Clinical diagnosis of deep venous thrombosis (DVT) can be challenging. Wells et al. have published a clinical model for predicting the probability of thrombosis. The main difficulty with trying to use this model in practice is its relative complexity: it is difficult to remember all the points necessary for accurate risk stratification.

**Diagnosing DVT**

I have a copy of the Wells model stored in my office computer, and I print it out if I suspect DVT (Table 1). I check off all positive findings right on the table. If the probability of DVT is high (85%), I send my patient to the emergency room (ER) with a photocopy of the table. If the probability is intermediate (33%), I book an ultrasound (US) and another in 1 week if findings are negative (reports have indicated that a negative D-dimer assay combined with negative results of US rule out DVT, so the second US might no longer be necessary). If the probability is low (5%), an initial US rules out DVT.

The study by Wells et al., however, was done on patients referred to hospital centres for suspected DVT (prevalence of thrombosis in the two Canadian hospitals was 21% and 22% and in the Italian centre, 42%). The probability of DVT in an office setting is likely lower, so US might not be necessary for all low-risk patients.

With the advent of low molecular weight heparin therapy, rapid discharge and home therapy for DVT are becoming more common. Simons et al. have advocated a conservative treatment strategy in low-risk patients.

**Table 1. Probability of deep vein thrombosis**

<table>
<thead>
<tr>
<th>Clinical Probability</th>
<th>Major Points</th>
<th>Minor Points</th>
</tr>
</thead>
<tbody>
<tr>
<td>High (85%)</td>
<td>3 major points, no other diagnosis</td>
<td>≤2 minor points, no other diagnosis</td>
</tr>
<tr>
<td></td>
<td>2 major points and 2 minor points, no other diagnosis</td>
<td>≤1 minor points, no other diagnosis</td>
</tr>
<tr>
<td>Low (5%)</td>
<td>1 major point and ≤2 minor points, and alternate diagnosis</td>
<td>≤3 minor points, no alternate diagnosis</td>
</tr>
<tr>
<td></td>
<td>1 major point and ≤1 minor point, no other diagnosis</td>
<td>0 major points and ≤2 minor points, and alternate diagnosis</td>
</tr>
<tr>
<td>Moderate (33%)</td>
<td>All other combinations</td>
<td>0 major points and ≤3 minor points, and alternate diagnosis</td>
</tr>
</tbody>
</table>

Adapted from Wells et al.1

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**Practice Tips**

**Michelle Greiver, MD, CCFP**

Deep venous thrombosis: before and after

Improving diagnosis and adjusting duration of therapy

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We encourage readers to share some of their practice experience: the neat little tricks that solve difficult clinical situations. Canadian Family Physician pays $50 to authors upon publication of their Practice Tips. Tips can be sent by mail to Dr Tony Reid, Scientific Editor, Canadian Family Physician, 2630 Skymark Ave, Mississauga, ON L4W 5A4; by fax (905) 629-0893; or by e-mail tony@cfpc.ca.

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VOL 46 APRIL • AVRIL 2000 • Canadian Family Physician • Le Médecin de famille canadien 813
patients with DVT has become current practice. Stratifying our patients according to their risk might well expedite ER visits for those at highest risk (or possibly avoid them entirely in the future) and avoid unnecessary ER stays and investigations for those at lower risk.

**Duration of therapy**

Once patients are sent home, they have traditionally been given 3 to 6 months of warfarin therapy to prevent recurrence. Current research, however, has cast doubts on this practice. Clots form because of a combination of external thrombotic stimuli and internal genetic susceptibility; where exactly the balance lies determines the risk of recurrence.

Some have suggested that, if a patient is at low risk of recurrence (ie, if a strong, temporary, reversible risk factor, such as recent surgery, is present), 6 weeks of anticoagulation therapy is appropriate. If there are ongoing risk factors (eg, cancer), patients are at high risk, and indefinite therapy is likely warranted. Patients who have DVT with no identifiable risk factors likely have an inherited coagulation disorder, and will probably form clots again with only minimal injury. They could well be candidates for very long-term anticoagulation therapy.

Patients who have a second episode of DVT should be considered for long-term therapy, as risk of recurrent DVT after 4 years is 20.7%. It seems to me that the blanket requirement for 6 months of anticoagulation therapy after DVT is no longer appropriate. We will have to think about where our patients fit along the continuum of risk, and adjust the length of anticoagulation therapy accordingly.
References


