The North Atlantic Treaty Organization and transcatheter aortic valve insertion

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Readers will be interested in the article on transcatheter aortic valve insertion from an international group of experts who provide somewhat of a North Atlantic Treaty Organization perspective on transcatheter aortic valve insertion (TAVI).¹ I found the article to be an in-depth discourse on the practice of TAVI encompassing 11,688 words, 89 references, 5 figures, and 1 table. The article clearly identifies the need for objective study in the areas of heart teams, patient selection, and outcomes as they relate to TAVI.

Thourani and colleagues¹ discuss the difficulties with the makeup and implementation of a heart team, as well as the unpublished metrics used to judge a team's value in clinical care. This is a well-reference article, but this section contains no references, and that reflects the paucity of available data. Is the 10-member heart team discussed in this article a necessity or expensive superfluity? Hitherto, heart teams in the United States have been a mandate of the Center for Medicare/Medicaid Services, an authorization wholeheartedly supported by the major societies in the guidelines, but with only Level of Evidence C.²⁻⁴ That mandate is fodder for the saying, In God we trust. All others must bring data.

More than half of the article is devoted to patient selection and outcomes. The fields are interrelated, with the extremes of comorbidity being generally correlated with poor outcomes—no matter how defined. The controversy is the subjective nature of the metrics used to characterize comorbidities. Undergoing dialysis is a hard data point, but such is not the case with other measures of comorbidity such as forced expiratory volume in 1 second, walk tests, and self-reported quality of life questionnaires, all of which are subject to influence by both patient effort and/or disposition.⁵ We should move to objective metrics to characterize comorbidities (eg, diffusing capacity of the lungs for carbon monoxide and psoas muscle size).

I further suggest that we transition from outcomes of failure to outcomes of success. We should borrow from the urology literature the pentalecta of success model, which may more accurately reflect patient expectations.⁶ The

The pentalecta of success following transcatheter aortic valve insertion.

Central Message

This editorial discusses the need for objective metrics of study in transcatheter aortic valve insertion and introduces the concept of a pentalecta of success as a model of measuring success.

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pentalecta of success could include the following 1-year metrics: a patient who is alive, without stroke, without new dialysis, without new pacemaker, and without mild or greater paravalvular regurgitation. Having such a patient-centered end point could allow identification of objective metrics of comorbidities that preclude the outcome.

The article by Thourani and colleagues¹ provides additional discussion on the issue of valve durability and the challenging procedure of transcatheter aortic valve-in-valve insertion, both of which are in need of objective measures of success. History has shown that TAVI can be done. The question now is, Should it be done? Let us bring the data.

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