

**Scope and Target Population:**

This guideline supplement is targeted for any patient receiving antithrombotic therapy. Please refer to related ICSI guidelines for specific target populations.

**Clinical Highlights and Recommendations:**

- There are no circumstances under which patients absolutely should or should not receive anticoagulation therapy, with the exception of life-threatening bleeding. Clinicians must consider the risks and benefits of anticoagulation therapy for a patient based upon the individual's risk for thrombosis if not treated weighed against the risk of bleeding if treated.
- In the initial phase of treatment for patients with active thrombosis (such as acute deep vein thrombosis [DVT]) or high risk of thrombosis, immediate-acting anticoagulant agents (UFH/LMWH/fondaparinux) should be used concomitant with warfarin.
- Loading doses of warfarin should be avoided.
- Many prescription medications and over-the-counter remedies, including dietary supplements and herbs, may alter the effectiveness of warfarin or vitamin K antagonists (detected by the INR) and/or reduce the effectiveness of platelets (not detected by the INR).
- Vitamin K may be used to reverse supratherapeutic anticoagulation with warfarin. The dose of vitamin K depends upon the degree of international/normalized ratio (INR) elevation and/or signs and symptoms of bleeding. Vitamin K can lead to warfarin resistance and subsequently to an increased risk of thromboembolism.
- Regardless of the anticoagulant used, it is important that patients know they must always inform their physician and other health care providers that they are on anticoagulation therapy, especially if they are undergoing an invasive procedure.
- Patients should be encouraged and empowered to play an active role in the self-management of their treatment. Self-management is best initiated and sustained through active involvement of patients and family members with their multidisciplinary health care team. This educational partnership should be encouraged to decrease potential risks and improve understanding of the importance of patient adherence to their treatment regimen.
- Patients with mechanical heart valves who are pregnant have complex anticoagulation needs and should be managed by an anticoagulation expert.
- Recent concerns about concomitant use of protein pump inhibitors (PPI) and clopidogrel ought to be addressed on a patient-by-patient basis with discontinuation of PPI if there is no definite indication for its use; H2 blockers could be considered if acid-suppression is desired. (ICSI Antithrombotic work group consensus-based recommendation).

**Priority Aims:**

The Antithrombotic Therapy Supplement does not contain priority aims or suggested measures. These components are addressed in the related guidelines.

**Additional Background:**

The ICSI Antithrombotic Therapy Supplement has been developed as a resource for the use of antithrombotic drugs. This is a supplemental document that brings about consistency in recommendations that are common to the scope of related ICSI guidelines. See related ICSI scientific documents: Atrial Fibrillation, Heart Failure in Adults, Diagnosis and Initial Treatment of Ischemic Stroke, Diagnosis and Treatment of Chest Pain and Acute Coronary Syndrome (ACS), Venous Thromboembolism Diagnosis and Treatment and Venous Thromboembolism Prophylaxis.

Antithrombotic drugs are used to decrease the risk of thrombosis by interfering with the homeostatic clotting mechanism. The major side effect of these drugs is bleeding either from supratherapeutic effect or by accentuating the blood loss of patients with an existing source of bleeding.

There are few absolute contraindications to antithrombotic therapy. The decision to treat a patient with antithrombotic drugs takes into account an individual patient's risk for thrombosis if not treated weighed against the risk of bleeding while on antithrombotic drug therapy.

This supplement and related guidelines should help physicians to make that risk-benefit treatment decision. This supplement is also meant to serve as a tool to use for patients treated with antithrombotic.

A glossary of abbreviations used throughout this guideline is in Appendix F, "Glossary of Abbreviations."