VHD

VHD GUIDELINE TOOL: ANTITHROMBOTIC THERAPY IN PATIENTS WITH VALVULAR HEART DISEASE

Based on the 2017 AHA/ACC Focused Update of the 2014 Guideline on the Management of Patients With Valvular Heart Disease

Use this table to recognize new and to reinforce existing recommendations on the prevention and treatment of thrombosis in patients with valvular heart disease.

CLASS OF RECOMMENDATION	ATRIAL FIBRILLATION WITH UNDERLYING VHD	PROSTHETIC HEART VALVES	PROSTHETIC VALVE THROMBOSIS
CLASS I (STRONG)	**NO CHANGE:** Among patients with atrial fibrillation and rheumatic mitral stenosis, anticoagulation with a VKA is still indicated. **NEW:** Anticoagulation should be used among patients with atrial fibrillation and a CHA_2DS_2-VASc score ≥2 in the setting of native aortic valve disease, tricuspid valve disease, or MR.	**NO CHANGE:** There are unchanged recommendations for use of a VKA to achieve an INR 2.5 (range 2.0-3.0) for bileaflet or current-generation tilting disk mechanical aortic prostheses in the absence of additional TE risks†, INR 3.0 (range 2.5-3.5) for mitral mechanical prostheses or for aortic valve mechanical prostheses plus additional TE risks. **NO CHANGE:** There are unchanged recommendations for use of a VKA plus aspirin 75-100 mg among patients with a mechanical valve prosthesis.	**NO CHANGE:** Urgent initial treatment with either slow-infusion low-dose fibrinolytic therapy or emergency surgery is recommended for patients with a thrombosed left-sided mechanical prosthetic heart valve presenting with symptoms of valve obstruction.
CLASS IIA (MODERATE)	**NEW:** The use of a DOAC is reasonable among patients with native aortic valve disease, tricuspid valve disease, or MR; and atrial fibrillation with a CHA_2DS_2-VASc score ≥2.	**NO CHANGE:** Anticoagulation with a VKA to achieve an INR of 2.5 is reasonable for at least 3 months and as long as 6 months after surgical bioprosthetic MVR or AVR in patients at low risk for bleeding. **NO CHANGE:** There are unchanged recommendations for the use of a VKA plus aspirin 75-100mg daily among patients with a bioprosthetic aortic or mitral valve.	**NEW:** Initial treatment with a VKA is reasonable among hemodynamically stable patients with suspected or confirmed bioprosthetic valve thrombosis and no contraindication to anticoagulation.
CLASS IIB (WEAK)		**NEW:** There is a new consideration for a lower INR target of 1.5-2.0 for patients with an On-X bileaflet mechanical aortic valve and no additional TE risks† after an initial 3 months of conventional INR targets of 2.0-3.0. **NEW:** A VKA (INR target 2.5) may be reasonable for at least 3 months after TAVR in patients at low risk for bleeding.	
CLASS III: NO BENEFIT (MODERATE)			
CLASS III: HARM (STRONG)		**NO CHANGE:** Anticoagulant therapy with oral direct thrombin inhibitors or anti-Xa agents should not be used in patients with mechanical valve prostheses.	

VKA indicates Vitamin K Antagonist; MR indicates Mitral Regurgitation; TE indicates Thromboembolic; DOAC indicates Direct Oral Anticoagulant; INR indicates International Normalized Ratio; TAVR indicates Transcatheter Aortic Valve Replacement.

†Thromboembolic Risks include: AF, previous thromboembolism, LV dysfunction, or hypercoagulable conditions.

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This tool can also be found within ACC's Guideline Clinical App under the Valvular Heart Disease (VHD) section. Download at ACC.org/apps.