

## RISK STRATIFICATION AND RECOMMENDATIONS FOR BRIDGE THERAPY IN PATIENTS ON WARFARIN

Risk Stratum and Recommendations for Use of Bridge Therapy	Indication for Anticoagulant Therapy			
	Venous Thromboembolism	Atrial Fibrillation	Mechanical Heart Valve	Low Ejection Fraction with Normal Sinus Rhythm
<i>from Peri-operative management of antithrombotic therapy: Antithrombotic Therapy and Prevention of Thrombosis, 9<sup>th</sup> Edition. American College of Chest Physicians Evidence Based Clinical Practice Guidelines. Chest 2012; 141 (suppl 2): e326s – e350s.</i>		<i>from 2017 ACC Expert Consensus Decision Pathway for Peri-Operational Management of Anticoagulation in Patients with Non-Valvular AF. JACC 2017;69:</i>	<i>from 2014 AHA/ACC Guideline for the Management of Patients with Valvular Heart Disease. JACC 2014; 63:e57-e185:</i>	<i>from UW Medicine Division of Cardiology</i>
<p><b>HIGH RISK</b></p> <p><u>Recommendation:</u></p> <p><b>Use bridging (Grade 2C)</b></p>	<ul style="list-style-type: none"> <li>recent (within 3 months) VTE</li> <li>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)</li> </ul>	<ul style="list-style-type: none"> <li>CHA<sub>2</sub>DS<sub>2</sub>-VASc score of <math>\geq 7</math></li> <li><b>OR</b></li> <li>prior stroke/TIA or systemic embolism within 3 months</li> </ul> <p><b>Consider delaying procedure beyond 3 months if prior stroke/TIA or systemic embolism within 3 months.</b></p> <p><b>Do not bridge if at increased risk of bleeding due to major bleed/ICH &lt; 3 months ago</b></p>	<ul style="list-style-type: none"> <li>any mitral valve prosthesis</li> <li>any tricuspid valve prosthesis</li> <li>older (caged-ball or tilting disc) aortic valve prosthesis</li> <li>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)</li> </ul>	<ul style="list-style-type: none"> <li>mural thrombus present on echo</li> <li>documented mural thrombus in the past 3 months</li> <li>recent (within 3 months) stroke or transient ischemic attack</li> </ul>
<p><b>RISK MODERATE</b></p> <p><u>Recommendation:</u></p> <p><b>Determine bridging vs not bridging based on assessment of individual patient and surgery-related factors (Not Graded)</b></p>	<ul style="list-style-type: none"> <li>VTE within the past 3 to 12 months</li> <li>recurrent VTE</li> <li>history of VTE or recurrent VTE in the setting of non-severe thrombophilic conditions (e.g., heterozygous factor V Leiden, heterozygous factor II mutation)</li> <li>active cancer (treated within 6 months or palliative)</li> </ul> <p><i>NOTE: consider VTE prophylaxis rather than full intensity bridge therapy in these situations and is associated with a lower risk of bleeding</i></p>	<ul style="list-style-type: none"> <li>CHA<sub>2</sub>DS<sub>2</sub>-VASc score of 5-6</li> <li><b>OR</b></li> <li>prior stroke/TIA or systemic embolism &gt; 3 months ago</li> </ul> <p><b>Do not bridge if there is no history of prior stroke/TIA or systemic embolism</b></p> <p><b>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</b></p>		<ul style="list-style-type: none"> <li>history of cardioembolic stroke or transient ischemic attack</li> <li>history of mural thrombus with persistent risk factors (apical akinesis, LV aneurysm, dilated LV)</li> </ul>
<p><b>LOW RISK</b></p> <p><u>Recommendation:</u></p> <p><b>Do not use bridging (Grade 2C)</b></p>	<ul style="list-style-type: none"> <li>single VTE occurred greater than 12 months ago and no other risk factors</li> </ul>	<ul style="list-style-type: none"> <li>CHA<sub>2</sub>DS<sub>2</sub>-VASc score of 1-4</li> <li><b>AND</b></li> <li>no prior stroke/TIA or systemic embolism</li> </ul>	<ul style="list-style-type: none"> <li>bileaflet aortic valve prosthesis without atrial fibrillation and with no other risk factors for stroke or thromboembolism</li> </ul>	<ul style="list-style-type: none"> <li>no history of mural thrombus</li> </ul>