for 2 years. P 120, BP 90/60 mmHg, R 28, T 37°C. Hgb is 10.5 gm/dL.

A. PRE-OPERATIVE EVALUATION - 10 Minutes
1. Hemodynamic assessment: What impression do you have concerning the patient’s hemodynamic state from the above vital signs? Why? Do you need more information to assess hemodynamic status? If so, what? Why?

B. INTRA-OPERATIVE MANAGEMENT – 15 Minutes
1. Monitoring: How will end-tidal CO₂ assist your anesthetic mgmt? Does the history of hypertension and/or the presence of obesity impact your monitoring plans? How? Explain?
5. Difficult to ventilate - increased PIP: You have successfully intubated patient, but note increased inspiratory pressure over next 15 minutes. Discuss your evaluation. Breath sounds are decreased over left chest. What is your Dx? How will you determine cause? You aspirate blood from ET tube and breath sounds improve. What will you do now? Rationale.
7. Oliguria - causes, management: Towards end of this 2 hour procedure you note only 60 ml of urine. Discuss your evaluation, likely causes and mgmt of patient’s low urine output.

C. ADDITIONAL TOPICS – 10 Minutes
3. Myasthenia gravis: A 45-year-old woman with well-controlled myasthenia gravis is scheduled for cholecystectomy. Her only medication is pyridostigmine 60mg q 6h. How does Dx influence your anesthetic mgmt? If surgery scheduled for 11 am? Regional or general? Assume general. Administer a muscle relaxant? Why/why not? If so, which? Why? Assume atracurium given but one hour later, after 5 mg neostigmine, train-of-four remains absent. How proceed? How differentiate myasthenic vs. cholinergic crisis?