### Methodist Hospital Pre-Operative Anesthesia Guidelines 2024



# Your guide to scheduling surgeries at Methodist Hospital.



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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| Pre-Surgery RN's                                 |         |
| Surgical Risk Assessment Clinic                  |         |
| Operating Room                                   |         |
| OR Leadership                                    |         |

### 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<br>incidence of peri-operative MI or death is <1%<br>Examples:<br>• Arthroscopies<br>• Breast surgery<br>• 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<br>incidence of peri-operative MI or death is 1-5%, do<br>have significant blood loss or hemodynamic changes<br>Examples:<br>• Head & Neck procedures<br>• Total Joint Cases/Ortho cases<br>• Prostate Surgery<br>• IR procedures<br>• 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<br>incidence or peri-operative MI or death is >5%<br>or normal physiology is disrupted; commonly<br>requires blood transfusions, invasive monitoring<br>and/or post-op ICU care.<br>Examples:<br>• Emergency procedures ***<br>• Aortic, major vascular, Endo AAA repair<br>• Carotid Endartectomy<br>• Cardiac surgery<br>• Procedures with anticipated large | <ul> <li>CBC with platelets</li> <li>CMP</li> <li>Pregnancy testing</li> <li>EKG</li> <li>***Lab tests for Emergency procedures<br/>only performed if time allows</li> </ul>          |

 Procedures with anticipated large blood loss or fluid shift

### 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**

#### 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

#### Lab requirements

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**

#### Examples include, but are not limited to:

- Minor Head and Neck
- Partial & Total thyroidectomy
- Parathyroidectomy
- Laparoscopic
- 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

#### Lab requirements

No routine lab tests are required unless indicated by the patient's medical history.

Please see the pre-operative testing grid for direction on which tests to order.

### **HIGH RISK PROCEDURES**

#### **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
- Thoracotomy/VAT
- Hepatic
- Gastric bypass surgery

#### 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<br>Diagnosis       | СВС | PT/INR | Glucose | ВМР | СМР | EKG | LFT's | UA |
|-----------------------------|-----|--------|---------|-----|-----|-----|-------|----|
| ACE/ARB Usage               |     |        |         | x   |     |     |       |    |
| Anemia                      | x   |        |         |     |     |     |       |    |
| <b>Bleeding History</b>     | x   | x      |         |     | x   |     |       |    |
| Chronic<br>Hypertension     |     |        |         |     |     | x   |       |    |
| CV Disease                  | x   |        |         | 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<br>≥ 40  |     |        |         |     |     | x   |       |    |
| Potassium<br>Supplements    |     |        |         | x   |     |     |       |    |
| Pulmonary Disease           | x   |        |         |     |     | X   |       |    |
| Smoking >1 pack per<br>day  |     |        |         |     |     | x   |       |    |
| Renal Disease               | x   |        |         | X   |     | X   |       |    |
| Steroids                    |     |        | x       | 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<br>conjunction with the patient's history   |
|---|--|
| EKGs<br>(No need to further evaluate)   | The following do NOT need to be called to the<br>anesthesiologists/cardiologists attention in absence of<br>other cardiac history:<br>• Low voltage<br>• Axis deviation<br>• Atrial enlargement<br>• LVH<br>• Accelerated AV condition<br>• Ist degree AV block<br>• Early repolarization<br>• RBBB: No evidence of CV disease and asymptomatic<br>• Sinus bradycardia <50 and asymptomatic<br>• Early repolarization<br>• Pacemaker<br>• Conduction delay<br>• Premature atrial contractions  |
| <ul> <li>**Medical Clearance from PCP or<br/>Cardiology must include data to<br/>support clearance.</li> <li>"Cleared for Surgery" is NOT<br/>sufficient without supporting data</li> </ul> | <ul> <li>EKG abnormalities do not need to be further evaluated if:</li> <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> Please try to obtain previous EKGs for comparison, notes, and cardiac workups including Echos and stress tests to assist in the evaluation of patient. |
| EKGs (Requiring further evaluation.<br>May need to see primary care<br>provider, pre-surgery clinic or<br>anesthesiologist for day<br>of procedures)  | <ul> <li>MI, including history and age undetermined or cannot rule out</li> <li>Acute ischemic changes</li> <li>2nd, 3rd degree heart block</li> <li>Left bundle branch block</li> <li>Left anterior fascicular block</li> <li>ST and/or T wave abnormalities</li> <li>New onset atrial fibrillation</li> <li>RBBB: Evidence of CV disease or CV symptoms</li> </ul>   |

### **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
  - Symptomatic

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

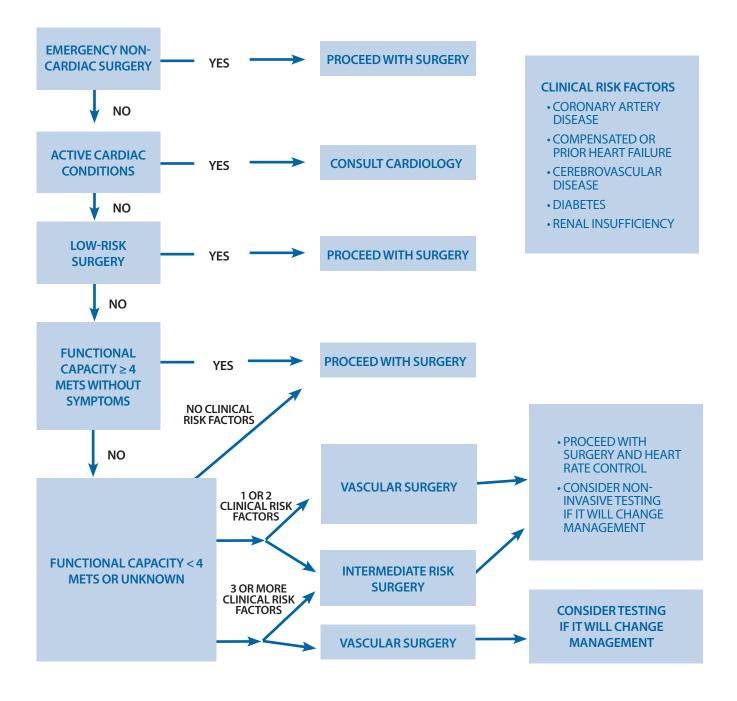
#### **Significant Arrhythmias**

- 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)

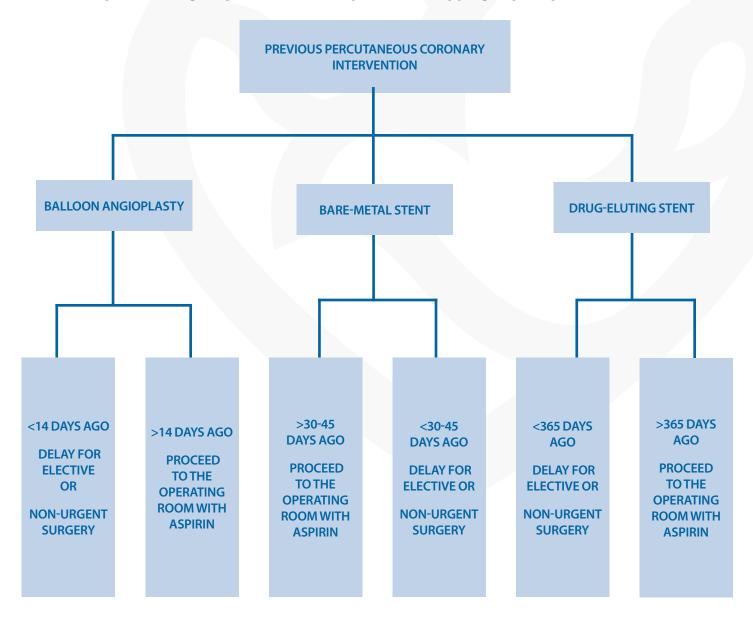
| Function: Can Patient              | Rating  |
|------------------------------------|---------|
| Walk slowly, less than 2 mph       | 2       |
| Garden, light                      | 2       |
| General house cleaning             | 3       |
| Walk briskly, 3 mph                | 3.3     |
| Heavy 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<br/>(ACE) Inhibitors</li> </ul>  | HOLD day of surgery                      |  |
| <ul> <li>Angiotension Receptor Blockers (ARB)</li> </ul>   | HOLD day of surgery                      |  |
| • Beta blockers  | Continue day of surgery                  |  |
| • Digoxin  | Continue day of surgery                  |  |
| • Diuretics and diuretic combinations  | HOLD day of surgery                      | Increased risk of<br>hypokalemia and<br>hypovolemia      |
| Renin inhibitor  | Continue day of surgery                  |  |
| • Statins  | Continue day of surgery                  |  |
| Anti-Reflux:   |  |  |
| • H2 blockers, proton pump inhibitors  | Continue day of surgery                  |  |
| • Antacids (e.g. Tums, Mylanta, Carafate)  | HOLD day of surgery                      |  |
| Analgesics:  |  |  |
| • Nonsteroidal anti-inflammatories (NSAIDS)  | <b>HOLD</b> day prior to surgery         | Increases risk of<br>bleeding and renal<br>complications |
| • Cox-2 inhibitors   | HOLD at least 3 days prior to surgery    |  |
| Chronic Amphetamines:  |  |  |
| <ul> <li>Adderall (amphetamine/<br/>dextroamphetamine), Vyvanse<br/>(lisdexamfetamine), and Dexadrine<br/>(dextroamphetamine)</li> </ul> | <b>HOLD</b> 24 hours prior to surgery    |  |
| Diet Meds:   |  |  |
| • Fenfluramine, dexfenfluramine,   | HOLD 1 week                              |  |
| phentermine, HCG   | prior to surgery                         |  |
| Opiate Antagonists:<br>• Contrave  | <b>HOLD</b> 72 hours<br>prior to surgery |  |
| • Naltrexone   | HOLD 72 hours prior to surgery           |  |
| • Suboxone   | HOLD day of surgery                      |  |
| TNF Blocking Agent   |  |  |
| • Humira (adalimumab)  | HOLD 2 weeks prior to surgery            |  |



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

### PRE-OPERATIVE MEDICATION MANAGEMENT

| Drug Class  | Action  | Reason   |
|---|---|--|
| Anti-coagulants: (continued)  |   |  |
| <ul> <li>Low molecular weight heparin<br/>(Fragmin, Lovenox)</li> </ul>   | HOLD 24 hours<br>prior to surgery   | Check anti-Xa<br>prior to surgery  |
| • Prasugrel (Effient)   | HOLD 7 days<br>prior to surgery   |  |
| • Ticlopidine (Ticlid)  | HOLD 10-14 days prior<br>to surgery   |  |
| • Warfarin (Coumadin)   | HOLD 5 days<br>prior to surgery   | Check a PT/INR<br>prior to surgery   |
| • Xarleto   | HOLD 24 hours prior to<br>surgery, longer with renal<br>or hepatic impairment         |  |
| Herbals   | HOLD all herbals 2 weeks prior to surgery   | Increased risk of bleeding   |
| Antidepressants:  |   |  |
| <ul> <li>Isocarboxazid (Marplan)</li> <li>Monoamine oxidase<br/>inhibitors (MAO-I)</li> <li>Phenelzine (Nardil)</li> <li>Selegiline (Emsam)</li> <li>Tranylcypromine (Parnate)</li> </ul> | <b>TAPER OFF</b> 2 weeks prior<br>to surgery, if approved by<br>prescribing physician | Possible hypertensive<br>crisis, interactions with<br>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<br>prior to surgery   | Unsafe drop in blood pressure  |
| • Cialis (Tadalfil)   | HOLD 36 hours<br>prior to surgery   | Unsafe drop in blood pressure  |



| METHODIS1<br>AN<br>Guidelines to  | T/WOMEN'S HOSPITAL - ANTICOAGULATION GUIDELINES FOR<br>JESTHESIA PERCUTANEOUS NEURAXIAL PROCEDURES<br>prevent Spinal Hematoma following Epidural/Intrathecal/Spine Procedures | ITICOAGULATION G<br>NEURAXIAL PROCE<br>ing Epidural/Intratheca                        | SUIDELINES FOR<br>DURES<br>Spine Procedures                                   |  |
|---|---|---|---|--|
| Medications:  | Time interval for placement of<br>catheter after last dose: *longer in<br>patients with renal impairment<br>(see recommendations below)                                       | Use of antithrombotic<br>agent in patients with<br>indwelling neuraxial<br>catheters: | Time interval for<br>removal of catheter<br>after last dose of<br>medication: | Time interval to restart<br>medication after<br>catheter is removed: |
| Heparin - full dose IV  | When PTT<38<br>(check at approximately 4 hours after<br>stopping heparin infusion)  | CONTRAINDICATED<br>while catheter in place  | ICATED<br>r in place  | 4 hours  |
| Heparin 5000units subcutaneous<br>q8hr/q12hr (prophylaxis)  | 6 hours   | May be given with<br>catheter in place, wait 1 hr<br>after needle placement           | 6 hours   | l hour   |
|   | No time restriction   | No time restrictions for catheter placement after initial one time pre-op dose        | er initial one time pre-op  | o dose   |
| Apixaban (Eliquis), rivaroxaban (Xarelto),<br>edoxaban (Savaysa), betrixaban (Bevyxxa)                      | 72 hours  |   |   | 6 hours  |
| Dabigatran (Pradaxa)  | 5 days  |   |   |  |
| Enoxaparin (Lovenox) 40mg subcutaneous<br>q12hr/q24hr or 30mg subcutaneous<br>q12hr/q24hr (prophylaxis)     | 12 hours*   | CONTRAINDICATED<br>while catheter in place  | ICATED<br>r in place  | 4 hours  |
| Enoxaparin (Lovenox) 1 mg/kg ql2hr<br>or 1.5 mg/kg q24hr (treatment)  | 24 hours*   |   |   |  |
| For patients receiving heparin or enoxaparin I  | for more than 4 days, a platelet count should be assessed to evalute for potential heparin-induced thrombocytopenia   | ould be assessed to evalute t   | or potential heparin-ind  | uced thrombocytopenia  |
| Warfarin  | When INR <1.5   |   |   |  |
| Fondaparinux (Arixtra) 2.5 mg<br>subcutaneous q24hr (prophylaxis)   | -   |   |   |  |
| Fondaparinux (Arixtra) 5-10mg<br>subcutaneous q24hr (treatment)   |   |   |   |  |
| Argatroban  | When PTT<38<br>(check PTT at approximately: 2 hours   |   | CATED   | 4 hours  |
| Bivalirudin (Angiomax)  | after stoppping bivalirudin*, 4 hours<br>after stopping argatroban)   | while catheter in place   | r in place  |  |
| Abciximab (ReoPro)  | 48 hours  |   |   |  |
| Eptifibatide (Integrilin), Tirofiban (Aggrastat)  | 8 hours*  |   |   |  |
| Alteplase (TPA) – full dose<br>for stroke, MI, PE, etc  | 10 days   |   |   | 10 days  |
| Alteplase (TPA) - 2 mg dose<br>for catheter clearance   |   | May be given with no time restrictions  | estrictions   |  |
| Oral Antiplatelet Agents - contact cardiologist   | prior to stopping Plavix, Effient, Brilinta, Ticlid or Persantine in patients with cardiac stents   | lid or Persantine in patients v   | vith cardiac stents   |  |
| Aspirin/NSAIDs  | May be given with no time restrictions IF not being used concurrently with other anticoagulants or antiplatet agents  | s IF not being used concurrer   | itly with other anticoagule   | ants or antiplatet agents  |
| Clopidogrel (Plavix), ticagrelor (Brilinta),<br>dipyridamole (Persantine), dipyridamole<br>+ ASA (Aggrenox) | 7 days  | CONTRAINDICATED   | ICATED  |  |
| Ticlopidine (Ticlid), prasugrel (Effient)   | 10 days   | while catheter in place   | r in place  | o nours  |
| Cilostazol (Pletal)   | 2 days  |   |   |  |

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



| Mixed dose insulins          | Novolin or Humulin 70/30, Humulin 50/50   | A.M. dosing - usual dose a.m. prior;<br>NONE day of OR           |  |
|------------------------------|---|--|--|
|                              | Novolog 70/30 or Humalog 75/25  |  |  |
| Short/rapid acting insulin   | Humalog, Novolog, Apidra, Regular, Vesulin<br>(pump), NovulinR, HumulinR                      | HOLD day of surgery;<br>may take with p.m. meal<br>evening prior |  |
| DPP-IV Inhibitors            | Januvia (sitagliptin), Nesina (alogliptin),<br>Onglyza (saxagliptin), Tradjenta (linagliptin) | Usual dose day prior;<br>hold morning of surgery                 |  |
| Biguanides                   | Glucophage/Glumetza/Fortamet/Riomet<br>(metformin)<br>Glucophage XR (metformin ER)            | Usual dose day prior;<br>hold morning of surgery                 |  |
| Thiazolidinedione            | Actos (pioglitazone), Avandia (rosiglitazone)   | Usual dose day prior;<br>hold morning of surgery                 |  |
| Meglitinides                 | Prandin (repaglinide), Starlix (nateglinide)  | Usual dose day prior;<br>hold morning of surgery                 |  |
| Dopamine-2 agonists          | Cycloset (bromocriptine)  | Usual dose day prior;<br>hold morning of surgery                 |  |
| Alpha-glucosidase inhibitors | Precose (acarbose)  | HOLD if meal is skipped;<br>hold morning of surgery              |  |
|                              | ActosPlus Met/ActosPlus Met XR<br>(pioglitazone/metformin)                                    |  |  |
|                              | Avandamet (rosiglitazone/metformin)   |  |  |
|                              | Janumet/Janumet XR<br>(Sitagliptin/metformin)   | Usual dose day prior; hold                                       |  |
|                              | Jentadueto (linagliptin/metformin)  | morning of surgery   |  |
|                              | Kazano (alogliptin/metformin)   | _  |  |
|                              | Oseni (alogliptin/pioglitazone)   | _  |  |
| Combination oral             | Prandimet (repaglinide/metformin)   |  |  |
|                              | Metaglip (glipizide/metformin)  | _  |  |
|                              | Glucovance (glyburide/metformin)  | HOLD day prior to surgery  |  |
|                              | Avandryl (rosiglitazone/glimepiride)  |  |  |
|                              | 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

| <ul> <li>Basic guidelines for the anesthesia<br/>management of metabolic and<br/>bariatric patients</li> </ul> | Anesthesia testing guidelines. BMI > obtain EKG;<br>Other testing needed based on the patient's<br>history and physical.   |
|--|--|
| Hemodynamic monitoring   | Sedation Protocol  |
| Fluid intake and management  | NPO guidelines in anesthesia testing guidelines  |
| <ul> <li>Mobilization and positioning of patients<br/>with obesity while under sedation</li> </ul>             | Positioning policy, Safe Patient handling Policy,<br>OR bed and carts policy   |
| • Difficult airway management  | Anesthesia use of intubation scopes along with<br>glidescopes; All patients are asked regarding difficulty<br>with anesthesia; and airway assessment completed<br>by anesthesia team |

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# 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**

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- 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

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- Pre-Op & PACU: (402) 815-1292
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