Recommended Doses of Anticoagulant/Antithrombotic Therapies for Patients with Atrial Fibrillation

Clinical Notes:

- For patients with atrial fibrillation (AF) and low risk of stroke, antithrombotic therapy is not recommended.[2]
- For patients with AF and either intermediate or high risk of stroke, oral anticoagulation is recommended. For patients who are not suitable for or choose not to take an anticoagulant (for reasons other than concerns for major bleeding), the combination of aspirin (75 to 325 mg daily) and clopidogrel is suggested.[2]
- For patients with AF and mitral stenosis, warfarin (target INR range, 2.0 to 3.0) is recommended. For patients who are not suitable for or choose not to take an anticoagulant (for reasons other than concerns for major bleeding), the combination of aspirin (75 to 325 mg daily) and clopidogrel is recommended.[2]
- For patients with AF and stable coronary artery disease (eg, no acute coronary syndrome within the past year) and who choose oral anticoagulation, warfarin (target INR range, 2.0 to 3.0) is recommended rather than a combination of warfarin and aspirin.[2]
- For patients with AF of greater than 48 hours or unknown duration undergoing elective cardioversion, anticoagulation (warfarin, low-molecular weight heparin at full venous thromboembolism treatment doses, or dabigatran) for at least 3 weeks before cardioversion or a transesophageal echocardiography guided approach with abbreviated anticoagulation. At least 4 weeks of therapeutic anticoagulation is recommended after successful cardioversion to normal sinus rhythm.[2] For patients with AF with documented duration ≤ 48 hours undergoing elective cardioversion, starting anticoagulation (low-molecular weight heparin or unfractionated heparin at full venous thromboembolism treatment doses) and proceeding to cardioversion is suggested. At least 4 weeks of therapeutic anticoagulation is recommended after successful cardioversion to normal sinus rhythm.[2]
- For patients with AF and hemodynamic instability undergoing urgent cardioversion, therapeutic-dose anticoagulation started before cardioversion (if possible) is suggested. At least 4 weeks of therapeutic anticoagulation is recommended after successful cardioversion to normal sinus rhythm.[2]

Drug*	Dose Form	Recommended Dose†	Major Side Effects
Apixaban	Oral	Not FDA approved *(as of June 5, 2012)*	To be determined
Aspirin	Oral	75 to 325 mg daily	hypersensitivity, Reye's syndrome, GI bleeding, nephrotoxicity
Clopidogrel (Plavix®)[1,2,7]	Oral	75 mg daily with aspirin when warfarin therapy is unsuitable	hemorrhagic event, acute liver failure, anaphylaxis, angioedema, aplastic anemia, agranulocytosis, pancreatitis, Stevens-Johnson syndrome, thrombotic thrombocytopenia purpura See for black box warnings for this drug
Dabigatran (Pradaxa®)[1,2,5]	Oral	150 mg twice daily Use lower dose with renal impairment.	hemorrhagic event
Heparin[1,2]	IV	70 units/kg bolus, then 15 units/kg/hr infusion; adjust dose based on aPTT and hospital's nomogram[2]	hemorrhagic event, heparin-induced thrombocytopenia
Enoxaparin (Lovenox®)[1,2,6]	SC	1 mg/kg twice daily[2] Use lower dose with renal impairment.	hemorrhagic event, heparin-induced thrombocytopenia See for black box warnings for this drug
Rivaroxaban (Xarelto®)[1,4]	Oral	20 mg daily with evening meal Use lower dose with renal impairment.	hemorrhagic event See for black box warnings for this drug
Warfarin (Coumadin® or Jantoven®)[1,2,3]	IV or Oral	Individualize the dose; adjust dose based on INR Target INR = 2.5, 2.0 to 3.0. (with mechanical valve, target INR > 2.5) May need lower doses for Asians; genetic variation in CYP2C9 and VKORC1 enzymes is known; or hepatic impairment.	hemorrhagic event, tissue necrosis, systemic microemboli or cholesterol microemboli See for black box warnings for this drug

*Drugs are listed alphabetically.
†Dosages given in the table may differ from those recommended by the manufacturers.

Notes: aPTT = activated partial thromboplastin time; FDA = Food and Drug Administration; GI = gastrointestinal; INR = International Normalized Ratio; IV = intravenous; SC = subcutaneous

Click on drug names in table for more detailed usage information for each drug.

Sources:

1. American College of Cardiology (ACC), American Heart Association (AHA), and Heart Rhythm Society (HRS). *2011 ACCF/AHA/HRS Focused Updates Incorporated Into the ACC/AHA/ESC 2006 Guidelines for the Management of Patients With Atrial Fibrillation*. Washington, DC: American College of Cardiology.

   Available at http://content.onlinejacc.org/cgi/content/full/57/11/e101.

2. Chest Supplement, Antithrombotic Therapy and Prevention of Thrombosis, 9th edition, American College of Chest Physicians.
3. Coumadin® prescribing information, 10/4/11.
4. Xarelto® prescribing information, 12/5/11.
5. Pradaxa® prescribing information, 1/17/12.
6. Lovenox® prescribing information, 5/16/07.
7. Plavix® prescribing information, 5/20/12.