

PPH PREOPERATIVE MEDICATION PROCEDURE

Also found at [http://www.pph.org/media/file/Pharmacy/PreopMeds\(2\).pdf](http://www.pph.org/media/file/Pharmacy/PreopMeds(2).pdf)

See also Lucidoc Procedure #15076 – “Preoperative Patient Screening for Pre-Admission” for details on how this form will be used.

Adapted from UpToDate.com topic on “Perioperative Medication Management”¹ and other sources^{2,3,4,5,6}

MEDICATION	CLINICAL CONCERN	DAY BEFORE SURGERY	MORNING OF SURGERY	APPLIES TO
CARDIOVASCULAR MEDICATIONS				
Beta Blockers	If doses missed perioperatively, risk of M.I. increases.	Take regularly scheduled doses.	Take regularly scheduled doses. Quality indicator: patients on a beta-blocker at home must take a dose within 24 hours pre-op or post-op.	Surgery with general anesthesia
ACE inhibitors; ARBs; aliskirin	Can cause intra-operative hypotension	Take regularly scheduled doses.	Do not take. ^{7,8}	Surgery with general anesthesia
Diuretics	Can cause hypovolemia and hypotension	Take regularly scheduled doses.	Do not take.	Surgery with general anesthesia
Potassium supplements	Hyperkalemia if diuretic stopped	Do not take if K ⁺ -wasting diuretic held (e.g. furosemide, HCTZ, torsemide, bumetanide, chlorthalidone, indapamide, ethacrynate).	Do not take if K ⁺ -wasting diuretic held (e.g. furosemide, HCTZ, torsemide, bumetanide, chlorthalidone, indapamide, ethacrynate).	Surgery with general anesthesia
Alpha-antagonists <ul style="list-style-type: none"> • Alfuzosin (Uroxatral) • Doxazosin (Cardura) • Prazosin (Minipress) • Silodosin (Rapaflo) • Tamsulosin (Flomax) • Terazosin (Hytrin) 	Interoperative floppy iris syndrome during ophthalmic (e.g. cataract) surgery ^{9,10,11}	Ophthalmic surgery: Surgeon should be notified. Holding drug has not been shown to be of benefit. ⁹ Other surgery: Take regularly scheduled doses through morning of surgery.		Ophthalmic surgery
Other antihypertensive medications		Take regularly scheduled doses.	Take regularly scheduled doses.	All surgeries.
ANTIHYPERLIPIDEMIC MEDICATIONS				
Statins, ezetimibe		Take regularly scheduled doses.	Take regularly scheduled doses.	All surgeries.
Niacin, fenofibrate, gemfibrozil	Increased risk of Rhabdomyolysis.	Do not take.	Do not take.	Surgery with general anesthesia
Bile acid sequestrants	Drug interactions.	Do not take.	Do not take.	Surgery with general anesthesia
ENDOCRINE AGENTS				
Oral Hypoglycemics		Take regularly scheduled doses.	Do not take.	Surgery requiring NPO after midnight.

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MEDICATION	CLINICAL CONCERN	DAY BEFORE SURGERY	MORNING OF SURGERY	APPLIES TO
Insulin – Rapid acting	Hypoglycemia	Take regularly scheduled doses.	Do not take.	Surgery requiring NPO after midnight.
Insulin – Long acting Including the mixed insulins (e.g. 70/30, 75/25, or 50/50)	Hypoglycemia	Take regularly scheduled doses.	Take ½ of AM dose	Surgery requiring NPO after midnight.
Injectable insulin sensitizer <ul style="list-style-type: none"> • Exenatide (Byetta) • Pramlintide (Symlin) 		Take regularly scheduled doses.	Take regularly scheduled doses.	All surgeries.
Glucocorticoids (e.g. prednisone, hydrocortisone, dexamethasone, methylprednisolone)		Take regularly scheduled doses.	Take regularly scheduled doses.	All surgeries.
PAIN MEDICATIONS				
Opioids	Abrupt withdrawal can cause yawning, abdominal cramps, nausea, vomiting, diarrhea, insomnia, anxiety and salivation.	Take regularly scheduled doses.	Take regularly scheduled doses.	All surgeries.
Tramadol (Ultram)	Seizures, drug interactions	Take regularly scheduled doses.	Do not take.	Surgery with general anesthesia

MEDICATION	CLINICAL CONCERN	DAY BEFORE SURGERY	MORNING OF SURGERY	APPLIES TO																																																																																
NSAIDs *Note: Short acting NSAIDs like ibuprofen may be safely given up through the night before surgery. The following NSAIDs have limited to no antiplatelet effects and do not need to be held prior to surgery. <ul style="list-style-type: none"> • Etodolac (Lodine) • Meloxicam (Mobic) • Nabumetone (Relafen) 	Bleeding	Hold for at least 3 half lives prior to surgery. ^{12,13} Surgeon may allow NSAID use up through morning of surgery. If surgeon has not advised the patient to continue taking the medication, then proceed to the following: <ul style="list-style-type: none"> • If surgery is planned to take place before the minimum time to hold, the surgeon should be notified and the patient should be advised to stop taking the drug. • If patient reports that holding the medication will be problematic, the surgeon should be called for alternative pain management. Alternatives include either a short acting NSAID (e.g. ibuprofen) or an NSAID with limited to no platelet activity (see first column on left). 		Inpatient surgery																																																																																
		<table border="1"> <thead> <tr> <th>NSAID</th> <th>Brand name</th> <th>Half-life (hours)</th> <th>Hold for at least</th> </tr> </thead> <tbody> <tr> <td>Diclofenac</td> <td>Voltaren, Cataflam</td> <td>2</td> <td>Morning of</td> </tr> <tr> <td>Diclofenac XR</td> <td>Voltaren XR</td> <td>n/a</td> <td>Day before and of</td> </tr> <tr> <td>Etodolac*</td> <td>Lodine</td> <td>7.3</td> <td>Don't hold</td> </tr> <tr> <td>Fenoprofen</td> <td>Nalfon</td> <td>3</td> <td>Morning of</td> </tr> <tr> <td>Flurbiprofen</td> <td>Ansaid</td> <td>5.7</td> <td>17 hours</td> </tr> <tr> <td>Ibuprofen</td> <td>Advil, Motrin</td> <td>2</td> <td>Morning of</td> </tr> <tr> <td>Indomethacin</td> <td>Indocin</td> <td>4.5</td> <td>14 hours</td> </tr> <tr> <td>Ketoprofen</td> <td></td> <td>2.1</td> <td>Morning of</td> </tr> <tr> <td>Ketoprofen ER</td> <td></td> <td>5.4</td> <td>16 hours</td> </tr> <tr> <td>Ketorolac</td> <td>Toradol</td> <td>6</td> <td>18 hours</td> </tr> <tr> <td>Meclofenamate</td> <td></td> <td>1.3</td> <td>Morning of</td> </tr> <tr> <td>Mefenamic acid</td> <td>Ponstel</td> <td>2</td> <td>Morning of</td> </tr> <tr> <td>Meloxicam*</td> <td>Mobic</td> <td>20</td> <td>Don't hold</td> </tr> <tr> <td>Nabumetone*</td> <td>Relafen</td> <td>22.5</td> <td>Don't hold</td> </tr> <tr> <td>Naproxen</td> <td>Naprosyn, Anaprox</td> <td>17</td> <td>2 days preop</td> </tr> <tr> <td>Oxaprozin</td> <td>Daypro</td> <td>50</td> <td>3 weeks preop</td> </tr> <tr> <td>Piroxicam</td> <td>Feldene</td> <td>50</td> <td>3 weeks preop</td> </tr> <tr> <td>Sulindac</td> <td>Clinoril</td> <td>7.8</td> <td>24 hours</td> </tr> <tr> <td>Tolmetin</td> <td></td> <td>7</td> <td>21 hours</td> </tr> </tbody> </table>		NSAID	Brand name	Half-life (hours)	Hold for at least	Diclofenac	Voltaren, Cataflam	2	Morning of	Diclofenac XR	Voltaren XR	n/a	Day before and of	Etodolac*	Lodine	7.3	Don't hold	Fenoprofen	Nalfon	3	Morning of	Flurbiprofen	Ansaid	5.7	17 hours	Ibuprofen	Advil, Motrin	2	Morning of	Indomethacin	Indocin	4.5	14 hours	Ketoprofen		2.1	Morning of	Ketoprofen ER		5.4	16 hours	Ketorolac	Toradol	6	18 hours	Meclofenamate		1.3	Morning of	Mefenamic acid	Ponstel	2	Morning of	Meloxicam*	Mobic	20	Don't hold	Nabumetone*	Relafen	22.5	Don't hold	Naproxen	Naprosyn, Anaprox	17	2 days preop	Oxaprozin	Daypro	50	3 weeks preop	Piroxicam	Feldene	50	3 weeks preop	Sulindac	Clinoril	7.8	24 hours	Tolmetin		7	21 hours	
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NEUROLOGIC MEDICATIONS																																																																																				
Benzodiazepines	Abrupt withdrawal can result in agitation, HTN, delirium and seizures.	Take regularly scheduled doses.	Take regularly scheduled doses.	All surgeries.																																																																																

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Lithium (Lithobid)		Take regularly scheduled doses.	Take regularly scheduled doses. Close monitoring of volume and electrolyte status. Preop BMP required within 30 days.	Inpatient surgery
Levodopa/Carbidopa (Sinemet)	Can cause arrhythmias, hypotension, hypertension	Take regularly scheduled doses.	Do not take.	Surgery with general anesthesia
Dopamine agonists <ul style="list-style-type: none"> • Apomorphine (Apokyn) • Pramipexole (Mirapex) • Ropinerole (Requip) 	Can cause arrhythmias, hypotension	Take AM dose, but not evening dose	Do not take.	Surgery with general anesthesia
Monamine Oxidase Inhibitors (MAOI's) <ul style="list-style-type: none"> • Isocarboxazid (Marplan) • Phenelzine (Nardil) • Tranylcypromine (Parnate) Agents with mild MAOI effects <ul style="list-style-type: none"> • Selegeline (Elderyl oral or Emsam patch) • Rasagiline (Azilect) • Linezolid (Zyvox) - antibiotic 	Drug interactions with anesthesia medications can result in severe hypertension or serotonin syndrome	Take through morning of surgery. Anesthesiologist must be informed of the need to use MAOI safe anesthesia or to discontinue the medication for 2 weeks prior to surgery. MAOI safe anesthesia = avoid ephedrine, meperidine, and dextromethorphan. Phenylephrine is OK.		All surgeries.
Pyridostigmine (Mestinon)	Muscarinic side effects	Take regularly scheduled doses. Preadmission RN to leave note on chart to remind surgeon to resume ASAP post-op and consult neurologist if oral doses will not be feasible post-op.	Take regularly scheduled doses. Restart when hemodynamically stable. Parenteral substitutions are available. For IM substitution give 1/10th the usual oral dose and for IV substitution give 1/30th the usual dose.	Inpatient surgery
RHEUMATOLOGIC AGENTS				
Probenecid	Probenecid interacts with numerous perioperative medications.	Take regularly scheduled doses.	Do not take.	Inpatient surgery
HERBALS				
Ginkgo, Garlic, or Ginseng ^{14,15}	Bleeding	May take regularly scheduled doses.	Do not take.	Inpatient surgery
Ephedra	tachycardia and hypertension, MI, stroke, hemodynamic instability, and drug-drug interactions with some psychiatric medications	Do not take on day before surgery.	Do not take.	Surgery with general anesthesia

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MEDICATION	CLINICAL CONCERN	DAY BEFORE SURGERY	MORNING OF SURGERY	APPLIES TO
Kava	sedation and potentiation of anesthetic medications, and its use is associated with concerns about withdrawal, tolerance, and addiction	Do not take on day before surgery.	Do not take.	Surgery with general anesthesia
Saw palmetto (Serenoa repens)	Interoperative floppy iris syndrome during ophthalmic (e.g. cataract) surgery ⁹	Ophthalmic surgery: Surgeon should be notified. Other surgery: Take regularly scheduled doses through day before surgery.		Ophthalmic surgery

MEDICATION	CLINICAL CONCERN	BEFORE SURGERY	APPLIES TO
ANTIPLATELETS			
Aspirin alone	Bleeding	Surgeon must decide. PPH guidelines available below. "Platelet function aspirin" test available. Platelet function should be normal 72 hours after last dose.	Inpatient surgery
Aspirin/Dipyridamole extended release (Aggrenox)	Bleeding	Prescriber and surgeon should collaborate to decide whether to give or hold. Aspirin: "Platelet function aspirin" test available. Platelet function should be normal 72 hours after last dose. Dipyridamole: Should wear off by about 36-48 hours after last dose. "Platelet function epinephrine" test may be useful if there is a need to ensure normal platelet function.	Inpatient surgery, Endoscopy, Interventional radiology.
Cilostazol (Pletal)	Bleeding ^{16,17,18}	Surgeon must decide. Probably mild bleeding potential. Consider stopping for 48h preop. "Platelet function epinephrine" test may be useful if there is a need to ensure normal platelet function.	Inpatient surgery
Clopidogrel (Plavix)	Bleeding	Prescriber and surgeon should collaborate to decide whether to give or hold. PPH guidelines are available below. If drug held, guidelines recommend holding for 5-10 days. Full platelet recovery will occur in 3 days for 50% of patients, and in 5 days for 80% of patients. Full recovery will take longer than 5 days in 20% of patients. P2Y12 platelet testing is advised if there is a need to ensure normal platelet function.	Inpatient surgery, Endoscopy, Interventional radiology.
Dipyridamole (Persantine)	Bleeding	Surgeon must decide. Should wear off by about 36 hours after last dose. "Platelet function epinephrine" test may be useful if there is a need to ensure normal platelet function.	Inpatient surgery
Ticlopidine (Ticlid)	Bleeding	Prescriber and surgeon should collaborate to decide whether to give or hold. PPH guidelines are available below for clopidogrel, but ticlopidine has a much longer half-life. Full recovery of platelets may take 11-13 days on average. P2Y12 platelet testing is advised if there is a need to ensure normal platelet function.	Inpatient surgery, Endoscopy, Interventional radiology.
Prasugrel (Effient)	Bleeding	Prescriber and surgeon should collaborate to decide whether to give or hold. PPH guidelines are available below. Prasugrel has the same recommendations as CLOP. If drug held, guidelines recommend holding for 5-10 days. Full platelet recovery may occur in as early as 3-5 days for some patients, but may take longer than 5 days in other patients. P2Y12 platelet testing is advised if there is a need to ensure normal platelet function.	Inpatient surgery, Endoscopy, Interventional radiology.

PATIENTS ON ANTIPLATELET THERAPY	
Patient Population:	Recommendation:
	NO STENT
For patients NOT at high risk for cardiac events (Patients on anti-platelet therapy for primary prevention of MI/stroke)	Hold antiplatelet treatment for 7-10 days Resume 24 hrs after procedure & after MD has determined that there is adequate hemostasis
For patients at high risk for cardiac events scheduled for noncardiac surgery (e.g. MI within past 3 mo)	If on ASA; continue ASA up to & beyond time of surgery If on CLOP; Hold for at least 5 days, preferably 10 days, prior to surgery Resume 24 hrs after procedure
For patients scheduled for CABG	If on ASA; continue ASA up to & beyond CABG If ASA is interrupted, resume 6-48 hrs after CABG If on CLOP; Hold for at least 5 days, preferably 10 days, prior to CABG Resume 24 hrs after procedure
For patients scheduled for PCI	If on ASA; continue ASA up to & beyond PCI If CLOP is interrupted; Resume after PCI w/ a loading dose of 300-600mg
Bare Metal Stent	
0 - 6 wks after stent placement	Continue ASA & CLOP therapy
7 wks - 6 mo after stent placement	If on ASA; continue ASA up to & beyond time of surgery If on CLOP; Hold for at least 5 days, preferably 10 days, prior to surgery Resume 24 hrs after procedure
> 6 mo after stent placement	Not addressed in guidelines
Drug-eluting Stent	
0-12 mo after stent placement	Continue ASA & CLOP therapy
>12 mo after stent placement	Not addressed in guidelines
For patients w/ a coronary stent & interrupted antiplatelet therapy before surgery - DO NOT bridge therapy w/ LFH, LMWH, direct thrombin inhibitor, nor gpIIb/IIIa inhibitor	

PATIENTS REQUIRING URGENT OR MAJOR PROCEDURE	
Patient Population:	Recommendation:
Patients on W/ARF	Treat w/ vitamin K 2.5-5mg W/PO For more immediate effect: FFP in addition to vitamin K
Patients on ASA, CLOP, or both, w/ excessive or life-threatening perioperative bleed	Transfuse w/ platelets or administer pro-hemostatic agent

PATIENTS SCHEDULED FOR A MINOR PROCEDURE (dental or dermatologic procedure, cataract removal)	
Pt Population:	Recommendation:
Pts on W/ARF	Continue W/ARF & coadminister an oral prohemostatic agent
Patients on ASA	Continue ASA
Pts on CLOP	For non-stented patients: Hold for at least 5 days, preferably 10 days, prior to procedure For bare metal stent patients: Continue CLOP therapy For drug eluting stent patients: Continue CLOP therapy

MEDICATION	CLINICAL CONCERN	BEFORE SURGERY	APPLIES TO
ANTICOAGULANTS			
Warfarin	Bleeding	Prescriber and surgeon should collaborate to decide whether to give or hold. PPH guidelines are available below.	Endo, I.R & All surgeries except outpatient ophthalmic and dermatologic surgery.
Enoxaparin (Lovenox)	Bleeding	Surgeon must advise patient on when last dose should be administered. PPH recommends 12-24h, depending on renal function.	Endo, I.R & All surgeries except outpatient ophthalmic and dermatologic surgery.
Fondaparinux (Arixtra)	Bleeding	Surgeon must advise patient on when last dose should be administered. PPH recommends 24-48h, depending on renal function.	Endo, I.R & All surgeries except outpatient ophthalmic and dermatologic surgery.

PERIOPERATIVE MANAGEMENT OF ANTITHROMBOTIC THERAPY

PATIENTS ON WARFARIN - IF WARFARIN IS INTERRUPTED	
Patient Population:	Recommendation:
For patients w/ procedure requiring normalization of INR prior to surgery	Stop <u>WARF</u> 5 days prior to surgery to allow adequate time for INR to normalize Resume <u>WARF</u> 12-24 hrs after surgery & after MD has determined that there is adequate hemostasis
For patients w/ an INR \geq 1.5 one to two days prior to procedure	Administer Vitamin K 1-2mg PO

BRIDGING THERAPY			
	Pts w/ Mechanical Heart Valve	Pts w/ Atrial Fibrillation	Pts w/ VTE
HIGH RISK	-Mitral Valve -Caged-ball aortic valve -Tilting disc aortic valve -Stroke/TIA within 6 mo	-CHAD ₂ score: 5-6 -Stroke/TIA within 3 mo -Rheumatic valvular heart disease	-VTE within 3 mo -Protein C deficiency -Protein S deficiency -Antithrombin deficiency -Antiphospholipid Antibodies
MODERATE RISK	Bileaflet aortic valve WITH one of the following: Afib, prior stroke/TIA, HTN, DM, CHF, >75 yr	CHAD ₂ score 3-4	-VTE within 3-12 mo -Heterozygous factor V Leiden <u>OR</u> factor II mutation -Recurrent VTE (treated within 6 mo or palliative)
LOW RISK	Bileaflet aortic valve w/ no other risk factors for stroke (see MODERATE RISK above)	CHAD ₂ score 0-2	Single VTE > 12 mo ago

Timing of last dose prior to surgery	
ENOX	UFH (IV)
20-25 hrs prior to procedure	4 hrs prior to procedure

CHAD₂ score for Atrial Fibrillation

Condition	Points
Congestive Heart Failure	1
Hypertension	1
Age \geq 75 yrs	1
Diabetes	1
Prior Stroke or TIA	2

MEDICATION	CLINICAL CONCERN	BEFORE SURGERY	APPLIES TO
ESTROGEN / PROGESTERONE			
Oral Contraceptives; Hormone Replacement Therapy	Increased risk of VTE.	Surgeon must decide. PPH Guidelines: Procedures with low risk of VTE: Take regularly scheduled doses. Procedures with moderate to high risk of VTE. Consider holding for 4-6 weeks prior to surgery and for two weeks after regaining full mobility.	Inpatient surgery
Selective estrogen receptor modulator <ul style="list-style-type: none"> • Raloxifene (Evista) • Tamoxifen • Toremifene (Fareston) 	Increased risk of VTE.	When used for PREVENTION of cancer or treatment of osteoporosis Surgeon must decide. PPH Guidelines: <ul style="list-style-type: none"> • Procedures with low risk of VTE: Take regularly scheduled doses. • Procedures with moderate to high risk of VTE. Consider holding for 4-6 weeks prior to surgery and for two weeks after regaining full mobility. When used for TREATMENT of cancer prescriber and surgeon should collaborate to decide whether to give or hold.	Inpatient surgery

Categories of risk for venous thromboembolism in surgical patients

Low risk: Minor surgery in patients <40 years of age with no additional risk factors present* Risk of calf DVT: 2 percent Risk of proximal DVT: 0.4 percent Risk of clinical PE: 0.2 percent Risk of fatal PE: <0.01 percent
Moderate risk: Minor surgery in patients with additional risk factor present*, or Surgery in patients aged 40-60 with no additional risk factor Risk of calf DVT: 10-20 percent Risk of proximal DVT: 2-4 percent Risk of clinical PE: 1-2 percent Risk of fatal PE: 0.1-0.4 percent
High risk: Surgery in patients >60, or Surgery in patients aged 40-60 with additional risk factor* Risk of calf DVT: 20-40 percent Risk of proximal DVT: 4-8 percent Risk of clinical PE: 2-4 percent Risk of fatal PE: 0.4-1.0 percent
Highest risk: Surgery in patients >40 with multiple risk factors*, or Hip or knee arthroplasty, hip fracture surgery, or Major trauma, spinal cord injury Risk of calf DVT: 40-80 percent Risk of proximal DVT: 10-20 percent Risk of clinical PE: 4-10 percent Risk of fatal PE: 0.2-5 percent

DVT: deep vein thrombosis; PE: pulmonary embolism.

* Additional risk factors include one or more of the following: advanced age, cancer, prior venous thromboembolism, obesity, heart failure, paralysis, or presence of a molecular hypercoagulable state (eg, protein C deficiency, factor V Leiden).

Data from Geerts, WH, et al. Chest 2004; 126:3385.

MEDICATION	CLINICAL CONCERN	BEFORE SURGERY	APPLIES TO
SSRI's, SNRI's	May increase risk of bleeding (See section at end of document for details from UpToDate.com)	Spinal or neurosurgical procedures: Surgeon must decide. PPH Guidelines are to consider discontinuing therapy 3 weeks prior to surgery. Other procedures: Take through morning of procedure	Spinal or neurosurgical procedures.

Bleeding risk from SSRIs¹

SSRIs can decrease intraplatelet serotonin concentrations and this may affect platelet aggregation [23]. Anecdotal reports have indicated a relationship between SSRI use and mostly minor bleeding complications, including easy bruising, petechiae and purpura, epistaxis and hematomas [24,25].

Studies have also suggested that selective serotonin reuptake inhibitors (SSRIs) are associated with an increased risk of upper gastrointestinal (UGI) bleeding, particularly in patients taking NSAIDs. This association was illustrated in two case control trials in which the risk of UGI bleeding was increased among patients who used SSRIs compared to those without exposure to these drugs (OR 3.0 and 1.6, for the two studies) [26,27]. The risk was substantially increased in those concurrently taking NSAIDs with SSRIs (OR 15.6 and 4.8), suggesting a potential synergistic effect. Acid suppressing medications may limit the increased risk [27] (See "NSAIDs (including aspirin): Pathogenesis of gastroduodenal toxicity").

A case control study of patients hospitalized for major bleeding while taking coumarin found that the risk for nongastrointestinal bleeding was significantly greater in people taking an SSRI (OR 1.7, 95% CI 1.1-2.5), but that the risk for gastrointestinal bleeding was not increased [28]. Data on the intensity of anticoagulation was not available for this study, but it would be reasonable to use extra care in monitoring patients who are concurrently treated with an SSRI and an anticoagulant,

SSRIs may also increase the need for transfusions with surgery. A retrospective study of 520 patients undergoing orthopedic surgery found that the risk for transfusion was increased in patients on serotonergic antidepressants (most of which were SSRIs) (OR 3.71, 95% CI 1.35-10.18) but not in patients on nonserotonergic antidepressants (OR 0.74, 95% CI 0.10-5.95) [29].

REFERENCES FOR SSRI BLEEDING RISK:

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38. Serebruany, VL. Selective serotonin reuptake inhibitors and increased bleeding risk: are we missing something?. *Am J Med* 2006; 119:113.
39. Krasowska, D, Szymanek, M, Schwartz, RA, Myslinski, W. Cutaneous effects of the most commonly used antidepressant medication, the selective serotonin reuptake inhibitors. *J Am Acad Dermatol* 2007; 56:848.
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NOTES:

Endo = Endoscopy

I.R. = Interventional Radiology

Cardiac Cath Lab is not included within the scope of this procedure.

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- 5 Schwartz A. Should I continue or discontinue that medication? *AANA J*. 2009 Jun;77(3):170.
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