

Michigan Quality Improvement Consortium Guideline

Outpatient Management of Uncomplicated Deep Venous Thrombosis

Eligible Population	Key Components	Recommendation and Level of Evidence																
<p>Adult patients \geq 18 years of age</p> <p>Diagnosis of acute DVT, confirmed by duplex ultra-sonography or venography. [A]</p> <p>No contra-indications to anticoagulation or use of low molecular weight heparin (LMWH).</p>	<p>Initial assessment</p>	<ul style="list-style-type: none"> ◆ Perform initial comprehensive history and physical examination; consider conditions predisposing to DVT. ◆ Assess risk factors and contraindications to outpatient anticoagulation therapy. ◆ Assess patient/caregiver ability and compliance for outpatient therapy, and need for home care resources. <p>Contraindications to initiating anticoagulation therapy in the outpatient setting:</p> <table border="0"> <tr> <td>◆ Pulmonary embolism</td> <td>◆ Active bleeding</td> <td>◆ Known hypercoagulable state</td> <td>◆ Thrombocytopenia <100,000</td> </tr> <tr> <td>◆ Extensive iliofemoral thrombus</td> <td>◆ Severe HTN</td> <td>◆ Catheter-associated DVT</td> <td>◆ History of heparin induced thrombocytopenia</td> </tr> <tr> <td>◆ Known potential for non-compliance</td> <td>◆ Pregnancy</td> <td>◆ Renal clearance <30 mL/min or creatinine >2.5 mg/dL</td> <td>◆ Childbearing age w/o contraception</td> </tr> <tr> <td>◆ Recent surgery/trauma</td> <td></td> <td></td> <td></td> </tr> </table>	◆ Pulmonary embolism	◆ Active bleeding	◆ Known hypercoagulable state	◆ Thrombocytopenia <100,000	◆ Extensive iliofemoral thrombus	◆ Severe HTN	◆ Catheter-associated DVT	◆ History of heparin induced thrombocytopenia	◆ Known potential for non-compliance	◆ Pregnancy	◆ Renal clearance <30 mL/min or creatinine >2.5 mg/dL	◆ Childbearing age w/o contraception	◆ Recent surgery/trauma			
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<p>Pharmacologic interventions</p>	<ul style="list-style-type: none"> ◆ Outpatient therapy is preferred if no contraindications ◆ Contraindications to warfarin therapy: <ul style="list-style-type: none"> Absolute: pregnancy Relative: dementia, and certain psychoses ◆ Begin warfarin after 1st dose of LMWH [A], on the same day, titrate to INR range of 2.0 - 3.0 ◆ Continue LMWH until INR range 2.0 - 3.0 for 2 consecutive days (usually LMWH 5 - 7 days). [A] ◆ Maintain warfarin therapy at least 3 months in the therapeutic INR range. [A], longer if risk of recurrence. ◆ Ask about any changes in diet, medications and compliance before any dosage adjustment. 																	
<p>Testing/Monitoring</p>	<ul style="list-style-type: none"> ◆ Obtain baseline lab values: aPTT, PT/INR, CBC with platelet count. Consider platelet count 3 to 5 days into anticoagulation therapy. ◆ Monitor warfarin therapy using INR; no lab monitoring required for LMWH unless special circumstances such as renal insufficiency or extremes of body weight. ◆ Frequent INR monitoring is necessary at the onset of warfarin therapy (e.g. at least 2 checks in the first week of therapy); then at least 2-3 times per week for the next 1-2 weeks. When stable, monitor every 4-8 weeks. ◆ Maintain an Anticoagulant Monitoring Log (or dose adjustment system) for each patient treated with warfarin. ◆ Monitor common bleeding sites; gums, nose, GI, GU and skin. ◆ Monitor for signs/symptoms of pulmonary embolism, risk factors and side effects. ◆ Management through a specialized program for anticoagulation monitoring, if available. 																	
<p>Patient education</p>	<ul style="list-style-type: none"> ◆ Inform patient/caregiver of the reasons and benefits of therapy, potential side effects, importance of follow-up monitoring, warfarin dosage adjustment, compliance, dietary recommendations (i.e. a diet that is constant in vitamin K), the potential for drug interactions, safety precautions, and recognizing internal bleeding. ◆ 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] ◆ Compression stockings should be used routinely to prevent postthrombotic syndrome [A], beginning within 1 month of diagnosis of proximal DVT and continuing for a minimum of 1 year. 																	

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: Management of Venous Thromboembolism: A Clinical Practice Guideline from the American College of Physicians and the American Academy of Family Physicians. Ann Intern Med. 2007;146:204-210. Individual patient considerations and advances in medical science may supersede or modify these recommendations.