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Oral Anticoagulants Class Review – Addition of Warfarin

Month/Year of Review: January 2012
PDL Class: No current PDL class
Suggested Revision: Add warfarin to PDL
Current Status of Anticoagulants:
No PDL-status/no restrictions: warfarin
Non-preferred Oral Anticoagulants: rivaroxaban (pending) and dabigatran (pending)

FDA Approved Indications: Warfarin is approved for prophylaxis and treatment of venous thrombosis and its extension, pulmonary embolism; prophylaxis and treatment of thromboembolic complications associated with atrial fibrillation and/or cardiac valve replacement; and reduction in the risk of death, recurrent myocardial infarction, and thromboembolic events such as stroke or systemic embolization after myocardial infarction.[1]

Summary:
The vitamin K antagonist (VKA), warfarin, has served as the gold standard for oral anticoagulation and is a covered therapy for Oregon Health Plan (OHP) patients. Approximately 350 patients utilized long term anticoagulation (>45 days), representing over 2,000 prescription claims within the last six months within the OHP population.

A meta-analysis for stroke prevention in patients with non-valvular AF found warfarin therapy to reduce stroke by 60%, which was 40% more efficacious than anti-platelet therapy.[2] The Cochrane Database for Systematic Reviews estimates that approximately 25 strokes and 12 disabling or fatal strokes would be prevented per year, for every 1000 primary prevention patients with AF treated with warfarin.[3]

Acute DVT treatment is an additional indication for anticoagulation. DVT is a serious medical condition that affects 1 in 1000 people and can lead to PE and related risk of morbidity and mortality.[4] CHEST guidelines recommend initial treatment with LMWH, unfractionated heparin (UFH) or fondaparinux for at least 5 days and initiation of warfarin on the first treatment day.[5] Discontinuation of heparin preparations should occur when the INR reaches 2.0 or more for at least 24 hours. For patients with DVT or PE secondary to a reversible risk factor, the guidelines recommend treatment with warfarin for 3 months. Treatment recommendations for patients with unprovoked DVT or PE include warfarin for at least 3 months and up to a year or longer based on clinical judgment.

For patients undergoing THR or TKR prophylactic anticoagulants are considered standard practice. A recent guideline by the American Academy of Orthopaedic Surgeons gives a moderate recommendation for the use of prophylactic pharmacological agents for VTE prevention in those patients that are not at elevated risk. Due to insufficient evidence they are unable to recommend any particular preventative strategy or treatment duration.[6] The American College of Chest Physicians (ACCP) Evidence-Based Clinical Practice Guidelines (CHEST) on antithrombotic and thrombolytic therapy recommends treatment with warfarin, LMWH, or fondaparinux for 7 to 10 days for TKR and 10 to 35 days for THR.[7] Oregon Health Plan (OHP) fee-for-service FFS currently lists LMWHs, enoxaparin and dalteparin, as preferred, and fondaparinux (Arixtra®) and tinzaparin (Innohep®) as not preferred. Desirudin (Iprivask®) is not managed via PDL and currently has no utilization restrictions. In the previous six months approximately 200 patients received short term anticoagulation (<45 days) accounting for almost 200 prescription claims.

PDL Placement Recommendation:

Recommend maintaining warfarin as a preferred and first-line agent in the oral anticoagulant class for prophylaxis and treatment of thromboembolic disorders.

References:

1. Coumadin® Prescribing Information. Bristol-Myers Squibb, Inc. Princeton, NJ. January 2010.
2. Hart R, Pearce L, Aguilar M. Meta-analysis: Antithrombotic Therapy to Prevent Stroke in Patients Who Have Nonvalvular Atrial Fibrillation. Ann Intern Med. 2007;146:857-867.
3. Aguilar, M, Hart R. Oral anticoagulants for preventing stroke in patients with non-valvular atrial fibrillation and no previous history of stroke or transient ischemic attacks. The Cochrane Database of Syst Rev. 2009 (1): CD001927.
4. American Academy of Orthopaedic Surgeons. Preventing Venous Thromboembolic Disease in Patients Undergoing Elective Hip and Knee Arthroplasty Evidence-Based Guideline and Evidence Report, 2011. (Accessed October 27, 2011, at http://www.aaos.org/research/guidelines/VTE/VTE_full_guideline.pdf.)
5. Hirsh J, Guyatt G, Albers G, et al. Executive Summary: American College of Chest Physicians Evidence-Based Clinical Practice Guidelines (8th Edition). Chest 2008;133;71S-109S.
6. American Academy of Orthopaedic Surgeons. Preventing Venous Thromboembolic Disease in Patients Undergoing Elective Hip and Knee Arthroplasty Evidence-Based Guideline and Evidence Report, 2011. (Accessed October 27, 2011, at http://www.aaos.org/research/guidelines/VTE/VTE_full_guideline.pdf.)
7. Hirsh J, Guyatt G, Albers G, et al. Executive Summary: American College of Chest Physicians Evidence-Based Clinical Practice Guidelines (8th Edition). Chest 2008;133;71S-109S.

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