Michigan Quality Improvement Consortium Guideline

August 2015

Outpatient Management of Uncomplicated Deep Venous Thrombosis

Eligible	Key Components	Recommendation and Level of Evidence
Adult patients ≥ 18 years of age Diagnosis of acute DVT, confirmed by duplex ultra-sonography or venography. **[A]** No contra-indications to anticoagulation or use of low molecular weight heparin (LMWH).	Initial assessment	Perform initial history and physical examination; recognizing that symptoms and signs alone are not adequately sensitive or specific enough for diagnosis or exclusion of DVT. H&P alone is inadequate for diagnosis. Use risk tool such as Wells criteria (DVT scoring system). Assess patient/caregiver ability and compliance for outpatient therapy, and need for home care resources. Assess for contraindications to outpatient management, including: **ABSOLUTE** Active bleeding or high risk of hemorrhage (recent surgery), liver disease (INR >1.5) Pulmonary embolism with hemodynamic or respiratory instability History of heparin-induced thrombocytopenia Social factors that prevent safe outpatient management **RELATIVE** Platelet count < 100,000 Severe HTN (SBP >220, DBP >110 Renal insufficiency (Cr >2.5 mg/dl) GI Bleed within 6 months Morbid obesity (BMI >40) Ileofemoral vein thrombus Medical comorbidities
	Initiating and monitoring pharmacologic interventions	Outpatient therapy is preferred if no contraindications. Contraindications to anticoagulation: fresh surgical wound, active GI bleeding, recent hemorrhagic CVA, multiple/major trauma, recent neurosurgery, compliance concerns on medication, pregnancy with impending delivery. Begin anticoagulation as soon as possible; options include: ・Warfarin with LMWH bridging for 5 days, titrate to INR range of 2.0-3.0 **[A]**. ・Direct factor Xa inhibitors. Dabigatran requires concurrent "bridging" LMWH for 5-10 days, rivaroxaban and apixaban do not require LMWH, and do not require periodic monitoring blood tests. However, these agents have no medical reversal method so should still be used with caution. ・LMWH as a solitary agent (mainly for use during pregnancy) Duration of therapy is 3 months for uncomplicated DVT **[A]**. Longer periods of treatment are not required. If known hypercoagulable state, consider referral to a coagulation specialist.
	Testing/ Monitoring	Obtain baseline lab values: aPTT, PT/INR, creatinine, CBC with platelet count Monitor for signs/symptoms of pulmonary embolism and medication side effects If using warfarin: Consider platelet count 3-5 days into anticoagulation therapy Monitor using INR Frequent INR monitoring is necessary at the onset of warfarin therapy (usually 2 checks/week in first 3 weeks of therapy Management through a systemic program is essential Consider using an established anticoagulation resource such as: Anticoagulation toolkit
	Patient education	**Inform patient/caregiver of the reasons and benefits of therapy, potential side effects, importance of follow-up monitoring, compliance, the potential for drug interactions, safety precautions, recognizing internal bleeding, and requirement for contraception. For warfarin patients, inform of need for dose adjustment and stable vitamin K in diet.** Instruct patient/caregiver on symptoms of pulmonary embolism, extension of DVT and self-injection of LMWH. The patient should be encouraged to be ambulatory after an appropriate weight-based dose of LMWH **[D].** Use of compression stockings may minimize symptoms of post-thrombotic syndrome. Exercise training may also be helpful **[B]**.

Levels of Evidence for the most significant recommendations: A = randomized controlled trials; B = controlled trials, no randomization; C = observational studies; D = opinion of expert panel

This guideline represents core management steps. It is based on several sources including: Antithrombotic Therapy and Prevention of Thrombosis, 9th ed: American College of Chest Physicians Evidence-Based Clinical Practice Guidelines, February 2012; Venous Thromboembolism Diagnosis and Treatment, Institute for Clinical Systems Improvement, January 2013. Individual patient considerations and advances in medical science may supersede or modify these recommendations.

Approved by MQIC Medical Directors, August 2009, 2011, 2013, 2015 (rev Mar 2010, Sept 2011)