Acute DVT: Standard of Care

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Disclosures

- Cook – consultant, royalties
- Medtronic - royalties
- NDC – equity
- Endovention - equity
- Grand Rounds – equity, co-founder

Methods

- We generated strong (Grade 1) and weak (Grade 2) recommendations based:
  - On high-quality (Grade A), moderate-quality (Grade B), and low-quality (Grade C) evidence.

Table 2 – (Numbers 1A, 1B) Risk Factors for Bleeding With Anticoagulant Therapy and Estimated Risk of Major Bleeding in Low-, Moderate-, and High-Risk Groups

<table>
<thead>
<tr>
<th>Risk Factor</th>
<th>Low-Risk (1A)</th>
<th>Moderate-Risk (1B)</th>
<th>High-Risk (1B)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Age &gt; 75</td>
<td>0.3%</td>
<td>0.6%</td>
<td>1.0%</td>
</tr>
<tr>
<td>Diabetes</td>
<td>0.5%</td>
<td>0.9%</td>
<td>1.4%</td>
</tr>
<tr>
<td>Hypertension</td>
<td>0.2%</td>
<td>0.4%</td>
<td>0.8%</td>
</tr>
</tbody>
</table>

Phases of anticoagulation

- Initial (2 to 7 days)
- Long-term (>7 days to 3 months)
- Extended (>3 months to indefinite)

- Warfarin
- Vitamin K antagonist or other agent

FIGURE 1. Phases of anticoagulation. LMWH = low-molecular-weight heparin
• In patients with acute isolated distal DVT of the leg and without severe symptoms or risk factors for extension, we suggest serial imaging of the deep veins for 2 weeks over initial anticoagulation (Grade 2C).

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• In patients with acute isolated distal DVT of the leg and with severe symptoms or risk factors for extension, we recommend anti-coagulation (Grade 2C).

Chest 2012; 141(2)(Suppl):e419S-e494S

• In patients with acute isolated distal DVT of the leg who are managed with initial anticoagulation, we recommend using the same approach as for patients with acute proximal DVT (Grade 1B).

Chest 2012; 141(2)(Suppl):e419S-e494S

• In patients with acute DVT of the leg, we suggest LMWH or fondaparinux over IV UFH (Grade 2C) and over SC UFH (Grade 2B for LMWH; Grade 2C for fondaparinux).

Chest 2012; 141(2)(Suppl):e419S-e494S

• In patients with acute proximal DVT of the leg, we recommend against the use of an inferior vena cava (IVC) filter in addition to anticoagulants (Grade 1B).

Chest 2012; 141(2)(Suppl):e419S-e494S

• In patients with acute DVT of the leg, we suggest catheter-directed thrombolysis (CDT) (Grade 2C).

Chest 2012; 141(2)(Suppl):e419S-e494S

• Remarks: Patients who (i) are most likely to benefit from thrombolysis (see text); (ii) have access to CDT; (iii) attach a high value to prevention of PTS; an (iv) attach a lower value to the initial complexity, cost, and risk of bleeding with thrombolytic therapy are likely to choose thrombolytic therapy over anticoagulation alone.

Chest 2012; 141(2)(Suppl):e419S-e494S
• In patients with acute proximal DVT of the leg and contraindication to anticoagulation, we recommend the use of an IVC filter (Grade 1B).

• In patients with acute DVT of the leg, we suggest early ambulation over initial bed rest (Grade 2C).

• In patients with a proximal DVT of the leg provoked by surgery, we recommend treatment with anticoagulation for 3 months over (i) treatment of a shorter period (Grade 1B), (ii) treatment of a longer time-limited period (eg, 6 or 12 months) (Grade 1B), or (iii) extended therapy (Grade 1B regardless of bleeding risk).

• In patients with a proximal DVT of the leg provoked by a nonsurgical transient risk factor, we recommend treatment with anticoagulation for 3 months over (i) treatment of a shorter period (Grade 1B), (ii) treatment of a longer time-limited period (eg, 6 or 12 months) (Grade 1B), and (iii) extended therapy if there is a high bleeding risk (Grade 1B). We suggest treatment with anticoagulation for 3 months over extended therapy if there is a low or moderate bleeding risk (Grade 2B).

• In patients with an unprovoked DVT of the leg (isolated distal or proximal), we recommend treatment with anticoagulation for at least 3 months over treatment of a shorter duration (Grade 1B). After 3 months of treatment, patients with unprovoked DVT of the leg should be evaluated for the risk-benefit ratio of extended therapy.

• In patients with a first VTE that is an unprovoked proximal DVT of the leg and who have a low or moderate bleeding risk, we suggest extended anticoagulant therapy over 3 months of therapy (Grade 2B).
• In patients with a first VTE that is an unprovoked proximal DVT of the leg and who have a high bleeding risk, we recommend 3 months of anticoagulant therapy over extended therapy (Grade 1B).

Chest 2012; 141(2)(Suppl):e419S-e494S

• In patients who are incidentally found to have asymptomatic DVT of the leg, we suggest the same initial and long-term anticoagulation as for comparable patients with symptomatic DVT (Grade 2B).

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• In patients with acute symptomatic DVT of the leg, we suggest the use of compression stockings (Grade 2B).

Chest 2012; 141(2)(Suppl):e419S-e494S

• In patients with acute PE who are treated with anticoagulants, we recommend against the use of an IVC filter (Grade 1B).

Chest 2012; 141(2)(Suppl):e419S-e494S

• In patients with acute PE and contraindication to anticoagulation, we recommend the use of an IVC filter (Grade 1B).

Chest 2012; 141(2)(Suppl):e419S-e494S

• In patients with acute upper-extremity DVT (UEDVT) that involves the axillary or more proximal veins, we recommend acute treatment with parenteral anticoagulation (LMWH, fondaparinux, IV UFH, or SC UFH) over no such acute treatment (Grade 1B).

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• In patients with acute UEDVT that involves the axillary or more proximal veins, we suggest anticoagulant therapy alone over thrombolyis (Grade 2C).

Remarks: Patients who (i) are most likely to benefit from thrombolysis (see text); (ii) have access to CDT; (iii) attach a high value to prevention of PTS; and (iv) attach a lower value to the initial complexity, cost, and risk of bleeding with thrombolytic therapy are likely to choose thrombolytic therapy over anticoagulation alone.

• In most patients with UEDVT that is associated with a central venous catheter, we suggest that the catheter not be removed if it is functional and there is an ongoing need for the catheter (Grade 2C).

• In patients with UEDVT that involves the axillary or more proximal veins, we suggest a minimum duration of anticoagulation of 3 months over a shorter period (Grade 2B).

• In patients who have UEDVT that is associated with a central venous catheter that is not removed, we recommend that anticoagulation is continued as long as the central venous catheter remains over stopping after 3 months of treatment in patients with cancer (Grade 1C), and we suggest this in patients with no cancer (Grade 2C).

Conclusion

• Know the CHEST recommendations.
  – It will help your patients
  – It will give you credibility with your medicine colleagues

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