

PERIOPERATIVE MANAGEMENT OF ANTITHROMBIC THERAPY - ACCP Evidence-Based Clinical Practice GL CHESTv162#5 Nov22

AFIB - ATE risk scores: **CHADS** (CHF, HTN, age \geq 75, DM, prior CVA/TIA) or **CHADSVAS** (CHF, HTN, age \geq 75, DM, prior CVA/TIA, VDz, age \geq 65, female)

VITAMIN K ANTAGONISTS (warfarin)					
THROMBOEMBOLIC RISK		surgery	dental procedure	minor derm procedure	cataract/pacer/AICD
HIGH RISK	MITRAL VALVE PROSTHESIS (any) AV prostheses (caged-ball or tilting disc) AFIB (w/ RHVDz, CHADS 5 or 6, CHADSVAS \geq 7) VTE <3 months ACTIVE CANCER w/ VTE risk (pancr, myeloprolif do, primary brain, gastric, esoph) SEVERE THROMBOPHILIA (protein C def, protein S, antithrombin, homozyg factor V Leiden, prothrombin G20210A mut, multiple thrombophilias or gene abnl) Antiphospholipid antibodies	bridging anticoagulation NEEDED PREOP: stop VKA \geq 5d before surgery POSTOP: restart usual dose 12-24hr or next day post (if no increased bleeding risk)			
MOD RISK	bileaflet AV prosthesis (w/ afib or prior CVA/TIA, HTN, DM, CHF, age >75yrs) AFIB (CHADS 3 or 4; CHADVAS 5 or 6) recurrent VTE or VTE within the past 3-12 months Nonsevere thrombophilia (heterozygous factor V Leiden, prothrombin gene mutation) active cancer (treated within 6 mo or palliative)	individualize IF bridging needed (consider if high bleeding risk or if high thromboembolic risk procedures) PREOP: stop VKA \geq 5d before surgery POSTOP: restart usual dose 12-24hr or next day post op (if no increased bleeding risk)	continue VKA <i>and</i> add oral/topical prohemostatic agent (e.g., oral tranexamic acid mouthwash) or stop VKA 2-3d prior (individualize bridging)	continue VKA optimize hemostasis	continue VKA
LOW RISK	bileaflet AV prosthesis (WITHOUT afib & no other risks for stroke) atrial fibrillation CHADS score 0-2 (without prior CVA/TIA) VTE >12 months previous & no other risk factors	NO bridging needed (consider bridging if high thromboembolic risk procedure, CEA, major vascular surgery) PREOP: stop VKA \geq 5d before surgery POSTOP: restart usual dose 12-24hr or next day post-op (if no increased bleeding risk)			

<p>VKA BRIDGING WITH HEPARIN</p> <p>SC FULL-DOSE LMWH - last preop dose >=24hr before surgery (50% total daily dose)</p> <p><i>or if</i></p> <p>IV THERAPEUTIC UFH - last therapeutic preop dose >=4-6hr before surgery</p>	<p>POSTOP: HEPARIN</p> <p>first post op dose LMWH or UFH: >=24hr after surgery or >=48-72hr after surgery for high-bleeding risk procedure**</p>	<p>**high-bleeding risk procedures include: Cardiac, Intracranial, spinal surgery or neuraxial anesthesia/epidural surgery or biopsy of kidney, liver, spleen urologic or GI surgery, especially anastomosis surgery PEG placement, ERCP bowel resection or colonic polyp resection of large sessile polyps major surgery with extensive tissue injury (cancer, arthroplasty, reconstructive plastic surgery)</p> <p>*moderate bleeding risk procedures: athroscopy, cutaneous/LN biopsies; foot/hand surgery; cardiac cath; endoscopies, hyst; chole; and hernia; hemorrhoids; bronch</p>
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DOACs PERIOPERATIVE MGMT (afib or VTE)	STOP DOAC / NO TESTING OR BRIDGING RECOMMENDED		
	LOW to MOD* bleed risk surgery	HIGH-BLEED-RISK surgery**	POST OP RESTART
apixaban	stop 1d prior	stop 2d prior	resume/restart >24 hr after low to mod risk sx >48-72 after HIGH risk sx (assuming no clinical barriers or signs postop bleeding)
dabratran	CrCl>=50ml/min: stop 1d prior CrCl<50ml/min: stop 2d prior	CrCl >=50: stop 2d prior CrCl <50: stop 4d prior	
edoxaban	stop 1d prior	stop 2d prior	
rivaroxaban	stop 1d prior	stop 2d prior	

ANTIPLATELET THERAPY - ASA, clopidogrel, ticagrelor, prasugrel				
	CABG/non-cardiac surgery	dental procedure	minor derm procedure	cataract
ASA (generally advised to continue)	continue ASA	continue ASA - (if need to stop, stop 7d prior)		
clopidogrel (stop 5d prior if needed)	stop 5d prior	continue if not on ASA - (stop 5d if on ASA)		
ticagrelor (stop 3-5d prior if needed)	stop 3-5 prior	continue if not on ASA - (stop 3-5d if on ASA)		
prasugrel (stop 7d prior if needed)	stop 7d prior	continue if not on ASA - (stop 7d if on ASA)		

Management of patients with recent coronary stents - considerations of stent type, location, procedures, etc	
Cardiac stent - bare metal	ideally defer surgery >6wks after placement or continue dual antiplt perioperatively
Cardiac stent - drug eluting	ideally defer surgery >6mo after placement or continue dual antiplt perioperatively
if hi-risk stent location: and must stop antiplt - consider routine bridging therapy	