ELECTIVE SURGERY MEDICATION INSTRUCTIONS Updated 03012024				
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	
	Ticlodipine		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		Genereally stop 2 days prior	
	Rivaroxiban		Genereally 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" Lisinoprils,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.	2014 ACC/AHA guideline on perioperative cardiac evaluation and management of patients undergoing noncardiac surgery: https://www.ahajournals.org/doi/epub/10.1161/CIR.0000000000000106
	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 withdrawl 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, trilipex, 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/10.109 7/ALN.0000000000001477
DIABETES/WEIGHT LOSS	GLP-1 Receptor Agonists **(daily dosing)**	Hold am of surgery	**For GETA or MAC** **Day of the Procedure:** If GI symptoms such as severe nausea/vomiting/retching, abdominal bloating, or abdominal pain are present, consider delaying elective procedure, and discuss the concerns of potential risk of regurgitation and pulmonary aspiration of gastric contents with the proceduralist/surgeon and the patient. If the patient has no GI symptoms, and the GLP-1 agonists have been held as advised, proceed as usual. If the patient has no GI symptoms, but the GLP-1 agonists were not held as advised, proceed with "full stomach" precautions or consider evaluating gastric volume by ultrasound, if possible, and if proficient with the technique. If the stomach is empty, proceed as usual. If the stomach is full or if gastric ultrasound is inconclusive or not possible, consider delaying the procedure or treat the patient as "full stomach" and manage accordingly. Discuss the concerns of potential risk of regurgitation and pulmonary aspiration of gastric contents with the proceduralist/surgeon and the patient.	https://www.asahq.org/article/are-serious-anesthesia-risks-of-semaglutide-and-other-glp-1-agonists-under-reexamined/
DIABETES/WEIGHT LOSS	GLP-1 Receptor Agonists **(weekly dosing)**	DIABETES/WEIGHT LOSS	**For GETA or MAC** Day of the Procedure: If GI symptoms such as severe nausea/vomiting/retching, abdominal bloating, or abdominal pain are present, consider delaying elective procedure, and discuss the	https://www.asahq.org/about-asa/newsroom/news-releases/2023/06/american-society-of-anesthesiologists-consensus-based-guidance-on-preoperative

			concerns of potential risk of regurgitation and pulmonary aspiration of gastric contents with the proceduralist/surgeon and the patient. If the patient has no GI symptoms, and the GLP-1 agonists have been held as advised, proceed as usual. If the patient has no GI symptoms, but the GLP-1 agonists were not held as advised, proceed with "full stomach" precautions or consider evaluating gastric volume by ultrasound, if possible, and if proficient with the technique. If the stomach is empty, proceed as usual. If the stomach is full or if gastric ultrasound is inconclusive or not possible, consider delaying the procedure or treat the patient as "full stomach" and manage accordingly. Discuss the concerns of potential risk of regurgitation and pulmonary aspiration of gastric contents with the proceduralist/surgeon and the patient.	

	LONG ACTING INSULIN-Glargine, Determir	Continue 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
	Once daily dosing in morning is their routine	Take 50% of usual morning dose am of surgery	Day prior Take usual morning dose	
	Once daily dosing in the evening 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 hypothyrodism	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	
	NALTREXONE	Per prescriber	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.	
	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 GLUCOCORTICOIDS	CONTINUE AM OF SURGERY	PERIOP STRESS DOSING FOR SYSTEMIC	
	THEOPHYLLINE	DISCONTINUE DAY PRIOR TO SURGERY	CAN CAUSE ARRYTHMIA WITH PERIOP MEDS	
	LEUKOTRIENE INHIBITORS (ZAFIRLUKAST, MONTELUKAST	CONTINUE AM OF SURGERY		
	GLUCOCORTICOIDS	CONTINUE BOTH INHALED AND SYSTEMIC		
PSYCHOTROPICS	TRICYCLICS	Continue	EVIDENCE BASED GUIDELINES LACKING/IN GENERAL MAINTAIN FOR	
			SOME ADVISED TRYCICLIC 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 dizzines, chills, muscle aches, anxiety	
	SNRI AND BUPROPION	Continue	HIGH RISK SURGERY MAY QUESTION 2/2 POTENCION RENAL DYSFUNTION	
	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	
	ANTIANXIETY AGENTS (BENZODIAZEPINE, BUSPAR)	Continue		
	PSYCHOSTIMULANTS (ADHD MEDS)	HOLD DAY OF SURGERY	MAY INCREASE RISK OF HYPERTENSION/ARRYTHMIAS	

		Hold methylphenedinate am of surgery		
WEIGHT LOSS MEDICATIONS	Phentermine	HOLD 7 days prior to surgery		https://www.ncbi.nlm.nih.gov/pubmed/30230622
GOUT THERAPY	COLCHICINE	HOLD AM OF SURGERY		
	ALLOPURINOL	TAKE AM OF SURGERY		
BPH MEDICATIONS	TERAZOSIN, DOXAZOSIN, TAMSULOSIN, ALFZOSIN	CHECK WITH THE SURGEON IF OPTHALMOLOGY 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
03/01/2024
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2014 ACC/AHA guideline on perioperative cardiac evaluation and maangement of patients undergoing noncardiac surgery: https://www.ahajournals.org/doi/epub/10.1161/CIR.0000000000000 106