Société Marocaine de Cardiologie

2017 ESC/EACTS Guidelines for the management of valvular heart disease

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My ESC Maroc 6 Octobre 2017

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2017 ESC/EACTS Guidelines for the management of valvular heart disease

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The Task Force for the Management of Valvular Heart Disease of the European Society of Cardiology (ESC) & the European Association for Cardio-Thoracic Surgery (EACTS)

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Classes of recommendations

Classes of recommendations	Definition	Suggested wording to use
Class I	Evidence and/or general agreement that a given treatment or procedure is beneficial, useful, effective.	Is recommended/ is indicated.
Class II	Conflicting evidence and/or a divergence of opinion about the usefulness/efficacy of the given treatment or procedure.	
Class IIa	*Weight of evidence/opinion is in favour of usefulness/efficacy.*	Should be considered.
Class IIb	*Usefulness/efficacy is less well established by evidence/opinion.*	May be considered.
Class III	Evidence or general agreement that the given treatment or procedure is not useful/effective, and in some cases may be harmful.	Is not recommended.

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Level of evidence

Level of evidence A	Data derived from multiple randomized clinical trials or meta-analyses.
Level of evidence B	Data derived from a single randomized clinical trial or large non-randomized studies.
Level of evidence C	Consensus of opinion of the experts and/or small studies, retrospective studies, registries.

Généralités

Interrogatoire et examen du patient

-symptômes?

-**terrain**, comorbidités, espérance de vie, « fragilité »

Echocardiographie

-**Sévérité de la valvulopathie / mécanisme / retentissement**

-autres lésions?

Evaluation à l'effort

-**réellement asymptomatique**?

-corrélation entre symptômes atypiques et la valvulopathie

Autres explorations: imagerie de coupe, coronarographie…

Prendre la décision au <u>cas / cas</u> en tenant compte de l'ensemble des éléments

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Indication opératoire?

- valvulopathie sévère et **symptômes**

- A

Si

-c

-c

- **Prendre la décision au <u>cas / cas</u>** en tenant compte de l'ensemble des éléments
- Heart team

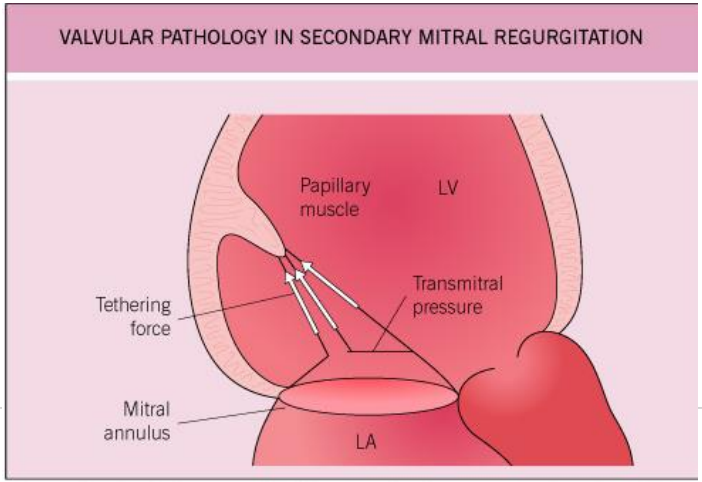
Insuffisance mitrale

IM Organique

- IM aigües

-IM chroniques

Secondaire



IM organiques **sévère** et **symptomatiques**

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Recommendations	Class	Level
Mitral valve repair should be the preferred technique when the results are expected to be durable.	I	C
Surgery is indicated in symptomatic patients with LVEF >30%.	I	B
Mitral valve replacement may be considered in symptomatic patients with severe LV dysfunction (LVEF <30% and/or LVESD >55 mm) refractory to medical therapy when likelihood of successful repair is low and comorbidity low.	IIb	C
Percutaneous edge-to-edge procedure may be considered in patients with symptomatic severe primary mitral regurgitation who fulfil the echocardiographic criteria of eligibility and are judged inoperable or at high surgical risk by the Heart Team, avoiding futility.	IIb	C

IM organiques sévère et **asymptomatiques**

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Attitude plus controversée: chirurgie précoce ou surveillance

Pas de données d'études randomisées montrant l'impact sur le pronostic d'une intervention

Chirurgie précoce

-**Risque de dégradation** de la fonction **VG**

-Dilatation de l'OG avec évolution vers la **FA**

-**Plastie mitrale** (valve native)

Surveillance

-Les IM chroniques peuvent être **très longtemps bien tolérées**

-**Surveillance régulière** permet de vérifier la bonne tolérance de la fuite **(Echographie)**

-**Examen à l'effort** permet de vérifier la bonne réserve fonctionnelle

-Le taux de succès de la plastie n'est pas de 100%

-La morbi-mortalité péri-opératoire n'est pas nulle

Eléments à considérer pour faire le bon choix

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Patient

-est il **vraiment asymptomatique** (test d'effort?)

-quel est le **risque opératoire** (comorbidités)

-autres facteurs: « psychologie »

La valve

-faisabilité de la plastie

-fuite massive?

Retentissement

-Echographie de repos (VG, OG, PAP)

-Evaluation à l'effort

L'équipe chirurgicale

-expérience du centre

Ce qui est consensuel

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Surgery is indicated in asymptomatic patients with LV dysfunction (LVESD ≥45 mm* and/or LVEF ≤60%).	I	B
Surgery should be considered in asymptomatic patients with preserved LV function (LVESD <45 mm and LVEF >60%) and atrial fibrillation secondary to mitral regurgitation or pulmonary hypertension (systolic pulmonary pressure at rest >50 mmHg**).	IIa	B

** Cut-offs refer to average-size adults and may require adaptation in patients with unusually small or large stature*
*** If an elevated SPAP is the only indication for surgery, the value should be confirmed by invasive measurement*

www.escardio.org/guidelines

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Autres cas:

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Recommendations	Class	Level
Surgery should be considered in asymptomatic patients with pre is li cen		C

- **Les prérequis**

-Faible risque opératoire

-Plastie faisable

-Equipe chirurgicale expérimentée

Hypertension pulmonaire à l'effort

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Hypertension pulmonaire d'effort (>60mmHg) rapportée comme facteur de mauvais pronostic mais a été **retirée des guidelines**:

- > 60mmHg **peut être physiologique à l'effort** en particulier > 60ans.

-paramètre **parfois difficile à obtenir**

-**pas d'études d'intervention**

Changes in recommendations

2012	2017
Indications for intervention in asymptomatic severe primary mitral regurgitation	
Pulmonary hypertension on exercise (SPAP ≥60 mmHg at exercise).	Taken out

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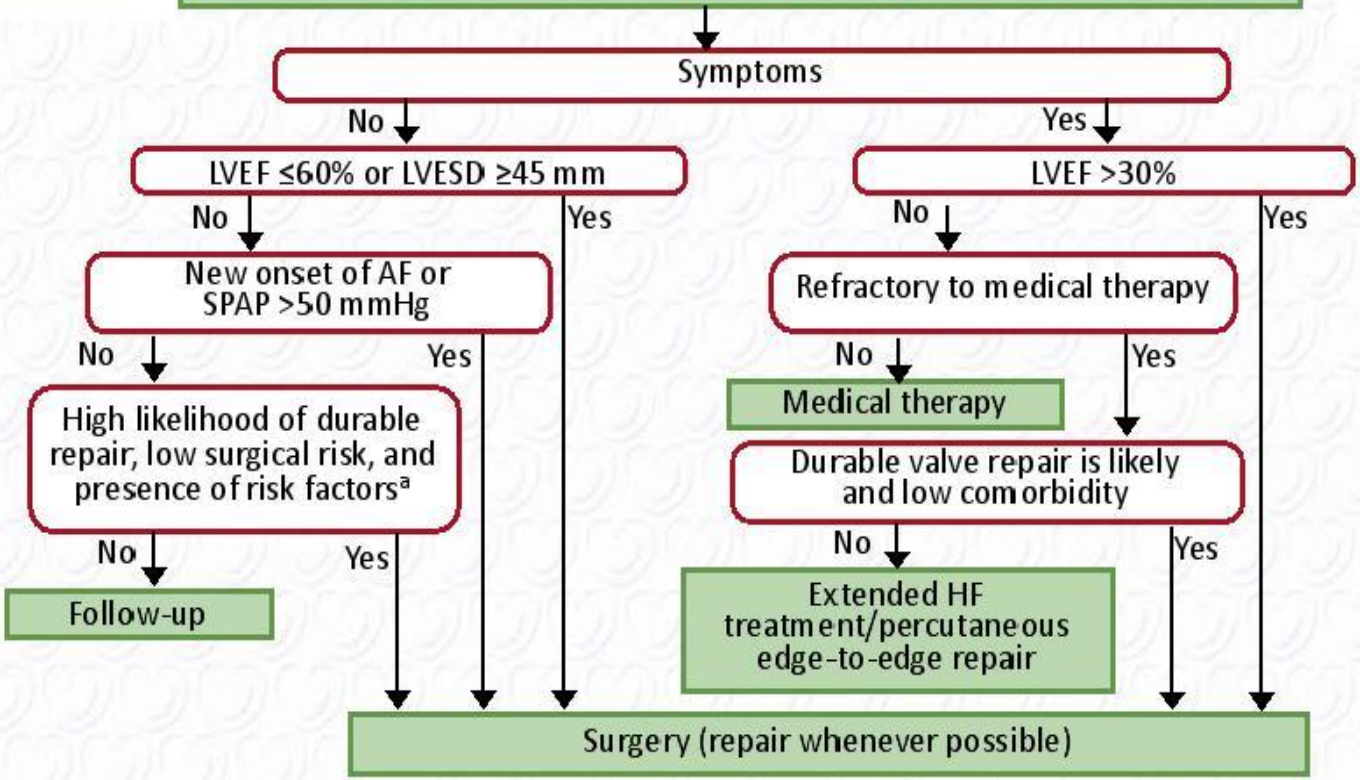
Management of severe chronic primary mitral regurgitation



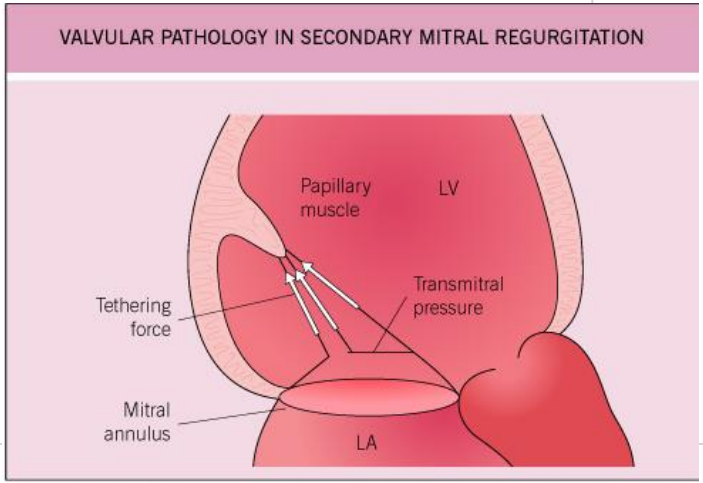
[a] LVESD ≥40 mm and one of the following present: flail leaflet or LA volume ≥60 mL/m² BSA at sinus rhythm

Les IM secondaires

-**Maladie du VG**

-**Pas de bénéfice de survie** démontré du traitement de l'IM (chirurgical ou par Mitra-clip).

-**Indications restrictives** à faible niveau de preuve



Indications for mitral valve intervention in chronic secondary mitral regurgitation

Recommendations	Class	Level
Surgery is indicated in patients with severe secondary mitral regurgitation undergoing CABG and LVEF >30%.	I	C
Surgery should be considered in symptomatic patients with severe secondary mitral regurgitation, LVEF <30% but with an option for revascularization, and evidence of myocardial viability.	IIa	C
When revascularization is not indicated, surgery may be considered in patients with severe secondary mitral regurgitation and LVEF >30%, who remain symptomatic despite optimal medical management (including CRT if indicated) and have a low surgical risk.	IIb	C

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Stepwise integrated approach for the assessment of aortic stenosis severity *(Modified from Baumgartner et al.)*

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Valve morphology by echocardiography suspicious of AS

↓

Assess velocity/gradient

LOW-GRADIENT AS
Vmax <4 m/s, ΔPm <40 mmHg

HIGH-GRADIENT AS
Vmax ≥4 m/s, ΔPm ≥40 mmHg

- **Faible gradient avec FEVG normale**

>> Vérifier les mesures

Stepwise integrated approach for the assessment of aortic stenosis severity (continued) - *(Modified from Baumgartner et al.)*

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Define flow status (SVi)

Define whether high flow status is reversible[a]

- **Faible gradient avec FEVG altérée sans réserve de débit à l'écho Dobutamine**

>> Penser au score calcique au TDM

Pseudosevere AS[b] or true severe AS

Calcium score by CT

[b]*Pseudosevere AS is defined by an increase to an AVA >1.0 cm² with flow normalization*

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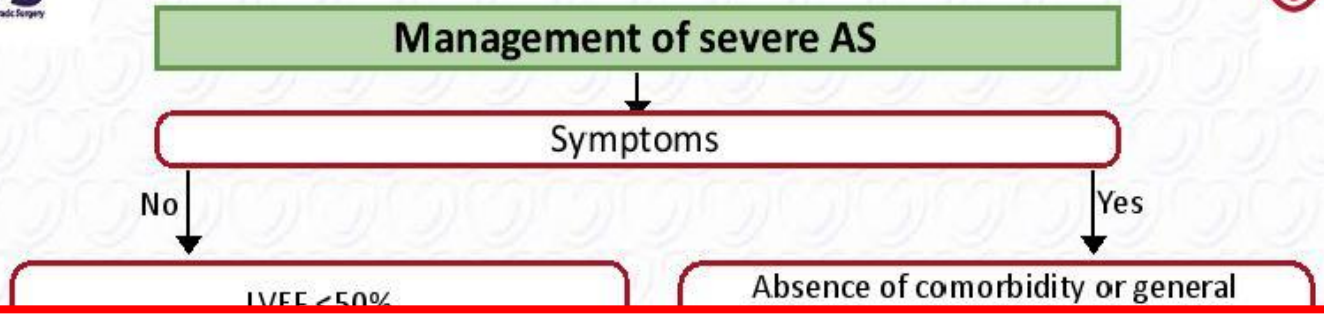


- **RAC serré asymptomatique**

>> Test d’effort

Indications for intervention in aortic stenosis and recommendations for the choice of intervention mode *(continued)*

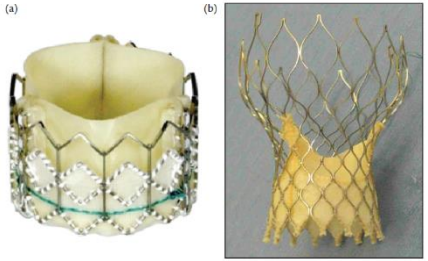
Recommendations	Class	Level
The choice for intervention must be based on careful individual evaluation of technical suitability and weighing of risks and benefits of each modality (aspects to be considered are listed in the according table). In	I	C

- **Chirurgie la référence pour**

>> Patients à faible risque

>> TAVI à discuter au cas par cas pour les autres cas

Aspects to by the Heart Team for the ween SAVR and TAVI in patied surgical risk



	Favours TAVI	Favours SAVR
Clinical characteristics		
STS/EuroSCORE II <4% (logistic EuroSCORE I<10%)		+
STS/EuroSCORE II ≥4% (logistic EuroSCORE I ≥10%)	+	
Presence of severe comorbidity (not adequately reflected by scores)	+	
Age <75 years		+
Age ≥75 years	+	
Previous cardiac surgery	+	

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

	Favours TAVI	Favours SAVR
Clinical characteristics *(continued)*		
Frailty	+	
Restricted mobility and conditions that may affect the rehabilitation process after the procedure	+	
Suspicion of endocarditis		+
Anatomical and technical aspects		
Favourable access for transfemoral TAVI	+	
Unfavourable access (any) for TAVI		+

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

	Favours TAVI	Favours SAVR
Anatomical and technical aspects *(continued)*		
Sequelae of chest radiation	+	
Porcelain aorta	+	
Presence of intact coronary bypass grafts at risk when sternotomy is performed	+	
Expected patient–prosthesis mismatch	+	
Severe chest deformation or scoliosis	+	
Short distance between coronary ostia and aortic valve annulus		+

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Aspects to be considered by the Heart Team for the decision between SAVR & TAVI in patients at increased surgical risk *(continued)*

	Favours TAVI	Favours SAVR
Anatomical and technical aspects *(continued)*		
Cardiac conditions in addition to aortic stenosis that require consideration for concomitant intervention		
Severe CAD requiring revascularization by CABG		+

- **Le choix** entre RVAo et TAVI **doit être <u>discuté au cas / cas</u>** en tenant compte des scores de risque, des caractéristiques cliniques et anatomiques

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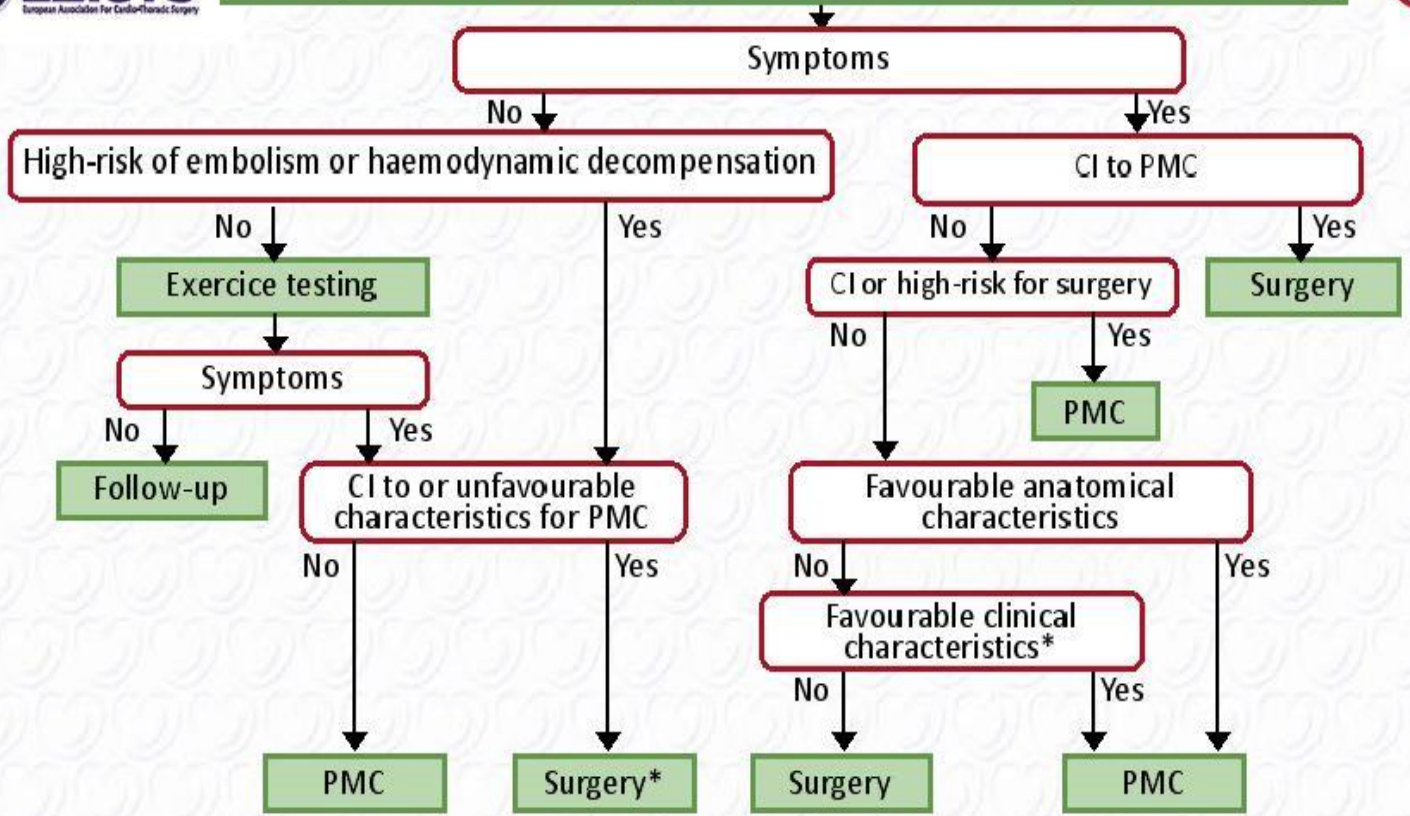
Management of clinically significant mitral stenosis (MVA <1.5 cm²)



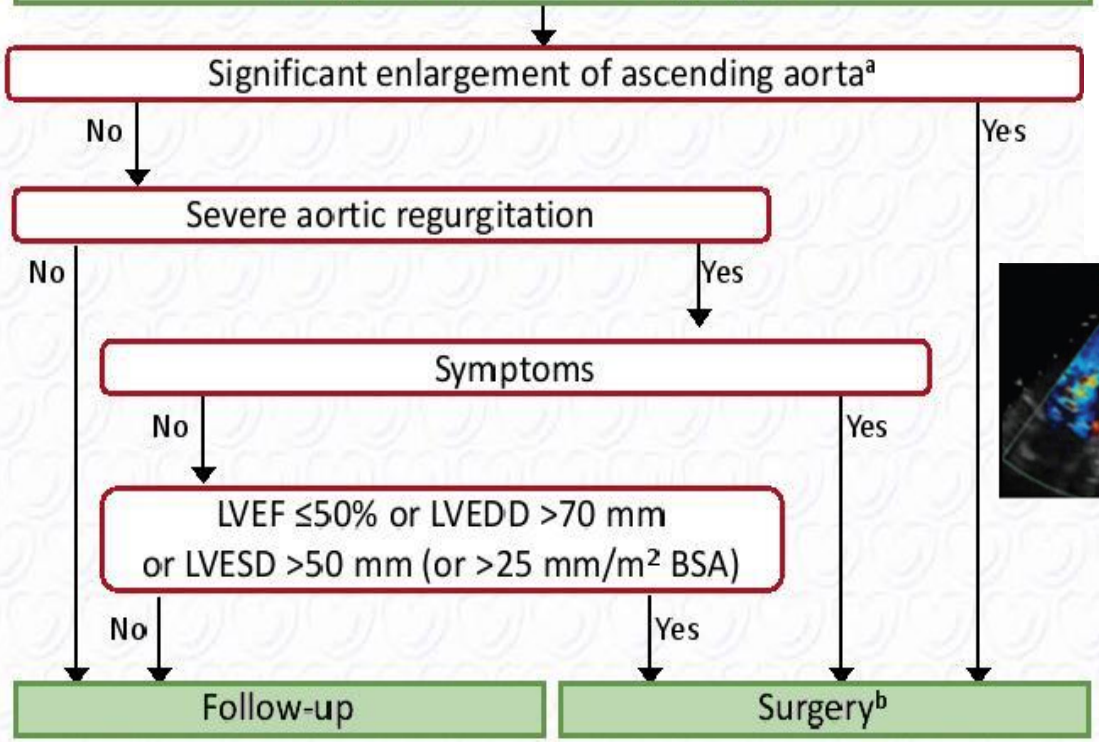
See table of recommendations **If symptoms occur for a low level of exercise and operative risk is low*

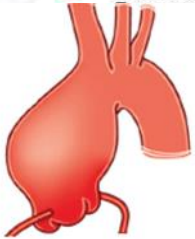
Indications for PMC and mitral valve Surgery in clinically significant mitral stenosis (≤1.5cm²)

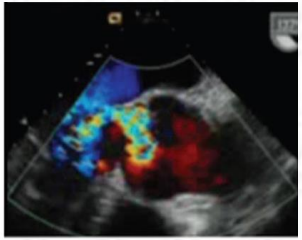
Recommendations	Class	Level
PMC is indicated in symptomatic patients without unfavourable characteristics for PMC.	I	B
PMC is indicated in any symptomatic patients with a contra-indication or a high-risk for surgery.	I	C
Mitral valve surgery is indicated in symptomatic patients who are not suitable for PMC.	I	C
PMC should be considered as initial treatment in symptomatic patients with suboptimal anatomy but no unfavourable clinical characteristics* for PMC.	IIa	C

* *Several of the following: old age, history of commissurotomy, NYHA class IV, Afib., pulm. hypertension*

Management of aortic regurgitation







[a] *See table of recommendations for definitions of aortic diameter*

[b] *Surgery should also be considered if significant changes in LV and aortic size occur during FU (see table)*

What is new in the 2017 Valvular Heart Disease Guidelines?

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2017 New recommendations
Indications for surgery in severe aortic regurgitation and aortic root disease
New I C recommendations: Heart Team discussion is recommended in selected patients in whom aortic valve repair may be a feasible alternative to valve replacement. • Aortic valve repair, using the reimplantation or remodelling with aortic annuloplasty technique, is recommended in young patients with aortic root dilation and tricuspid aortic valves, when performed by experienced surgeons.
New IIa C recommendation: Surgery should be considered in patients who have aortic root disease with maximal ascending aortic diameter: ≥45 mmin patients with a *TGFBR1* or*TGFBR2* mutation (including Loeys-Dietz syndrome)*.
* *A lower threshold of 40 mm may be considered in women with low BSA, in patients with a TGFBR2 mutation, or in patients with severe extra-aortic features.*

NACO et valves

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Management of atrial fibrillation in patients with VHD

Recommendations	Class[a]	Level[b]
Anticoagulation		
NOACs should be considered as an alternative to VKAs in patients with aortic stenosis, aortic regurgitation and mitral regurgitation presenting with atrial fibrillation.[38–41]	IIa	B
NOACs should be considered as an alternative to VKAs after the third month of implantation in patients who have atrial fibrillation associated with a surgical or transcatheter aortic valve bioprosthesis.	IIa	C
The use of NOACs is not recommended in patients with atrial fibrillation and moderate to severe mitral stenosis.	III	C
NOACS are contraindicated in patients with a mechanical valve.[45]	III	B

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