

Prior Authorization DRUG Guidelines

FRAGMIN® (Dalteparin)

Effective Date: 7/28/05

Date Developed: 7/19/05 by C. Wilhelmy MD

Last Approval Date: 1/26/16, 1/24/17, 1/23/18, 1/22/19, 2/18/20, 2/2/21,
2/1/22, 1/31/23, 2/13/24, 2/18/25

Fragmin is a low molecular weight heparin analog which is similar to Lovenox (enoxaparin). While dalteparin has been shown to inhibit both factor Xa and factor IIa (thrombin), the antithrombotic effect of dalteparin is characterized by a higher ratio of antifactor Xa to antifactor IIa activity (2.7:1)

Pre-Authorization Criteria:

Non-ST elevation acute coronary syndromes: Prevention of ischemic complications in patients with unstable angina or non-Q-wave myocardial infarction in combination with an appropriate antiplatelet regimen.

Venous thromboembolism prophylaxis: Prevention of DVT which may lead to PE, in patients requiring abdominal surgery who are at risk for thromboembolism complications (eg, >40 years, obesity, malignancy, history of DVT or PE, surgical procedures requiring general anesthesia lasting >30 minutes); patients undergoing total hip arthroplasty; or in patients who are at risk for thromboembolism complications due to severe immobility during an acute illness.

Venous thromboembolism treatment in patients with active cancer: Extended treatment (6 months) of acute symptomatic VTE (ie, DVT and/or PE) to reduce the recurrence of VTE in cancer patients.

Venous thromboembolism treatment in pediatric patients: Treatment of symptomatic VTE (ie, DVT and/or PE) to reduce the recurrence of VTE in infants ≥1 month of age, children, and adolescents.

Off-Label:

Deep vein thrombosis and/or pulmonary embolism treatment; Hemodialysis, intermittent, anticoagulation of circuit; Mechanical heart valve, bridging anticoagulation; Periprocedural bridging anticoagulation for patients at high risk of thromboembolism, with atrial fibrillation, venous thromboembolism, or other high-risk conditions; Superficial vein thrombosis, acute symptomatic; Venous thromboembolism

prophylaxis, nonorthopedic surgery; Venous thromboembolism prophylaxis, pregnancy; Venous thromboembolism prophylaxis, total knee arthroplasty; Venous thromboembolism treatment in pregnancy

ADMINISTRATION

Refer to product literature for dosing in specific cases.

or non- Q-wave MI undergoing regional anesthesia; not for I.M. or I.V. use

WARNINGS / PRECAUTIONS — Patients with recent or anticipated neuraxial anesthesia (epidural or spinal anesthesia) are at risk of spinal or epidural hematoma and subsequent paralysis

Not to be used interchangeably (unit for unit) with heparin or any other low molecular weight heparins

Use with caution in patients with history of heparin- induced thrombocytopenia (HIT). Monitor platelet count closely

Certain patients are at increased risk of bleeding. Risk factors include bacterial endocarditis; congenital or acquired bleeding disorders; active ulcerative or angiodysplastic GI diseases; severe uncontrolled hypertension; hemorrhagic stroke; or use shortly after brain, spinal, or ophthalmology surgery; in patient treated concomitantly with platelet inhibitors; recent GI bleeding; thrombocytopenia or platelet defects; severe liver disease; hypertensive or diabetic retinopathy; or in patients undergoing invasive procedures.

Can cause hyperkalemia possibly by suppressing aldosterone production.

DRUG INTERACTIONS

Drugs which affect platelet function (eg, aspirin, NSAIDs, dipyridamole, ticlopidine, clopidogrel) may potentiate the risk of hemorrhage.

Thrombolytic agents increase the risk of hemorrhage.

Warfarin: Risk of bleeding may be increased during concurrent therapy. Dalteparin is commonly continued during the initiation of warfarin therapy to assure anticoagulation and to protect against possible transient hypercoagulability.

REFERENCES

1. Braunwald, E, Antman, EM, Beasley, JW, et al. ACC/AHA 2002 Guideline Update for the Management of Patients With Unstable Angina and Non-ST-Segment Elevation Myocardial Infarction - Summary Article: A Report of the American College of Cardiology/American Heart Association Task Force on Practice Guidelines (Committee on the Management of Patients With Unstable Angina). *J Am Coll Cardiol* 2002; 40(7):1366-74. Available at: <http://www.acc.org/clinical/guidelines/unstable/incorporated/index.htm>. Accessed May 20, 2003.
2. Frostfeldt, G, Ahlberg, G, Gustafsson, G, et al. Low Molecular Weight Heparin (Dalteparin) as Adjunctive Treatment of Thrombolysis in Acute Myocardial Infarction - A Pilot Study: Biochemical Markers in Acute Coronary Syndromes (BIOMACS II), *J Am Coll Cardiol*, 1999, 33:627.
3. Invasive Compared With Noninvasive Treatment in Unstable Coronary-Artery Disease: FRISC II Prospective Randomised Multicentre Study. Fragmin® and Fast Revascularisation During Instability in Coronary Artery Disease Investigators. *Lancet* 1999; 354:708.
4. Klein, W, Buchwald, A, Hillis, SE, et al. Comparison of Low Molecular-Weight Heparin With Unfractionated Heparin Acutely and With Placebo for 6 Weeks in the Management of Unstable Coronary Artery Disease. Fragmin® in Unstable Coronary Artery Disease Study. *Circulation* 1997; 96:61.
5. Kontny, F, Dale, J, Abildgaard, U, et al. Randomized Trial of Low Molecular Weight Heparin (Dalteparin) in Prevention of Left Ventricular Thrombus Formation and Arterial Embolism After Acute Anterior Myocardial Infarction: The Fragmin® in Acute Myocardial Infarction (FRAMI) Study. *J Am Coll Cardiol* 1997; 30:962.
6. Long-Term Low-Molecular-Mass Heparin in Unstable Coronary-Artery Disease: FRISC II Prospective Randomised Multicentre Study., Fragmin®, Fast Revascularization During Instability in Coronary Artery Disease, Investigators. *Lancet*, 1999, 354:701.
7. Low-Molecular-Weight Heparin During Instability in Coronary Artery Disease, Fragmin® During Instability in Coronary Artery Disease (FRISC) Study Group. *Lancet* 1996; 347:561.
8. Nagge, J, Crowther, M, Hirsh, J. Is Impaired Renal Function a Contraindication to the Use of Low-Molecular Weight Heparin. *Arch Intern Med* 2002; 162:2605.
9. Wallentin, L. ASSENT 3 PLUS. [Paper presented at] American Heart Association 75th Scientific Sessions, November 17-20, 2002; Chicago, Ill.
10. Wong, GC, Giugliano, RP, Antman, EM. Use of Low-Molecular-Weight Heparins in the Management of Acute Coronary Artery Syndromes and Percutaneous Coronary Intervention. *JAMA* 2003; 289:331.
11. Zed, PJ, Tisdale, JE, Borzak, S. Low-Molecular-Weight Heparins in the Management of Acute Coronary Syndromes. *Arch Intern Med* 1999; 159:1849.
12. 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
13. Otto CM, Nishimura RA, Bonow RO, et al. 2020 ACC/AHA guideline for the management of patients with valvular heart disease: a report of the American College of Cardiology/American Heart Association Joint Committee on clinical practice guidelines. *Circulation*. 2021;143(5):e72-e227.
14. Douketis JD, Spyropoulos AC, Murad MH, et al. Perioperative management of antithrombotic therapy: an American College of Chest Physicians clinical practice guideline. *Chest*. 2022;162(5):e207-e243.
15. Fragmin (dalteparin) [prescribing information]. New York, NY: Pfizer Labs; August 2022.
16. National Institutes of Health (NIH). COVID-19 treatment guidelines panel. Coronavirus disease 2019 (COVID-19) treatment guidelines. Updated April 20, 2023.
17. Pacheco LD, Saade G, Metz TD; Society for Maternal-Fetal Medicine (SMFM). Society for Maternal-Fetal Medicine consult series #51: thromboembolism prophylaxis for cesarean delivery. *Am J Obstet Gynecol*. 2020;223(2):B11-B17.
18. Sagedal S, Hartmann A, Sundstrøm K, Bjørnsen S, Fauchald P, Brosstad F. A single dose of dalteparin

effectively prevents clotting during haemodialysis. Nephrol Dial Transplant. 1999;14(8):1943-1947.

19. Savage KJ, Wells PS, Schulz V, et al. Outpatient use of low molecular weight heparin (Dalteparin) for the treatment of deep vein thrombosis of the upper extremity. Thromb Haemost. 1999;82(3):1008-1010

Revision History:

Date Reviewed/Updated: 10/4/11 by A. Reeves MD
 Date Reviewed/No Updates: 4/2/12; 1/16/13 by A. Reeves MD
 Date Approved by P&T Committee: 7/28/05; 10/25/11; 4/24/12; 1/29/13
 Date Reviewed/No Updates: 1/28/14 by C. Sanders MD
 Date Approved by P&T Committee: 1/28/14
 Date Reviewed/No Updates: 1/13/15 by C. Sanders, MD
 Date Approved by P&T Committee: 1/27/15
 Date Reviewed/Updated: 3/12/15 by C. Sanders, MD; R. Sterling, MD
 Date Approved by P&T Committee: 1/26/16
 Date Reviewed/No Updates: 1/24/17 by C. Sanders, MD; R. Sterling, MD
 Date Approved by P&T Committee: 1/24/17
 Date Reviewed/No Updates: 1/23/18 by C. Sanders, MD; R. Sterling, MD
 Date Approved by P&T Committee: 1/23/18
 Date Reviewed/No Updates: 1/22/19 by C. Sanders, MD; R. Sterling, MD
 Date Approved by P&T Committee: 1/22/19
 Date Reviewed/No Updates: 2/18/20 by H. Taekman, MD; R. Sterling, MD
 Date Approved by P&T Committee: 2/18/20
 Date Reviewed/No Updates: 2/2/21 by H. Taekman, MD; R. Sterling, MD
 Date Approved by P&T Committee: 2/2/21
 Date Reviewed/No Updates: 2/1/22 by H. Taekman, MD; R. Sterling, MD
 Date Approved by P&T Committee: 2/1/22
 Date Reviewed/No Updates: 1/31/23 by H. Taekman, MD; R. Sterling, MD
 Date Approved by P&T Committee: 1/31/23
 Date Reviewed/Updated: 2/18/25 by H. Taekman, MD; R. Sterling, MD
 Date Approved by P&T Committee: 2/18/25

Revision Date	Content Revised (Yes/No)	Contributors	Review/Revision Notes
1/24/17	No	Catherine Sanders, MD; Robert Sterling, MD	Annual review
1/23/18	No	Catherine Sanders, MD; Robert Sterling, MD	Annual review
1/22/19	No	Catherine Sanders, MD; Robert Sterling, MD	Annual review
2/18/20	No	Howard Taekman, MD; Robert Sterling, MD	Annual review
2/2/21	No	Howard Taekman, MD; Robert Sterling, MD	Annual review
2/1/22	No	Howard Taekman, MD; Robert Sterling, MD	Annual review
1/31/23	No	Howard Taekman, MD; Robert Sterling, MD	Annual review
2/13/24	No	Howard Taekman, MD; Robert Sterling, MD	Annual review
2/18/25	Yes	Howard Taekman, MD; Robert Sterling, MD	Updated preauthorization criteria. Added off label use and updated administration, product availability and precaution sections.