


I'm not robot  reCAPTCHA

Open

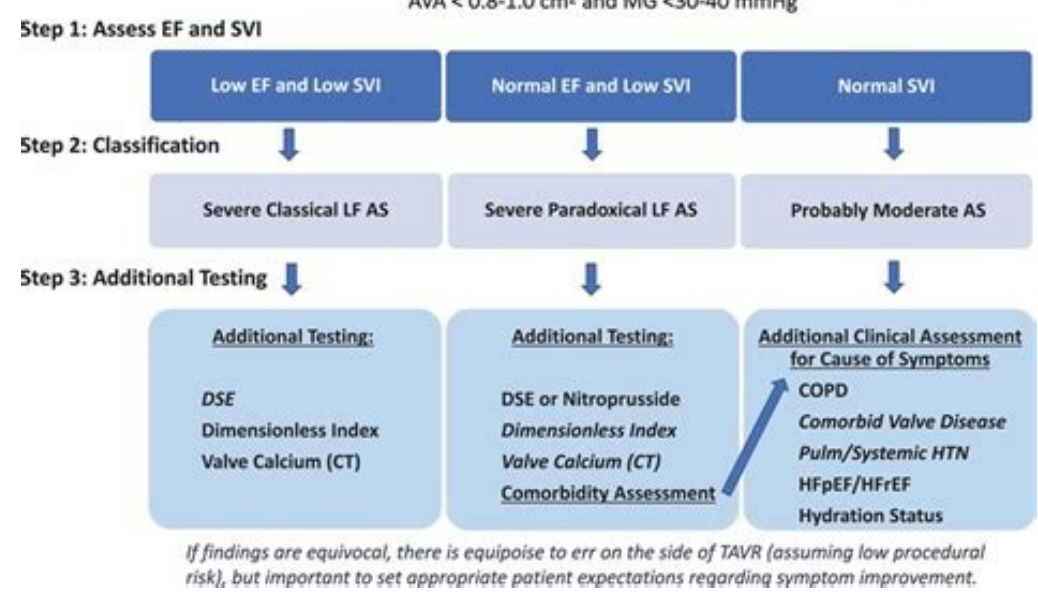
2014 ACC/AHA valve guidelines

Aligning definitions of aortic stenosis severity with treatment recommendations

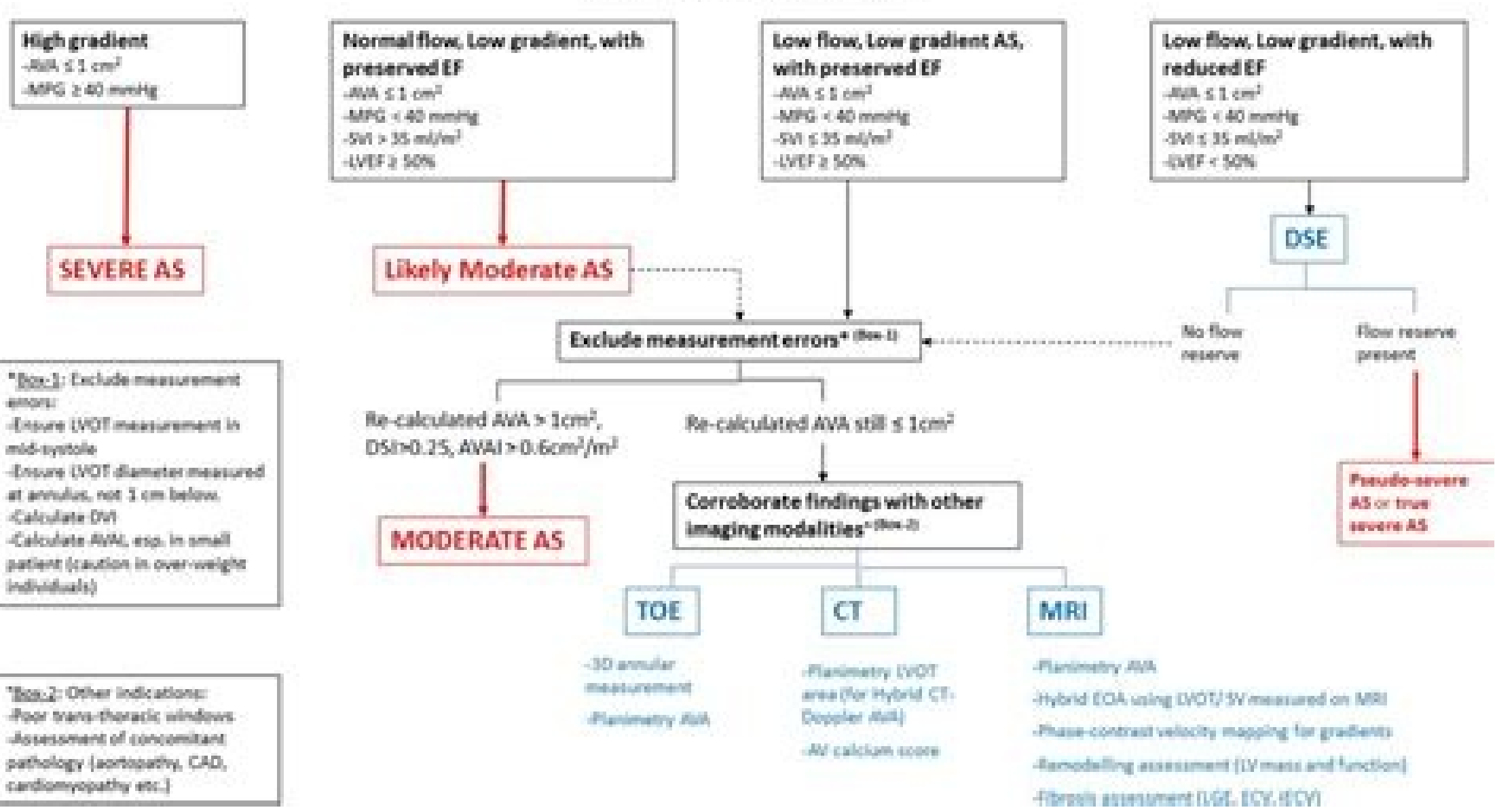
Catherine M. Otto, MD
 Editor-in-Chief, Heart
 J. Ward Kennedy-Hamilton Endowed Professor of Cardiology
 University of Washington
 Seattle USA

Low Gradient Aortic Stenosis Assessment Algorithm

AVA < 0.8-1.0 cm² and MG < 30-40 mmHg

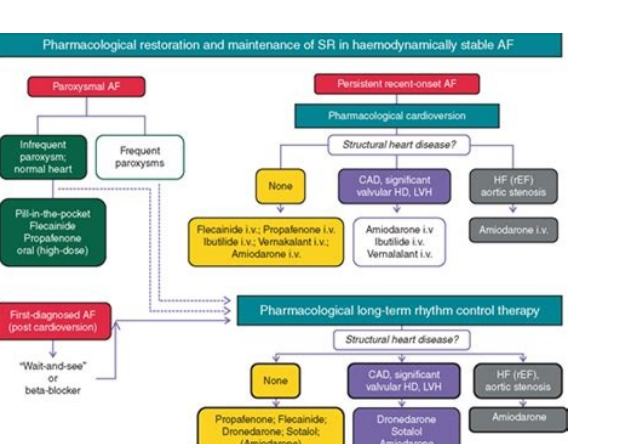


Use ESC 2017 Classification



Aspects to be considered by the Heart Team for the decision between SAVR and TAVI in patients at increased surgical risk

Aspect	SAVR	TAVI
Procedural mortality	~2-4%	~1-2%
Stroke	~2-4%	~3-5%
AKI	~1-2%	~3-5%
Paravalvular leak	~1-2%	~5-10%
Need for reoperation	~1-2%	~1-2%
Long-term durability	~10-15%	~10-15%
Quality of life	~1-2%	~1-2%
Cost-effectiveness	~1-2%	~1-2%



Perioperative bridging anticoagulation in patients with atrial fibrillation. :-:367 Twenty year follow-up after successful percutaneous balloon mitral valvuloplasty in a large contemporary series of patients with mitral stenosis. :-:550 Effectiveness of rescue percutaneous balloon aortic valvuloplasty in patients with severe aortic stenosis and acute heart failure. :-:241 Echocardiographic predictors of outcomes in adults with aortic stenosis. We recognise there is considerable interest in the use of age cut-offs to assist in the choice of intervention for aortic stenosis. :-:319 Atrial functional mitral regurgitation: JACC Review Topic of the Week. :-:010300.344 Impact of mitral regurgitation severity and left ventricular remodeling on outcome after MitraClip implantation: results from the Mitra-FR Trial. Lifelong prophylaxis should be considered in high-risk patients according to the severity of VHD and exposure to group A Streptococcus.92-95 4 Aortic regurgitation Aortic regurgitation can be caused by primary disease of the aortic valve cusps and/or abnormalities of the aortic root and ascending aortic geometry. :-:304 Transcatheter valve repair for patients with mitral regurgitation: 30-day results of the CLASP Study. Rivaroxaban in patients with atrial fibrillation and a bioprosthetic mitral valve. Asymptomatic patients, their family and medical carers need careful education, with emphasis on the importance of regular follow-up (ideally in a Heart Valve Clinic) and prompt reporting of symptoms. :-:417 Clinical presentation and outcome of tricuspid regurgitation in patients with systemic dysfunction. In contrast, tubular ascending aortic aneurysms in the presence of normal aortic valves require only a supracoarctal tube graft replacement. Other causes are rare, including congenital, carcinoid and drug-induced valve diseases, Whipple's disease, endocarditis, and large right atrial tumour. :-:64 Impact of preoperative chronic lung disease on survival after surgical aortic valve replacement. TTE usually provides sufficient information for routine management. Transcatheter aortic-valve replacement with a balloon-expandable valve in low-risk patients. e1-3.538 The impact of prosthesis-patient mismatch on long-term survival after aortic valve replacement: a systematic review and meta-analysis of 34 observational studies comprising 27 186 patients with 133 141 patient-years. This guidance should be re-addressed when further data concerning the long-term durability of TAVI become available. Balloon aortic valvuloplasty (BAV) may be considered as a bridge to TAVI or SAVR in patients with decompensated aortic stenosis and (when feasible) in those with severe aortic stenosis who require urgent high-risk non-cardiac surgery (NCS) (section 12). Although some studies have supported lowering a target INR for aortic MHVs,480,481 further evaluation in larger cohorts is warranted before updating current recommendations. :-:90 Jr. The Cox-Maze procedure for lone atrial fibrillation: a single-center experience over 2 decades. :-:450 Functional tricuspid regurgitation caused by chronic atrial fibrillation: a real-time 3-dimensional transesophageal echocardiography study. However, there is cumulative evidence showing that LV global longitudinal strain has incremental prognostic value in patients treated with surgical repair.283,284 Recently, the Mitral Regurgitation International Database (MIDA) score has been proposed to estimate the risk of all-cause mortality in patients with severe PMR due to flail leaflet, who are under medical treatment or surgically treated.285 Among the variables included in the score, LA diameter ≥55 mm and LVESD ≥40 mm are new thresholds that have been included in the current recommendations.Right heart catheterization is systematically used to confirm pulmonary hypertension diagnosed by echocardiography when this is the only criterion to refer the patient for surgery. 3.3.2 Other Factors Other factors should be taken into account:Frailty, defined as a decrease of physiologic reserve and ability to maintain homeostasis leading to an increased vulnerability to stresses and conferring an increased risk of morbidity and mortality after both surgery and TAVI.55 The assessment of frailty should not rely on a subjective approach, such as the 'eyeball test', but rather on a combination of defined objective estimates.55-59 Several tools are available for assessing frailty (Supplementary Table 2.59 and Supplementary Table 3).60Malnutrition61 and cognitive dysfunction62 both predict poor prognosis. Other major organ failures (Supplementary Table 4), in particular the combination of severe lung disease,63,64 postoperative pain from sternotomy or thoracotomy and prolonged time under anaesthesia in patients undergoing SAVR via full sternotomy, may contribute to pulmonary complications. After surgical mitral valve repair, high-volume centres have reported good durability with a recurrence rate of moderate or severe mitral regurgitation of 12.5% at 20 years of follow-up.296 After transcatheter mitral valve repair, the currently reported rates of residual moderate and severe mitral regurgitation (23-30%) would suggest that yearly echocardiogram is appropriate.14,300,301 6.1.5 Special populations Sex differences in terms of prevalence of underlying aetiology of PMR and management have been reported.298,315,316 Despite the reduction in the prevalence of rheumatic disease in Western countries, women still have higher rates of rheumatic mitral regurgitation than men and emerging aetiologies such as radiation heart disease are also more frequent in women.295 These aetiologies are often characterized by severe calcification of the mitral valve apparatus and associated with mitral stenosis precluding durable repair. Koskinas (Switzerland), Dajak Kotecha (United Kingdom), Ulf Landmesser (Germany), Basil S. Echocardiography plays an important role in the peri-procedural monitoring of PMR and follow-up. Intra-procedural TOE, preferably 3D, is used to guide transcatheter mitral and tricuspid valve procedures and to assess the immediate result of surgical valve operations. Its prevalence has greatly decreased in industrialized countries, but it remains a significant healthcare problem in developing countries and affects young patients.2,267,358 Degenerative mitral stenosis related to MAC is a distinct pathology and its prevalence significantly increases with age.359,360 Both types of mitral stenosis are more frequent in females.361 In rare cases, mitral stenosis due to valve rigidity but without commissural fusion, may be related to chest radiation, carcinoid heart disease, or inherited connective tissue disorders.3.2.3.5 Biomarkers B-type natriuretic peptide (BNP) serum levels, corrected for age and sex, are useful in asymptomatic patients and may assist selection of the appropriate time point for a given intervention.41 particularly if the level rises during follow-up. The Heart Team, including a heart failure specialist, should optimize guideline-directed medical therapy (GDMT) and consider the indications of electrophysiological, transcatheter and surgical interventions, their priority and order of implementation. 2.2 Methodology In preparation of the 2021 VHD Guidelines, a methodology group has been created for the first time, to assist the Task Force for the collection and interpretation of the evidence supporting specific recommendations. The management of patients with heart failure should follow the relevant guidelines and consensus documents.142,247 Recommendations on management of prosthetic valve dysfunction 12 Management during non-cardiac surgery Cardiovascular morbidity and mortality are increased in patients with VHD who undergo NCS. :-:11 Standards defining a 'Heart Valve Centre': ESC Working Group on Valvular Heart Disease and European Association for Cardiothoracic Surgery Viewpoint. Criteria for optimal timing of surgery in primary tricuspid regurgitation. b. :-:191 Prognostic effect of inappropriately high left ventricular mass in asymptomatic severe aortic stenosis. :-:281 Exercise-stress echocardiography and effort intolerance in asymptomatic patients with aortic stenosis. :-:295 Safety and efficacy of transcatheter aortic valve replacement in the treatment of pure aortic regurgitation in native valves and failing surgical bioprostheses: results from an International Registry Study. 3.2.1 Clinical evaluation Precise evaluation of the patient's history and symptomatic status, and proper physical examination, in particular auscultation21 and search for heart failure signs, are crucial. Statins (which demonstrated favourable effects in pre-clinical studies) do not affect disease progression246 and clinical trials targeting calcium metabolic pathways are ongoing. :-:151 Recommendations for participation in adolescent and adult athletes with Congenital Heart Disease (CHD): position statement of the Sports Cardiology & Exercise Section of the European Association of Preventive Cardiology (EAPC), the European Society of Cardiology (ESC) Working Group on Adult Congenital Heart Disease and the Sports Cardiology, Physical Activity and Prevention Working Group of the Association for European Paediatric and Congenital Cardiology (AEPC). In patients with either a first diagnosis or with LV diameter and/or ejection fraction showing significant changes or approaching thresholds for surgery, follow-up should be continued at 3-6-month intervals. :-:237 Predictors of mortality and symptomatic outcome of patients with low-flow severe aortic stenosis undergoing transcatheter aortic valve replacement. Progressive enlargement of the LV, or a progressive decrease in its function in asymptomatic patients not reaching the thresholds for surgery but with significant LV dilatation [left ventricular end-diastolic diameter (LVEDD) >65 mm], may also be an appropriate indicator for timing operations in asymptomatic patients.TAVI may be considered in experienced centres for patients with aortic regurgitation and ineligible for SAVR.119,120In patients with a dilated aorta, the rationale for surgery has been best defined in patients with Marfan syndrome and root dilation.121,122 Root aneurysms require root replacement, with or without preservation of the native aortic valve. :-:460 LOWERing the intensity of oral anticoagulant Therapy in patients with bileaflet mechanical aortic valve replacement: results from the 'LOWERING-IT' Trial. :-:499 RIVER Trial Investigators. ASA = acetylsalicylic acid; CCT = cardiac computed tomography; LV = intravenous; TOE = transoesophageal echocardiography; TE = thromboembolism; TTE = transthoracic echocardiography; UFH = unfractionated heparin. A session with Heart Team members of the TaskForce will provide insight during the 35th EACTS Annual Meeting in Barcelona on October 14th Rafael Sádaba, EACTS Secretary General, Friedhelm Beyersdorf, Chair of the EACTS Task Force for the ESC/EACTS Guidelines on Heart Valve Disease PDF Split View Article contents Figures & tables Video Audio Supplementary Data Guidelines, valvular heart disease, valve disease, valve surgery, percutaneous valve intervention, aortic stenosis, mitral regurgitation, mitral stenosis, tricuspid regurgitation, tricuspid stenosis, prosthetic heart valvesAll experts involved in the development of these guidelines have submitted declarations of interest. :-:504 European Association of Echocardiography recommendations for the assessment of valvular regurgitation. Circ Cardiovasc Qual Outcomes :-:71 Cardiovascular disease statistics from the European atlas: inequalities between high- and middle-income member countries of the ESC. New echocardiographic parameters, stress imaging and CCT provide important adjunctive information when severity is uncertain (Figure 3). :-:253 Characteristics and prognosis of patients with moderate aortic stenosis and preserved left ventricular ejection fraction. cSee recommendations on indications for PMR and mitral valve surgery in clinically significant mitral stenosis in section 7.2. dSurgery if symptoms occur for a low level of exercise and operative risk is low. :-:299 CCT assessment of the degree of valve calcification provides important additional information [thresholds (Aगतston integrative evaluation for quantification and risk stratification in patients with PMR. These guidelines should be a living document, updated as new data is made available with longer follow-up, particularly in the low-risk trials. Recommendations for evaluation of prosthetic valves with echocardiography and Doppler ultrasound: a report from the American Society of Echocardiography's Guidelines and Standards Committee and the Task Force on Prosthetic Valves, developed in conjunction with the American College of Cardiology Cardiovascular Imaging Committee, Cardiac Imaging Committee of the American Heart Association, the European Association of Echocardiography, a registered branch of the European Society of Cardiology, the Japanese Society of Echocardiography and the Canadian Society of Echocardiography, endorsed by the American College of Cardiology Foundation, American Heart Association, European Association of Echocardiography, a registered branch of the European Society of Cardiology, the Japanese Society of Echocardiography, and Canadian Society of Echocardiography. :-:139 The Ross procedure: a systematic review and meta-analysis. :-:362 EAE/ASE. Open in new tabDownload slideManagement of tricuspid regurgitation. In patients with aortic dilatation, CCT is recommended to assess the maximum diameter at four levels, as in echocardiography. Eur Heart J Cardiovasc Imaging :-:104 Comparative assessment of ascending aortic aneurysms in Marfan patients using ECG-gated computerized tomographic angiography versus trans-thoracic echocardiography. :-:138 Ross procedure vs mechanical aortic valve replacement in adults: a systematic

