Table 3. Preoperative Management of Patients on Antiplatelet Therapy According to Cardiac and Bleeding Risk Levels

Surgical bleeding risk level	*Cardiac risk level*		
	*Low risk**	*Intermediate risk†*	*High risk‡*
Low risk§	Maintain aspirin or clopidogrel (Plavix)	Elective surgery: okay Maintain aspirin Maintain clopidogrel, if prescribed	Elective surgery: postponement Vital or urgent surgery: possible under aspirin and clopidogrel
Intermediate risk‖	Maintain aspirin or clopidogrel	Elective surgery: according to risk balance Vital surgery: okay Maintain aspirin Maintain clopidogrel, if prescribed	Elective surgery: postponement Vital or urgent surgery: possible under aspirin and clopidogrel
High risk¶	Stop aspirin or clopidogrel if necessary (five days before surgery) Restart within 24 hours after surgery	Elective surgery: postponement Vital surgery: okay Maintain aspirin Stop clopidogrel five days before surgery, if prescribed; restart within 24 hours after surgery	Elective surgery: postponement Vital or urgent surgery: okay Maintain aspirin Stop clopidogrel five days before surgery; possible substitution three to five days before surgery with intravenous tirofiban (Aggrastat) or eptifibatide (Integrilin)**

ACS = acute coronary syndrome; CABG = coronary artery bypass grafting; ENT = ear, nose, and throat; MI = myocardial infarction; PCI = percutaneous coronary intervention.

**—More than three months after PCI, bare-metal stenting, or CABG; more than six months after ACS or MI; more than 12 months after regular drug-eluting stenting.*

†—Six to 12 weeks after PCI, bare-metal stenting, or CABG; six to 24 weeks after ACS or MI; more than 12 months after high-risk drug-eluting stenting.

‡—Less than six weeks after PCI, bare-metal stenting, CABG, ACS, or MI (less than three months if complications); less than 12 months after drug-eluting stenting—may be longer in cases of high-risk drug-eluting stenting. These delays can be modified according to the amount of myocardium at risk, the instability of the coronary situation, or the risk of spontaneous hemorrhage. The same recommendations apply to newer second-generation drug-eluting stenting.

§—Peripheral and wall surgery, minor ENT and orthopedics, endoscopy without biopsy or resection, eye anterior chamber, or dentistry; transfusion not required.

‖—Visceral and vascular surgery, major ENT and orthopedics, urology, endoscopy with biopsy or resection; transfusion may be required.

¶—Cardiac surgery, surgery with massive bleeding, surgery in closed space (intracranial, intramedullary canal, posterior eye chamber); transfusion required.

***—Off-label use of platelet glycoprotein IIb/IIIa inhibitors may be considered, although there are no data regarding effectiveness and safety.*

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