



Created in collaboration with Primary Care Physicians, the Department of Cardiology and the Department of Surgery

### **Preface**

Guidelines are systematically developed recommendations that assist the practitioner and patient in making decisions about healthcare.

These recommendations may be adopted, modified or rejected according to clinical needs. Practice guidelines are not intended as standards or absolute requirements. Practice guidelines are subject to revision as warranted by the evolution of medical knowledge, technology, and practice.

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### ANESTHESIA PRE-OPERATIVE TESTING GUIDELINES

Procedure Type	Action
Cataract Surgeries	NO routine lab tests
GI Lab Procedures	NO routine lab tests
Low Risk Procedures	NO routine lab tests
Defined as procedures in which the combined incidence of peri-operative MI or death is <1% Examples:  • Arthroscopies  • Breast surgery  • MRI/CT scans under anesthesia	<ul> <li>Exceptions:</li> <li>Pregnancy testing</li> <li>Baseline creatinine for contrast dye injections</li> <li>Lab tests only as indicated by patient's medical history</li> </ul>
Intermediate Risk Procedures	NO routine lab tests
Defined as procedures in which the combined incidence of peri-operative MI or death is 1-5%, do have significant blood loss or hemodynamic changes Examples:  • Head & Neck procedures  • Total Joint Cases/Ortho cases  • Prostate Surgery  • IR procedures  • Cardiac Cath Lab	<ul> <li>Exceptions:</li> <li>Pregnancy testing</li> <li>Baseline creatinine for contrast dye injections</li> <li>Lab tests only as indicated by patient's medical history</li> </ul>
High Risk Procedures	Recommended lab tests
Defined as procedures in which the combined incidence or peri-operative MI or death is >5% or normal physiology is disrupted; commonly requires blood transfusions, invasive monitoring and/or post-op ICU care.  Examples:  • Emergency procedures ***  • Aortic, major vascular, Endo AAA repair  • Carotid Endartectomy  • Cardiac surgery  • Procedures with anticipated large blood loss or fluid shift	CBC with platelets CMP Pregnancy testing EKG  ***Lab tests for Emergency procedures only performed if time allows

### CATARACT SURGERIES AND GI LAB PROCEDURES



Require no pre-operative testing for all patients in their usual state of health.

### LOW RISK PROCEDURES

Low Risk Procedures	Lab requirements
Examples include, but are not limited to:  Arthroscopies  MRI with anesthesia  Breast biopsies  Non-complex ENT  Non-complex Flap reconstructions  Superficial  MRI port insertions  Cystoscopy  ESWL  Breast reconstruction  Breast augmentation  Breast reduction  Simple hernia repair  TURB/TURP/TURPT  Cardioversion  Lesion removals  Eye Procedures, excluding cataracts  Local Procedures  D&C/D&E  Hysteroscopy  Tubal ligation  Urethral sling  Interstim placement	No routine lab tests are required unless indicated by patient's medical history.  Please see the pre-operative testing grid for direction on which tests to order.

### INTERMEDIATE RISK PROCEDURES



#### **Intermediate Risk Procedures** Lab requirements Examples include, but are not limited to: No routine lab tests are required unless Minor Head and Neck indicated by the patient's medical history. Partial & Total thyroidectomy Parathyroidectomy Please see the pre-operative testing grid for Laparoscopic direction on which tests to order. • Robotic • Diagnostic laparoscopies Interventional Radiology • Cardiac Cath Lab Ablations • Neck and back surgeries · Hysterectomy with or without repair Pacemaker/ICD insertions Major/Recurring hernia repairs Panniculectomy Orthopedic procedures

### HIGH RISK PROCEDURES

Thoracotomy/VAT

Gastric bypass surgery

Hepatic

# High Risk Procedures Examples include, but are not limited to: • Emergency Procedures\*\*\* • Aortic repairs including endoscopic • Major vascular bypasses • Carotid endarterectomy • Cardiac surgery • Whipple • Esophagectomies Lab requirements • CBC with platelets • CMP • EKG \*\*\*\*Lab tests for Emergency procedures only performed if time allows

### ANESTHESIA PRE-OPERATIVE TESTING GUIDELINES



### **Recommended Labs and Tests**

### Based on Patient's Medical History

- Lab results are valid for one month unless changes in medical condition/medications
- EKGS are valid for six months unless changes in cardiac condition
- Obtain chest X-ray for acute processes only or unstable pulmonary condition of patient with known lung disease
- Obtain Echo with new onset of murmur and evidence of decreased functional capacity
- Pregnancy testing for all Women of Childbearing Potential (WOCBP)
  - WOCBP is defined as a female who has begun menstruating and not entered menopause (absence of menses for 12 months)
  - Not required if previous tubal ligation or hysterectomy
  - Must be a serum pregnancy within 7 days or will have urine pregnancy the day of OR

### ANESTHESIA PRE-OPERATIVE TESTING GUIDELINES

These guidelines identify that there should be minimal pre-operative lab tests for asymptomatic patients who have a normal history and physical and are undergoing low-risk surgical procedures.

Clinical Diagnosis	СВС	PT/INR	Glucose	ВМР	СМР	EKG	LFT's	UA
ACE/ARB Usage				X				
Anemia	X							
Bleeding History	X	X			x			
Chronic Hypertension						x		
CV Disease	Х			x		X		
Coumadin		X						
Diabetes			X			X		
Digitalis				x				
Diuretics				x				
Hepatic Disease	x	X			x		x	
Blood Loss Expected >1 unit	x			x				
Morbid Obesity BMI ≥ 40						x		
Potassium Supplements				x				
Pulmonary Disease	x					x		
Smoking >1 pack per day						x		
Renal Disease	Х			X		X		
Steroids			х	X				
Suspected UTI								x



### **Chemistries:**

- 1. No routine chemistries are necessary for the healthy patient
- 2. Basic Metabolic Panel
  - a. Diuretics
  - b. Digitalis
  - c. Chronic renal failure
  - d. Potassium supplements
  - e. ACE/ARBs
  - f. Hepatic failure
  - g. Major surgery
  - h. Major blood loss expected >1 unit
  - i. Steroids
  - j. Cardiovascular disease
- 3. Liver Function Tests
  - a. Cirrhosis
  - b. Recent or chronic hepatitis
- 4. Glucose
  - a. Diabetes
  - b. Steroid use

### **Hematologic Studies:**

- 1. Complete Blood Count
  - a. Major blood loss expected >1 unit
  - b. History or anemia, polycythemia, platelet disorder, or bleeding disorder
  - c. No blood patient
  - d. History of end stage renal disease
  - e. History of coronary vascular disease
  - f. Hepatic disease

### 2. PT/PTT

- a. History of bleeding disorder
- b. Hepatic disease
- c. Taking anticoagulation medications

### **EKG GUIDELINES**

### When to obtain an EKG:

- 1. Vascular surgery patients with at least one of the following clinical risk factors:
  - a. Coronary artery disease
  - b. Congestive heart failure
  - c. Diabetes
  - d. Myocardial infarction within 6 months
  - e. Murmur
  - f. Creatinine >2
- 2. Patients with known coronary, peripheral, or cerebrovascular disease undergoing intermediate risk surgery.
- 3. Morbidly obese (BMI ≥ 40)
- 4. Vascular/thoracic surgery patients with clinical indications from history and physical
- 5. Intermediate Risk Surgery Patients with at least one of the following clinical risk factors:
  - a. Coronary artery disease
  - b. Congestive heart failure
  - c. Diabetes
  - d. Myocardial infarction within 6 months
  - e. Murmur
  - f. Creatinine >2
  - g. Obesity BMI ≥ 40 or limited activity METS <4
  - h. History of atrial fibrillation
- 6. Active smoker >1 pack per day undergoing Intermediate or High Risk Surgery
- 7. Patient who has chronic hypertension

### **EKG RESULTS**



EKGS	EKG findings need to be evaluated in conjunction with the patient's history
EKGs (No need to further evaluate)	The following do NOT need to be called to the anesthesiologists/cardiologists attention in absence of other cardiac history:  • Low voltage  • Axis deviation  • Atrial enlargement  • LVH  • Accelerated AV condition  • 1st degree AV block  • Early repolarization  • RBBB: No evidence of CV disease and asymptomatic  • Sinus bradycardia <50 and asymptomatic  • Early repolarization  • Pacemaker  • Conduction delay  • Premature atrial contractions
**Medical Clearance from PCP or Cardiology must include data to support clearance. • "Cleared for Surgery" is NOT sufficient without supporting data	<ul> <li>EKG abnormalities do not need to be further evaluated if:         <ul> <li>Patient had medical clearance for this procedure from primary care physician on staff and clearance notes EKG was read. **</li> <li>Patient has a cardiac history and has clearance for his procedure from a cardiologist on staff and clearance notes current EKG was read.**</li> <li>Patient is having cardiac surgery or ICD placement</li> </ul> </li> <li>Please try to obtain previous EKGs for comparison, notes, and cardiac workups including Echos and stress tests to assist in the evaluation of patient.</li> </ul>
EKGs (Requiring further evaluation. May need to see primary care provider, pre-surgery clinic or anesthesiologist for day of procedures)	MI, including history and age undetermined or cannot rule out  Acute ischemic changes  2nd, 3rd degree heart block  Left bundle branch block  Left anterior fascicular block  ST and/or T wave abnormalities

New onset atrial fibrillation
RBBB: Evidence of CV disease or CV symptoms

### **EKG RESULTS**

### Peri-operative Cardiovascular Evaluation & Care for Non-Cardiac Surgery

The history should seek to identify active cardiac conditions.

The following Active Cardiac Conditions require cardiac consultation and may result in case delay or cancellation.

#### **Unstable Coronary Syndromes**

- Recent myocardial infarction (>7 days but <30)</li>
- Unstable or severe angina

### **Decompensated Congestive Heart Failure**

- Severe limitations
- · Worsening heart failure
- New-onset heart failure

#### **Severe Valvular Disease**

- · Severe aortic stenosis
  - Mean pressure gradient >40mm Hg
  - Aortic valve area < 1 cm2</li>
  - Symptomatic

- Symptomatic mitral stenosis
  - Progressive dyspnea on exertion
  - Exertional presyncope
  - Heart failure

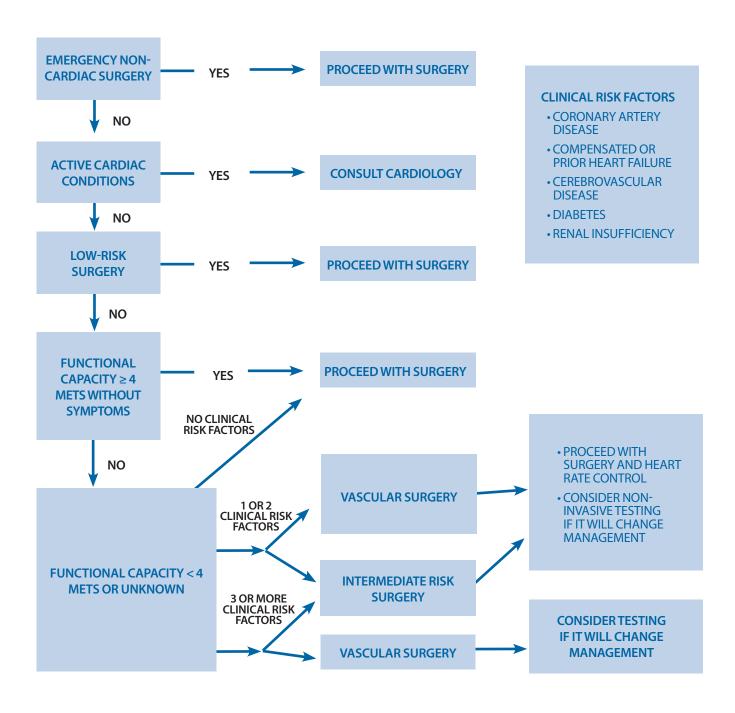
### **Significant Arrhythmias**

- High grade atrioventricular block
- Mobitz II atrioventricular block
- Third degree atrioventricular block
- Symptomatic ventricular arrhythmias
- Supraventricular arrhythmias (includes Atrial Fibrillation) with Uncontrolled Ventricular rate (> 100 bpm at rest)
- Symptomatic bradycardia
- Newly recognized ventricular tachycardia

### CARDIAC EVALUATION CARE ALGORITHM



### After initial evaluation: Is further testing needed?



\* See following page for "METS" scoring

### FUNCTIONAL CAPACITY (METABOLIC EQUIVALENTS – METS)

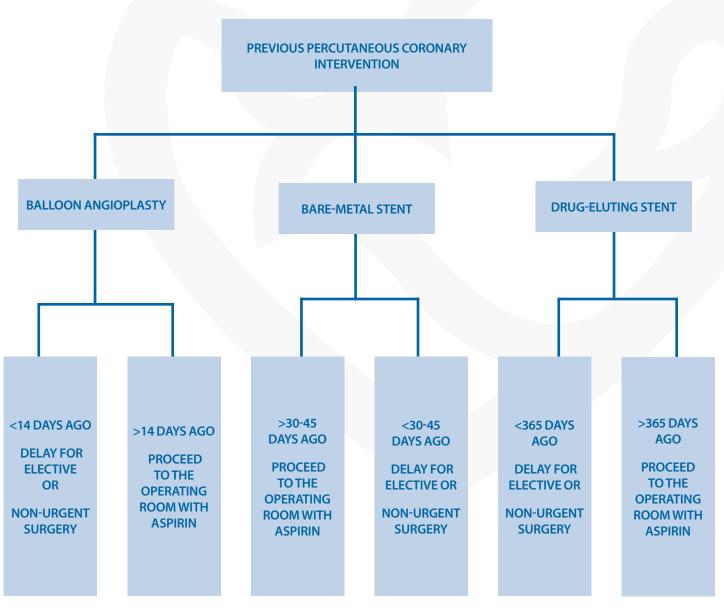
Function: Can Patient	Rating
Walk slowly, less than 2 mph	2
Garden, light	2
General house cleaning	3
Walk briskly, 3 mph	3.3
Heavy yard work or gardening	4
Climb stairs	4
Ride a bicycle, less than 10 mph 4	4
Dance (ballet or modern)	4.8
Snorkel	5
Mow the lawn with a hand mower	5.5-6.0
Shovel snow	6
Hike, strenuous	6-7
Kayak or row	6-8
Ski, downhill	6.8
Ride a bicycle, 10-16 mph	6-10
Aerobic calisthenics	6-10
Play tennis (singles)	7-12
Swim, crawl, slow	8
Run, 8 mph	13.5

### STENTS/CARDIAC CATH INFORMATION



### Recommendation per cardiology staff:

- Cardiologist to be contacted regarding recommendations for stopping antiplatelet therapy
  - Complex stenting may be an issue that precludes stopping any antiplatelet medication



### **NPO GUIDELINES**

### Pre-operative NPO Guidelines for non-emergent surgery in healthy patients without clinical concerns

For patients in whom there does not appear to be reason for clinical concern about increased risk for aspiration, the following guidelines should be observed in non-emergent or "elective" situations:

**Up until 8 hours prior to surgery:** Food and fluids as needed

**Between 4 and 8 hours prior to surgery:** Clear liquids (examples below) only. Note clinical concern below for exceptions and strict NPO.

\*Infants may have breast milk until 4 hours prior to surgery.

4 hours prior to surgery: No solids or liquids.

### Examples of acceptable and unacceptable clear liquids are:

- a. Acceptable: Water, Sprite, Coffee or Tea (no milk or lemon), fruit juice without pulp
- b. **Unacceptable:** Milk, Coffee or Tea with Milk, Infant Formula, any alcoholic beverage

For infants not at increased risk for aspiration of gastric contents, breast milk may be ingested up to 4 hours prior to surgery.

The individual anesthesiologist should weigh risks and benefits when determining the appropriate fasting interval in these situations.



## Pre-operative NPO guidelines in non-emergent situations where there is clinical concern regarding increased risk of aspiration is at least 8 hours. This includes the following patient conditions:

Some examples of reasons for clinical concern regarding increased risk of aspiration are:

- a. Obesity
- b. Diabetes Mellitus with Gastroparesis
- c. Pregnancy
- d. A history of gastroesophageal reflux/hiatal hernia
- e. Bowel obstruction
- f. Potential difficult airway management
- g. Opiate analgesics

### PRE-OPERATIVE MEDICATION MANAGEMENT

Drug Class	Action	Reason
Anti-hypertensives and cardiovascular drugs:		
<ul> <li>Angiotension Converting Enzyme (ACE) Inhibitors</li> </ul>	<b>HOLD</b> 24 hours prior to surgery	
Angiotension Receptor Blockers (ARB)	<b>HOLD</b> 24 hours prior to surgery	
• Beta blockers	Continue day of surgery	
• Digoxin	Continue day of surgery	
Diuretics and diuretic combinations	<b>HOLD</b> day of surgery	Increased risk of hypokalemia and hypovolemia
Renin inhibitor	Continue day of surgery	
• Statins	Continue day of surgery	
Anti-Reflux:		
<ul> <li>H2 blockers, proton pump inhibitors</li> </ul>	Continue day of surgery	
Antacids (e.g. Tums, Mylanta, Carafate)	<b>HOLD</b> day of surgery	
Analgesics:		
Nonsteroidal anti-inflammatories (NSAIDS)	<b>HOLD</b> day prior to surgery	Increases risk of bleeding and renal complications
• Cox-2 inhibitors	<b>HOLD</b> at least 3 days prior to surgery	
Chronic Amphetamines:		
<ul> <li>Adderall (amphetamine/ dextroamphetamine), Vyvanse (lisdexamfetamine), and Dexadrine (dextroamphetamine)</li> </ul>	<b>HOLD</b> 24 hours prior to surgery	
Diet Meds:		
<ul> <li>Fenfluramine, dexfenfluramine, phentermine, HCG</li> </ul>	<b>HOLD</b> I week prior to surgery	
Opiate Antagonists:	pe. to ca. ge. y	
• Contrave	<b>HOLD</b> 72 hours prior to surgery	
• Naltrexone	<b>HOLD</b> 72 hours prior to surgery	
Suboxone	<b>HOLD</b> day of surgery	
TNF Blocking Agent		
• Humira (adalimumab)	<b>HOLD</b> 2 weeks prior to surgery	

Drug Class	Action	Reason
Anti-coagulants:		
• Abciximab (Reopro)	<b>HOLD</b> 36-48 hours prior to surgery	Increased risk of bleeding
• Aggrenox	<b>HOLD</b> 7 days prior to surgery	
Aspirin, aspirin containing compounds	<b>HOLD</b> 2-5 days prior to surgery	
• Brilinta	<b>HOLD</b> 7 days prior to surgery	
Clopidogrel (Plavix)	<b>HOLD</b> 7 days prior to surgery	
• <b>Dabigatran</b> (Pradaxa)	<b>HOLD</b> 24 hours prior to surgery for crcl 15-30; 48 hours for crcl 31-50; 72 hours for crcl >50	
• <b>Dipyridiamole</b> (Presantine)	<b>HOLD</b> 48 hours prior to surgery	
• Direct thrombin inhibitors  Argatroban**	<b>HOLD</b> 2 hours prior to surgery	**Check PTT prior to surgery
Bivalirudin**	<b>HOLD</b> 4 hours prior to surgery	
• Eliquis	HOLD 24 hours prior to surgery for low bleeding risk procedures; 48 hours prior for moderate to high bleeding risk	
• Eptifibatide (Integrilin)	<b>HOLD</b> 8 hours prior to surgery	
• Heparin **	<b>HOLD</b> 4 hours prior to surgery	**Check PTT prior to surgery

### PRE-OPERATIVE MEDICATION MANAGEMENT

Drug Class	Action	Reason
Anti-coagulants: (continued)		
Low molecular weight heparin (Fragmin, Lovenox)	HOLD 24 hours prior to surgery	Check anti-Xa prior to surgery
• Prasugrel (Effient)	HOLD 7 days prior to surgery	
• Ticlopidine (Ticlid)	HOLD 10-14 days prior to surgery	
• Warfarin (Coumadin)	HOLD 5 days prior to surgery	Check a PT/INR prior to surgery
• Xarelto	HOLD 24 hours prior to surgery, longer with renal or hepatic impairment	
Herbals, Supplements and Vitamins	HOLD 7 days prior to surgery	Increased risk of bleeding
Antidepressants:		
<ul> <li>Isocarboxazid (Marplan)</li> <li>Monoamine oxidase inhibitors (MAO-I)</li> <li>Phenelzine (Nardil)</li> <li>Selegiline (Emsam)</li> <li>Tranylcypromine (Parnate)</li> </ul>	<b>TAPER OFF</b> 2 weeks prior to surgery, if approved by prescribing physician	Possible hypertensive crisis, interactions with peri-operative medications
Erectile Dysfunction Drugs:	Do not hold if taking for pulmonary hypertension	
<ul><li>Viagra (Sildenafil)</li><li>Levitra (Vardenafil)</li></ul>	HOLD 24 hours prior to surgery	Unsafe drop in blood pressure
• Cialis (Tadalafil)	HOLD 36 hours prior to surgery	Unsafe drop in blood pressure

#### Time interval to restart catheter is removed: For patients receiving heparin or enoxaparin for more than 4 days, a platelet count should be assessed to evalute for potential heparin-induced thrombocytopenia May be given with no time restrictions IF not being used concurrently with other anticoagulants or antiplatet agents medication after 4 hours 4 hours 6 hours 4 hours 10 days 6 hours 1 hour No time restrictions for catheter placement after initial one time pre-op dose METHODIST/WOMEN'S HOSPITAL - ANTICOAGULATION GUIDELINES FOR Guidelines to prevent Spinal Hematoma following Epidural/Intrathecal/Spine Procedures removal of catheter after last dose of Time interval for Oral Antiplatelet Agents - contact cardiologist prior to stopping Plavix, Effient, Brilinta, Ticlid or Persantine in patients with cardiac stents medication: 6 hours ANESTHESIA PERCUTANEOUS NEURAXIAL PROCEDURES May be given with no time restrictions CONTRAINDICATED while catheter in place while catheter in place while catheter in place while catheter in place CONTRAINDICATED CONTRAINDICATED CONTRAINDICATED Use of antithrombotic agent in patients with indwelling neuraxial catheters: May be given with catheter in place, wait 1 hr after needle placement Time interval for placement of catheter after last dose: \*longer in (check at approximately 4 hours after (check PTT at approximately: 2 hours after stoppping bivalirudin\*, 4 hours after stopping argatroban) patients with renal impairment (see recommendations below) stopping heparin infusion) When INR <1.5 When PTT<38 When PTT<38 72 hours 96 hours\* 12 hours\* 24 hours\* 48 hours 10 days 6 hours 8 hours\* 5 days 10 days 7 days 2 days Eptifibatide (Integrilin), Tirofiban (Aggrastat) Enoxaparin (Lovenox) 40mg subcutaneous edoxaban (Savaysa), betrixaban (Bevyxxa) Clopidogrel (Plavix), ticagrelor (Brilinta), dipyridamole (Persantine), dipyridamole + ASA (Aggrenox) Apixaban (Eliquis), rivaroxaban (Xarelto), 'iclopidine (Ticlid), prasugrel (Effient) q12hr/q24hr or 30mg subcutaneous Enoxaparin (Lovenox) 1 mg/kg q12hr subcutaneous q24hr (prophylaxis) Heparin 5000units subcutaneous q8hr/q12hr (prophylaxis) Fondaparinux (Arixtra) 5-10mg subcutaneous q24hr (treatment) or 1.5 mg/kg q24hr (treatment) **Medications:** Fondaparinux (Arixtra) 2.5 mg Alteplase (TPA) - 2 mg dose Alteplase (TPA) - full dose q12hr/q24hr (prophylaxis) Bivalirudin (Angiomax) for catheter clearance Dabigatran (Pradaxa) Heparin - full dose IV Abciximab (ReoPro) for stroke, MI, PE, etc Cilostazol (Pletal) Aspirin/NSAIDs Argatroban Warfarin

### DIABETIC PROTOCOL/MANAGEMENT

### No oral diabetes agents day of surgery

Hypoglycemia: If hypoglycemia occurs during NPO period, treat with 4 oz. glucose containing clear liquid i.e. apple juice, sprite Insulin pump: Manage insulin pump as directed by your provider while fasting and if questions please contact your provider.

Classification	Drug	Pre-Operative Instructions	
SGLT2 Inhibitors	Brenzavvy (bexagliflozin), Farxiga (dapagliflozin)	HOLD 3 days prior to surgery (do not count day of surgery)	
*failure to hold these medications can increase risk of perioperative DKA	Invokana (canagliflozin), Jardiance (empagliflozin)		
	Steglatro (ertugliflozin)	HOLD 4 days prior to surgery (do not count day of surgery)	
GLP-1 ORAL	Rybelsus (semaglutide)	Clear liquid diet the day prior to surgery HOLD 24 hours prior to surgery	
	Adlyxin (lixisenatide), Bydureon (exenatide ER)	Clear liquid diet the	
	Victoza (liraglutide), Trulicity (dulaglutide)	day prior to surgery	
GLP-1 INJECTABLE	Byetta (exenatide), Ozemptic (semaglutide)	HOLD I week prior to surgery (regardless if taken daily, BID or weekly) *delays gastric emptying*	
	Mounjaro (tirzepatide), Wegovy (semaglutide)		
	Amaryl (glimepiride)		
	Glucotrol (glipizide) , Glucotrol XL (glipizide)	HOLD day was in the surround.	
Sulfonylureas	DiaBeta/Micronase/Glynase/Glycron (glyburide)	HOLD day prior to surgery *prolonged action can result in hypoglycemia*	
	Diabinese (chlorpropamide), Tolinase (tolazamide)		
Long acting insulin	Levemir (detemir), Basaglar/Lantus/Semglee (glargine)	A.M. dosing – usual morning dose day prior to surgery;	
	Toujeo (glargine) 300 units/ml, Tresiba (degludec)	NONE day of surgery UNLESS surgery at noon or later, then 50% usual morning dose	
	HumulinN, NovolinN (NPH, isophane)	P.M. dosing – 70% of usual dose evening prior to surgery	

Mixed dose insulins	Novolin or Humulin 70/30, Humulin 50/50	A.M. dosing - usual dose a.m. prior; NONE day of OR	
	Novolog 70/30 or Humalog 75/25		
Short/rapid acting insulin	Humalog, Novolog, Apidra, Regular, Vesulin (pump), NovulinR, HumulinR	HOLD day of surgery; may take with p.m. meal evening prior	
DPP-IV Inhibitors	Januvia (sitagliptin), Nesina (alogliptin), Onglyza (saxagliptin), Tradjenta (linagliptin)	Usual dose day prior; hold morning of surgery	
Biguanides	Glucophage/Glumetza/Fortamet/Riomet (metformin) Glucophage XR (metformin ER)	Usual dose day prior; hold morning of surgery	
Thiazolidinedione	Actos (pioglitazone), Avandia (rosiglitazone)	Usual dose day prior; hold morning of surgery	
Meglitinides	Prandin (repaglinide), Starlix (nateglinide)	Usual dose day prior; hold morning of surgery	
Dopamine-2 agonists	Cycloset (bromocriptine)	Usual dose day prior; hold morning of surgery	
Alpha-glucosidase inhibitors	Precose (acarbose)	HOLD if meal is skipped; hold morning of surgery	
	ActosPlus Met/ActosPlus Met XR (pioglitazone/metformin)		
	Avandamet (rosiglitazone/metformin)	Usual dose day prior; hold	
	Janumet/Janumet XR (Sitagliptin/metformin)		
	Jentadueto (linagliptin/metformin)	morning of surgery	
	Kazano (alogliptin/metformin)		
	Oseni (alogliptin/pioglitazone)		
Combination oral	Prandimet (repaglinide/metformin)		
oon bination or a	Metaglip (glipizide/metformin)		
	Glucovance (glyburide/metformin)	LIOID day prior to ourgony	
	Avandryl (rosiglitazone/glimepiride)	HOLD day prior to surgery	
	Duetact (pioglitazone/glimepiride)		
	Glyxambi (empagliflozin/linagliptin)		
	Invokamet (canagliflozin/metformin)	HOLD 3 days prior to surgery	
	Synjardy (empagliflozin/metformin)	(do not count day of surgery)	
	Xidguo XR (dapagliflozin/metformin)		

### ANESTHESIA SERVICES FOR BARIATRIC PATIENTS

Definition and requirements	Location and attached documents
Basic guidelines for the anesthesia management of metabolic and bariatric patients	Anesthesia testing guidelines. BMI > 40 obtain EKG; Other testing needed based on the patient's history and physical.
Hemodynamic monitoring	Sedation Protocol
Fluid intake and management	NPO guidelines on page 17 of the anesthesia testing guidelines
Mobilization and positioning of patients with obesity while under sedation	Positioning policy, Safe Patient handling Policy
Difficult airway management	Anesthesia use of intubation scopes along with glidescopes; All patients are asked regarding difficulty with anesthesia; and airway assessment completed by anesthesia team

### **REFERENCES\***



Practice Advisory for Pre-anesthesia Evaluation: An Updated Report by the American Society of Anesthesiologists Task Force on Pre-anesthesia Evaluation 2011.

UpToDate: Estimation of cardiac risk prior to non-cardiac surgery

Cochrane Review: Routine Preoperative Medical Testing for Cataract Surgery

Feely MA, Collins CS, Daniels PR, Kebede EB, JROI, MUXK KD, Preoperative Testing Before NonCardiac Surgery: Guidelines and Recommendations. Am Fam Physician. 2013:87(6):414-418Preoperative

\*List is not all inclusive

"Clinical Practice Algorithms." MD Anderson Cancer Center, www.mdanderson.org/for-physicians/clinical-tools-resources/clinical-practice-algorithms.html. Accessed 26 Sept. 2023.

Glyxambi (empagliflozin and linagliptin tablets) [package insert] Ridgefield, CT; Boehringer Ingelheim; 2022 "ISI - Invokamet." InvokanaHCP, 26 Aug. 2020, www.invokanahcp.com/invokamet-xr/important-safety-information#:~:text=Before%20initiating%20INVOKANA%C2%AE%2FINVOKAMET%C2%AE%2FINVOKAMET%C2%AE%20 XR%2C,3%20days%20prior%20to%20surgery.

Marks, Jennifer B. "Perioperative Management of Diabetes." American Family Physician, 1 Jan. 2003, www.aafp.org/pubs/afp/issues/2003/0101/p93.html#preoperative-evaluation.

Prandimet (repaglinide and metformin HCl) [package insert] Bagsvaerd, Denmark; Novo Nordisk; 2012 Preiser, Jean-Charles, et al. "Perioperative Management of Oral Glucose-Lowering Drugs in the Patient with Type 2 Diabetes." American Society of Anesthesiologists, American Society of Anesthesiologists, 1 Aug. 2020, pubs. asahq.org/anesthesiology/article/133/2/430/109156/Perioperative-Management-of-Oral-Glucose-lowering.

"Preoperation Medication Guide." Wesley Healthcare, wesleymc.com/patients-visitors/Preoperation-Medication-Guide. Accessed 26 Sept. 2023.

Pre-Operative Diabetes Medication Management Instructions, www.islandhospital.org/wp-content/uploads/Pre-Operative-Diabetic-Medication-Management-Instructions.pdf. Accessed 26 Sept. 2023.

Sudhakaran, S., & Surani, S. R. (2015). Guidelines for perioperative management of the Diabetic patient. Surgery Research and Practice, 2015,

1-8. https://doi.org/10.1155/2015/284063

Synjardy. Pro.boehringer. (n.d.). https://pro.boehringer-ingelheim.com/us/products/synjardy/Xigduo (dapagliflozin and metformin HCl extended-release) [package insert] Wilmington, DE; AstraZeneca; 2017

Rev. 8/2024 - GLP-1 oral and injectable clear liquid diet addition; ACE/ARB updated to 24-hour hold, bariatric BMI guidelines for EKG, Added NPO page number and removed outdated beds & carts mobilization policy

Rev. 9/2024 - Removed Surgical Risk Assessment Clinic and updated herbals to include supplements and vitamins with updated hold to 7 days prior to surgery.

### FREQUENT CONTACT NUMBERS AND REFERENCES



#### **Surgery Scheduling Office**

- Surgery Scheduling Office (402) 354-6223
  - Surgery Scheduling Manager: Ronda Gammel (402) 354-4772

#### **Pre-Surgery RN**

For questions related to patient preparation, education, or pre-testing needs:

- Pre-Surgery Screening Nurse Call Center (402) 354-5100
  - Pre-Surgery Screening FAX (402) 354-4010
  - Pre-Surgery RN Manager: Jasmine Howe (402) 354-5116

#### **Methodist HealthWest**

16120 W Dodge Rd.

- OR Desk: (402) 354-0780 Pre-Op: (402) 354-0783
- PACU: (402) 354-0788
  - Healthwest Surgical Services Manager: Nicole Meyers (402) 354-0846

#### Methodist Hospital (Main) Operating Room

#### 8303 Dodge Street

- OR Front Desk: (402) 354-4744
  - OR Nurse Manager: Jenny Miller (402) 354-3019
- Pre-Op Front Desk: (402) 354-4054
  - Pre-Op Nurse Manager: Karie Quintana (402) 354-6782
- PACU Front Desk: (402) 354-4197
  - PACU Nurse Manager: Karie Quintana (402) 354-6782

#### **Methodist Outpatient Surgery**

#### 8303 Dodge Street

- OR Front Desk: (402) 354-4207
  - OR Nurse Manager: Jenny Miller (402) 354-3019
- Pre-Op Front Desk: (402) 354-4206
  - Pre-Op Nurse Manager: Karie Quintana (402) 354-6782
- PACU Front Desk: (402) 354-4205
  - PACU Nurse Manager: Karie Quintana (402) 354-6782

#### **Methodist Women's Hospital**

#### 707 N 190th Plaza

- OR Front Desk: (402) 815-1666
- Pre-Op & PACU: (402) 815-1292
  - Women's Hospital Surgical Services Manager: Emily McGuire (402) 815-1641

