Degenerative mitral regurgitation (MR) is a common disease in the aging population, but there is no known effective medical therapy for severe degenerative MR. Thus, surgery is the only definitive therapy for severe MR and the guidelines recommend that severe MR in symptomatic patients or asymptomatic patients with left ventricular (LV) dysfunction should be managed with surgery. However, the decision regarding surgical intervention in elderly patients remains a clinical dilemma, as advanced age has a major negative impact on the outcome of mitral valve (MV) surgery. The 2006 American College of Cardiology/American Heart Association (ACC/AHA) guidelines highlighted the high operative risks in the elderly and recommended that these patients should be treated medically unless severely symptomatic. Nevertheless, recent advances in MV surgery have led to decreases in operative mortality and the revised 2014 AHA/ACC guidelines removed the special considerations for the elderly and recommended that decisions regarding surgical intervention should be based on an individual risk–benefit analysis and should be done through the Heart Valve Team. It remains also unclear when asymptomatic patients with severe MR should undergo surgical intervention because randomized clinical trials comparing early surgery versus watchful waiting have not been performed. The benefit of early surgery has been suggested in prospective, observational studies, whereas a watchful waiting strategy seemed to be safe and effective in the other prospective study. The current ACC/AHA guidelines recommend early surgery for asymptomatic patients if the success rate of mitral valve repair is expected to exceed 90%, but the 2012 European Society of Cardiology (ESC) guidelines recommend watchful waiting for such patients.