Anticoagulation discontinuation

Feature	Anticoagulation Discontinuation	Antiplatelet Therapy Discontinuation
Definition	Stopping the use of anticoagulants, which prevent clot formation by inhibiting coagulation factors in the clotting cascade.	Stopping the use of antiplatelet agents, which prevent platelet aggregation and thrombus formation.
Common Drugs	Warfarin, Heparin, LMWH (e.g., Enoxaparin), Direct Oral Anticoagulants (DOACs) (e.g., Apixaban, Rivaroxaban, Dabigatran).	Aspirin, Clopidogrel, Prasugrel, Ticagrelor, Dipyridamole.
Primary Indications	Stroke prevention in atrial fibrillation, venous thromboembolism (VTE) (DVT/PE), mechanical heart valves, hypercoagulable states.	Prevention of arterial thrombosis in coronary artery disease (CAD), stroke, peripheral arterial disease (PAD), post-stent placement.
Mechanism of Action	Inhibits coagulation factors in the clotting cascade, reducing fibrin clot formation.	Inhibits platelet aggregation by targeting platelet activation pathways (COX-1 inhibition, P2Y12 receptor blockade, etc.).
Discontinuation Risks	High risk of thromboembolism (stroke, DVT/PE, mechanical valve thrombosis) if stopped abruptly.	High risk of arterial thrombosis, myocardial infarction (MI), and stent thrombosis (if recently placed).
Bridging Considerations	Often requires bridging (e.g., switching from Warfarin to LMWH before surgery). DOACs usually do not require bridging.	Usually no bridging required unless very high risk (e.g., recent coronary stent or stroke).
Surgical Considerations	Discontinuation timing depends on drug half-life and renal function. Warfarin may need stopping 5 days before surgery, DOACs 24-48 hours.	Discontinuation depends on bleeding risk vs. thrombosis risk. Aspirin is often continued, but P2Y12 inhibitors (e.g., Clopidogrel) may need to be stopped 5-7 days before surgery.
Reversal Agents	Vitamin K (Warfarin), Protamine (Heparin), Idarucizumab (Dabigatran), Andexanet alfa (Apixaban/Rivaroxaban).	No specific reversal agents, but platelet transfusion may be used in emergencies.
Long-Term Discontinuation Considerations	Often requires alternative therapy or monitoring for clot risk.	Stopping therapy inappropriately can lead to major cardiovascular events, especially in patients with recent acute coronary syndrome or stent placement.

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see Direct Oral Anticoagulant

Warfarin (stop at least 5 preoperative days), and Xa inhibitors (Eliquis (Apixaban: stop for 2 days) and Xarelto (Rivaroxaban: stop for 3 days)); The anti-platelet aggregates include: Aspirin/Clopidogrel (stop >7-10 days preoperatively). The multiple NSAIDs should be stopped for varying intervals ranging from 1-10 day [1)].

Apixaban Discontinuation

Apixaban Discontinuation

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Epstein NE. When to stop anticoagulation, anti-platelet aggregates, and non-steroidal anti-inflammatories (NSAIDs) prior to spine surgery. Surg Neurol Int. 2019 Mar 26;10:45. doi: 10.25259/SNI-54-2019. PMID: 31528383; PMCID: PMC6743676.