

TREATMENT GUIDELINES FOR DVT and PE

Initial Treatment of DVT of the Leg

Adapted from *Chest* 2004;126:401-428

Patient Presentation	Heparin	Vitamin K Antagonist	IV UFH	SC UFH	LMWH
Objectively confirmed DVT	Short-term treatment with SC LMWH, or IV UFH, or SC UFH				
High clinical suspicion of DVT	Treatment with anticoagulants while awaiting the outcome of diagnostic tests				
Acute DVT	LMWH or UFH for at least 5 days	Initiation of VKA with LMWH or UFH on the first day of treatment. Discontinue heparin when INR is stable and > 2.0	Continuous infusion to achieve and maintain an aPTT prolongation corresponding to plasma heparin levels from 0.3 to 0.7 IU/mL anti-Xa activity by amidolytic assay	SC UFH is an adequate alternative to IV UFH. Initial dose of 35,000 U/24 h SC, with subsequent dosing to maintain the aPTT in the therapeutic range.	LMWH SC once or twice daily. Recommended over UFH as an outpatient if possible. Contraindication: Patients with severe renal failure. Use IV UFH

Abbreviations:

aPTT – activated partial thromboplastin time

DVT – Deep vein thrombosis

INR – International normalized ratio

LMWH – Low molecular weight heparin

SC – Subcutaneous

UFH – Unfractionated heparin

VKA – Vitamin K antagonist

Long-term Treatment of Acute DVT of the Leg

Adapted from *Chest* 2004;126:401-428

Patient Presentation	Vitamin K Antagonist/Optimal Treatment (INR, 2.0 to 3.0)	Indefinite Treatment	Low-Molecular-Weight Heparin
First episode of DVT secondary to a transient (reversible) risk factor	VKA for 3 months		
First episode of idiopathic DVT	VKA at least 6 to 12 months		
DVT and cancer			LMWH for at least the first 3 to 6 months of long-term anticoagulation therapy. Recommend Therapy indefinitely or until the cancer is resolved. 200 IU/kg body weight qd for 1 month, followed by 150 IU/kg qd thereafter, or tinzaparin at 175 IU/kg body weight SC qd.
First episode of DVT with documented antiphospholipid antibodies or who have two or more thrombophilic conditions (eg, combined factor V Leiden and prothrombin G20210A)	VKA for 12 months	Suggest indefinite anticoagulation therapy	
First episode of DVT with documented deficiency of antithrombin, protein C, or protein S, or factor V Leiden, prothrombin G20210A, homocysteinemia, or high factor VIII levels (>90% of normal)	VKA for 6 to 12 months	Suggest indefinite anticoagulation therapy for patients with idiopathic DVT	

Two or more episodes of objectively documented DVT		<p>Suggest: Indefinite anticoagulation therapy VKA (INR range 2.0 to 3.0). Reassess risk/benefits of continuing treatment at periodic intervals. Repeat testing with compression ultrasound or measure plasma D-dimer.</p>	
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Treatment/Prevention of Post-Thrombotic Syndrome (PTS)

Adapted from *Chest* 2004;126:401-428

Patient Presentation	Elastic Compression Stockings	Intermittent Pneumatic Compression
Any patient after an episode of DVT	Stocking with a pressure of 30 to 40 mm Hg at the ankle during 2 years after DVT	
Severe edema of the leg due to PTS	Compression stockings	Suggest a course of intermittent pneumatic compression
Mild edema of the leg due to PTS	Compression stockings	

Initial Treatment of Pulmonary Embolism (PE)

Adapted from *Chest* 2004;126:401-428

Patient Presentation	Heparin	Vitamin K Antagonist	IV UFH	LMWH
Objectively confirmed nonmassive PE	Short-term treatment with SC LMWH, or IV UFH			
High clinical suspicion of PE	Treatment with anticoagulants while awaiting the outcome of diagnostic tests			
Acute nonmassive PE	LMWH over UFH for at least 5 days	Initiation of VKA with LMWH or UFH on the first day of treatment. Discontinue heparin when INR is stable and > 2.0	Continuous infusion to achieve and maintain an aPTT prolongation corresponding to plasma heparin levels from 0.3 to 0.7 IU/mL anti-Xa activity by amidolytic assay	LMWH SC once or twice daily. Recommended over UFH as an outpatient if possible. Contraindication: Patients with severe renal failure. Use IV UFH

Abbreviations:

aPTT – activated partial thromboplastin time

DVT – Deep vein thrombosis

INR – International normalized ratio

LMWH – Low molecular weight heparin

PE – Pulmonary Embolism

SC – Subcutaneous

UFH – Unfractionated heparin

VKA – Vitamin K antagonist

Long-term Treatment of Acute Pulmonary Embolism

Adapted from *Chest* 2004;126:401-428

Patient Presentation	Vitamin K Antagonist/Optimal Treatment (INR, 2.0 to 3.0)	Indefinite Treatment	Low-Molecular-Weight Heparin
First episode of PE secondary to a transient (reversible) risk factor	VKA for 3 months		
First episode of idiopathic PE	VKA at least 6 to 12 months	Consider indefinite anticoagulation therapy	
Nonmassive PE and cancer			LMWH for at least the first 3 to 6 months of long-term anticoagulation therapy. Recommend Anticoagulation therapy indefinitely or until the cancer is resolved. 200 IU/kg body weight qd for 1 month, followed by 150 IU/kg qd thereafter, or tinzaparin at 175 IU/kg body weight SC qd.
First episode of PE with documented antiphospholipid antibodies or who have two or more thrombophilic conditions (<i>eg</i> , combined factor V Leiden and prothrombin G20210A)	VKA for 12 months	Suggest indefinite anticoagulation therapy	
First episode of PE with documented deficiency of antithrombin, protein C, or protein S, or factor V Leiden, prothrombin G20210A, homocysteinemia, or high factor VIII levels (>90% of normal)	VKA for 6 to 12 months	Suggest indefinite anticoagulation therapy for patients with idiopathic PE	
Two or more episodes of objectively documented PE		Suggest: Indefinite anticoagulation therapy VKA (INR range 2.0 to 3.0). Reassess risk/benefits of continuing treatment at periodic intervals.	