2019 ESC Guidelines for the management of patients with supraventricular tachycardia

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Declaration of interest

- Consulting/Royalties/Owner/ Stockholder of a healthcare company (Medtroniic, Biosense Webster)
- Research contracts (Medtronic)
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2019 ESC SVT Guidelines

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- Last ESC SVT guidelines published in 2003
- Address all SVT (excluding atrial fibrillation)
- Cover electrophysiological mechanisms, pertinent anatomy, differential diagnosis of SVT and give guidance to treatment options in different patient population
- Very few randomized controlled-trials in the field

New revised concepts

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- Drug therapy for inappropriate sinus tachycardia and focal atrial tachycardia.
- Therapeutic options for acute conversion and anticoagulation of atrial flutter.
- Therapy of AVNRT.
- Therapy of antidromic AVRT and pre-excited AF.
- Management of patients with asymptomatic pre-excitation.
- Diagnosis and therapy of tachycardiomyopathy.

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New recommendations in 2019 (excerpt)

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Recommendation	Class
High-rate atrial pacing is recommended for termination of atrial flutter in the presence of an implanted pacemaker or defibrillator.	I
i.v. amiodarone is not recommended for pre-excited AF.	III
Performance of an EPS to risk stratify individuals with asymptomatic pre-excitation should be considered.	IIa
Catheter ablation is recommended in asymptomatic patients in whom EP testing with the use of isoprenaline identifies high risk properties, such as SPERRI ≤250 ms, AP ERP ≤250 ms, multiple APs, and inducible AP-mediated tachycardia.	I

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Recommendations for the management of atrioventricular nodal re-entrant tachycardia (AVNRT) (excerpt)

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Recommendations	Class[a]	Level[b]
Long-term therapy		
Catheter ablation is recommended for symptomatic, recurrent AVNRT.	I	B
Diltiazem or verapamil, in patients without HFrEF, or beta blockers should be considered if ablation is not desirable or feasible.	IIa	B
It should be considered to abstain from therapy in minimally symptomatic patients with very infrequent, short-lived episodes of tachycardia.	IIa	C

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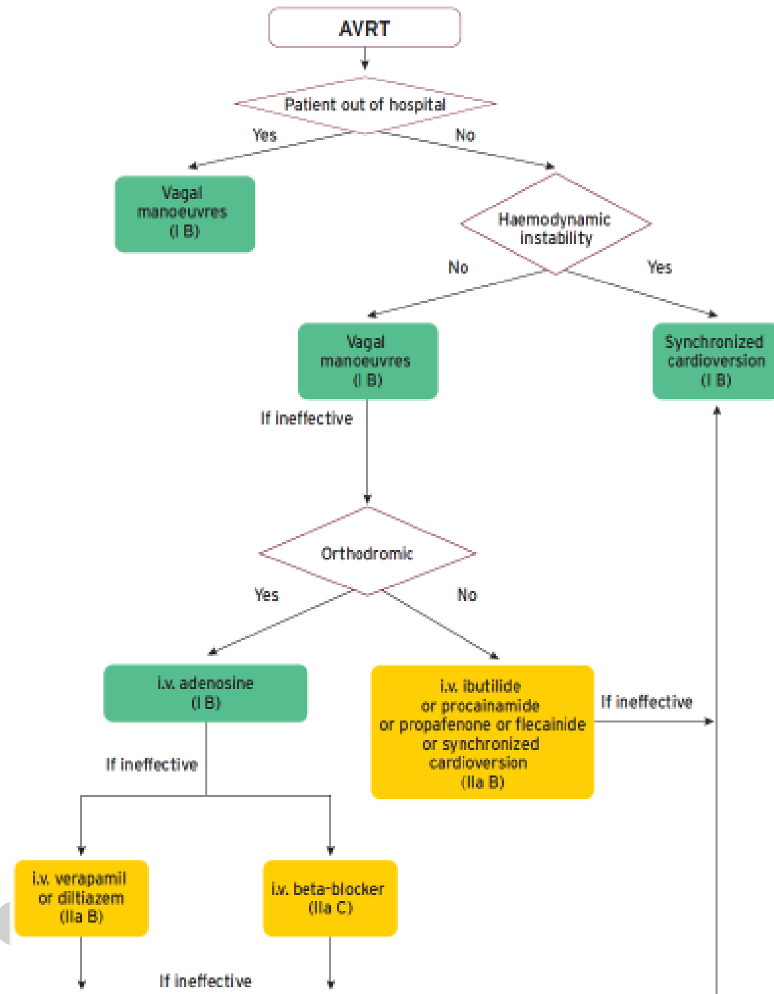

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Acute therapy of AVRT (accessory pathway mediated tachycardia)

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Recommendations for the management of patients with asymptomatic pre-excitation (1)

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Recommendations	Class[a]	Level[b]
Performance of an EPS, with the use of isoprenaline, is recommended to risk stratify individuals with asymptomatic pre-excitation who have high risk occupations/hobbies, and those who participate in competitive athletics.	I	B
Catheter ablation is recommended in asymptomatic patients in whom EP testing with the use of isoprenaline identifies high risk properties, such as SPERRI ≤250 ms, AP ERP ≤250 ms, multiple APs, and an inducible AP-mediated tachycardia.	I	B

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Numerous new chapters on clinically relevant aspects in different populations with PSVT

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Recommendations for therapy of SVT in pregnancy (excerpt)

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Recommendations	Class[a]	Level[b]
Catheter ablation is recommended in symptomatic women with recurrent SVT who plan to become pregnant.	I	C
Acute therapy		
Immediate electrical cardioversion is recommended for any tachycardia with haemodynamic instability.	I	C
Vagal manoeuvres and, if these fail, adenosine are recommended for acute conversion of SVT.	I	C

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Recommendations for the therapy of SVT in patients with suspected or established heart failure due to tachycardiomyopathy (excerpt)

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Recommendations	Class[a]	Level[b]
Catheter ablation is recommended for tachycardiomyopathy due to SVT.	I	B
Beta-blockers (from the list with proven mortality and morbidity benefits in HFrEF) are recommended for tachycardiomyopathy due to SVT, when catheter ablation fails or is not applicable.	I	A
It is recommended to consider tachycardiomyopathy in patient with reduced LVEF with an elevated heart rate (>100 bpm).	I	B

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«What to do» messages

(excerpt)

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Vagal manoeuvres are recommended.	I	C
Recommendations for the therapy of focal AT		
Chronic therapy		
Catheter ablation is recommended for recurrent focal AT, especially if incessant or causing TCM.	I	B
Recommendations for the therapy of MRATs		
Anticoagulation as in AF is recommended for patients with atrial flutter and concomitant AF.	I	B
Chronic therapy		
Catheter ablation is recommended for symptomatic, recurrent episodes of CTI-dependent flutter.	I	A
Catheter ablation is recommended in patients with persistent atrial flutter or in the presence of depressed LV systolic function due to TCM.	I	B
Recommendations for the management of AVNRT		
Chronic therapy		

«What not to do» messages
(excerpt)

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'What not to do' messages		
Recommendations for the acute management of wide QRS tachycardia in the absence of an established diagnosis		
Verapamil is not recommended in wide QRS-complex tachycardia of unknown aetiology.	III	B
Recommendations for the therapy of MRATs		
Acute therapy		
Propafenone and flecainide are not recommended for conversion to sinus rhythm.	III	B
Recommendations for the therapy of AVRT due to manifest or concealed APs		
Chronic therapy		
Digoxin, beta-blockers, diltiazem, verapamil, and amiodarone are not recommended and are potentially harmful in patients with pre-excited AF.	III	B
Recommendations for the acute therapy of pre-excited AF		
Haemodynamically stable patients		
Amiodarone (i.v.) is not recommended.	III	B

2019 ESC Pocket Guidelines

Committee for Practice Guidelines

SVT

Guidelines for the Management of Patients with Supraventricular Tachycardia

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Full Text

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