

KAPC Practice Guideline

Title: Presurgical Testing Guidelines

Date Approved: 2/13/2017

Policy Overview: Several specialty societies, most notably the American Society of Anesthesiologists and the American College of Cardiology, have published guidelines addressing the appropriateness of presurgical testing. These guidelines are, in the case of the ASA, quite comprehensive but also quite nonspecific. The practical utility of nonspecific guidelines is limited. The purpose of the following KAPC Practice Guideline is to establish specific parameters for preoperative testing which are simple to follow and which are, in any case, consistent with published guidelines. The KAPC Practice Guideline is not intended to supersede published guidelines. Furthermore, it is recognized that clinical judgment may lead responsible physicians to make reasonable exceptions to these specific guidelines in some cases. Exceptions may involve ordering tests where they are not required by the guidelines, or forgoing tests where they are required by the guidelines.

This guideline does not address preoperative referrals for either cardiac stress testing or sleep studies. The indications for evaluation of obstructive sleep apnea are outlined in Kalamazoo Anesthesiology's "OSA Practice Guidelines." Published guidelines for preoperative cardiac testing may be found on the Kalamazoo Anesthesiology website under Guidelines > Links.

Definitions:

(see <http://www.asahq.org/publicationsAndServices/standards/20.pdf>)

Minimal Sedation (Anxiolysis) is a drug-induced state during which patients respond normally to verbal commands. Although cognitive function and coordination may be impaired, ventilator and cardiovascular functions are unaffected.

Moderate Sedation/Analgesia ("Conscious Sedation") is a drug-induced depression of consciousness during which patients respond purposefully to verbal commands, either alone or accompanied by light tactile stimulation. No interventions are required to maintain a patent airway, and spontaneous ventilation is adequate. Cardiovascular function is usually maintained.

Deep Sedation/Analgesia is a drug-induced depression of consciousness during which patients cannot be easily aroused but respond purposefully following repeated or painful stimulation. The ability to independently maintain ventilatory function may be impaired. Patients may require assistance in maintaining a patent airway, and spontaneous ventilation may be inadequate. Cardiovascular function is usually maintained.

General Anesthesia is a drug-induced loss of consciousness during which patients are not arousable, even by painful stimulation. The ability to independently maintain ventilatory function is often impaired. Patients often require assistance in maintaining a patent airway, and positive pressure ventilation may be required because of depressed spontaneous ventilation or drug-induced depression of neuromuscular function. Cardiovascular function may be impaired.

Policy Steps

1. Consider type of surgery and anesthesia
 - a. **Low risk:** endoscopy, TEE, superficial procedures, cataract surgery, breast surgery *when performed under minimal or moderate sedation*; in general, applies where the surgery / anesthesia combination presents only a minimally increased risk compared to any other activity of daily living; common examples of specific low risk procedures may be found on page 2 of this guideline.
 - b. **Intermediate risk:** more than low risk surgery *or planned regional anesthesia, deep sedation or GA*
 - c. **High risk:** major vascular surgery, intracranial surgery, anticipated prolonged surgery (scheduled > 3 hrs), anticipated major fluid shifts or probable significant blood loss

2. Consider patient's clinical status
 - a. **Healthy**
 - b. **Chronic, stable, and well-controlled illness**
 - c. **Progressive, poorly controlled, or serious chronic illness**

The following table contains examples of commonly encountered illnesses and is to be used as an aid in differentiating categories a, b, and c:

	A: Healthy	B: Chronic, stable, and well-controlled illness	C: Progressive, poorly controlled, or serious chronic illness
CAD	None	Stable and asymptomatic	Hx MI; hx intervention within 5 years; CAD which limits patient's ability to perform ADLs
PAD	None	Stable and asymptomatic	Hx intervention, hx CVA, or PAD which limits patient's ability to perform ADLs
CHF	None	None	Hx CHF or fatigue with moderate exertion (ADLs)
Pulmonary disease	No chronic or recurrent problems	Prophylactic inhalers only, or occasional bronchodilator use	Daily rescue bronchodilator use or home O2 requirement
Diabetes	None	Well controlled and stable, or recent A1C < 8	Poorly controlled, or with renal or vascular complications, or recent A1C > 8
Kidney disease	None	Elevated serum creatinine without need for management	Hx of dialysis requirement or specific medical management

3. Consider specific acute or current illness
 - a. Cardiac disease: includes history of CAD, arrhythmia, valvular disease, CHF, or cardiomyopathy; does not include controlled HTN
 - b. Hematological disease: includes anemia, thrombocytopenia, leukemia and related disorders, recent bleeding or transfusion
 - c. Diabetes: requires Glucose before any procedure
 - d. Specific medications: loop diuretic use requires K+ before Intermediate or High Risk Surgery; heparin or warfarin use requires PT / PTT before Intermediate or High Risk Surgery

<i>Low Risk Surgery (superficial procedure, mild or moderate sedation)</i>				
	Healthy	Stable, well-controlled	Progressive or poorly controlled	Specific acute or current illness
Test				
ECG	Not req.	Not req.	Not req.	Not req.
Hb or HCT	Not req.	Not req.	Not req.	Not req.
BMP	Not req.	Not req.	Not req.	Not req.
K	Not req.	Not req.	Not req.	<i>Required</i> for history of renal failure if dialysis has been interrupted
BMP	Not req.	Not req.	Not req.	Not req.
Glucose or OT	<i>Required</i> for diabetics			
Urine preg test	<i>Required</i> for women of childbearing age, unless s/p sterilization			
PT / PTT	Not req. for anesthesia, but may be ordered by surgeon (e.g., nerve blocks)			

<i>Intermediate Risk Surgery (deep sedation or GA or regional anesthesia, or more than superficial procedure)</i>				
	Healthy	Stable, well-controlled	Progressive or poorly controlled	Specific acute or current illness
Test				
ECG (generally, within 6 months prior to surgery)	Not req.	Not req.	<i>Required</i>	<i>Required</i> for history of CAD, arrhythmia, or other cardiovascular disease
Hb or HCT	Not req.	Not req.	<i>Required, unless surgery is expected to involve minimal blood loss</i>	<i>Required</i> for history of anemia or abnormal bleeding
BMP	Not req.	Not req.	<i>Required</i>	<i>Required</i> for history of renal disease or for planned IV contrast administration
K	Not req.	Not req.	Incl. in BMP	<i>Required</i> for patients taking loop diuretics
Glucose or OT	<i>Required</i> for diabetics			
Urine preg test	<i>Required</i> for women of childbearing age, unless s/p sterilization			
PT / PTT	<i>Required</i> for patients on heparin or warfarin			

<i>High Risk Surgery</i>			
	Healthy	Stable, well-controlled	Progressive or poorly controlled
Test			
ECG	Not req.	<i>Required</i>	<i>Required</i>
Hb or HCT	<i>Required</i>	<i>Required</i>	<i>Required</i>
BMP	Not req.	<i>Required</i>	<i>Required</i>
K	Incl. in BMP		
Glucose or OT	Not req.	<i>Required</i>	<i>Required</i>
Urine preg test	<i>Required</i> for women of childbearing age, unless s/p sterilization		
PT / PTT	<i>Required</i> for patients on heparin or warfarin		

Partial listing of surgical procedures generally considered low-risk when performed under Minimal or Moderate Sedation

Blepharoplasty
Carpal Tunnel Decompression
Frenulectomy
Cervical Lymph Node Biopsy
Cystoscopy
DIP Arthroplasty
Discogram
Entropion/Ectropion Repair
Excision of a Superficial Cyst
Removal of Foreign Body from the Ear
Excision of a Ganglion Hand or Foot
Lacrimal Duct Probe
Myringotomy and Tubes
Fulgeration of Lesion
Excision Lesion of the Extremity in OPS
Excision of Lipoma
Lumbar Block, Puncture,
Sympathectomy
Lymph Node Excision or Biopsy in OPS
Excision of Morton's Neuroma
Nerve Block
Laser Vaporization of Warts and Skin
Lesions
Removal of Superficial Hardware
Excision of Benign Lesion
Excision of Malignant Lesions less than
2cm
Dental Restoration, Extraction, Fillings
Release of Trigger Finger
Steroid Injection
Stellate Nerve Block