American College of Cardiology–American Heart Association 2006 Guidelines for Mitral-Valve Operation.

Class I

- Mitral-valve surgery is recommended for symptomatic patients with acute severe mitral regurgitation. (Level of evidence: B)
- Mitral-valve surgery is beneficial for patients with chronic severe mitral regurgitation and NYHA functional class II, III, or IV symptoms in the absence of severe LV dysfunction (i.e., LVEF <30% or end-systolic dimension >55 mm). (Level of evidence: B)
- Mitral-valve surgery is beneficial for asymptomatic patients with chronic severe mitral regurgitation and mild-to-moderate LV dysfunction, an LVEF of 30 to 60%, or an end-systolic dimension ≥40 mm. (Level of evidence: B)
- Mitral-valve repair is recommended over mitral-valve replacement in the majority of patients with chronic severe mitral regurgitation who require surgery, and patients should be referred to surgical centers experienced in mitral-valve repair. (Level of evidence: C)

Class IIa

- Mitral-valve repair is reasonable, when performed in experienced surgical centers, for asymptomatic patients with chronic severe mitral regurgitation and preserved LV function (LVEF >60% and end-systolic dimension <40 mm), in whom the likelihood of successful repair without residual mitral regurgitation is >90%. (Level of evidence: B)
- Mitral-valve surgery is reasonable for asymptomatic patients with chronic severe mitral regurgitation, preserved LV function, and new-onset atrial fibrillation. (Level of evidence: C)
- Mitral-valve surgery is reasonable for asymptomatic patients with chronic severe mitral regurgitation, preserved LV function, and pulmonary hypertension (i.e., pulmonary-artery systolic pressure >50 mm Hg at rest or >60 mm Hg with exercise). (Level of evidence: C)
- Mitral-valve surgery is reasonable for patients with chronic severe mitral regurgitation due to a primary abnormality of the mitral apparatus, NYHA

functional class III or IV symptoms, and severe LV dysfunction (i.e., LVEF <30% or end-systolic dimension >55 mm), in whom mitral-valve repair is likely to be successful. (Level of evidence: C)

Class IIb

- Mitral-valve repair may be considered for patients with chronic severe mitral regurgitation due to severe LV dysfunction (i.e., LVEF <30%) who have persistent NYHA functional class III or IV symptoms, despite optimal therapy for heart failure, including biventricular pacing. (Level of evidence: C)

Class III

Mitral-valve surgery is not indicated for asymptomatic patients with mitral regurgitation and preserved LV function (i.e., LVEF >60% and end-systolic dimension <40 mm) for whom there is considerable doubt about the feasibility of repair. (Level of evidence: C)

Isolated mitral-valve surgery is not indicated for patients with mild or moderate mitral regurgitation. (Level of evidence: C)

* The table is adapted from Bonow and colleagues.

Bonow RO, Carabel lo BA, Kanu C, et al .

ACC/AHA 2006 guidelines for the management of patients with valvular heart disease: a report of the American College of Cardiology/American Heart Association Task Force on Practice Guidelines (writing committee to revise the 1998 Guidelines for the Management of Patients With Valvular Heart Disease): developed in collaboration with the Society of Cardiovascular Anesthesiologists: endorsed by the Society for Cardiovascular Angiography and Interventions and the Society of Thoracic Surgeons. Circulation 2006;114(5):e84-e231. [Erratum, Circulation 2007;115(5):e409.]

Levels of evidence are as follows:

B, evidence based on data from a single randomized trial or nonrandomized studies; and C, evidence based on a consensus opinion of experts, case studies, or the standard of care only.

LV denotes left ventricular, LVEF left ventricular ejection fraction, and NYHA New York Heart Association