### Risk Stratification and Recommendations for Bridge Therapy in Patients on Warfarin

<table>
<thead>
<tr>
<th>Risk Stratum and Recommendations for Use of Bridge Therapy</th>
<th>Indication for Anticoagulant Therapy</th>
<th>Low Ejection Fraction with Normal Sinus Rhythm</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Venous Thromboembolism</strong></td>
<td><strong>Atrial Fibrillation</strong></td>
<td><strong>Mechanical Heart Valve</strong></td>
</tr>
<tr>
<td><strong>HIGH RISK</strong></td>
<td><strong>CHA2DS2-VASc score of ≥7 OR</strong></td>
<td><strong>any mitral valve prosthesis</strong></td>
</tr>
<tr>
<td><strong>Recommendation:</strong></td>
<td><strong>prior stroke/TIA or systemic embolism within 3 months</strong></td>
<td><strong>any tricuspid valve prosthesis</strong></td>
</tr>
<tr>
<td><strong>Use bridging (Grade 2C)</strong></td>
<td><strong>Do not bridge if at increased risk of bleeding due to major bleed/ICH &lt; 3 months ago</strong></td>
<td><strong>older (caged-ball or tilting disc) aortic valve prosthesis</strong></td>
</tr>
<tr>
<td><strong>Determining bridging vs not bridging based on assessment of individual patient and surgery-related factors (Not Graded)</strong></td>
<td><strong>VTE within the past 3 to 12 months</strong></td>
<td><strong>bileaflet aortic valve prosthesis and any additional risk factor for stroke or thromboembolism (atrial fibrillation, prior stroke/TIA or thromboembolism, known hypercoagulable condition, LV dysfunction)</strong></td>
</tr>
<tr>
<td><strong>RISK MODERATE</strong></td>
<td><strong>CHA2DS2-VASc score of 5-6 OR</strong></td>
<td><strong>history of cardioembolic stroke or transient ischemic attack</strong></td>
</tr>
<tr>
<td><strong>Recommendation:</strong></td>
<td><strong>prior stroke/TIA or systemic embolism &gt; 3 months ago</strong></td>
<td><strong>history of mural thrombus with persistent risk factors (apical akinesia, LV aneurysm, dilated LV)</strong></td>
</tr>
<tr>
<td><strong>Determine bridging vs not bridging based on assessment of individual patient and surgery-related factors (Not Graded)</strong></td>
<td><strong>Do not bridge if there is no history of prior stroke/TIA or systemic embolism</strong></td>
<td><strong>Do not bridge if at increased risk of bleeding due to major bleed/ICH &lt; 3 months ago; platelet abnormality including aspirin use; INR above therapeutic range; prior bleed from previous bridging</strong></td>
</tr>
<tr>
<td><strong>LOW RISK</strong></td>
<td><strong>single VTE occurred greater than 12 months ago and no other risk factors</strong></td>
<td><strong>bileaflet aortic valve prosthesis without atrial fibrillation and with no other risk factors for stroke or thromboembolism</strong></td>
</tr>
<tr>
<td><strong>Recommendation:</strong></td>
<td><strong>CHA2DS2-VASc score of 1-4 AND</strong></td>
<td><strong>no history of mural thrombus</strong></td>
</tr>
<tr>
<td><strong>Do not use bridging (Grade 2C)</strong></td>
<td><strong>no prior stroke/TIA or systemic embolism</strong></td>
<td></td>
</tr>
</tbody>
</table>


**Recommendation:**

- **Clinical Practice Guidelines.**
  - **Edition.**
  - **American College of Chest Physicians Evidence Based Antithrombotic Therapy and Prevention of Thrombosis, 9**

**Determine bridging vs**

**Notes:**

- **Recent (within 3 months) VTE**
- **History of VTE or recurrent VTE in the setting of severe thrombophilia (e.g., protein C or S deficiency, antithrombin deficiency, antiphospholipid antibodies, homozygous factor V Leiden, or multiple abnormalities)**
- **Prior stroke/TIA or systemic embolism within 3 months**
- **Do not bridge if at increased risk of bleeding due to major bleed/ICH < 3 months ago**
- **VTE within the past 3 to 12 months**
- **Recurrent VTE**
- **History of VTE or recurrent VTE in the setting of non-severe thrombophilic conditions (e.g., heterozygous factor V Leiden, heterozygous factor II mutation)**
- **Active cancer (treated within 6 months or palliative)**
- **Obstructive venous disease**
- **Recent (within 3 months) stroke or transient ischemic attack**
- **History of mural thrombus**
- **Recent (within 3 months) surgery related to bleeding**
- **Recent (within 3 months) other risk factors**

**LOW RISK**

- **Recommendation:**
  - **Do not use bridging (Grade 2C)**
  - **No history of mural thrombus**

**RISK MODERATE**

- **Recommendation:**
  - **Determine bridging vs not bridging based on assessment of individual patient and surgery-related factors (Not Graded)**
  - **Do not bridge if there is no history of prior stroke/TIA or systemic embolism**
  - **Do not bridge if at increased risk of bleeding due to major bleed/ICH < 3 months ago; platelet abnormality including aspirin use; INR above therapeutic range; prior bleed from previous bridging**

**HIGH RISK**

- **Recommendation:**
  - **Use bridging (Grade 2C)**
  - **Consider delaying procedure beyond 3 months if prior stroke/TIA or systemic embolism within 3 months.**
  - **Do not bridge if at increased risk of bleeding due to major bleed/ICH < 3 months ago**

**Notes:**

- **Recent (within 3 months) VTE**
- **History of VTE or recurrent VTE in the setting of severe thrombophilia (e.g., protein C or S deficiency, antithrombin deficiency, antiphospholipid antibodies, homozygous factor V Leiden, or multiple abnormalities)**
- **Prior stroke/TIA or systemic embolism within 3 months**
- **Do not bridge if at increased risk of bleeding due to major bleed/ICH < 3 months ago**
- **VTE within the past 3 to 12 months**
- **Recurrent VTE**
- **History of VTE or recurrent VTE in the setting of non-severe thrombophilic conditions (e.g., heterozygous factor V Leiden, heterozygous factor II mutation)**
- **Active cancer (treated within 6 months or palliative)**
- **Obstructive venous disease**
- **Recent (within 3 months) stroke or transient ischemic attack**
- **History of mural thrombus**
- **Recent (within 3 months) surgery related to bleeding**
- **Recent (within 3 months) other risk factors**

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