

Prior Authorization DRUG Guidelines

PRADAXA (DABIGATRAN)

Effective Date: 5/24/11

Date Developed: 4/18/11 by C. Albert Reeves MD Last Approval Date: 1/26/16, 1/24/17, 1/23/18, 1/22/19, 2/18/20, 2/2/21, 8/3/21, 2/1/22, 1/31/23, 2/13/24, 2/18/25

Pradaxa is a prodrug that is converted in vivo to the active dabigatran, a specific, reversible, direct thrombin inhibitor that inhibits both free and fibrin-bound thrombin. It inhibits coagulation by preventing thrombin-mediated effects, specifically, cleavage of fibrinogen to fibrin monomers, activation of factors V, VIII, XI, and XIII, and inhibition of thrombin-induced platelet aggregation.

Preauthorization Criteria:

- Deep venous thrombosis and pulmonary embolism treatment and prevention: Treatment of deep venous thrombosis (DVT) and pulmonary embolism (PE) in patients who have been treated with a parenteral anticoagulant for 5 to 10 ≥5 days days to reduce the risk of recurrence of DVT and PE in patients who have been previously treated.
- **Nonvalvular atrial fibrillation:** Prevention of stroke and systemic embolism in patients with nonvalvular atrial fibrillation.
- **Venous thromboembolism prophylaxis in total hip arthroplasty:** Prophylaxis of DVT and PE in patients who have undergone total hip arthroplasty (**Off-Label** for total knee arthroplasty)

Dosing:Creatinine clearance over 30 ml/min – 150 mg orally BID
Creatinine clearance 15-30 - 75 mg orally BID
NOTE: -Patients ≥75 years, use with extreme caution or consider other treatment options

NOTE:

For invasive procedures or surgery Pradaxa should be temporarily discontinued. If CrCl is greater than 50 mL/min discontinue 1-2 days before surgery, if CrCl is less than 50mL/min discontinue 3-5 days before an invasive procedure or surgery. When possible Pradaxa should be restarted as soon as possible.

Discontinuation of Pradaxa increases the risk of strokes.

Contraindications:

Active pathological bleeding History of serious hypersensitivity reaction to Pradaxa

Precautions:

Risk of bleeding – Pradaxa can cause serious and sometimes fatal bleeding. Monitor for bleeding and evaluate signs and symptoms of blood loss.

GI/Bariatric surgery: Evaluate the risk versus benefit of possible decreased drug absorption **Kidney impairment:** dabigatran concentrations may increase in any degree of kidney impairment and increase the risk of bleeding: dabigatran concentrations may increase in any degree of kidney impairment and increase the risk of bleeding **Valvular heart disease**: Use is not recommended in patients with valvular heart disease, including the presence of a bioprosthetic heart valve; use is contraindicated in patients with

mechanical prosthetic heart valves.

[US Boxed Warning]: Upon premature discontinuation, the risk of thrombotic events is increased. If dabigatran must be discontinued for a reason other than pathological bleeding or completion of a course of therapy, consider the use of another anticoagulant during the time of interruption.

Adverse Reactions:

Most common adverse reactions are gastritis-like symptoms and bleeding.

Dosage Forms: 75 mg, 110 mg, 150 mg

References

- 1. Pradaxa. Prescribing information. Boehringer Ingelheim. March 2012.
- 2. <u>http://www.fda.gov/downloads/Drugs/DrugSafety/UCM231720.pdf</u>
- 3. Alban S, "Pharmacological Strategies for Inhibition of Thrombin Activity," Curr Pharm Des, 2008, 14(12):1152-75
- 4. Cohen H, Arachchillage DR, Middeldorp S, Beyer-Westendorf J, Abdul-Kadir R. Management of direct oral anticoagulants in women of childbearing potential: guidance from the SSC of the ISTH. J Thromb Haemost. 2016;14(8):1673-1676.
- Connolly SJ, Ezekowitz MD, Yusuf S, et al; RE-LY Steering Committee and Investigators. Dabigatran versus warfarin in patients with atrial fibrillation. N Engl J Med. 2009;361(12):1139-1151. doi:10.1056/NEJMoa0905561

- Covert K, Branam DL. Direct-acting oral anticoagulant use at extremes of body weight: literature review and recommendations. Am J Health Syst Pharm. 2020;77(11):865-876. doi:10.1093/ajhp/zxaa059
- Doherty JU, Gluckman TJ, Hucker WJ, et al. 2017 ACC Expert consensus decision pathway for periprocedural management of anticoagulation in patients with nonvalvular atrial fibrillation: a report of the American College of Cardiology Clinical Expert Consensus Document Task Force. J Am Coll Cardiol. 2017;69(7):871-898. doi:10.1016/j.jacc.2016.11.024
- Eikelboom JW, Quinlan DJ, Douketis JD. Extended-duration prophylaxis against venous thromboembolism after total hip or knee replacement: a meta-analysis of the randomised trials. Lancet. 2001;358(9275):9-15. doi: 10.1016/S0140-6736(00)05249-1
- Guyatt GH, Akl EA, Crowther M, Gutterman DD, Schuünemann HJ; American College of Chest Physicians Antithrombotic Therapy and Prevention of Thrombosis Panel. Executive summary: antithrombotic therapy and prevention of thrombosis, 9th ed: American College of Chest Physicians evidence-based clinical practice guidelines. Chest. 2012;141(2)(suppl):7S-47S. doi:10.1378/chest.1412S3
- Schulman S, Kearon C, Kakkar AK, et al; RE-MEDY Trial Investigators; RE-SONATE Trial Investigators. Extended Use of dabigatran, warfarin, or placebo in venous thromboembolism. N Engl J Med. 2013;368(8):709-718. doi:10.1056/NEJMoa1113697
- 11. Kumbhani DJ, Cannon CP, Beavers CJ, et al. 2020 ACC expert consensus decision pathway for anticoagulant and antiplatelet therapy in patients with atrial fibrillation or venous thromboembolism undergoing percutaneous coronary intervention or with atherosclerotic cardiovascular disease: a report of the American College of Cardiology Solution Set Oversight Committee. J Am Coll Cardiol. 2021;77(5):629-658.
- 12. updated communication from the ISTH SSC Subcommittee on Control of Anticoagulation. J Thromb Haemost. 2021;19(8):1874-1882.
- 13. Pradaxa pellets (dabigatran etexilate) [prescribing information]. Ridgefield, CT: Boehringer Ingelheim Pharmaceuticals Inc; June 2021.
- Russo V, Cattaneo D, Giannetti L, et al. Pharmacokinetics of direct oral anticoagulants in patients with atrial fibrillation and extreme obesity. Clin Ther. 2021;43(9):e255-e263. doi:10.1016/j.clinthera.2021.07.003
- 15. Stevens SM, Woller SC, Kreuziger LB, et al. Antithrombotic therapy for VTE disease: second update of the CHEST guideline and expert panel report. Chest. 2021;160(6):e545-e608. doi:10.1016/j.chest.2021.07.055
- 16. Douketis JD, Spyropoulos AC, Murad MH, et al. Perioperative management of antithrombotic therapy: an American College of Chest Physicians clinical practice guideline. Chest. 2022b;162(5):e207-e243. doi:10.1016/j.chest.2022.07.025
- 17. Costache RS, Dragomirică AS, Gheorghe BE, et al. Oral anticoagulation in patients with chronic liver disease. Medicina (Kaunas). 2023;59(2):346.
- 18.

Revision History:

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