










# Rhythm disorders in patients after a transcatheter aortic valve replacement procedure

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Transcatheter Aortic Valve Replacement (TAVI) is a minimally invasive procedure increasingly used to treat severe aortic stenosis, particularly in high-risk patients. However, a notable complication following TAVI is the occurrence of arrhythmias, including new-onset atrial fibrillation (AF) and conduction disturbances requiring permanent pacemaker implantation. The incidence of new-onset AF following TAVI is clinically significant. According to Jilaihawi *et al.* (2019)<sup>1</sup>, AF occurs in approximately 10-15% of patients post-TAVI, with a considerable impact on outcomes.<sup>1</sup> New-onset AF increases the risk of ischemic stroke, heart failure, and prolonged hospital stay. The predictors for AF after TAVI include older age, pre-existing heart conditions, and procedural factors like valve size and positioning. Management strategies focus on anticoagulation therapy to mitigate stroke risk and optimize rate or rhythm control to enhance patient outcomes. Chakravarty *et al.* (2017) highlight that one of the most frequent conduction disturbances after TAVI is atrioventricular block, leading to the need for permanent pacemaker implantation.<sup>2</sup> Pacemaker implantation rates vary depending on the type of valve used, with some studies showing rates as high as 20-30%. The need for a pacemaker is associated with increased morbidity, including longer hospital stays and a higher risk of heart failure. Risk factors for pacemaker implantation include pre-existing right bundle branch block, extensive calcification of the aortic valve, and deeper valve implantation during the procedure. In summary, the management of rhythm disturbances post-TAVI, including new-onset AF and conduction blocks requiring pacemakers, is essential for improving patient outcomes. Early identification of high-risk patients and adopting tailored therapeutic approaches are crucial for minimizing complications.

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## LITERATURE

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