Perioperative Management of Anticoagulants and Antiplatelets

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Capsule summary adopted from the American College of Chest Physicians Evidence-Based Clinical Practice Guidelines

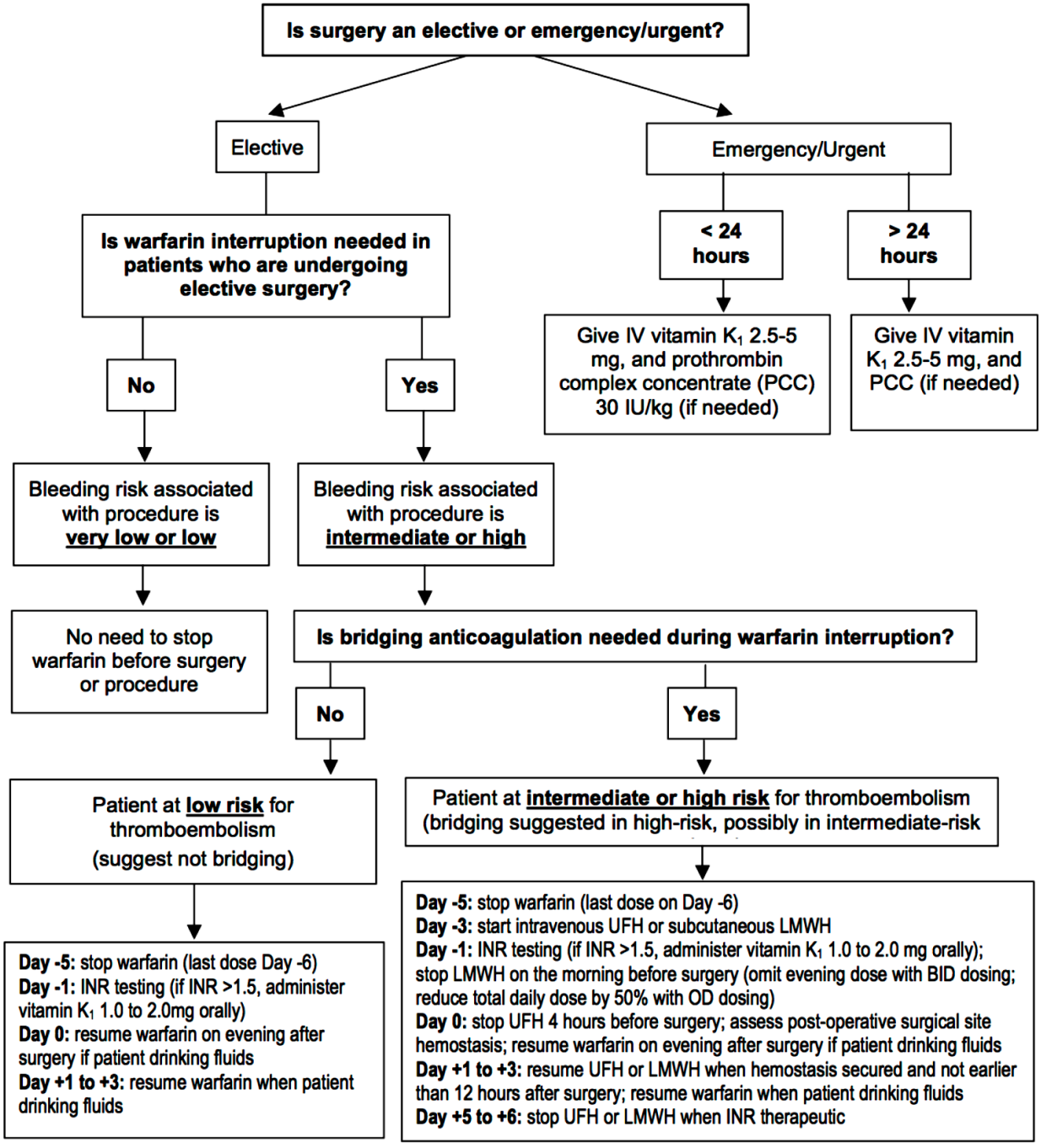
1	Evaluate the thromboembolic risk and hemorrhagic risk of the individual patients
2	Consider temporary cessation of the drug in procedures that carry a significant risk of bleeding
3	**Low thromboembolism and bleeding risk** Warfarin may be continued with relatively low INR 1.5–1.8 for minor procedures
4	**For high bleeding risk with low-thromboembolism-risk group** Warfarin can be withheld for 5 days before surgery without any bridging anticoagulation with unfractionated or low molecular weight heparin
5	**High-thromboembolism-risk patients** Generally such patients should be considered for a more aggressive perioperative management strategy with bridging therapy
6	As compared with warfarin, patients on NOACs are less likely to require bridging therapy due to their short half-life

ANTIPLATELET AGENTS

1	Use of DAPT following percutaneous coronary procedures and following acute coronary syndrome are common
2	Current recommendations for DAPT range from 4 weeks in patients undergoing elective stenting with bare metal stents to up to 12 months in patients with drug-eluting stents or patients undergoing coronary stenting for acute coronary syndrome
3	Low-dose aspirin alone does not substantially increase the risk of clinically important bleeding after invasive procedures and can usually be continued during surgery
4	If a patient is to undergo high-bleeding-risk surgery and an antiplatelet effect is not desired, clopidogrel, prasugrel and ticagrelor should be discontinued 5-7 days prior to the procedure
5	Early, effective communication between GPs and specialists is useful in managing high-risk patients on anticoagulant/antiplatelet agents during the perioperative periods

DAPT, dual antiplatelet therapy; NOACs, new oral anticoagulants

Figure 1.Peri-Operative Management of Warfarin-Treated Patients Before and After Surgery/Procedure



Post-Operative Resumption of Bridging Anticoagulation

- **High-Risk Bleeding Procedure:**
  - Therapeutic-dose LMWH/UFH, starting 48-72 hours after surgery
  - *Alternate management*: low-dose LMWH, starting 12-24 hours after surgery (i.e. day after surgery) or resume warfarin alone with no post-operative LMWH/UFH
- **Moderate-Risk Bleeding Procedure:**
  - Therapeutic-dose LMWH/UFH, starting 24-48 hours after surgery
- **Low-Risk Bleeding Procedure:**
  - Therapeutic-dose LMWH/UFH, starting 12-24 hours after surgery (i.e. day after surgery).