

## Medication Instructions for Patients Having Surgery at PAMC

You have been scheduled for a surgery/procedure at Providence Alaska Medical Center. Please read the following instructions carefully, regarding the management of your medications before surgery. Unless otherwise indicated, these instructions take precedence over any instructions from your surgeon's office.

**Please feel free to contact Pre-Admission Testing at 212-6013 anytime from 8 AM – 6PM Monday thru Friday with questions or concerns.**

**DO NOT TAKE** ACE-inhibitors (ending in “-pril”) or angiotensin receptor blockers (ending in “-sartan”) on the day of surgery. This includes any combination drug that includes one of these medications. Some examples follow (with both generic and brand names).

<u>ACE-Inhibitors</u>	<u>Angiotensin Receptor Blockers</u>
Lisinopril (Zestril, Novatec)	Losartan (Cozaar)
Enalapril (Vasotec)	Valsartan (Diovan)
Ramipril (Altace)	Olmesartan (Benicar)
Benazepril (Lotensin)	Irbesartan (Avapro)

**CONTINUE** all other blood pressure medications on the day of surgery (as regularly scheduled, with a sip of water), unless otherwise instructed by your cardiologist or cardiac surgeon.

**CONTINUE** all inhalers on the day of surgery (as regularly scheduled).

**CONTINUE** all pain medication on day of surgery (as regularly scheduled).

**STOP/CONTINUE** your insulin or oral diabetes medication as directed by the **instruction on the Table 1 below**.

**STOP** all herbal supplements 7 days before surgery, if possible. Failure to follow these instructions (or discuss alternative plan with doctor) may result in surgery being delayed or cancelled. See Table 2 below.

**CPAP/BiPAP:** If you use CPAP or BiPAP at home please bring your own machine and mask (clean and in working order) on the day of your surgery.

### **Anticoagulants & Anti-platelet Agents**

Anticoagulants are blood-thinners are medications like Heparin, Enoxaparin (Lovenox), Warfarin (Coumadin), Rivaroxaban (Xarelto), Apixaban (Eliquis), and Dabigatran (Pradaxa), among others. Anti-platelet agents include Aspirin, Clopidogrel (Plavix), Prasugrel (Effient), Ticlid (ticlopidine) and Pletal (cilostazol) used to treat peripheral vascular disease, and others. *The continuation or discontinuation of these medications is to be determined by your surgeon, who should be in communication with your prescribing doctor (e.g. cardiologist, neurologist).*

**STOP** all prescription amphetamines 7 days before surgery, if possible. These include drugs such as phentermine, amphetamine, ephedrine/ephedra, and dextroamphetamine (among others). If taken for weight loss, they should be stopped 7 days before surgery. If taken for a psychiatric or neurologic condition (e.g. narcolepsy), they may be continued. *If prescription amphetamines will not be stopped 7 days before surgery, please continue taking them up to and including the day of surgery.* Failure to follow these instructions can lead to life-threatening problems with anesthesia on the day of surgery.

**-BEWARE OF THE FOLLOWING DRUGS:**

- Buprenorphine** (Subutex, Suboxone, Sublocade, Zubsolv, Bunavail)
- **Naltrexone** (Revia, Contrave, Vivitrol)
- Any drug containing either of these two.**

**Buprenorphine** will make most other opioids ineffective during and after surgery. **We strongly recommend that, 5-7 days before your surgery, you transition from buprenorphine to another long-acting opioid.** This plan must be made with the prescriber of your buprenorphine (e.g. chronic pain doctor). Under the supervision of your prescriber, you may transition back to the buprenorphine several days or weeks after surgery, depending on the type of surgery. If you remain on buprenorphine until your surgery, the only opioid that can be used to treat pain after surgery will be more buprenorphine, which has quite limited benefit when compared to other opioids. It should be noted that surgeries that do not involve significant pain afterward can be done while you are taking buprenorphine on board--this can be discussed with your surgeon.

**Naltrexone** completely blocks the opioid receptor for at least 48 hours, blocking the effects of any opioids. **Oral naltrexone (Revia, Contrave) must be stopped 48 hours prior surgery. Vivitrol is a long-acting injectable version of naltrexone- if you are getting Vivitrol injections every month, ideally surgery should be scheduled for one month after your last injection.**

**Pre-operative instructions for Insulin & Diabetes Medication**

<b>Drug Type</b>	<b>Examples</b>	<b>Day Before Surgery</b>	<b>Day of Surgery</b>
<b>Insulin Pump</b>	n/a	No change	Use "sick day" or "sleep" basal rate if possible. Otherwise, no change.
<b>Long-acting insulins</b>	Glargine (Lantus) Detemir (Levemir)	No change (50% of evening dose <i>if</i> patient has history of nocturnal or morning hypoglycemia, <i>or</i> has a pre-operative bowel prep)	50% of morning dose
<b>Intermediate-acting insulins</b>	NPH (Novolin N, Humulin N-NF) Zinc insulin (Lente) Extended zinc insulin (Ultralente)	No change in daytime dose; 50% of evening dose	50% of morning dose
<b>Fixed combination insulins</b>	70% NPH/30% Regular 50% NPH/50% Regular	No change	50% of morning dose (check blood sugar before coming to hospital or if symptoms of hypoglycemia)

<b>Short- &amp; rapid-acting insulins</b>	Regular (Novolin R, Humulin R) Lispro (Humalog) Aspart (Novolog)	No change	Hold dose
<b>Non-insulin injectables</b>	Exenatide (Byetta) Pramlintide (Symlin)	No change	Hold dose
<b>Oral diabetes drugs</b>	Metformin (Glucophage) Glipizide (Glucotrol) Pioglitazone (Actos) Sitagliptin (Januvia)	No change  <b>(Exception:</b> In patients with chronic kidney disease <i>or</i> receiving IV contrast dye, <i>metformin</i> should be stopped 24 hours	Hold dose

### Pre-operative instructions for Herbal Supplements

Some supplements increase the risk of perioperative complications. Below is a table listing the most commonly used substances.

**All herbal supplements should be stopped seven days prior to surgery if possible.** Please check with your surgeon to determine whether or not you should discontinue your herbal supplements.

<b>Supplement</b>	<b>Potential Effects &amp; Perioperative Concerns</b>
<b>Garlic</b>	Bleeding
<b>Ginger</b>	Bleeding
<b>Ginkgo</b>	Bleeding
<b>Ginseng</b>	Bleeding, Hypoglycemia
<b>St. John's Wort (hypericin)</b>	Prolonged sedation, Hemodynamic instability, Serotonin Syndrome
<b>5-HTP</b>	Serotonin Syndrome
<b>Kava*</b>	Prolonged sedation
<b>Valerian Root*</b>	Prolonged sedation
<b>Echinacea</b>	Immune system effects, Hepatic dysfunction
<b>Ephedra (Ma Huang)**</b>	Tachycardia, hypertension, vasospasm

**The following supplements may also (to a lesser extent) lead to bleeding, and should be stopped seven (7) days prior to surgery:**

Fish Oil/Omega-3 Fatty Acids	Feverfew	Saw Palmetto
Vitamin E	Goldenseal	Flax Seed Oil
Glucosamine	Bromelain	Horse Chestnut
Dong Quai	Grape Seed Extract	Dandelion Root

Chamomile  
Bilberry

