

ELECTIVE SURGERY MEDICATION INSTRUCTIONS 11/18/19

MEDICATION CLASS	MEDICATION	INSTRUCTIONS	RATIONALE	SOURCE
Antiplatelet and anticoagulant Instructions: Refer to specialty service protocols				
Antiplatelets	ASA		Check with surgeon if need to stop	
Check with Cardiologist on perioperative antiplatelet therapy by outweighing risk of bleeding with that of stent thrombosis	Clopidogrel		Check with surgeon/generally stop 5 days prior	
	Prasugrel		Check with surgeon/generally stop 5 days prior	
	Ticagrelor		Check with surgeon	
	Ticlopidine		Check with surgeon	
	Dipyridamole/risk of bleed vs ischemia		Check with surgeon/gen stop 2 days prior	
	Aggrenox (combo asa/dipyridamole)		Check with surgeon/gen stop 7-10 days prior	
	Cilostazol/used for claudication		Check with surgeon/generally stop 5 days prior	
Anticoagulants	Coumadin		Check with surgeon/bridge if necessary	
	Dabigatran		Generally stop 2 days prior	
	Rivaroxiban		Generally stop 2 days prior	
NSAIDS	NON COX SELECTIVE IBUPROFEN, NAPROXEN	STOP 7 DAYS PRIOR		
	INDOMETHACIN, SULINDAC			
	COX 2 INHIBITOR-celecoxib	may be maintained for pain per surgeon	minimal effect on pts	
NONACETYLATED NSAIDS	Diflunisal, salsalate, choline mag tricalicylate	can be continued periop	used for pain management	
CARDIOVASCULAR	ACE INHIBITOR "PRILS" Lisinopril, ramipril, benazepril	HOLD AM of surgery	If used for CHF or poorly controlled HTN can give. Discuss w/anesthesia. Recent evidence suggests risk for intraoperative hypotension morbidity significantly higher if continued AM of surgery.	ICSI Healthcare Guideline: Perioperative
	enalapril, captopril, fosinopril	HOLD AM of surgery	If used for CHF or poorly controlled HTN can give. Discuss w/anesthesia. Recent evidence suggests risk for intraoperative hypotension morbidity significantly higher if continued AM of surgery.	2018 ACC/AHA guideline on perioperative cardiac evaluation and management of patients undergoing noncardiac surgery; https://www.ahajournals.org/doi/epub/10.1161/C1A.000000000000106
	ANGIOTENSIN RECEPTOR BLOCKERS-"ARBs"	HOLD morning of surgery	If used for CHF or poorly controlled HTN can give. Discuss w/anesthesia. Recent evidence suggests risk for intraoperative hypotension morbidity significantly higher if continued AM of surgery.	

	Losartan, valsartan, irbisartan, candasartan	HOLD morning of surgery	If used for CHF or poorly controlled HTN can give. Discuss w/anesthesia. Recent evidence suggests risk for intraoperative hypotension morbidity significantly higher if continued AM of surgery.	
	BETA BLOCKER "OLOL" ATENOLOL, METOPROLOL	Take up am of surgery		
	ALPHA 2 AGONIST Clonidine	Take am of surgery	Abrupt withdrawal of drug can precipitate rebound hypertension	
	CALCIUM CHANNEL BLOCKERS- Nifedipine, diltiazem, amlodipine, verapamil	Take am of surgery		
	DIURETICS - HCTZ furosemide, chlorthalidone	Hold am of surgery	May take if prescribed for CHF especially if fluid balance difficult control	
	STATIN	Continue	May prevent vascular events	
	NON STATIN LIPID LOWERING- Niacin, fenofibrate, trillipex, gemfibrozil,exetimibe	day prior surgery	May cause rhabdomyolysis/interfere with absorption of other meds	
	BP/DIURETIC COMBO	Take unless ACE/ARB		
	ANTI-ARRYTHMICS- Digoxin, amiodarone, flecanide, quinidine	Take am of surgery		
	VASODILATADOR- Hydralazine	Take am of surgery		
	NITRATES- Imdur, isosorbide, nitroglycerin patch	Take/Wear patch the am of surgery		
ENDOCRINE AGENTS				
DIABETES	ORAL AGENTS	Hold am of surgery	Continue all day and evening prior. Consider metformin discontinuation 24-48 hrs for renal dysfunction/contrast dye	
	NON - INSULIN INJECTABLE Byetta, victoza	Hold am of surgery	Day prior-routine meal plan and take as usual insulin dose	
	RAPID ACTING INSULIN- Novolog, Humalog, Apidra	Hold am of surgery	Day prior-routine meal plan and take as usual insulin dose	
	Novolin R or Humulin R			
	INTERMEDIATE ACTING- Taken twice daily Novolin N, Humulin N (NPH)	Hold am of surgery		Anesthesiology. Wanderer, P., Rathmell, J.P. (2017). January. Infographics in Anesthesiology. Vol.126, A21. doi:http://doi.org/10.1097/ALN.0000000000001477

				Anesthesiology. Wanderer, P., Rathmell, J.P. (2017). January. Infographics in Anesthesiology. Vol.126, A21. doi:http://doi.org/10.1097 /ALN.000000000001477
	LONG ACTING INSULIN- Glargine, Determir	Continue am of surgery		
	Once daily dosing in <u>morning</u> is their routine	Take 50% of usual morning dose am of surgery	Day prior Take usual morning dose	
	Once daily dosing in the <u>evening</u> is their routine	Do not take any insulin am of surgery	Day prior-Take 75% of usual evening dose	
	Taken twice daily	Take 50% of usual morning dose am of surgery	Day prior-Take usual morning dose, 75%of evening dose	
	PRE-MIXED INSULINS 70/30, 75/25, 50/50, Taken bid	Take 50% of usual morning dose am of surgery	Day Prior Take usual morning dose and 75%of evening dose	
	INSULIN PUMP	Maintain basal rate	Day Prior- Take usual meal plan & basal rate	
THYROID	Continue meds for hyperthyroid and hypothyroidism	Take the am of surgery	Consult endocrine for concerns	
GASTROINTESTINAL	Acid blockers	Take the am of surgery		
	Proton Pump inhibitors	Take the am of surgery		
HERBALS/VITAMINS	ALL TYPES	Stop 7 days prior to surgery		
NEUROLOGIC	Provigil (Narcolepsy)	Hold the am of surgery		
OPIOID DEPENDENCE	SUBOXONE (OPIOID ANTAGONIST)	Per prescriber	May taper over week prior Should be discontinued preoperatively 48-72 hours if by mouth, and multimodal approach to pain. If medicaiton is IM, then discontinue 4 weeks preoperatively or refer to prescriber.	
	NALTREXONE	Per prescriber		
	BUPRENORPHINE	Per prescriber	Either Continue or Lower dose preoperatively, 1mg morphine=15-35 mcg buprenorphine. If preoperative Buprenorphine at or under 8mg, then continue. If 9mg and above, then lower dose preoperatively over 1-4 weeks. Best to defer to prescriber if above 8mg.	
	METHADONE	Take am of surgery	Monitor QT interval	
	TRAMADOL, TAPENTADOL, MEPERIDINE	Hold AM of surgery	lowers seizure threshold, epileptogenic effect.	ICSI healthcare: Perioperative
ORAL CONTRACEPTIVES	ORAL MEDS	PER SURGEON	Risk of thrombosis-consider stop in med/high risk if stop 4 weeks in advance/other birth control method	
			SERUM PREGNANCY TESTING	
OSTEOPOROSIS/OSTEOPENIA	BIPHOSPHONATE USE	Hold am of surgery		

	BIPHOSPHONATE USE/dental surgery		check with dental surgeon regarding hold	
	BIPHOSPHONATE USE/bone surgery, long term use of drug, concomitant glucocorticoid/chemo		check with surgeon regarding hold	
POST MENOPAUSAL HORMONES	ESTROGEN	PER SURGEON	MED/HIGH RISK FOR VTE>CONSIDER STOP	
SELECTIVE ESTROGEN RECEPTOR MODULATORS	TAMOXIFEN AND RALOXIFENE	PER SURGEON	MED/HIGH RISK FOR VTE>CONSIDER STOP1-2 WEEKS IN ADVANCE	
PULMONARY AGENTS	INHALED BETA AGONIST (ALBUTEROL, SALMETEROL)	USE AM OF SURGERY		
	FORMOTEROL			
	INHALED ANTICHOLINERGIC (IPATROPIUM, TIOTROPIUM)	USE AM OF SURGERY		
	INHALED AND SYSTEMIC GLUCOCORTICIDS	CONTINUE AM OF SURGERY	PERIOP STRESS DOSING FOR SYSTEMIC CAN CAUSE ARRHYTHMIA WITH PERIOP MEDS	
	THEOPHYLLINE	DISCONTINUE DAY PRIOR TO SURGERY		
	LEUKOTRIENE INHIBITORS (ZAFIRLUKAST, MONTELUKAST)	CONTINUE AM OF SURGERY		
	GLUCOCORTICIDS	CONTINUE BOTH INHALED AND SYSTEMIC		
PSYCHOTROPICS	TRICYCLICS	Continue	EVIDENCE BASED GUIDELINES LACKING/IN GENERAL MAINTAIN FOR SOME ADVISED TRICYCLIC BE DISCONTINUED>BEST TO CHECK WITH PRESCRIBER	
	SSRI	Continue	may increase bleeding risk 2/2 effect on platelet/MIGHT QUESTION SURGEON FOR HIGH BLOOD LOSS ANTICIPATION SURGERY. Abrupt withdrawal may cause dizziness, chills, muscle aches, anxiety	
	SNRI AND BUPROPION	Continue	HIGH RISK SURGERY MAY QUESTION 2/2 POTENCION RENAL DYSFUNCE	
	MAO INHIBITORS (ISOCARBONAXID, PARGYLINE, PHENELZINE, TRANYCPROMINE)		REQUIRES PSYCHIATRIST COLLABORATION WITH Anesthesia Provider	
	ANTIPSYCHOTICS (OLANZAPINE, RISPERIDONE)	PER PRESCRIBER	MAY BE HELD IF THE EKG SHOWS PROLONGED qt/CONSULT PRESCRIBER	
	MOOD STABILIZING LITHIUM AND VALPROATE	Continue	INCREASED ATTENTION TO ELECTROLYTES PERIOPERATIVELY/CHECK TSH	
	ANTIAXIETY AGENTS (BENZODIAZEPINE, BUSPAR)	Continue		
	PSYCHOSTIMULANTS (ADHD MEDS)	HOLD DAY OF SURGERY	MAY INCREASE RISK OF HYPERTENSION/ARRHYTHMIAS	

		Hold methylphenedinate am of surgery		
WEIGHT LOSS MEDICATIONS	Phentermine	HOLD 7 days prior to surgery		https://www.ncbi.nlm.nih.gov/pubmed/30304411
GOUT THERAPY	COLCHICINE	HOLD AM OF SURGERY		
	ALLOPURINOL	TAKE AM OF SURGERY		
BPH MEDICATIONS	TERAZOSIN, DOXAZOSIN, TAMSULOSIN, ALFZOSIN	CHECK WITH THE SURGEON IF OPHTHALMOLOGY PROCEDURE	MAY CAUSE INTRAOPERATIVE FLOPPY IRIS SYNDROME/CHECK WITH EYE DOCS	
		TAKE OTHERWISE IF TAKES IN AM		
STEROIDS		continue, consider stress dosing		
IN GENERAL ALL OTHER MEDICATIONS ARE ALLOWABLE. DEFER TO PRESCRIBER WHEN QUESTIONED				
Sources:				
PERIOPERATIVE MEDICATION MANAGEMENT/UP TO DATE 09/24/2018				
John Hopkins University guidelines for diabetic management				
Anesthesiology. Wanderer, P., Rathmell, J.P. (2017). January. Infographics in Anesthesiology. Vol.126, A21. doi:http://doi.org/10.1097/ALN.0000000000001477 https://anesthesiology.pubs.asahq.org/article.aspx?articleid=2592858				
Lim, S., Rogers, L. K., Tessler, O., Munding, G. S., Rogers, C., & Lau, F. H. (2018). Phentermine: A Systematic Review for Plastic and Reconstructive Surgeons. Annals of plastic surgery, 81(4), 503-507.				
Institute for Clinical Systems Improvement. Health Care Guideline: Perioperative (6th edition) January 2020.				
2014 ACC/AHA guideline on perioperative cardiac evaluation and maangement of patients undergoing noncardiac surgery: https://www.ahajournals.org/doi/epub/10.1161/CIR.000000000000106				