

Transcatheter Aortic Valve Replacement

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Definition

Transcatheter aortic valve replacement (TAVR), also known as transcatheter aortic valve implantation [TAVI] is a minimally invasive procedure for the treatment of aortic stenosis. A bioprosthetic valve is implanted percutaneously in the orifice of the native aortic valve. There are two access routes for TAVI—transfemoral and transapical (involving thoracotomy).

Guideline

Members are eligible for TAVR coverage when the method of insertion and clinical indication are commensurate with the FDA's approval of the device and when the following criteria are met:

1. Severe native valve aortic stenosis or failure defined by ≥ 1 of the following:
 - a. Mean aortic valve gradient ≥ 40 mmHg
 - b. Peak jet velocity ≥ 4.0 m/s
 - c. Aortic valve area (AVA) < 0.8 cm²
 - d. AVA Index < 0.6 cm²/m²
2. Presence of symptomatic aortic stenosis

TAVR, as a repair to a previously implanted bio-prosthetic valve ("valve-in-valve") that has degenerated, is considered medically necessary for members at high or greater risk for open surgery (i.e., [Society of Thoracic Surgeons](#) operative risk score of ≥ 8 % or ≥ 15 % risk of mortality for surgical replacement).

Limitations/Exclusions

TAVR is not considered medically necessary for members with existing co-morbidities that would preclude the expected benefit from correction of the aortic stenosis.

Revision History

Oct. 8, 2021	Changed prerequisite language to “Presence of symptomatic aortic stenosis” instead of “Presence of New York Heart Association (NYHA) symptoms \geq class II symptomatic aortic stenosis”
Nov. 11, 2019	Removed surgical risk prerequisite
May 9, 2019	Added positive coverage for valve-in-valve repair to a previously implanted valve
Nov. 21, 2016	Removed provider and facility credentialing prerequisite

Applicable Procedure Codes

33361	Transcatheter aortic valve replacement (TAVR/TAVI) with prosthetic valve; percutaneous femoral artery approach
33362	Transcatheter aortic valve replacement (TAVR/TAVI) with prosthetic valve; open femoral artery approach
33363	Transcatheter aortic valve replacement (TAVR/TAVI) with prosthetic valve; open axillary artery approach
33364	Transcatheter aortic valve replacement (TAVR/TAVI) with prosthetic valve; open iliac artery approach
33365	Transcatheter aortic valve replacement (TAVR/TAVI) with prosthetic valve; transaortic approach (eg, median sternotomy, mediastinotomy)
33366	Transcatheter aortic valve replacement (TAVR/TAVI) with prosthetic valve; transapical exposure (eg, left thoracotomy)
33367	Transcatheter aortic valve replacement (TAVR/TAVI) with prosthetic valve; cardiopulmonary bypass support with percutaneous peripheral arterial and venous cannulation (eg, femoral vessels) (List separately in addition to code for primary procedure)
33368	Transcatheter aortic valve replacement (TAVR/TAVI) with prosthetic valve; cardiopulmonary bypass support with open peripheral arterial and venous cannulation (eg, femoral, iliac, axillary vessels) (List separately in addition to code for primary procedure)
33369	Transcatheter aortic valve replacement (TAVR/TAVI) with prosthetic valve; cardiopulmonary bypass support with central arterial and venous cannulation (eg, aorta, right atrium, pulmonary artery) (List separately in addition to code for primary procedure)
33370	Transcatheter placement and subsequent removal of cerebral embolic protection device(s), including arterial access, catheterization, imaging, and radiological supervision and interpretation, percutaneous (List separately in addition to code for primary procedure)

Applicable ICD-10 Diagnosis Codes

I06.0	Rheumatic aortic stenosis
I06.2	Rheumatic aortic stenosis with insufficiency
I06.8	Other rheumatic aortic valve diseases
I06.9	Rheumatic aortic valve disease, unspecified
I08.0	Rheumatic disorders of both mitral and aortic valves
I08.8	Other rheumatic multiple valve diseases
I08.9	Rheumatic multiple valve disease, unspecified
I35.0	Nonrheumatic aortic (valve) stenosis
I35.2	Nonrheumatic aortic (valve) stenosis with insufficiency
Q23.0	Congenital stenosis of aortic valve

References

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