

Antithrombotic and Anticoagulant Therapy with Cardiac Devices

References

Special Guest: Craig Beavers, PharmD, FACC, FAHA, FCCP, BCCP, BCPS (AQ-Cardiology), CACP

Guidelines/Background Reading

Parissis H, Graham V, Lampridis S, et al. IABP: history-evolution-pathophysiology-indications: what we need to know. *J Cardiothorac Surg.* 2016; 11(1): 122.

<https://pubmed.ncbi.nlm.nih.gov/27487772/>

Allender JE, Reed BN, Foster JL, et al. Pharmacologic Considerations in the Management of Patients Receiving Left Ventricular Percutaneous Mechanical Circulatory Support.

Pharmacotherapy 2017; 37(10): 1272-1283. <https://pubmed.ncbi.nlm.nih.gov/28741848/>

Otto CM, Kumbhani DJ, Alexander KP, et al. 2017 ACC Expert Consensus Decision Pathway for Transcatheter Aortic Valve Replacement in the Management of Adults With Aortic Stenosis: A Report of the American College of Cardiology Task Force on Clinical Expert Consensus Documents. *J Am Coll Cardiol* 2017; 69(10): 1313-1346.

<https://pubmed.ncbi.nlm.nih.gov/28063810/>

Power DA, Guedeney P, Dangas GD. Adjunct Pharmacotherapy After Transcatheter Aortic Valve Replacement: Current Status and Future Directions. *Interv Cardiol Clin.* 2019; 8(4): 357-371. <https://pubmed.ncbi.nlm.nih.gov/31445720/>

Kalich BA, Allender JE, Hollis IB. Medication Management of Patients Undergoing Transcatheter Aortic Valve Replacement. *Pharmacotherapy.* 2018; 38(1): 122-138.

<https://pubmed.ncbi.nlm.nih.gov/29121410/>

Nishimura RA, Otto CM, Bonow RO, et al. 2017 AHA/ACC Focused Update of the 2014 AHA/ACC Guideline for the Management of Patients With Valvular Heart Disease: A Report of the American College of Cardiology/American Heart Association Task Force on Clinical Practice Guidelines. *J Am Coll Cardiol.* 2017; 70(2): 252-289.

<https://pubmed.ncbi.nlm.nih.gov/28315732/>

Baumgartner H, Falk V, Bax JJ, et al. 2017 ESC/EACTS Guidelines for the management of valvular heart disease. *Eur Heart J* 2017; 38(36): 2739-2791.

<https://pubmed.ncbi.nlm.nih.gov/28886619/>

Rihal CS, Naidu SS, Givertz MM, et al. 2015 SCAI/ACC/HFSA/STS Clinical Expert Consensus Statement on the Use of Percutaneous Mechanical Circulatory Support Devices in Cardiovascular Care: Endorsed by the American Heart Association, the Cardiological Society of India, and Sociedad Latino Americana de Cardiologia Intervencion; Affirmation of Value by the Canadian Association of Interventional Cardiology-Association Canadienne de Cardiologie d'intervention. 2015; 65(19): e7-e26. <https://pubmed.ncbi.nlm.nih.gov/25861963/>

Succar L, Sulaica EM, Donahue KR, et al. Management of Anticoagulation with Impella® Percutaneous Ventricular Assist Devices and Review of New Literature. *J Thromb Thrombolysis*. 2019; 48(2): 284-291. <https://pubmed.ncbi.nlm.nih.gov/30877619/>

Studies Discussed During the Episode

Thiele H, Zeymer U, Neumann FJ, et al. Intraaortic Balloon Support for Myocardial Infarction with Cardiogenic Shock. *N Eng J Med* 2012; 367(14): 1287-1296. <https://pubmed.ncbi.nlm.nih.gov/22920912/>

Blum EC, Martz CR, Selektor Y, et al. Anticoagulation of Percutaneous Ventricular Assist Device Using Argatroban-Based Purge Solution: A Case Series. *J Pharm Pract* 2018; 31(5): 514-518. <https://pubmed.ncbi.nlm.nih.gov/28830286/>

Dietrich JN, Kazmi H. Bleeding Risks in Patients on Percutaneous Ventricular Assist Devices Receiving Two Different Dextrose Concentrations of Heparinized Purge Solution: A Case Series. *J Pharm Pract*. 2019; 32(4): 464-469. <https://pubmed.ncbi.nlm.nih.gov/29439593/>

Reed BN, DiDomenico RJ, Allender JE, et al. Survey of Anticoagulation Practices with the Impella Percutaneous Ventricular Assist Device at High-Volume Centers. *J Interv Cardiol*. 2019; 2019: 3791307. <https://pubmed.ncbi.nlm.nih.gov/31772529/>

Adams DH, Popma JJ, Reardon MJ, et al. Transcatheter aortic-valve replacement with a self-expanding prosthesis. *N Eng J Med* 2014; 370: 1790-1798. <https://pubmed.ncbi.nlm.nih.gov/24678937/>

Popma JJ, Deeb GM, Yakubov SJ, et al. Transcatheter aortic-valve replacement with a self-expanding valve in low-risk patients. *N Eng J Med* 2019; 380(18): 1706-1715. <https://pubmed.ncbi.nlm.nih.gov/30883053/>

PHARMACY TO DOSE

THE CRITICAL CARE PODCAST 

Dangas GD, Tijssen JGP, Wöhrle J, et al. A Controlled Trial of Rivaroxaban after Transcatheter Aortic-Valve Replacement. *N Eng J Med*. 2020; 382(2): 120-129.

<https://pubmed.ncbi.nlm.nih.gov/31733180/>

Angiolillo DJ, Firstenberg MS, Price MJ, et al. Bridging antiplatelet therapy with cangrelor in patients undergoing cardiac surgery: a randomized controlled trial. *JAMA*. 202; 307(3): 265-274.

<https://pubmed.ncbi.nlm.nih.gov/22253393/>