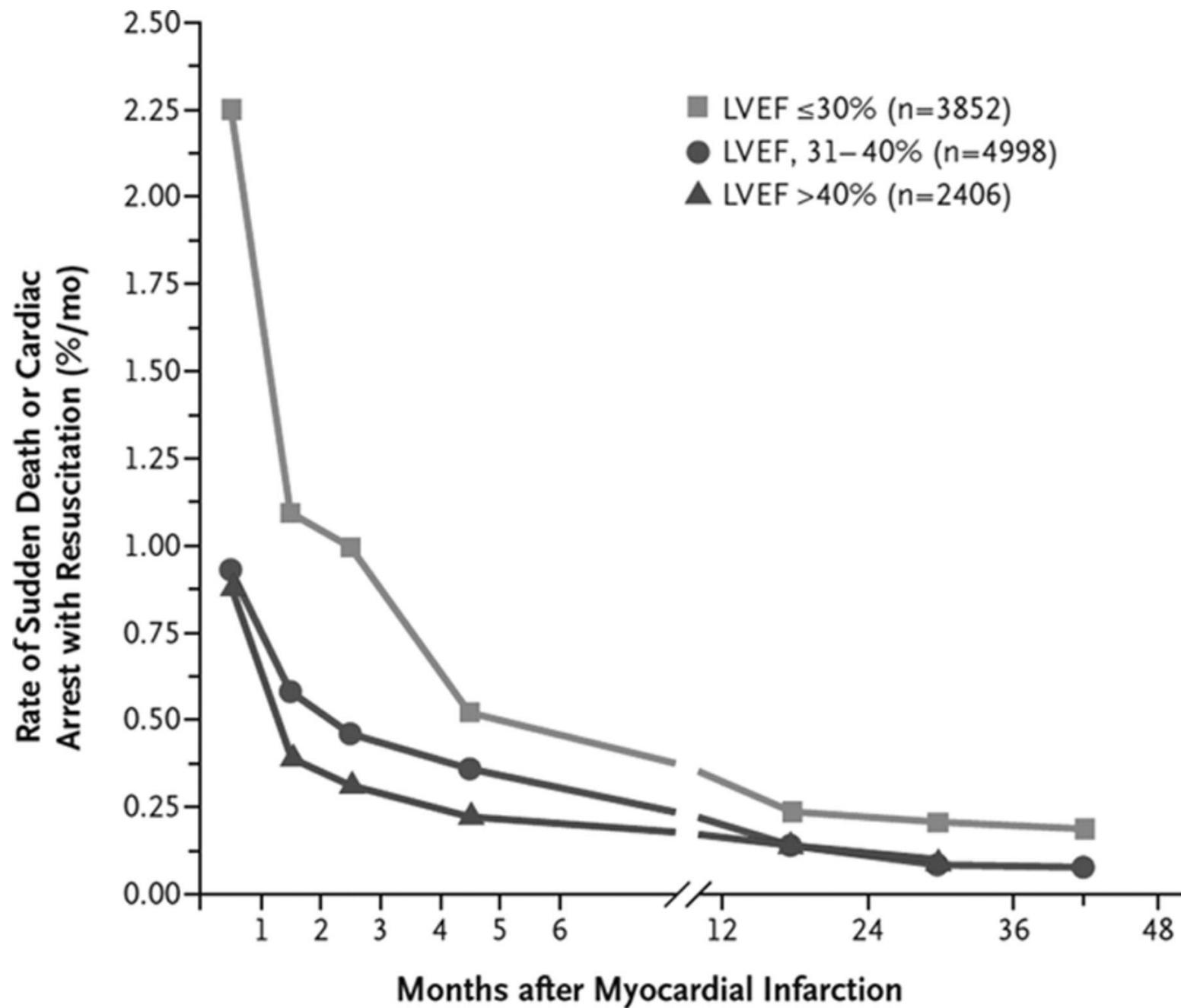


# CẬP NHẬT KHUYẾN CÁO ĐIỀU TRỊ LOẠN NHỊP THẤT

TS TÔN THẤT MINH  
GĐ BV TIM TÂM ĐỨC  
CT HỘI NHỊP TIM HỌC TP HCM

# Biến chứng loạn nhịp thất/NMCT

- Ngoại tâm thu thất
- Nhịp tự thất gia tốc
- Nhịp nhanh thất không kéo dài
- Nhịp nhanh thất kéo dài
- Rung thất



# Điều trị thuốc

## Phòng ngừa đột tử với những thuốc điều trị suy tim

COR	LOE	Recommendation for Pharmacological Prevention of SCD
I	A	1. Những bệnh nhân suy tim có phân suất tổng máu giảm (LVEF $\leq 40\%$ ), điều trị với <b>ức chế beta</b> , <b>ức chế thụ thể mineralocorticoid</b> và <b>ức chế men chuyển</b> hoặc <b>ức chế thụ thể angiotensin</b> hoặc <b>ức chế neprilysin</b> (thụ thể angiotensin) được khuyến cáo làm <b>giảm tỉ lệ đột tử do tim và tỉ lệ tử vong do mọi nguyên nhân</b> .

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# Loạn nhịp thất nguyên phát ở buồng tổng

## VA in the Structurally Normal Heart

Recommendations for VA in the Structurally Normal Heart		
References that support the recommendations are summarized in Online Data Supplement 45.		
COR	LOE	Recommendations
I	B-R	1. In patients with symptomatic PVCs in an otherwise normal heart, treatment with a beta blocker or nondihydropyridine calcium channel blocker is useful to reduce recurrent arrhythmias and improve symptoms. <small>SB-1, SB-2</small>
IIa	B-R	2. In patients with symptomatic VA in an otherwise normal heart, treatment with an antiarrhythmic medication is reasonable to reduce recurrent symptomatic arrhythmias and improve symptoms if beta blockers and nondihydropyridine calcium channel blockers are ineffective or not tolerated. <small>SB-3, SB-4</small>

## 1. Outflow Tract and Atrioventricular Annular VA

Recommendations for Outflow Tract VA		
References that support the recommendations are summarized in Online Data Supplement 46.		
COR	LOE	Recommendations
I	B-NR	1. In patients with symptomatic outflow tract VA in an otherwise normal heart for whom antiarrhythmic medications are ineffective, not tolerated, or not the patient's preference, catheter ablation is useful. <small>SB-1-1-SB-1-3</small>
I	B-NR	2. In patients with symptomatic outflow tract VT in an otherwise normal heart, a beta blocker or a calcium channel blocker is useful. <small>SB-1-1-SB-1-3</small>

## 4.1. Idiopathic Outflow Tract Ventricular Arrhythmia

### Recommendations for catheter ablation of idiopathic OT VA

COR	LOE	Recommendations
I	B-R	1. In patients with frequent and symptomatic PVCs originating from the RVOT in an otherwise normal heart, catheter ablation is recommended in preference to metoprolol or propafenone.
I	B-NR	2. In patients with symptomatic VAs from the RVOT in an otherwise normal heart for whom antiarrhythmic medications are ineffective, not tolerated, or not the patient's preference, catheter ablation is useful.
I	B-NR	3. In patients with symptomatic idiopathic sustained monomorphic VT, catheter ablation is useful.

# Nhip nhanh thất tại cột cơ nhú

## 8.2. Papillary Muscle VA

### Recommendation for Papillary Muscle VA (PVCs and VT)

References that support the recommendation are summarized in Online Data Supplement 47.

COR	LOE	Recommendation
I	B-NR	<p>1. In patients with symptomatic VA arising from the papillary muscles for whom antiarrhythmic medications are ineffective, not tolerated, or not the patient's preference, <b>catheter ablation</b> is useful. [§8.2-1-§8.2-5]</p>

# Nhip nhanh thất do vòng vào lại tại nhánh, bó

## 8.3. Interfascicular Reentrant VT (Belhassen Tachycardia)

### Recommendations for Interfascicular Reentrant VT (Belhassen Tachycardia)

References that support the recommendations are summarized in Online Data Supplement 48.

COR	LOE	Recommendations
I	B-NR	1. In patients with verapamil-sensitive, idiopathic LVT related to interfascicular reentry for whom antiarrhythmic medications are ineffective, not tolerated, or not the patient's preference, <b>catheter ablation</b> is useful. <small>58.3-1–58.3-3</small>
I	B-NR	2. In patients with sustained hemodynamically tolerated verapamil-sensitive, idiopathic LVT related to interfascicular reentry, <b>intravenous verapamil</b> is recommended for VT termination. <small>58.3-3–58.3-6</small>
IIa	C-LD	3. In patients with recurrent verapamil-sensitive idiopathic LVT, chronic therapy with oral verapamil can be useful. <small>58.3-7–58.3-10</small>

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## 4.6. Ventricular Arrhythmia Involving the His-Purkinje System, Bundle Branch Reentrant Ventricular Tachycardia, and Fascicular Ventricular Tachycardia

### Recommendations for catheter ablation of bundle branch reentrant VT and for catheter ablation of fascicular

COR	LOE	Recommendations
I	B-NR	1. In patients with bundle branch reentrant VT, <b>catheter ablation</b> is useful for reducing the risk of recurrent VT.
I	B-NR	2. In patients with idiopathic left fascicular reentrant VT for whom medications are ineffective, not tolerated, or not the patient's preference, <b>catheter ablation</b> is useful.
I	B-NR	3. In larger pediatric patients ( $\geq 15$ kg) with idiopathic left fascicular reentrant VT in whom medical treatment is ineffective or not tolerated, <b>catheter ablation</b> is useful.
I	B-NR	4. In patients with focal fascicular VT with or without SHD, <b>catheter ablation</b> is useful.
I	B-NR	5. In patients with postinfarction reentrant Purkinje fiber-mediated VT, <b>catheter ablation</b> is useful.

2019 HRS/EHRA/APHRS/LANRS expert consensus statement on catheter ablation of ventricular arrhythmias

# PVC-Induced Cardiomyopathy

COR	LOE	Recommendations for PVC-Induced Cardiomyopathy
I	B-NR	<ol style="list-style-type: none"><li>1. Những bệnh nhân cần kiểm soát rối loạn nhịp gây <b>triệu chứng</b> hoặc gây <b>giảm chức năng thất</b> do ngoại tâm thu thất thường xuyên (thường &gt;15% nhịp tim cơ bản và có 1 kiểu hình nổi trội) và <b>không đáp ứng đủ với điều trị thuốc hoặc không dung nạp thuốc</b> hoặc <b>do ý muốn của bệnh nhân</b>, điều trị loạn nhịp bằng <b>cắt đốt qua catheter</b> được khuyến cáo</li></ol>
IIa	B-NR	<ol style="list-style-type: none"><li>2. Những bệnh nhân có bệnh cơ tim do ngoại tâm thu thất, điều trị thuốc (vd. chẹn beta, amiodarone) có ích lợi làm giảm tần số rối loạn nhịp, và cải thiện triệu chứng cũng như chức năng thất trái.</li></ol>

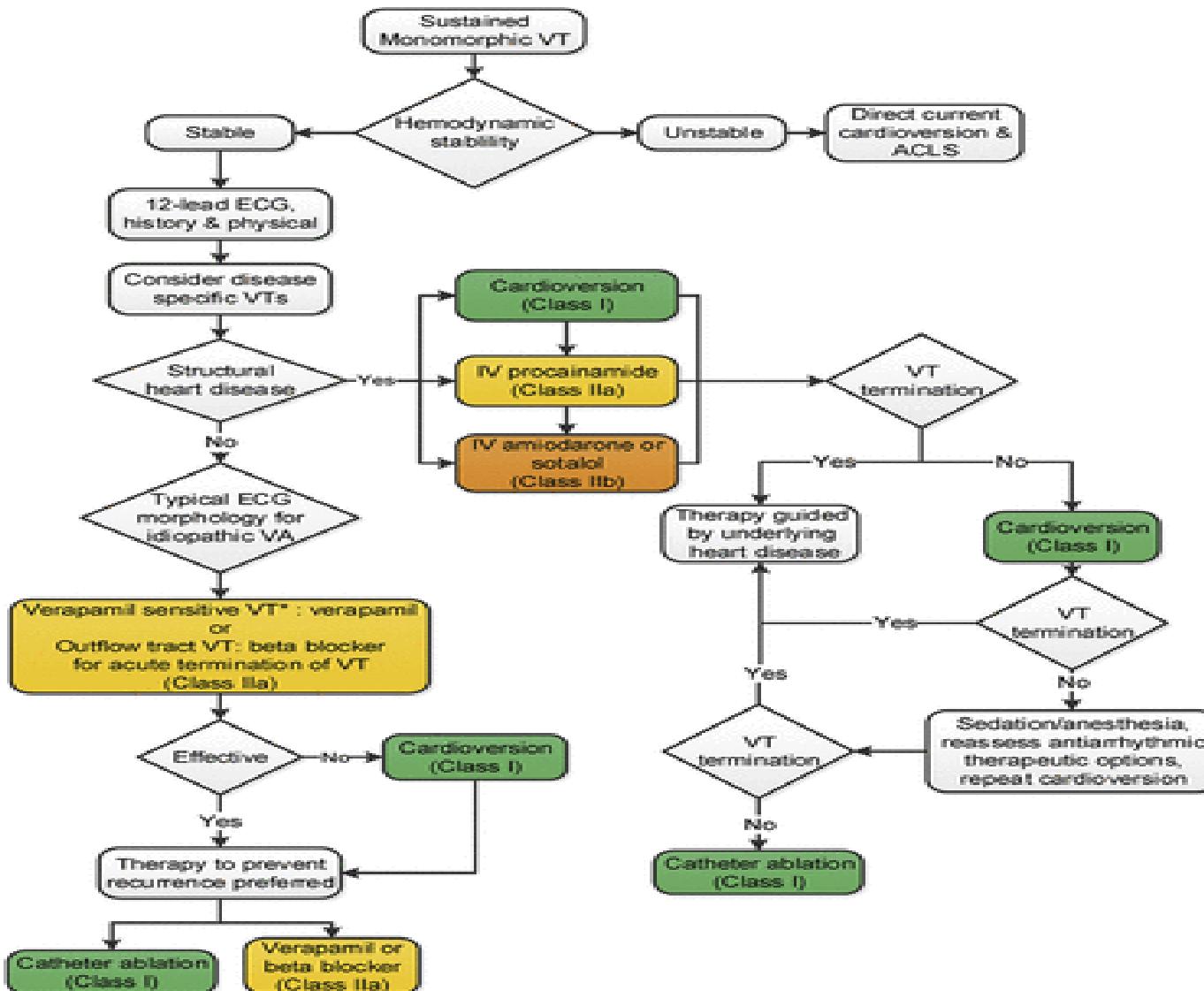
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# Loạn nhịp thất do co thắt động mạch vành

## 7.1.1.1. Coronary Artery Spasm

<b>Recommendations for Patients With Coronary Artery Spasm</b>		
References that support the recommendations are summarized in Online Data Supplement 20.		
<b>COR</b>	<b>LOE</b>	<b>Recommendations</b>
I	B-NR	<ol style="list-style-type: none"><li>1. In patients with VA due to coronary artery spasm, treatment with maximally tolerated doses of a <b>calcium channel blocker</b> and smoking cessation are indicated to reduce recurrent ischemia and VA.<sup>S7.1.1.1-1,S7.1.1.1-2</sup></li></ol>
IIa	B-NR	<ol style="list-style-type: none"><li>2. In patients resuscitated from SCA due to coronary artery spasm in whom medical therapy is ineffective or not tolerated, an ICD is reasonable if meaningful survival of greater than 1 year is expected.<sup>S7.1.1.1-3-S7.1.1.1-6</sup></li></ol>
IIb	B-NR	<ol style="list-style-type: none"><li>3. In patients resuscitated from SCA due to coronary artery spasm, an ICD in addition to medical therapy may be reasonable if meaningful survival of greater than 1 year is expected.<sup>S7.1.1.1-3-S7.1.1.1-6</sup></li></ol>

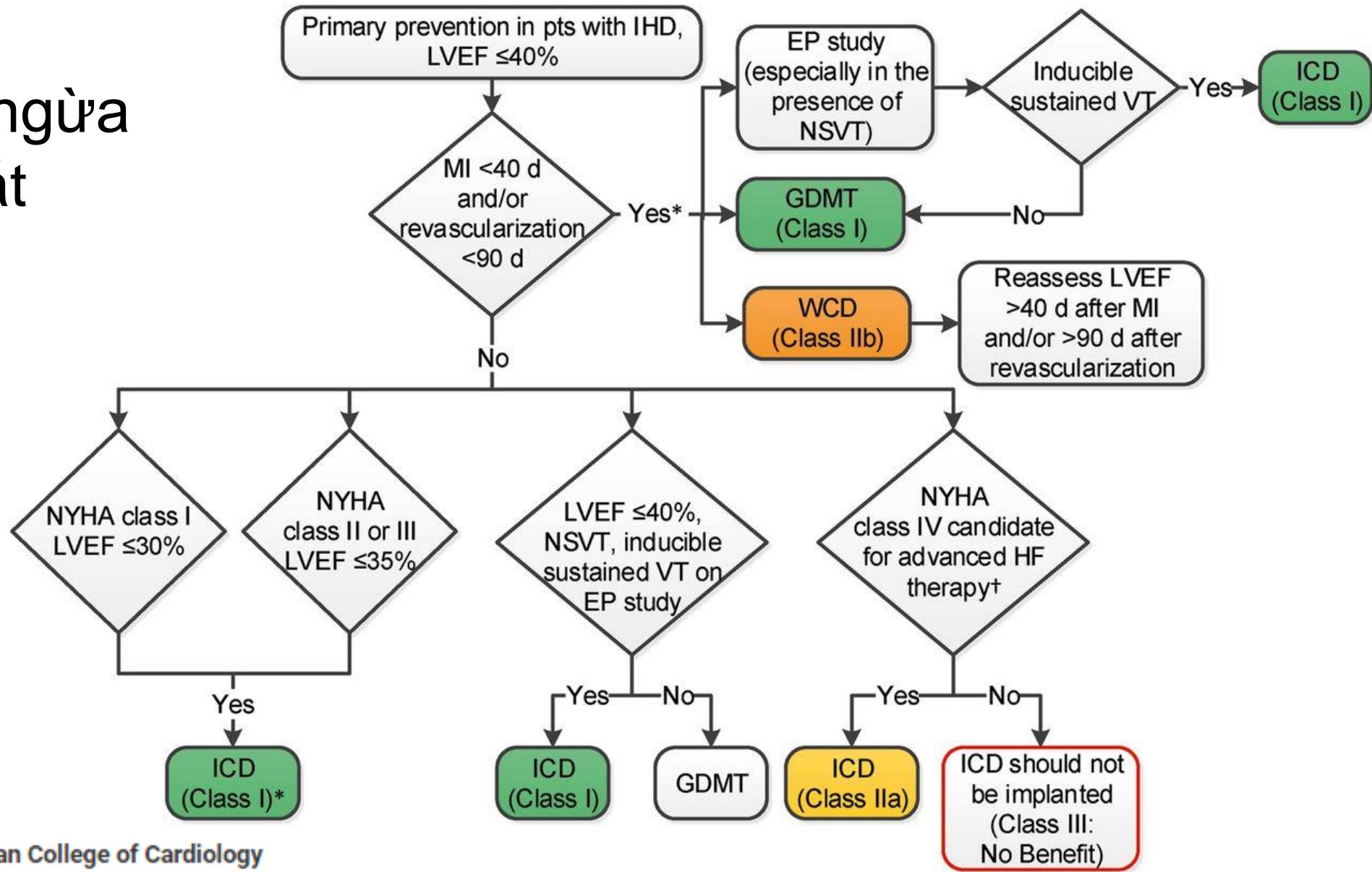
# Nhip nhanh thất đa dạng kéo dài



Sana M. Al-Khatib. Circulation. 2017 AHA/ACC/HRS Guideline for Management of Patients With Ventricular Arrhythmias and the Prevention of Sudden Cardiac Death, Volume: 138, Issue: 13, Pages: e272-e391, DOI: (10.1161/CIR.0000000000000549)

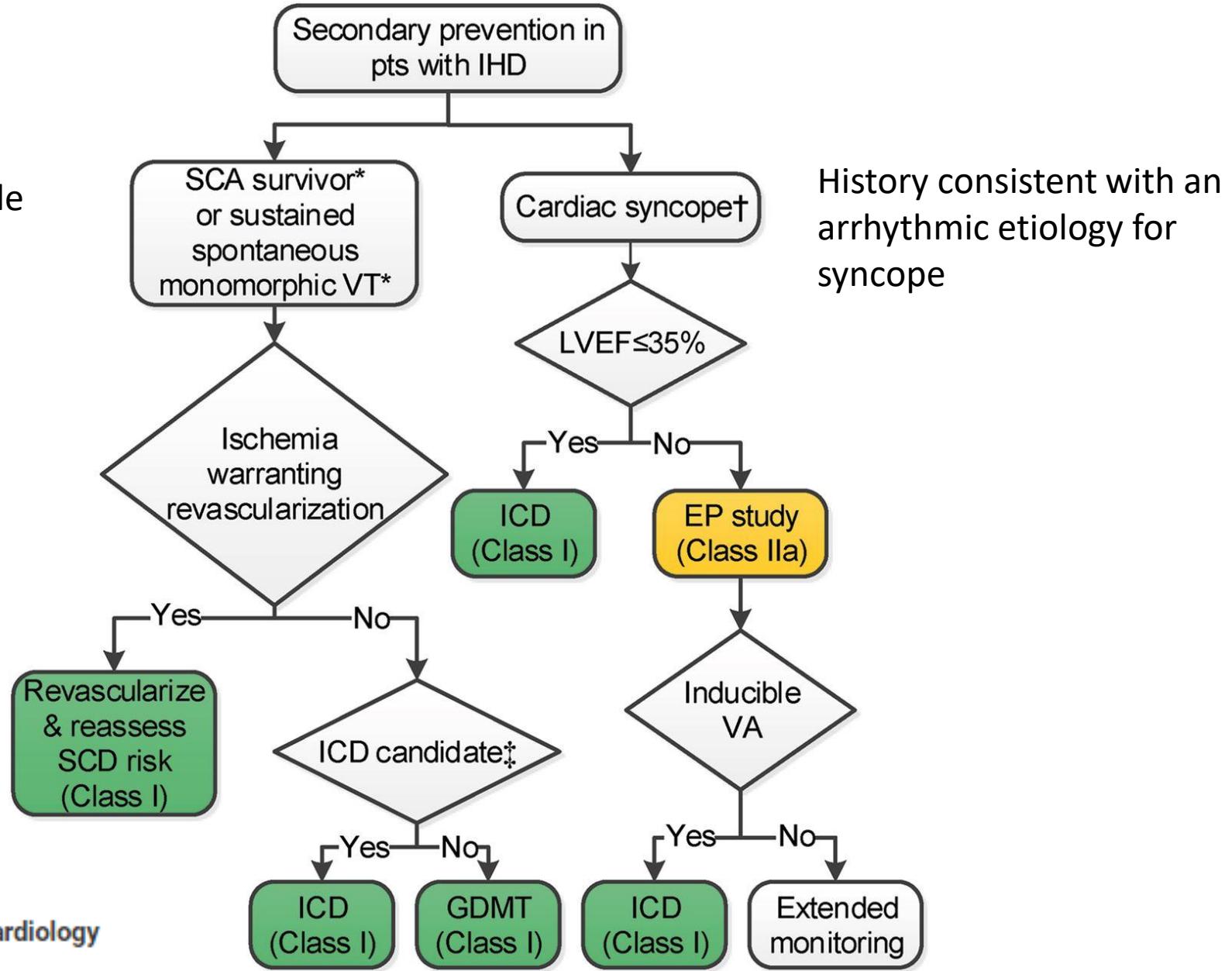
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# Phòng ngừa tiên phát

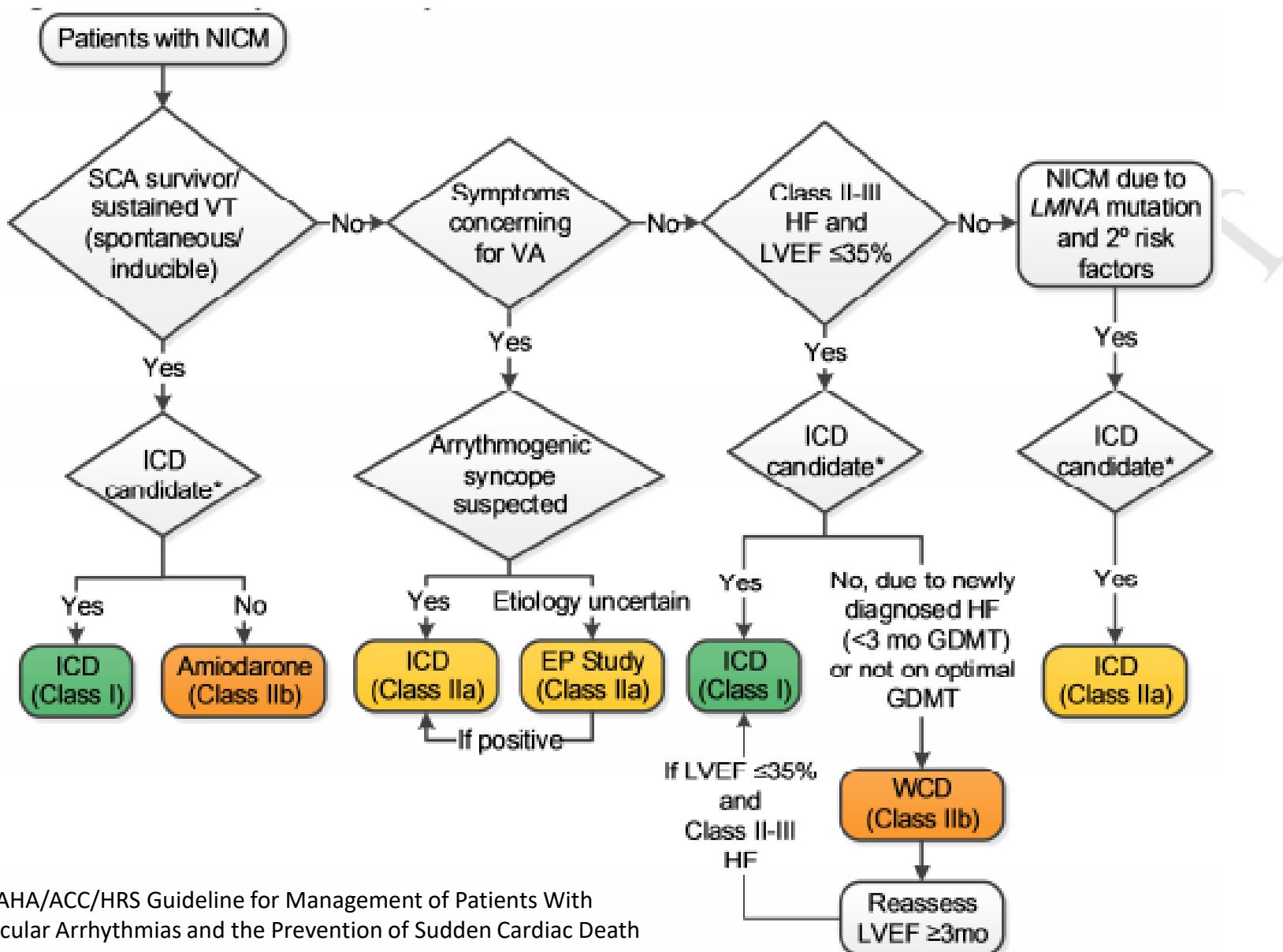


# Phòng ngừa thứ phát

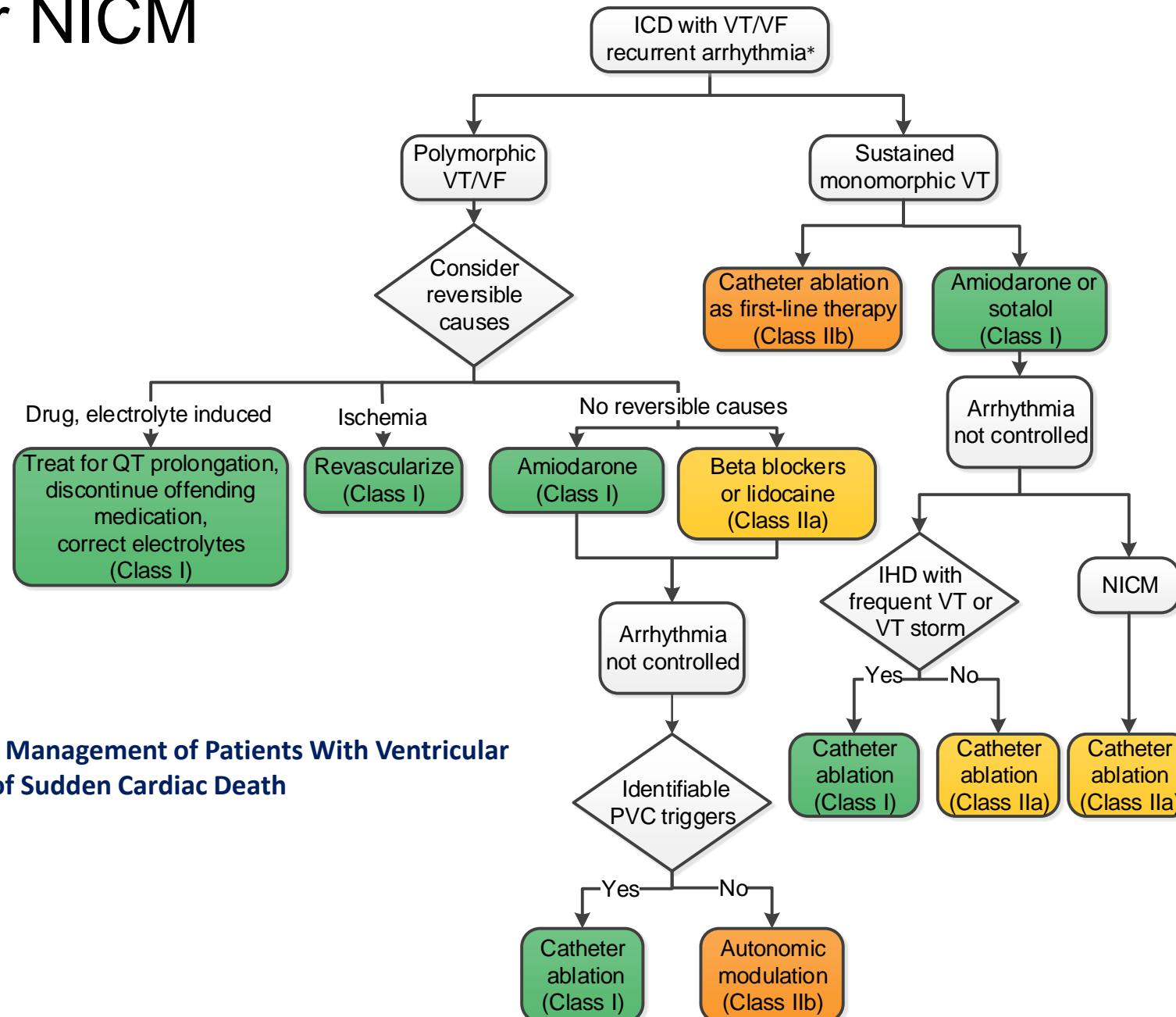
Exclude reversible causes



# Bệnh tim không do thiếu máu cục bộ



# Treatment of Recurrent VA in Patients With Ischemic Heart Disease or NICM



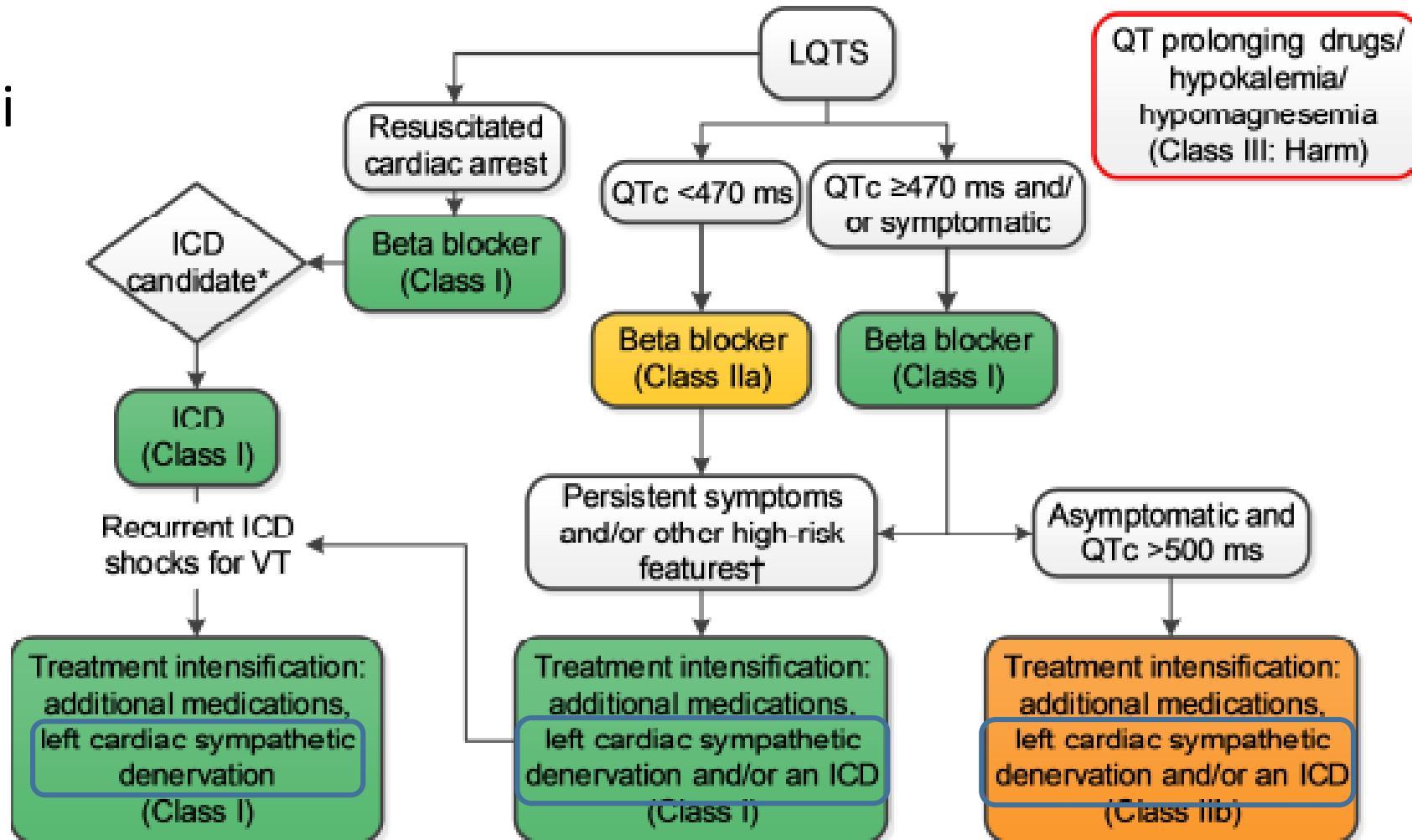
2017 AHA/ACC/HRS Guideline for Management of Patients With Ventricular Arrhythmias and the Prevention of Sudden Cardiac Death

# Bệnh tim do rối loạn kênh điện thế

Recommendations for Cardiac Channelopathies		
References that support the recommendations are summarized in Online Data Supplement 39.		
COR	LOE	Recommendations
I	B-NR	<ol style="list-style-type: none"><li>1. In first-degree relatives of patients who have a causative mutation for <u>long QT syndrome</u>, <u>catecholaminergic polymorphic ventricular tachycardia</u>, <u>short QT syndrome</u>, or <u>Brugada syndrome</u>, genetic counseling and mutation-specific genetic testing are recommended (1-6).</li></ol>
I	B-NR	<ol style="list-style-type: none"><li>2. In patients with a cardiac channelopathy and SCA, an <u>ICD</u> is recommended if meaningful survival of greater than 1 year is expected (7-13).</li></ol>

# HC QT dài

- QT dài



# Hội chứng QT ngắn

**Recommendations for Short QT Syndrome**  
References that support the recommendations are summarized in Online Data Supplement 44.

COR	LOE	Recommendations
I	B-NR	1. In asymptomatic patients with a short QTc interval, observation without treatment is recommended. <small>S7.9.1.5-1, S7.9.1.5-2</small>
I	B-NR	2. In patients with short QT syndrome who have a cardiac arrest or sustained VA, an ICD is recommended if meaningful survival greater than 1 year is expected. <small>S7.9.1.5-3-S7.9.1.5-5</small>
IIa	C-LD	3. In patients with short QT syndrome and recurrent sustained VA, treatment with quinidine can be useful. <small>S7.9.1.5-3, S7.9.1.5-5, S7.9.1.5-6</small>
IIa	C-LD	4. In patients with short QT syndrome and VT/VF storm, isoproterenol infusion can be effective. <small>S7.9.1.5-7</small>
IIb	C-EO	5. In patients with short QT syndrome, genetic testing may be considered to facilitate screening of first-degree relatives. <small>S7.9.1.5-4</small>

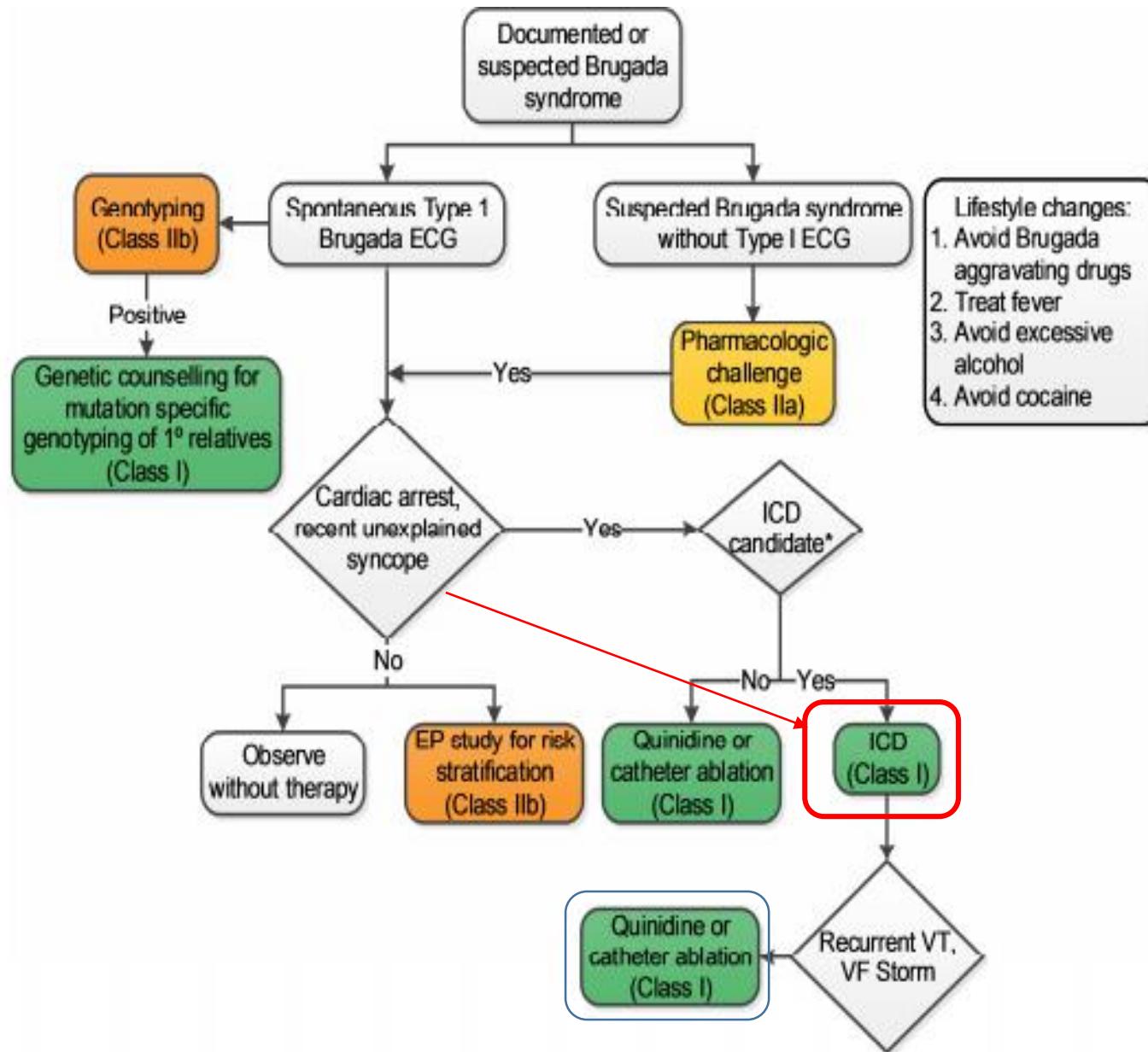
# Nhip nhanh thất đa dạng do catecholaminergic

Recommendations for Catecholaminergic Polymorphic Ventricular Tachycardia		
References that support the recommendations are summarized in Online Data Supplement 41.		
COR	LOE	Recommendations
I	B-NR	<ol style="list-style-type: none"><li>1. In patients with catecholaminergic polymorphic ventricular tachycardia, a <b>beta blocker</b> is recommended (1, 2).</li></ol>
I	B-NR	<ol style="list-style-type: none"><li>2. In patients with catecholaminergic polymorphic ventricular tachycardia and recurrent sustained VT or syncope, while receiving adequate or maximally tolerated beta blocker, treatment intensification with either combination medication therapy (e.g., beta blocker, flecainide), left cardiac sympathetic denervation, and/or an <b>ICD</b> is recommended (2-6).</li></ol>
IIa	B-NR	<ol style="list-style-type: none"><li>3. In patients with catecholaminergic polymorphic ventricular tachycardia and with clinical VT or exertional syncope, genetic counseling and genetic testing are reasonable (7).</li></ol>

# Bệnh loạn sản thất phải

I	B-NR	<p>3. In patients with arrhythmogenic right ventricular cardiomyopathy and an additional marker of increased risk of SCD (resuscitated SCA, sustained VT, significant ventricular dysfunction with RVEF or LVEF <math>\leq 35\%</math>), an ICD is recommended if meaningful survival greater than 1 year is expected (9-13).</p>
IIa	B-NR	<p>7. In patients with arrhythmogenic right ventricular cardiomyopathy and syncope presumed due to VA, an ICD can be useful if meaningful survival greater than 1 year is expected (10, 11, 13).</p>

# ECG Brugada

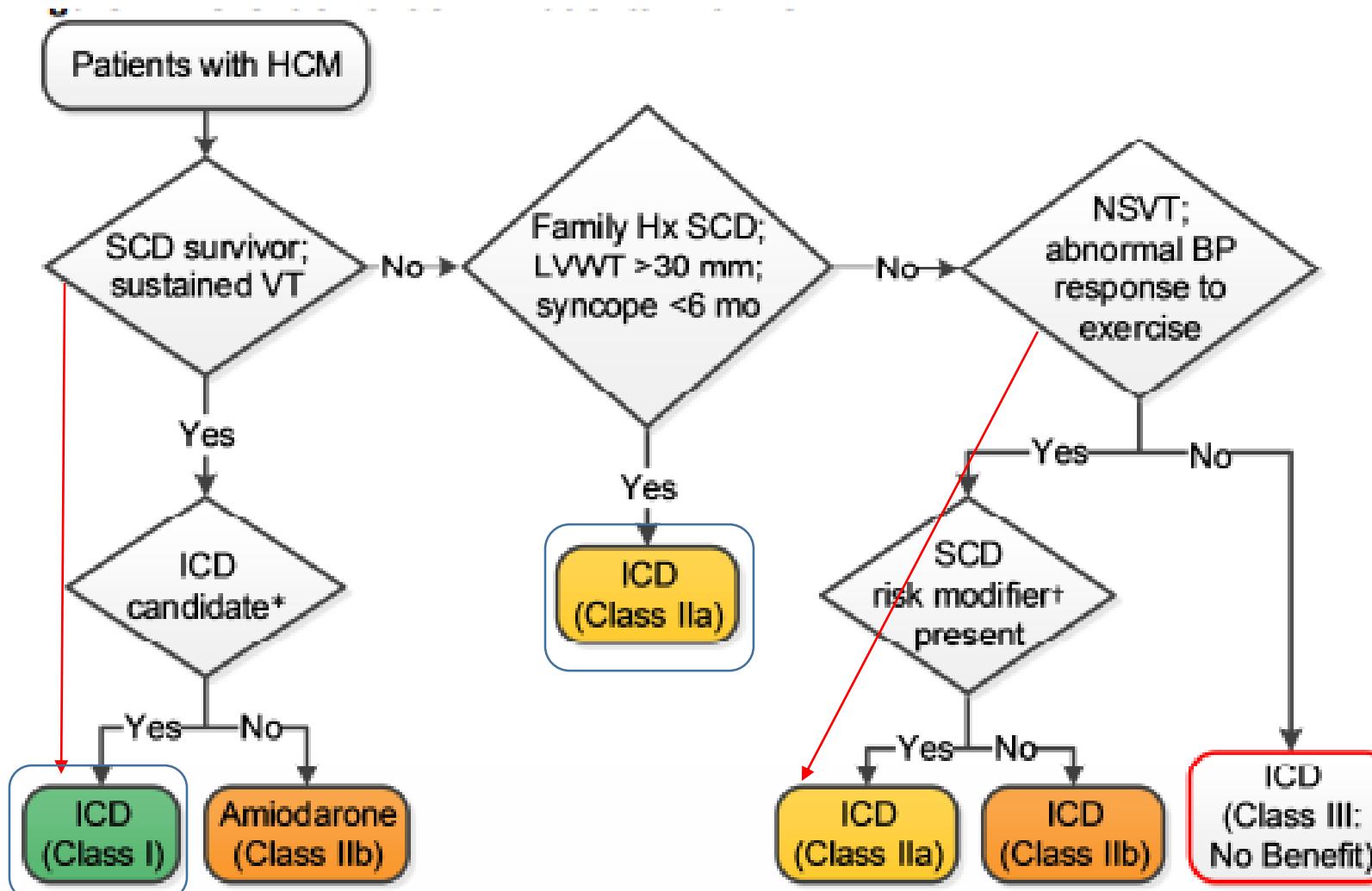


# Hội chứng tái cực sớm

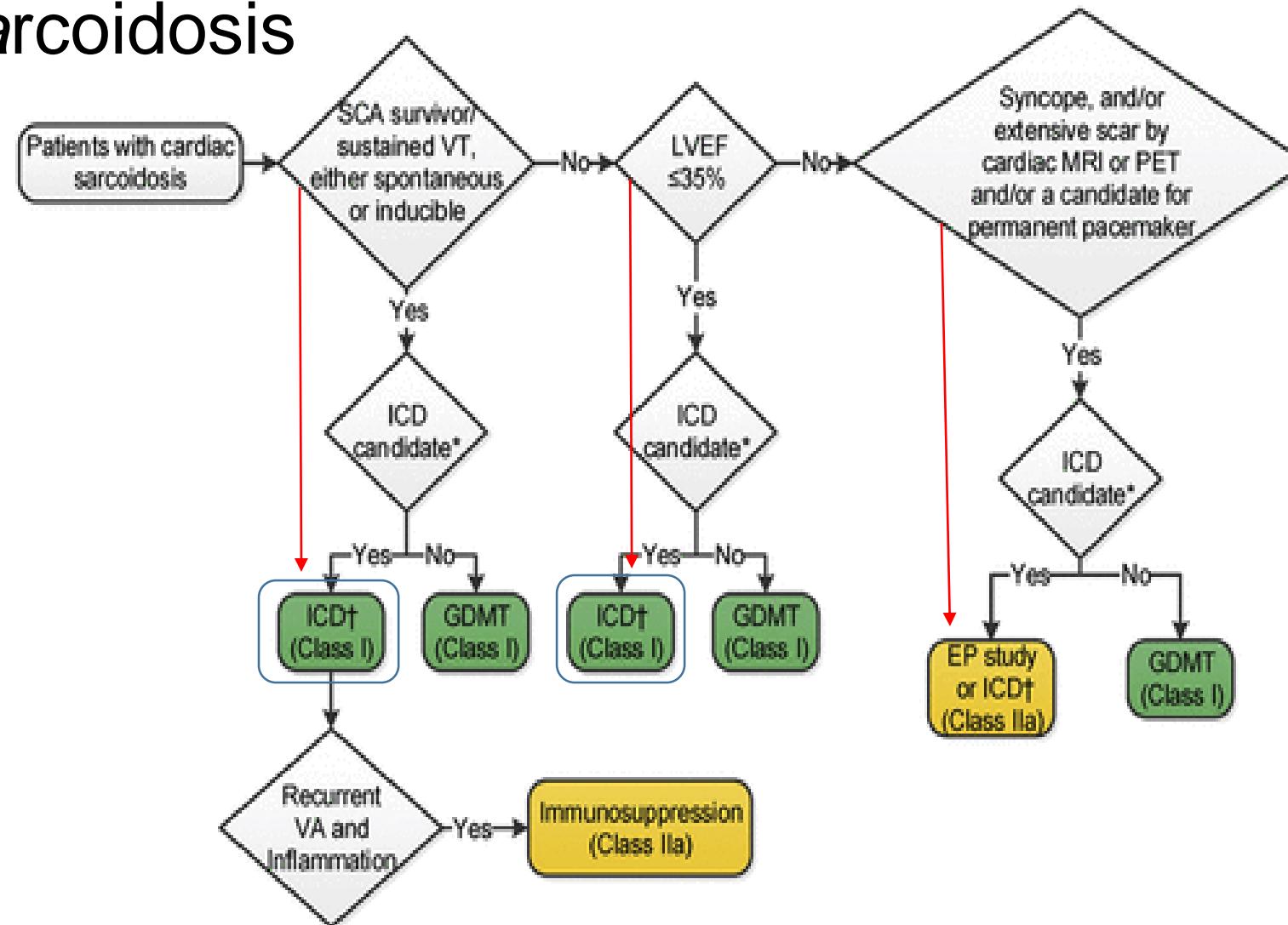
## 9.1.4. Early Repolarization “J-wave” Syndrome

Recommendations for Early Repolarization Syndrome		
COR	LOE	Recommendations
I	B-NR	1. In asymptomatic patients with an early repolarization pattern on ECG, observation without treatment is recommended. <small>S7.9.1.4-1,S7.9.1.4-2</small>
I	B-NR	2. In patients with early repolarization pattern on ECG and cardiac arrest or sustained VA, an ICD is recommended if meaningful survival greater than 1 year is expected. <small>S7.9.1.4-3,S7.9.1.4-4</small>
III: No Benefit	B-NR	3. In patients with early repolarization pattern on ECG, genetic testing is not recommended. <small>S7.9.1.4-5</small>

# Bệnh cơ tim phì đại



# Bệnh tim sarcoidosis



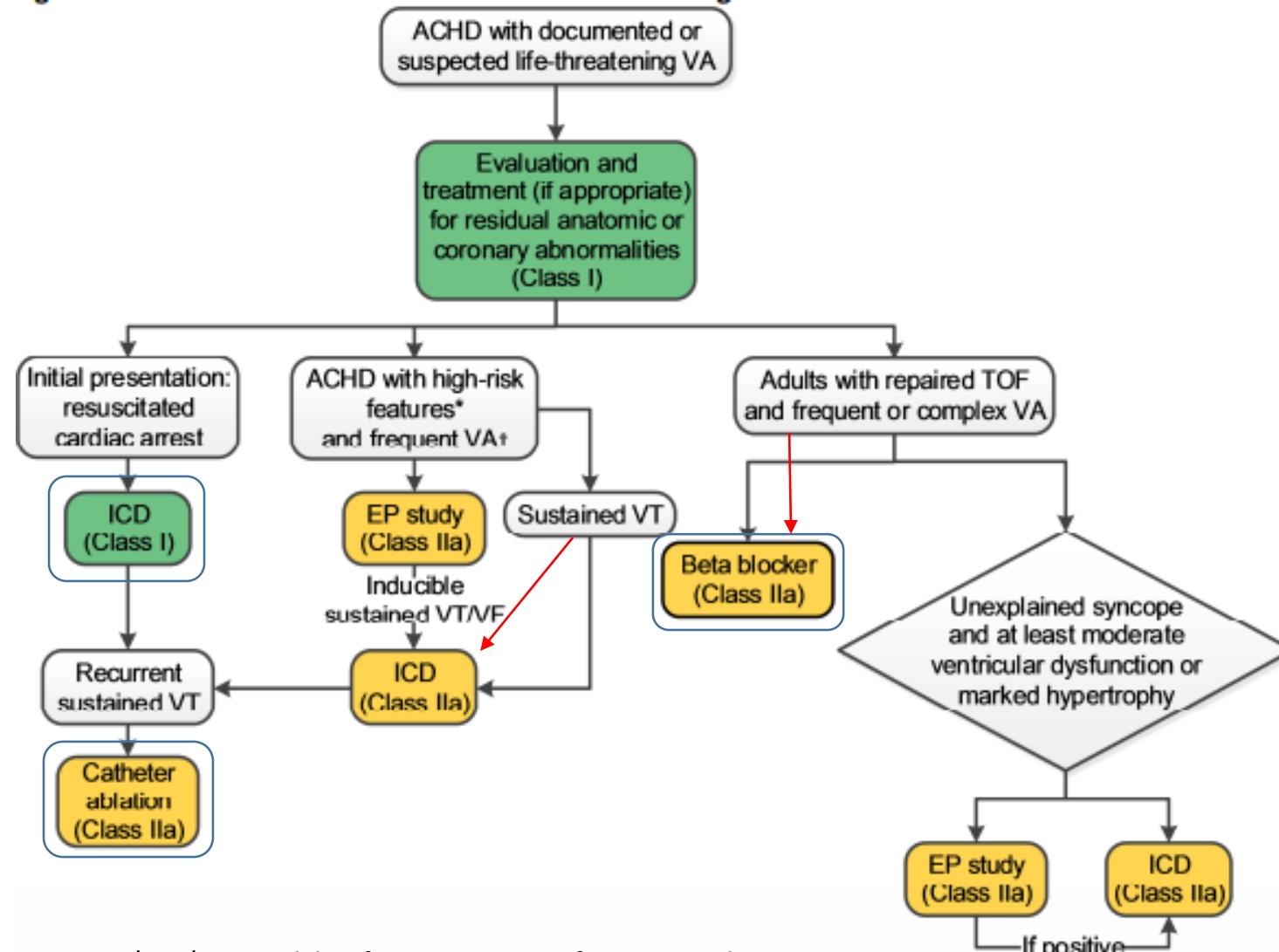
Sana M. Al-Khatib. Circulation. 2017 AHA/ACC/HRS Guideline for Management of Patients With Ventricular Arrhythmias and the Prevention of Sudden Cardiac Death, Volume: 138, Issue: 13, Pages: e272-e391, DOI: (10.1161/CIR.0000000000000549)

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# Viêm cơ tim

Recommendations for Myocarditis		
References that support the recommendations are summarized in Online Data Supplement 32.		
COR	LOE	Recommendations
I	C-LD	<ol style="list-style-type: none"><li>1. In patients with life-threatening VT or VF associated with confirmed or clinically suspected myocarditis, referral to centers with mechanical hemodynamic support and advanced arrhythmia management is recommended (1).</li></ol>
IIb	C-LD	<ol style="list-style-type: none"><li>2. In patients with giant cell myocarditis with VF or hemodynamically unstable VT treated according to GDMT, an ICD and/or an antiarrhythmic medication may be considered if meaningful survival of greater than 1 year is expected (2-4).</li></ol>

# Nhóm bệnh tim bẩm sinh



# Nhip nhanh thất trên BN có thiết bị hỗ trợ thất trái

## 7.7.3. Left Ventricular Assist Device

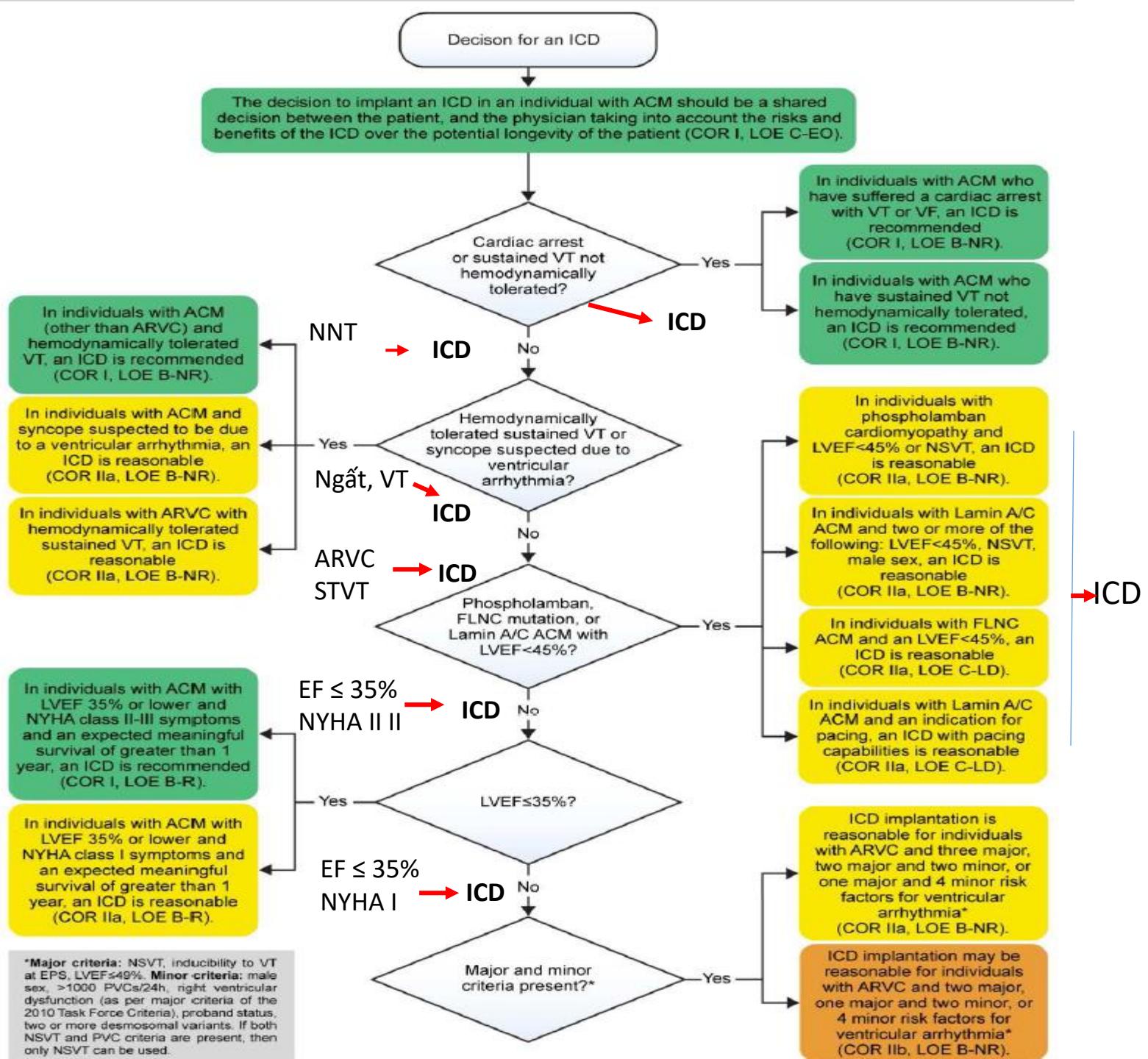
### Recommendation for Patients With an LVAD

References that support the recommendation are summarized in  
Online Data Supplement 36.

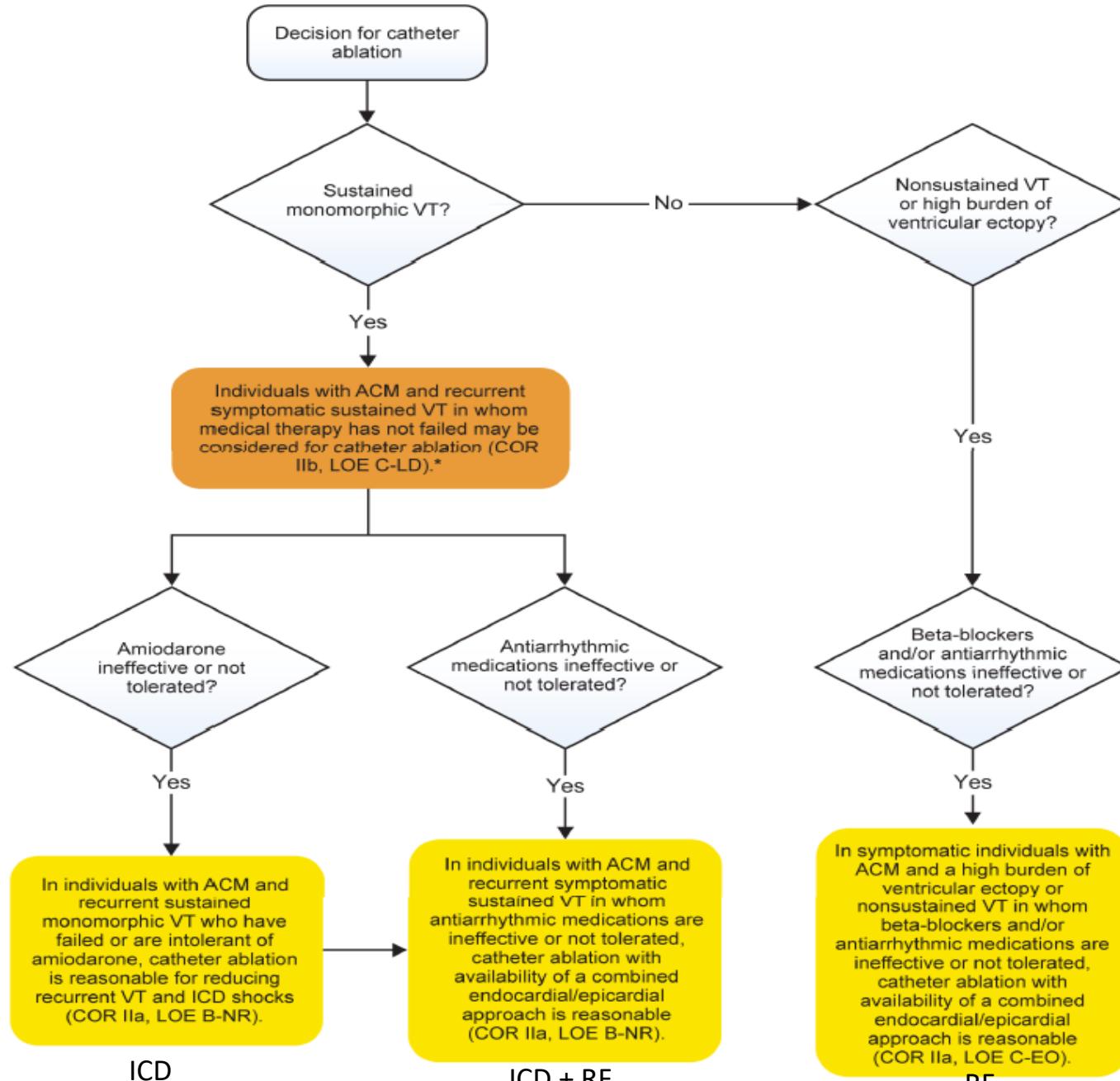
COR	LOE	Recommendation
IIa	C-LD	1. In patients with an LVAD and sustained VA, an <b>ICD</b> can be beneficial. <sup>§7.7.3-1</sup>

# Khuyến cáo điều trị loạn nhịp thất Ở bệnh cơ tim do loạn nhịp

2019 HRS/EHRA/APHRS/LANRS expert  
consensus statement on catheter  
ablation of ventricular arrhythmias



Khuyến  
Cáo  
Điều trị  
Loạn  
nhịp  
thát ở  
BN  
bệnh cơ  
tim do  
loạn  
nhịp  
bằng  
cắt đốt  
qua  
catheter



\*This recommendation does not exclude the choice to continue medical therapy that has not failed and not proceed with ablation

# Shared Decision Making

COR	LOE	Recommendations for Shared Decision-Making
I	B-NR	<ol style="list-style-type: none"><li>1. Những bệnh nhân <b>loạn nhịp thất hoặc có nguy cơ đột tử cao</b>, các nhà lâm sàng nên áp dụng <b>phương thức cùng chia sẻ</b> để quyết định chế độ điều trị không chỉ dựa trên những chứng cứ đáng tin cậy nhất mà còn dựa trên các giá trị, mục tiêu về cuộc sống và sức khỏe, nguyện vọng của bệnh nhân.</li></ol>
I	B-NR	<ol style="list-style-type: none"><li>2. Những bệnh nhân đang cân nhắc cấy máy mới hoặc thay ICD vì hết pin nên được giải thích về nguy cơ đột tử do tim và không do tim do bệnh lý suy tim hoặc không phải tim gây ra, về lợi ích, an toàn và những biến chứng có thể có của ICD trong toàn cảnh về mục tiêu sức khỏe, các giá trị và nguyện vọng của họ.</li></ol>

2017 AHA/ACC/HRS Guideline for Management of Patients With Ventricular Arrhythmias and the Prevention of Sudden Cardiac Death

# Kết luận

- Loạn nhịp thất nguy hiểm nhất là nhịp nhanh thất, rung thất, đó là nguyên nhân đột tử. Chẩn đoán và điều trị chính xác sẽ làm giảm tỷ lệ đột tử, góp phần làm giảm tử vong tim mạch.
- Loạn nhịp thất điều trị ngoài những phương pháp chung, cần đánh giá và xác định bệnh nền để có hướng điều trị thích hợp.
- Điều trị loạn nhịp thất gồm thuốc, dụng cụ (ICD), bên cạnh đó điều trị cắt đốt ngày càng chứng minh được hiệu quả và có chỉ định nhiều hơn.
- Thông tin, chia sẻ quyết định điều trị với bệnh nhân



XIN CHÂN THÀNH CẢM ƠN  
SỰ THEO DÕI CỦA QUÝ ĐỒNG NGHIỆP