

## **Clinical FAQ: Valves ASA with VKA for MHV**

### ***Should low-dose aspirin be used routinely in addition to a vitamin k antagonist (VKA) in patients with mechanical heart valves (MHV)?***

Prior to the release of the 2020 ACC/AHA Valvular Heart Disease Guidelines, aspirin was routinely recommended in addition to a VKA in patients with MHV per 2014 ACC/AHA and 2012 CHEST guidelines. However, this stance has recently changed. The 2020 ACC/AHA Guidelines state "for patients with a mechanical surgical aortic valve replacement or mitral valve replacement who are managed with a VKA and have an indication for antiplatelet therapy, adding aspirin 75 to 100 mg daily may be considered when the risk of bleeding is low." The guidelines state the prior recommendation to add aspirin to a VKA for MHV was based on studies performed decades ago that included many patients with older-generation valves who also had thromboembolic and vascular risk factors. A 2013 Cochrane Systematic Review using low quality evidence showed that the addition of antiplatelet therapy to a VKA reduced the risk of thromboembolic events and the total mortality rate but at the cost of increased major bleeding. An individualized approach that takes the risk of bleeding into account is recommended.

There is however one mechanical valve for which addition of low-dose aspirin to a VKA is routinely recommended. The 2020 ACC/AHA guidelines state that for mechanical On-X aortic valve replacements, a VKA targeted to a lower INR goal (1.5-2.0) may be reasonable starting 3 months after surgery with low-dose aspirin used concomitantly.

The guidelines also comment on patients with MHV that experience thromboembolic events in the setting of a therapeutic INR. Guidelines state is it reasonable to increase the INR goal range or add low-dose aspirin with assessment of bleeding risk.

### **Resources**

- Otto C, Nishimura R, Bonow R, et al. 2020 ACC/AHA guideline for the management of patients with valvular heart disease: A report of the American college of cardiology/American heart association joint committee on clinical practice guidelines. Circulation. 2021; 143(5):e72-e227.
- Massel D, Little S. Antiplatelet and anticoagulation for patients with prosthetic heart valves. Cochrane Database Syst Rev. 2013 Jul; 2013(7):CD003464.
- Puskas J, Gerdisch M, Nichols D, et al. Reduced anticoagulation after mechanical aortic valve replacement: interim results from the prospective randomized on-X valve anticoagulation clinical trial randomized Food and Drug Administration investigational device exemption trial. J Thorac Cardiovasc Surg. 2014; 147:1202–10.



Anticoagulation  
**FORUM**

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