Deep Venous Thrombosis (DVT): Initial ED Management

Algorithm 1. Patient DVT Risk Stratification Based on Wells Criteria Score

Calculated Wells criteria score

Score ≤ 1
DVT not likely

Score ≥ 2
DVT likely

High sensitivity d-dimer*
(see below for age and obstetrical adjusted d-dimers)

DVT excluded

Negative

Positive

Ultrasound

DVT not confirmed

Consider repeat ultrasound in one week.

DVT confirmed

See Algorithm 2

*Note:
- Adjust high-sensitivity d-dimer for age among patients ≥ 50 years:
  - (Age x 0.01)
- Adjust high-sensitivity d-dimer for trimester of pregnancy:
  - First trimester: 0.75
  - Second trimester: 1.00
  - Third trimester: 1.25

See page 3 for d-dimer references.

<table>
<thead>
<tr>
<th>Wells Criteria: Pretest Probability for DVT</th>
<th>Points</th>
</tr>
</thead>
<tbody>
<tr>
<td>Active cancer (treatment ongoing, within 6 months, or palliative)</td>
<td>1</td>
</tr>
<tr>
<td>Paralysis, paresis or recent plaster immobilization of the lower extremities</td>
<td>1</td>
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<tr>
<td>Recently bedridden for 3 days or more or major surgery within 12 weeks requiring general or regional anesthesia</td>
<td>1</td>
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<tr>
<td>Localized tenderness along the distribution of the deep venous system</td>
<td>1</td>
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<tr>
<td>Entire leg swollen</td>
<td>1</td>
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<tr>
<td>Calf swelling at least 3 cm larger than asymptomatic side</td>
<td>1</td>
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<tr>
<td>Pitting edema confined to the symptomatic leg</td>
<td>1</td>
</tr>
<tr>
<td>Collateral superficial veins (non-varicose)</td>
<td>1</td>
</tr>
<tr>
<td>Previously documented DVT</td>
<td>1</td>
</tr>
<tr>
<td>Alternative diagnosis as likely or more likely than that of DVT</td>
<td>-2</td>
</tr>
</tbody>
</table>
Algorithm 2. Management of Acute DVT in Outpatient Setting

**Diagnosis of acute DVT**

Evaluate eligibility for outpatient treatment

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**All criteria must be met to consider outpatient management:**
- Ambulatory and in stable condition
- Normal vital signs
- No significant symptoms from DVT (i.e. uncontrolled pain)
- Low bleeding risk:
  - Platelet > 100K
  - No coagulopathy
  - No recent overt bleeding (within 2 weeks)
  - No surgery within 6 weeks
  - No hemorrhagic or ischemic stroke within 6 weeks
  - No history of intracranial hemorrhage (ICH)
  - No history of cancer with metastasis to brain
- No severe renal insufficiency defined as CrCl < 30 mL/min
- Able to comply with as well as administer prescribed anticoagulation and agree to follow-up appointment
- No history of HIT or heparin allergy
- No other clinical indications for admission

Are all of the above criteria met?

**Treatment options:**
- Administer first dose of enoxaparin 1 mg/kg SC (preferred)
- If patient refuses injections, consider one of the following:
  - Rivaroxaban 15 mg PO BID with food
  - Apixaban 10 mg PO BID

**Call acute thrombosis pager**: ‘CLOT’
- The pager is held by a benign hematology attending who can arrange next day follow-up in the thrombosis clinic.
- Provide call back number when paging.
- The attending can also answer any questions related to thrombosis treatment and diagnosis, as needed.

Prior to discharge, ensure the following:
- First dose of treatment has been administered
- Follow-up appointment has been scheduled in thrombosis clinic
- Prescription for 5-7 days of treatment has been written
  - Consult social work/case manager or ED pharmacist to ensure patient can afford prescription based on insurance
- Education has been provided on how to take prescribed medication as well as what signs and symptoms justify a return to the ED

**Discharge the patient and follow-up in thrombosis clinic in the next business day**

*Note:* Users can also call acute thrombosis page via webX by searching:
- **Last Name**: “Thrombosis (Clot) Pager List” or “Clot (Thrombosis) Pager List”
- **Pager ID**: “CLOT”
- **Quick page**: “CLOT”
Quality Measures

- Rate of subsequent ED visits within 72 hours of initial treatment
- Percent of patients compliant with follow-up appointment
- Percent of patients requiring any transfusion of blood products

References


Guideline Authors

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Guideline Approved


Disclaimer: Clinical practice guidelines and algorithms at The Ohio State University Wexner Medical Center (OSUWMC) are standards that are intended to provide general guidance to clinicians. Patient choice and clinician judgment must remain central to the selection of diagnostic tests and therapy. OSUWMC’s guidelines and algorithms are reviewed periodically for consistency with new evidence; however, new developments may not be represented.

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