
ČESKÁ ASOCIACE **INTERVENČNÍ KARDIOLOGIE**

# Novinky z Doporučených postupů ESC 2025 pro chlopenní vady

**Petr Kala, FN Brno a LF MU**

Marian Branny FN Ostrava

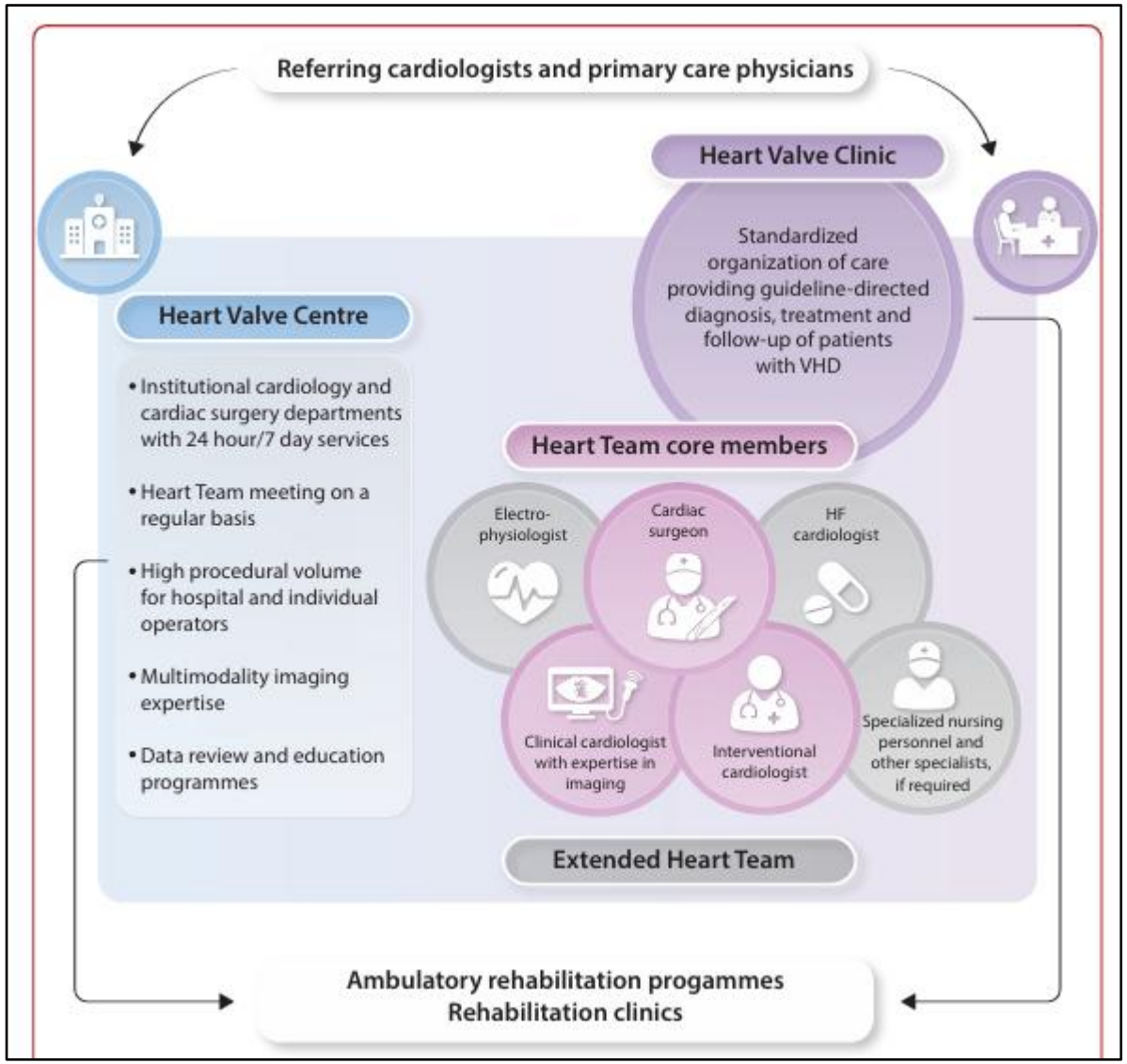
Brno, 10. května 2026

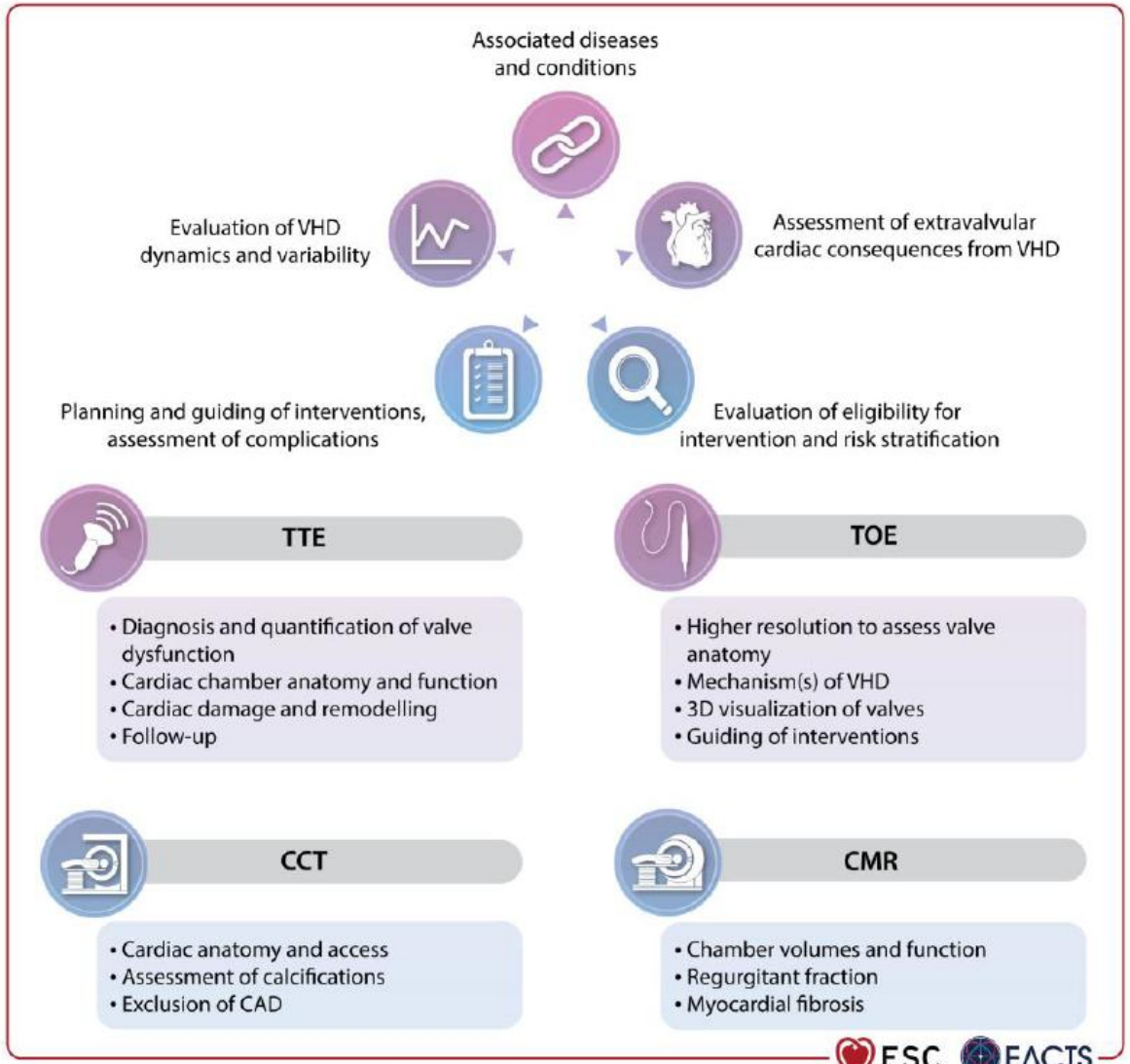
ESC European Society of Cardiology
European Heart Journal (2025) **00**, 1–102
https://doi.org/10.1093/eurheartj/ehaf194
ESC GUIDELINES

# 2025 ESC/EACTS Guidelines for the management of valvular heart disease

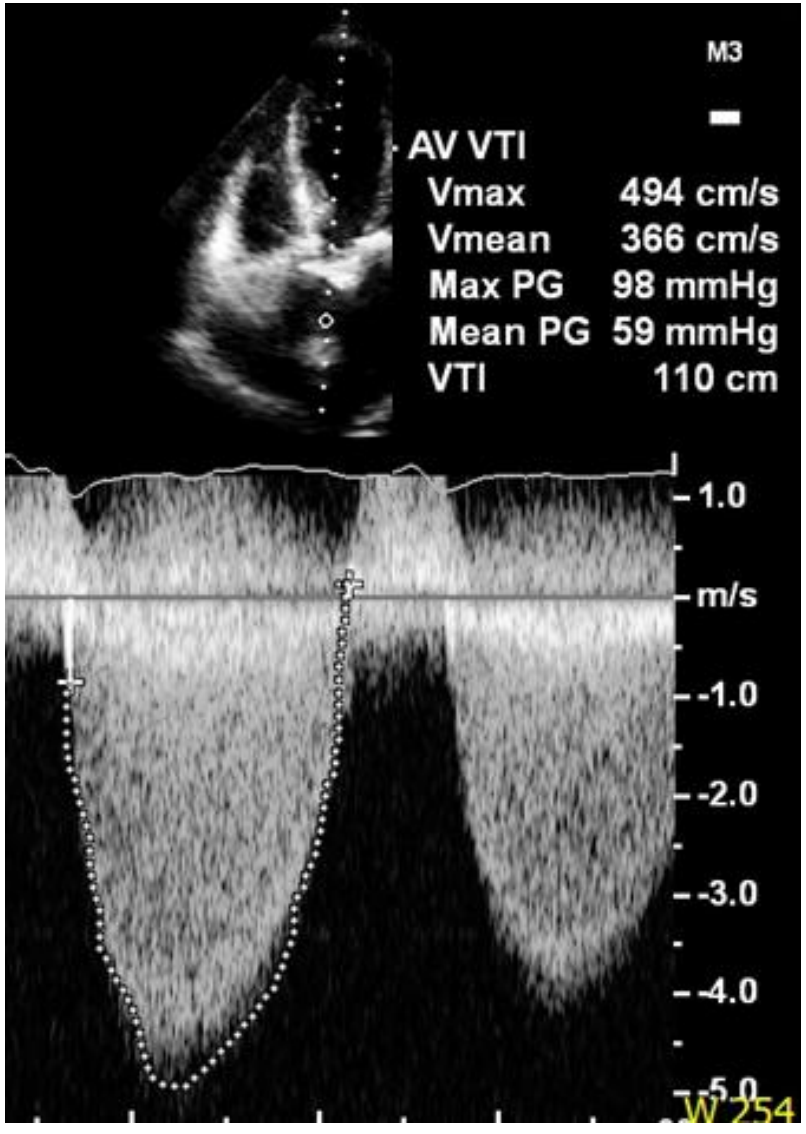
- Hlavní cíle:
  - Zjednodušit, zrychlit rozhodování a omezit nedostatečnou léčbu pacientů („undertreatment“)
  - Zdůraznit nutnost vytvoření dlouhodobého plánu péče o nemocné s chlopenními vadami
  - Centralizace péče do specializovaných center

# Centra pro léčbu chlopenních vad, specializované týmy, síť spolupracuiících pracovišť



# Aortální stenóza (AS)



# Aortální stenóza v roce 2025 – TAVI / SAVR

2021

| Recommendations in 2021 version | Class | Level |
|---|---|---|
| ***Mode of intervention in aortic stenosis*** | | |
| TAVI is recommended in older patients (≥75 years), or in those who are high risk (STS-PROM/EuroSCORE II >8%) or unsuitable for surgery. | I | A |
| SAVR is recommended in younger patients who are low risk for surgery (<75 years and STS-PROM/EuroSCORE II <4%), or in patients who are operable and unsuitable for transfemoral TAVI. | I | B |

2025

| Recommendations in 2025 version | Class | Level |
|---|---|---|
| TAVI is recommended in patients years of age with is, if the a. | I | A |
| SAVR is recommended in patients years of age, if | I | B |

# Aortální stenóza v roce 2025

- Výběr způsobu intervence
  - **Katetrizační léčba**: u pacientů ≥ 70 let (bez ohledu na operační riziko): **TAVI (IA)**
  - **Chirurgie**: jistě u pacientů < 70 let a s nízkým rizikem operace: **SAVR (IB)**
  - Všichni **ostatní pacienti**: < 70 let, střední/vysoké riziko **TAVI / SAVR (IB)**
- Doporučuje **Heart Team**, respektuje **přání pacienta** **(IC)**

*Pozn.: jasná data jsou pro TF přístup a trojcípou Ao chlopeň*

# Aortální stenóza v r. 2025 – ASYMPTOMATICKÁ

2025

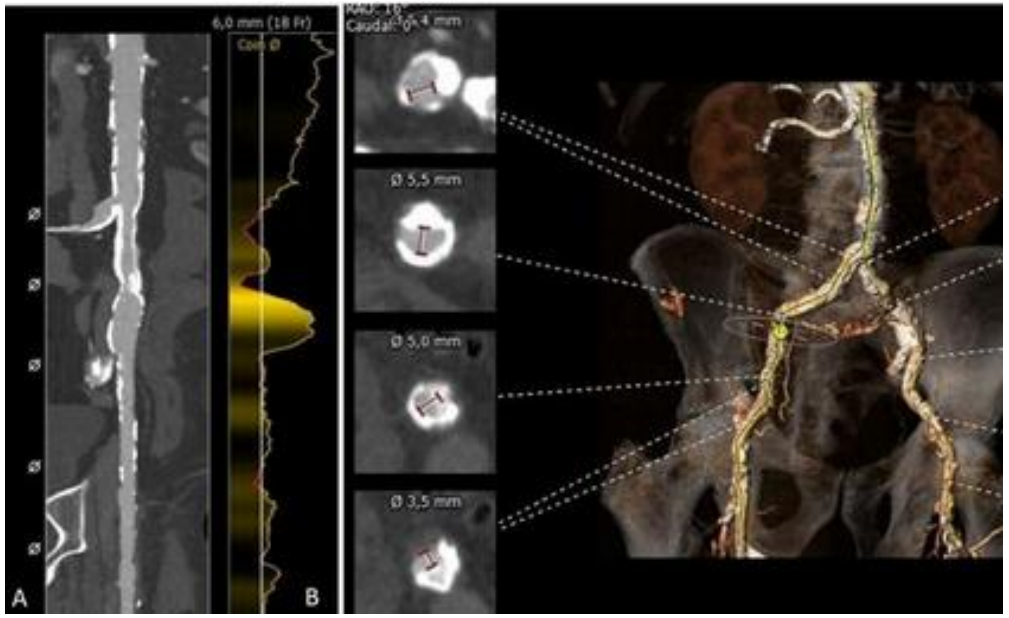
| ***Indications for intervention in symptomatic and asymptomatic severe aortic stenosis, and recommended mode of intervention*** | | |
|---|---|---|
| Intervention should be considered in asymptomatic patients (confirmed by a normal exercise test, if feasible) with sev[illegible], as an alternative to close active surveillance, if the procedural risk is low. | IIa | A |

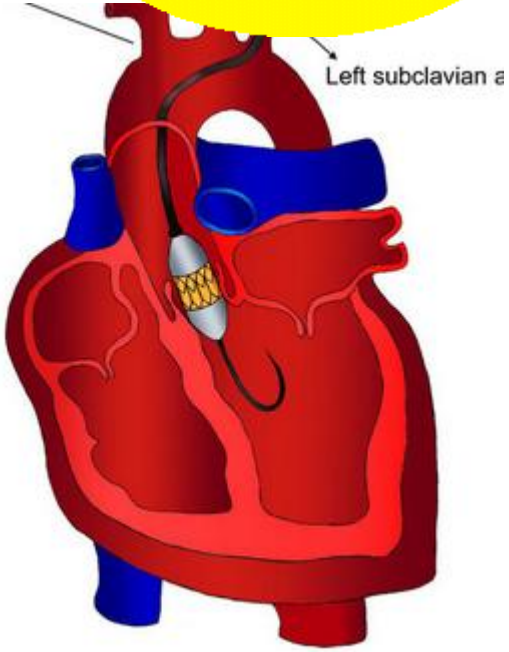
2021

| | | |
|---|---|---|
| Intervention should be considered in asymptomatic patients with severe aortic stenosis and systolic LV dysfunction (LVEF <55%) without another cause.[9,240,241] | IIa | B |

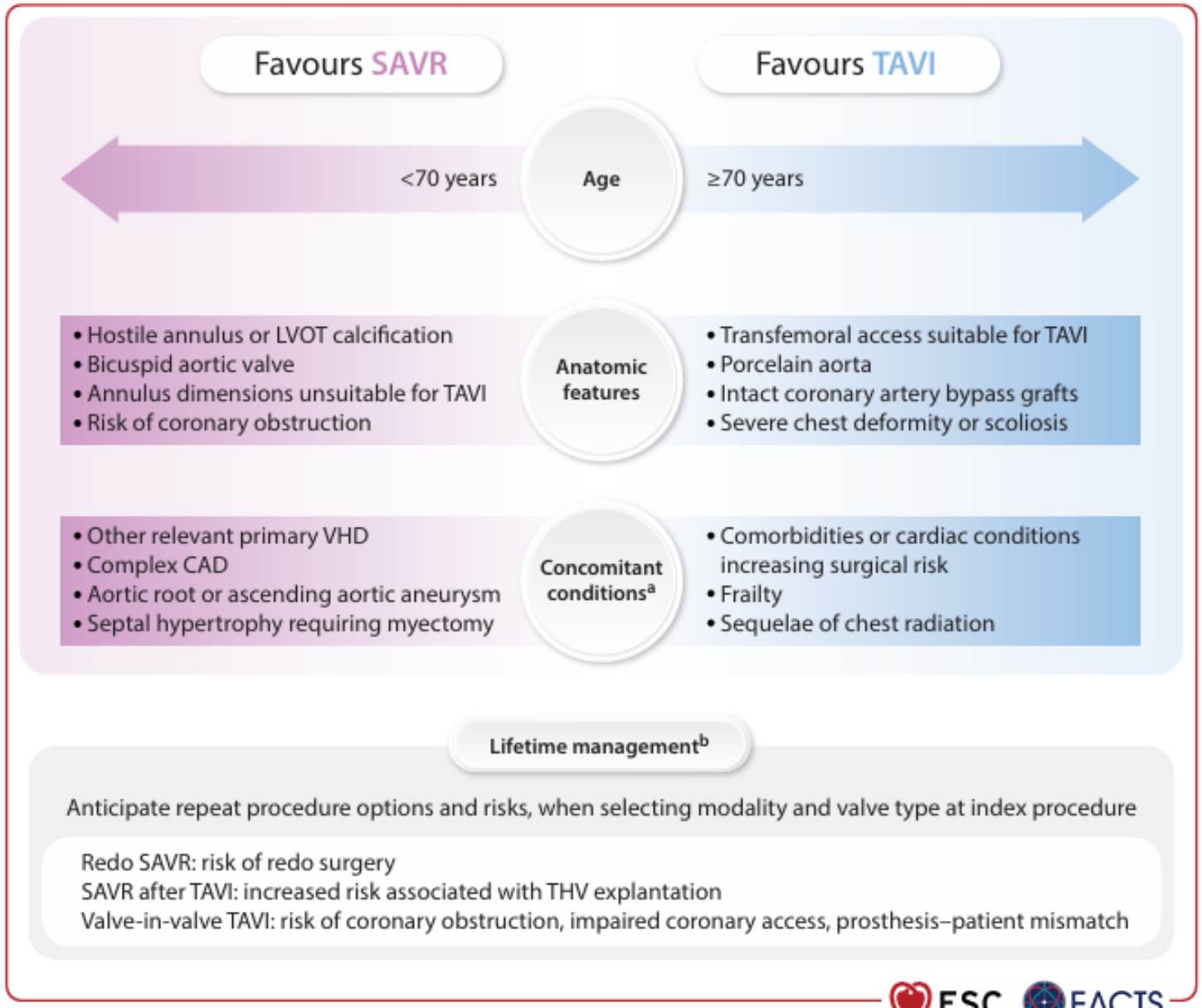
# Aortální stenóza – absence femorálního (TF) přístupu

| 2021 | | | 2025 | | |
|---|---|---|---|---|---|
| Non-transfemoral TAVI may be considered in patients who are inoperable and unsuitable for transfemoral TAVI. | IIb | C | Non-transfemora[illegible]uld be considered in pati[illegible]who are u[illegible]e f[illegible]oral access. | IIa | B |



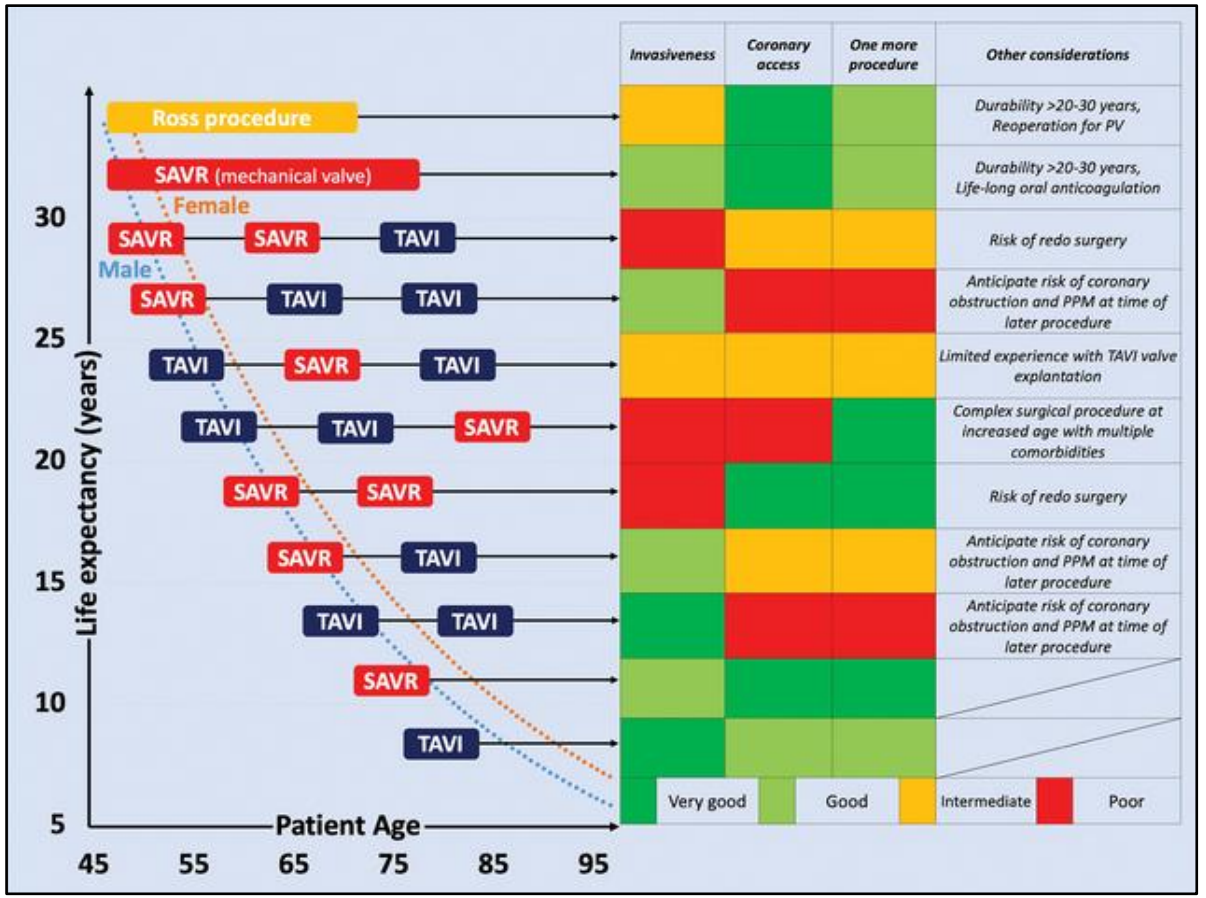



# Aortální stenóza – lifetime management



# Aortální stenóza – lifetime management

| Recommendations in 2025 version | Class | Level |
|---|---|---|
| *is* | | |
| It is recommended that the mode of intervention is based on Heart Team assessment of individual clinical, anatomical, and procedural characteristics, i[redacted] considerations and estimated [redacted] | I | C |



# Aortální stenóza – Valve-in-valve

2021

| | | |
|---|---|---|
| Transcatheter, transfemoral valve-in-valve implantation in the aortic position should be considered by the Heart Team depending on anatomical considerations, features of the prosthesis, and in patients who are at high operative risk or inoperable. | IIa | B |

2025

| | | |
|---|---|---|
| Transcatheter transfemoral valve-in-valve implantation in the aortic position should be considered in patients with significant valve dysfunction who are at [redacted] and have [redacted], as assessed by the Heart Team. | IIa | B |

# Aortální stenóza – kdy „jen“ CT koronarografie?

2021

| Recommendations in 2021 version | Class | Level |
|---|---|---|
| ***Management of coronary artery disease in patients with valvular heart disease*** | | |
| CCTA should be considered as an alternative to coronary angiography before valve surgery in patients with severe VHD and low probability of CAD. | IIa | C |

2025

| Recommendations in 2025 version | Class | Level |
|---|---|---|
| CCTA is recommended before valve intervention in patients with moderate or lower (≤50%) pre-test likelihood of obstructive CAD. | I | B |

**C Risk factor weighted clinical likelihood model**

| | Non-anginal pain | | | | | | Atypical angina or dyspnea | | | | | | Typical angina | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | Women | | | Men | | | Women | | | Men | | | Women | | | Men | | |
| Number of risk factors | 0-1 | 2-3 | 4-5 | 0-1 | 2-3 | 4-5 | 0-1 | 2-3 | 4-5 | 0-1 | 2-3 | 4-5 | 0-1 | 2-3 | 4-5 | 0-1 | 2-3 | 4-5 |
| Age: 30-39 | 0 | 1 | 2 | 1 | 2 | 5 | 0 | 1 | 3 | 2 | 4 | 8 | 2 | 5 | 10 | 9 | 14 | 22 |
| Age: 40-49 | 1 | 1 | 3 | 2 | 4 | 8 | 1 | 2 | 5 | 3 | 6 | 12 | 4 | 7 | 12 | 14 | 20 | 27 |
| Age: 50-59 | 1 | 2 | 5 | 4 | 7 | 12 | 2 | 3 | 7 | 6 | 11 | 17 | 6 | 10 | 15 | 21 | 27 | 33 |
| Age: 60-69 | 2 | 4 | 7 | 8 | 12 | 17 | 3 | 6 | 11 | 12 | 17 | 25 | 10 | 14 | 19 | 32 | 35 | 39 |
| Age: 70-80 | 4 | 7 | 11 | 15 | 19 | 24 | 6 | 10 | 16 | 22 | 27 | 34 | 16 | 19 | 23 | 44 | 44 | 45 |

# Aortální regurgitace v r. 2025

| *Indications for intervention in severe aortic regurgitation* | | |
|---|---|---|
| T[illegible]y be considered for the treatment of severe AR in symptomatic patients i[illegible] [illegible]rgery according to the Heart Team, if the anatomy is suitable. | IIb | B |

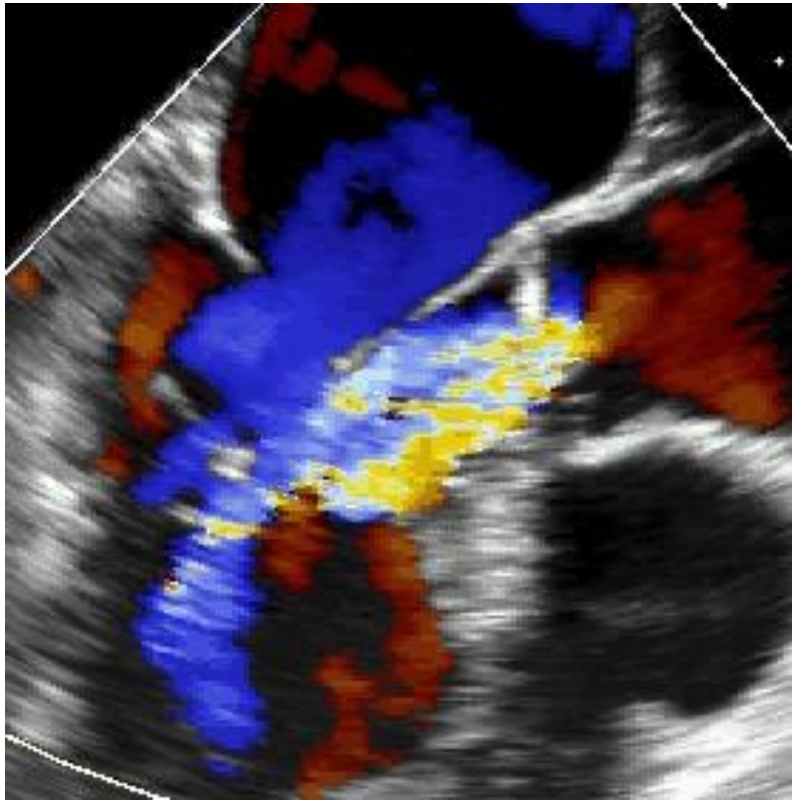


**Table 5** **Echocardiographic criteria for the definition of severe aortic valve regurgitation**

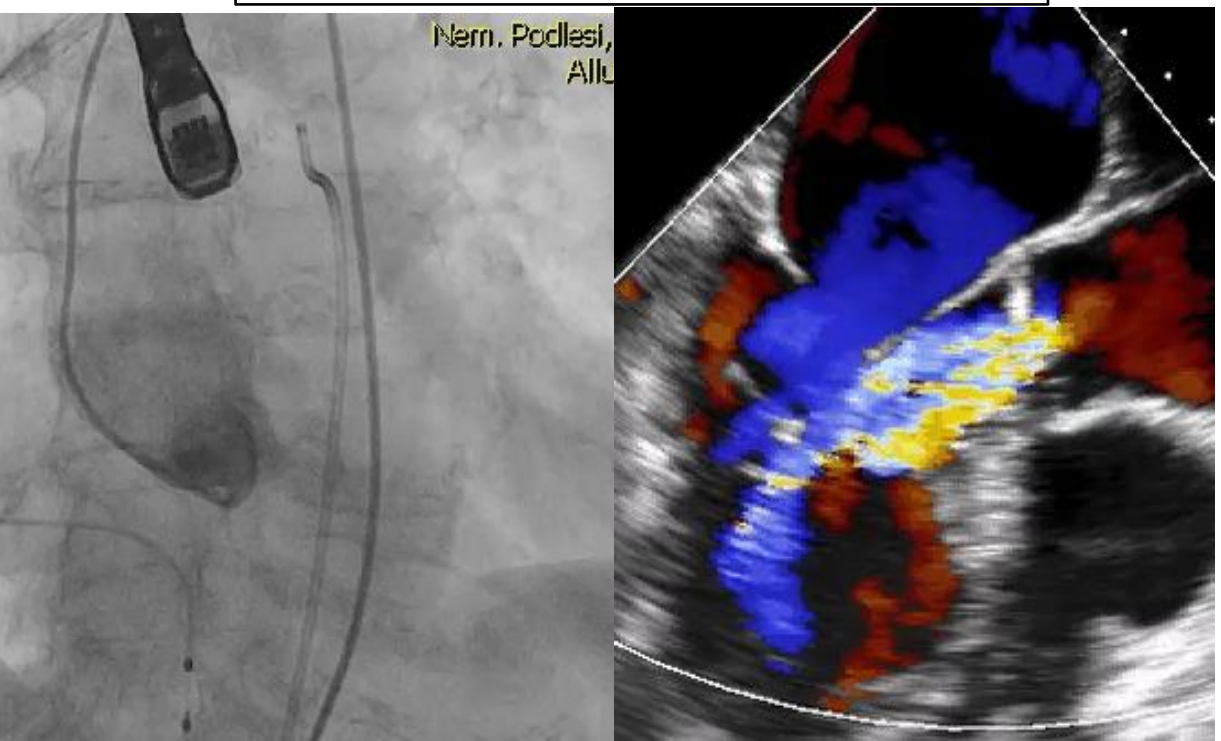
| | |
|---|---|
| **Qualitative** | |
| Valve morphology | Abnormal/flail/large coaptation defect |
| Colour flow regurgitant jet area[a] | Large in central jets, variable in eccentric jets |
| CW signal of regurgitant jet | Dense |
| Other | Holodiastolic flow reversal in descending aorta (EDV >20 cm/s) |
| **Semiquantitative** | |
| *Vena contracta* width (mm) | >6 |
| Pressure half-time[b] (ms) | <200 |
| **Quantitative** | |
| EROA ($mm^2$) | ≥30 |
| Regurgitant volume (mL/beat) | ≥60 |
| Enlargement of cardiac chambers | LV dilatation |

# Aortální regurgitace v roce 2025

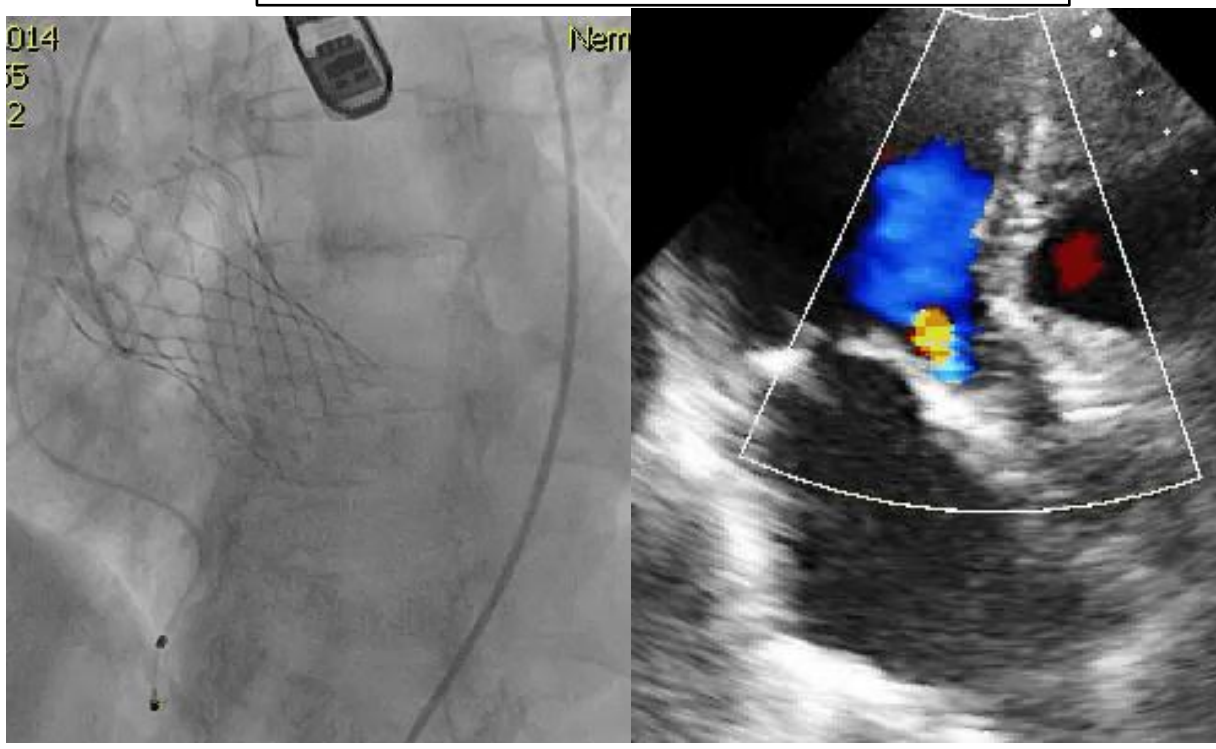
SAVR - u všech nemocných s přijatelným oper. rizikem

TAVI - u nemocných nevhodných k operaci

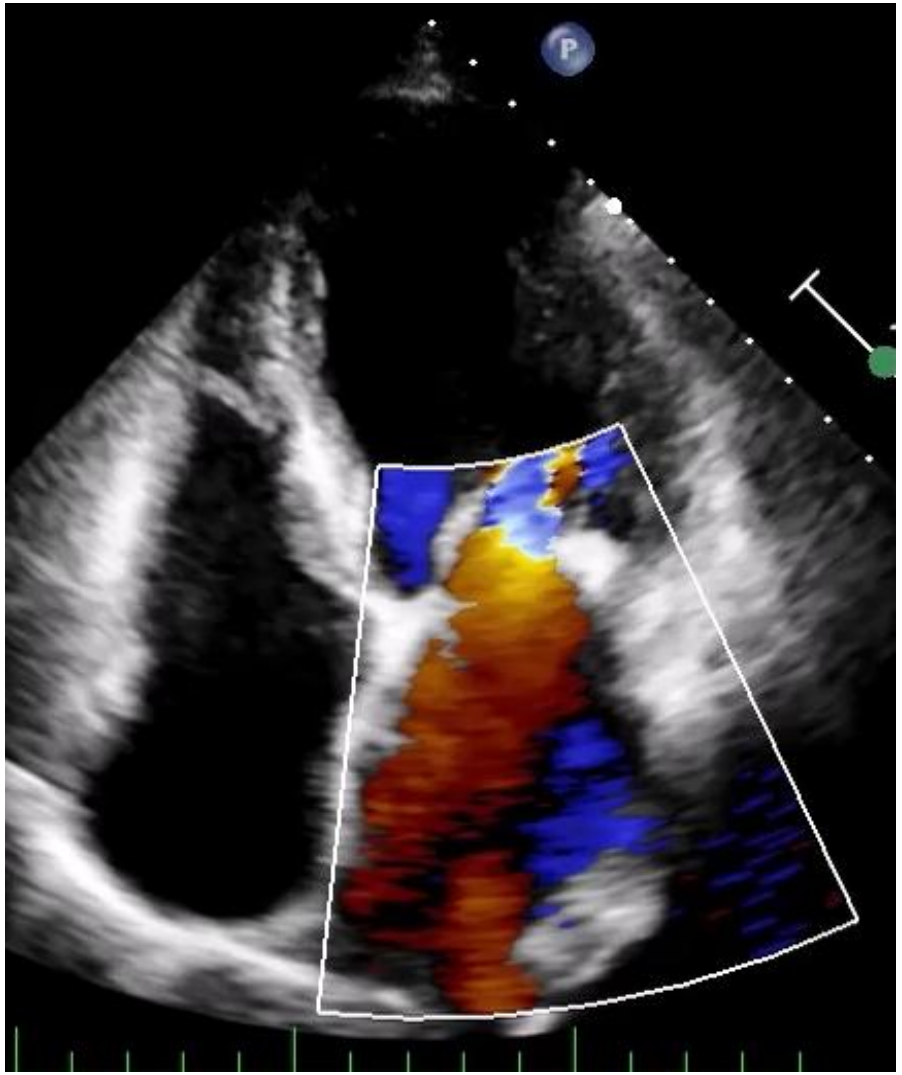
Před TAVI

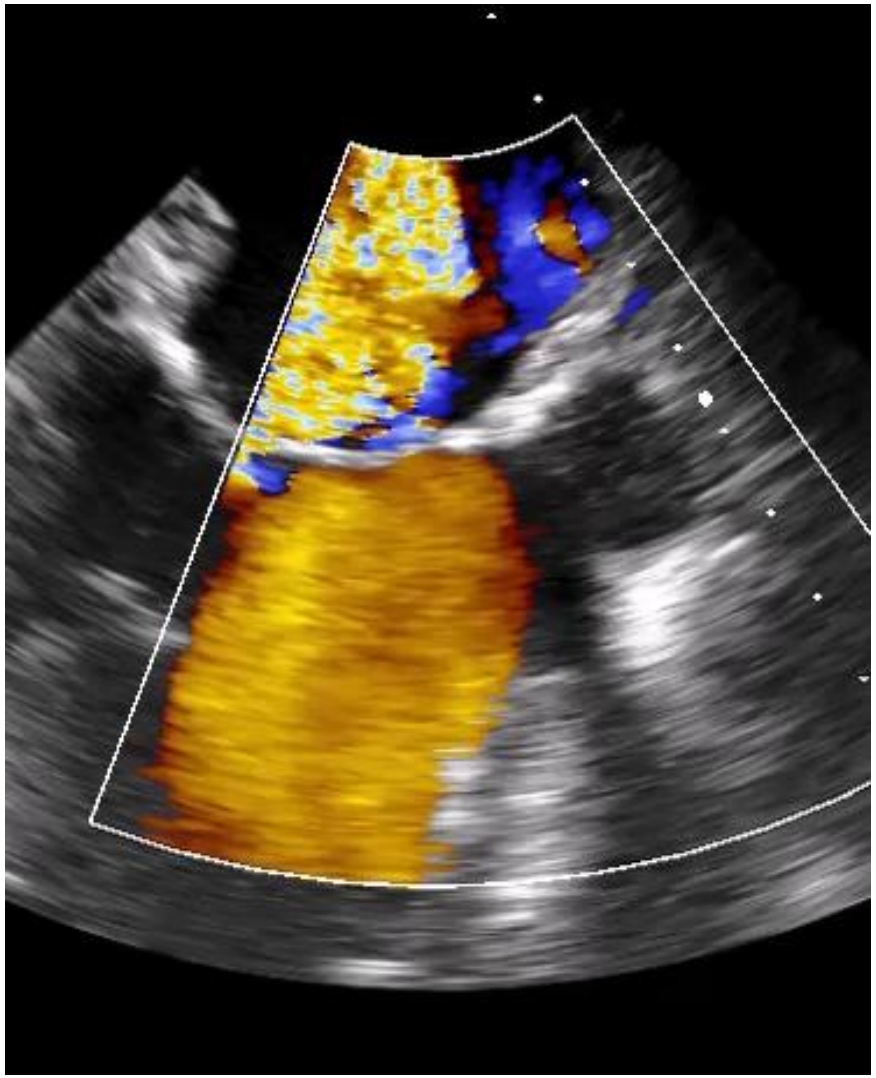


Po TAVI



# Mitrální regurgitace





# Primární mitrální regurgitace - asymptomatická

prolaps

2021

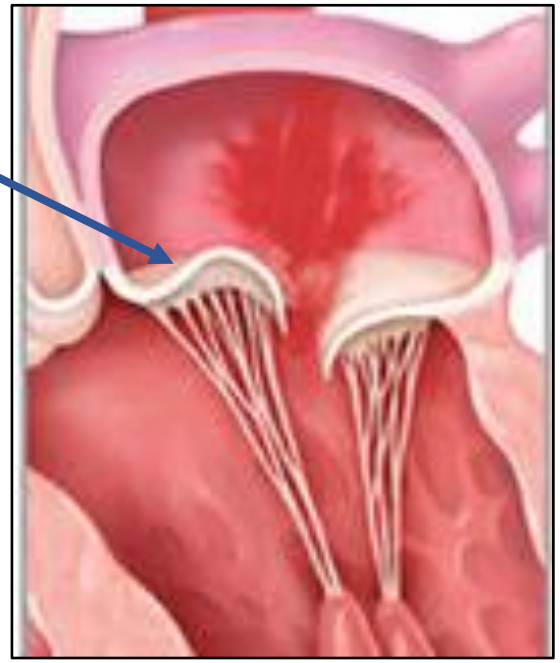
| | | |
|---|---|---|
| Surgical mitral valve repair should be considered in low-risk asymptomatic patients with LVEF >60%, LVESD <40 mm[d] and significant LA dilatation (volume index ≥60 mL/m$^2$ or diameter ≥55 mm) when performed in a Heart Valve Centre and a durable repair is likely.[285,288] | IIa | B |

2025

| ns | Class | Level |
|---|---|---|
| ***Indications for intervention in severe primary mitral regurgitation*** | | |
| Surgical MV repair is recommended in low-risk a patients with severe PMR (LVESD <40 mm, LVESDi <20 mm/m$^2$, and LVEF >60%) when a durable result is likely, if at least three of the following criteria are fulfilled:<br>•AF<br>•SPAP at rest >50 mmHg<br>•LA dilatation (LAVI ≥60 mL/m$^2$ or LA diameter ≥55 mm)<br>•Concomitant secondary TR ≥ moderate. | I | B |

# Primární mitrální regurgitace - symptomatická

prolaps



2021

| | | |
|---|---|---|
| TEER may be considered in symptomatic patients who fulfil the echocardiographic criteria of eligibility, are judged inoperable or at high surgical risk by the Heart Team and for whom the procedure is not considered futile.[299–302] | IIb | B |

2025

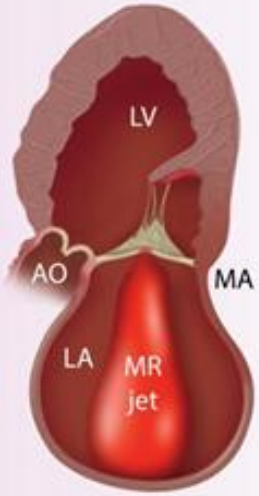
| | | |
|---|---|---|
| [redacted]be considered in symptomatic patients with severe PMR who are [redacted] and at h[redacted] according to the Heart Team.[538,540,566] | IIa | B |

# Sekundární mitrální regurgitace

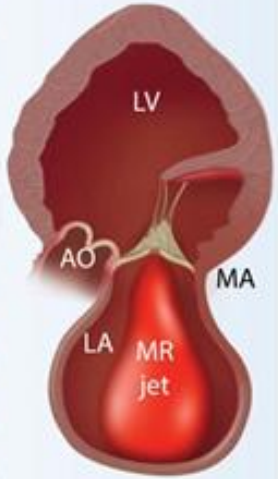
Dilatace anulu

| Key criteria | |
|---|---|
| LVEF ≥50% without regional wall motion abnormalities | LVEF <50% with or without regional wall abnormalities |
| No or mildly dilated LV cavity[a] without leaflet tethering | Restrictive leaflet motion with tethering |
| Mitral annulus dilatation (AP >35 mm) | Normal leaflet morphology |
| Enlarged LA (LAVI >34 mL/m$^2$) | Central or eccentric jet |
| **Additional echocardiographic criteria[b]** | |
| Normal leaflet motion | Dilated LV |
| Normal leaflet morphology | Dilated LA |
| Usually central jet | Dilated MV annulus |
| **Additional clinical criteria** | |
| Atrial fibrillation | Ischaemic heart disease |
| HFpEF | Dilated cardiomyopathy |

Atrial SMR




Ventricular SMR




ESC EACTS

# Sekundární atriální mitrální regurgitace

2025

| Recommendations | Class[a] | Level[b] |
|---|---|---|
| **Severe atrial secondary mitral regurgitation** | | |
| MV surgery, surgical AF ablation, if indicated, and LAAO should be considered in symptomatic patients with severe atrial SMR under optimal medical therapy.[627–630,636,637] | IIa | B |
| [illegible] be considered in symptomatic patients with severe atrial SMR not eligible for surgery after optimization of medical therapy including rhythm control, when appropriate.[588,590,638,639] | IIb | B |

# Sekundární ventrikulární mitrální regurgitace

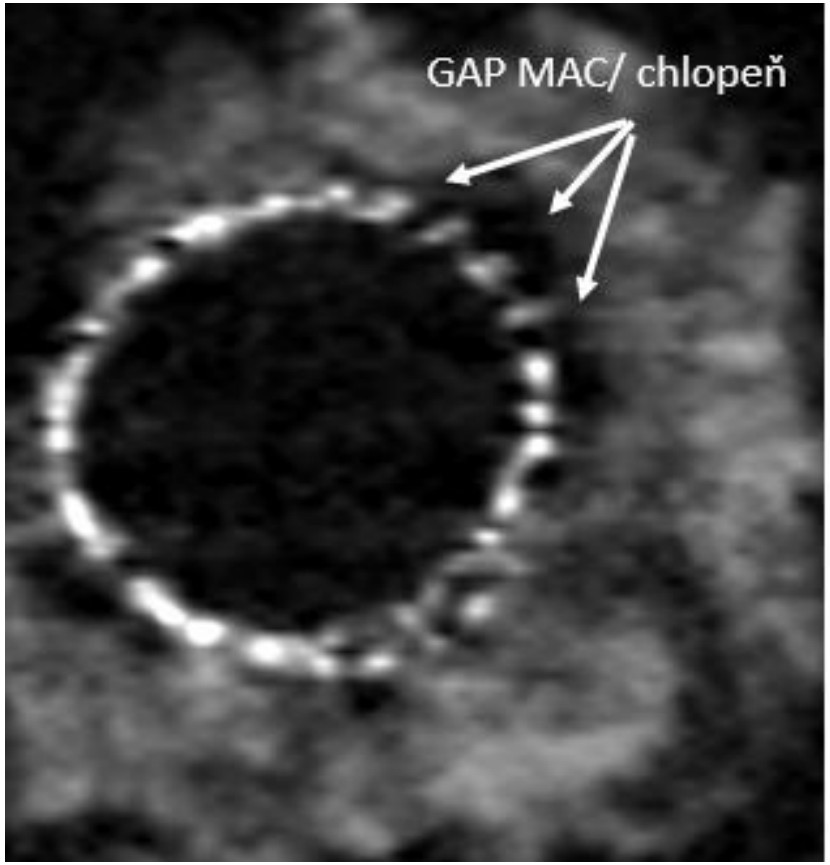
| Severe ventricular secondary mitral regurgitation without concomitant coronary artery disease | | |
|---|---|---|
| commended to reduce HF hospitalizations prove quality of life in haemodynamically stable, symptomatic patients with impaired LVE (<50%) and persistent severe ventricular SM despite optimized GDMT and CRT (if indi ed), fu clinical and echocardi criteria.[c] [583,584,606,608,643] | I | A |
| be considered for symptom improvement in selected symptomatic patients with severe ventricular SMR not fulfilling the specific clinical and echocardiographic criteria,[c] after careful evaluation of LVAD or HTx.[203,608–610] | IIb | B |
| be considered in symptomatic patients with severe ventricular SMR advanced HF who are not suitable for TEER.[617] | IIb | C |

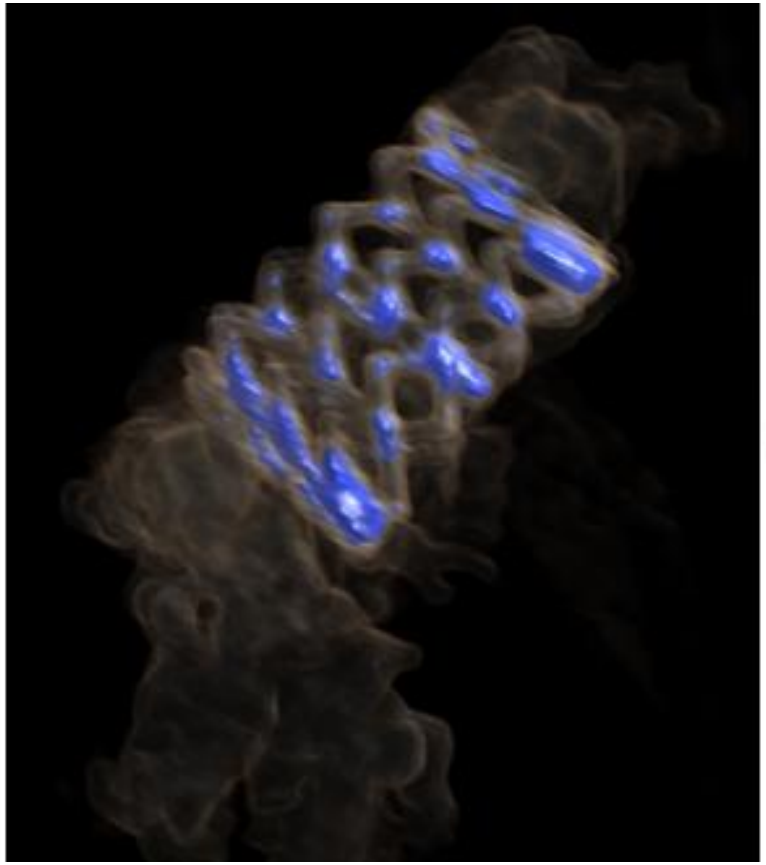
© ESC/EACTS 2025

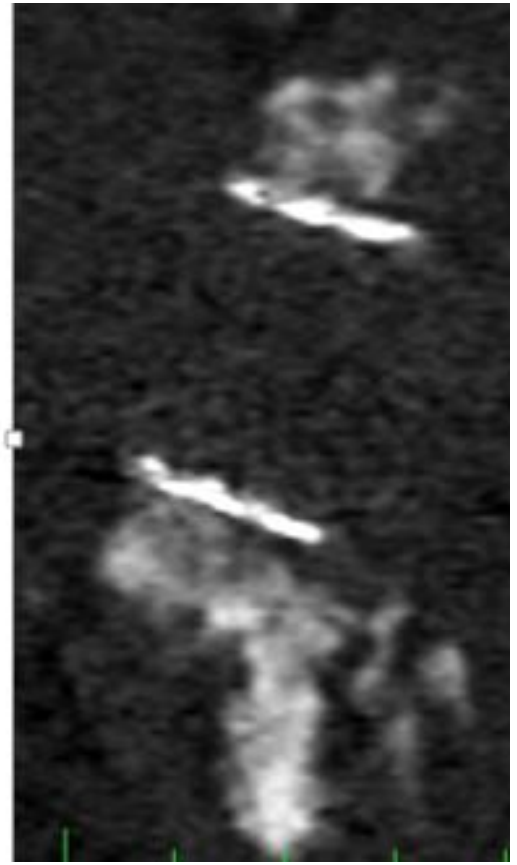
Specific criteria for M-TEER

| |
|---|
| Anatomy deemed suitable for M-TEER |
| YHA class ≥II |
| EF 20%–50% |
| LVESD ≤70 mm |
| At least one HF hospitalization within the previous year or increased natriuretic peptide levels (BNP ≥300 pg/mL or NT-proBNP ≥1000 pg/mL) |
| SPAP ≤70 mmHg |
| No severe RV dysfunction |
| No Stage D or advanced HF |
| No CAD requiring revascularization |
| No severe AV and/or TV disease |
| No hypertrophic, restrictive, or infiltrative cardiomyopathies |

# Mitrální stenóza – Transcatheter Mitral Valve Implantation (TMVI)





# Trikuspidální regurgitace

| Recommendations | Class | Level |
|---|---|---|
| **Patients with severe tricuspid regurgitation without left-sided valvular heart disease requiring surgery** | | |
| TV surgery is recommended in [illegible] patients with severe [illegible] without [illegible] | I | C |
| TV surgery should be considered in asymptomatic patients with severe primary TR who have RV dilatation/RV function deterioration, but without severe LV/RV dysfunction or severe PH. | IIa | C |
| TV surgery should be considered in patients with severe secondary TR who are symptomatic or have RV dilatation/RV function deterioration, but without severe LV/RV dysfunction or PH. | IIa | B |
| [illegible] should be considered to improve quality of life and RV remodelling in highly selected patients with severe TR despite optimal medical therapy [illegible] | IIa | A |

# Závěry

- **Spolupráce**
  - „Heart“ tým
  - specializovaná centra pro léčbu chlopenních vad 24/7
  - síť spolupracujících pracovišť – včasná detekce a individualizovaná péče
- **AoS**
  - rozšíření indikací pro TAVI + life-time managemen
  - CT koronarografie u části pacientů
- **MiR**
  - dřívější chirurgická léčba u asymptomatických pacientů,
  - rozšířené indikace (třída IA) pro M-TEER u sekundární ventrikul. MR
- **TriR**
  - dřívější operace a rozšířené indikace (třída IIaA) pro T-TEER

Děkuji za pozornost a M. Brannemu za pomoc.