

ĐIỀU TRỊ BỆNH NHÂN RUNG NHĨ: CẬP NHẬT 2015

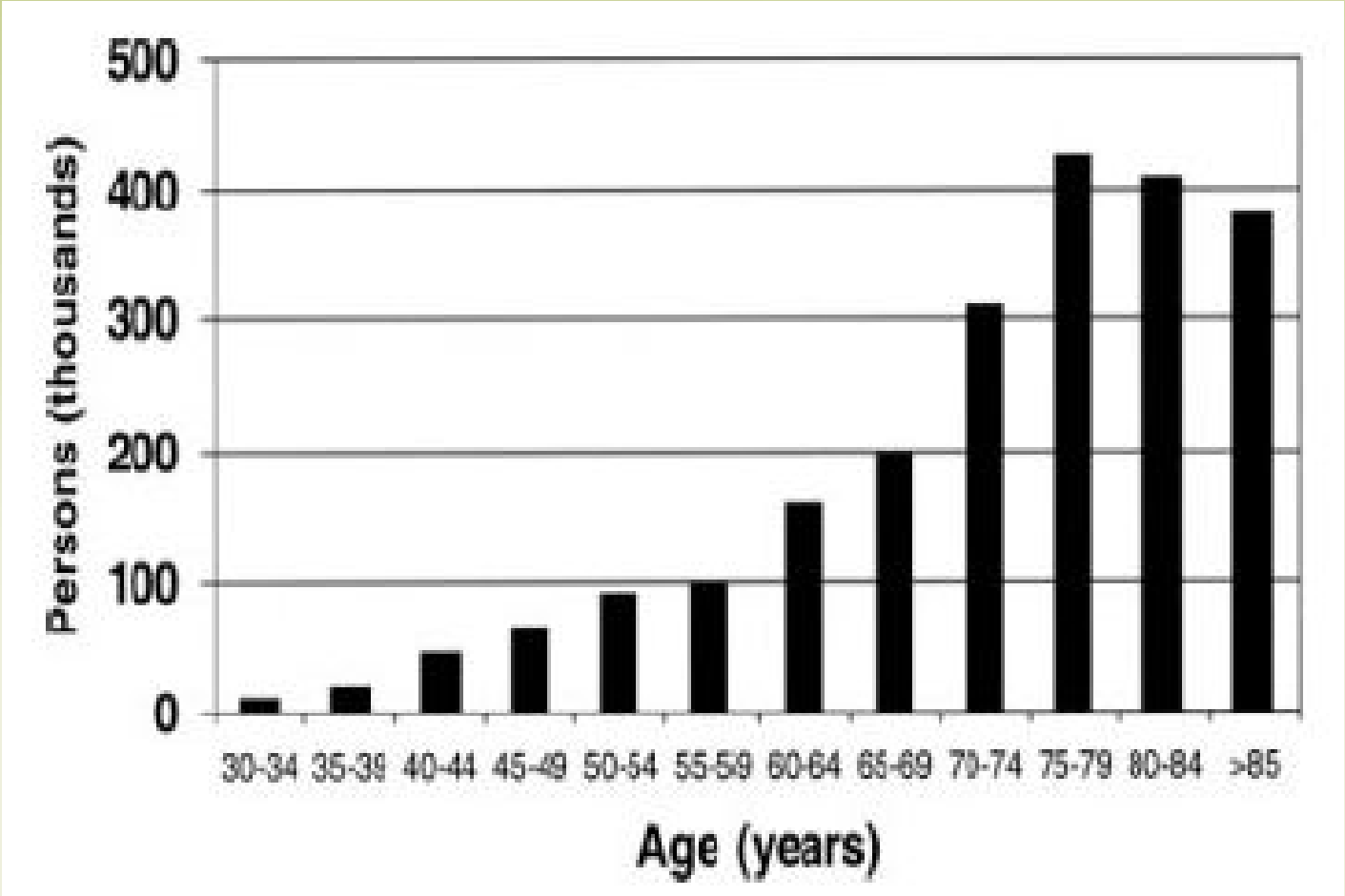
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Định nghĩa Rung nhĩ

Term	Definition
Paroxysmal AF	• AF that terminates spontaneously or with intervention within 7 d of onset • Episodes may recur with variable frequency.
Persistent AF	• Continuous AF that is sustained >7 d.
Longstanding persistent AF	• Continuous AF of >12 mo duration.
Permanent AF	• Permanent AF is used when there has been a joint decision by the patient and clinician to cease further attempts to restore and/or maintain sinus rhythm. • Acceptance of AF represents a therapeutic attitude on the part of the patient and clinician rather than an inherent pathophysiological attribute of the AF. • Acceptance of AF may change as symptoms, the efficacy of therapeutic interventions, and patient and clinician preferences evolve.
Nonvalvular AF	• AF in the absence of <u>rheumatic mitral stenosis</u>, a <u>mechanical or bioprosthetic heart valve</u>, or mitral valve repair.

AF indicates atrial fibrillation.

Tần suất rung nhĩ theo tuổi



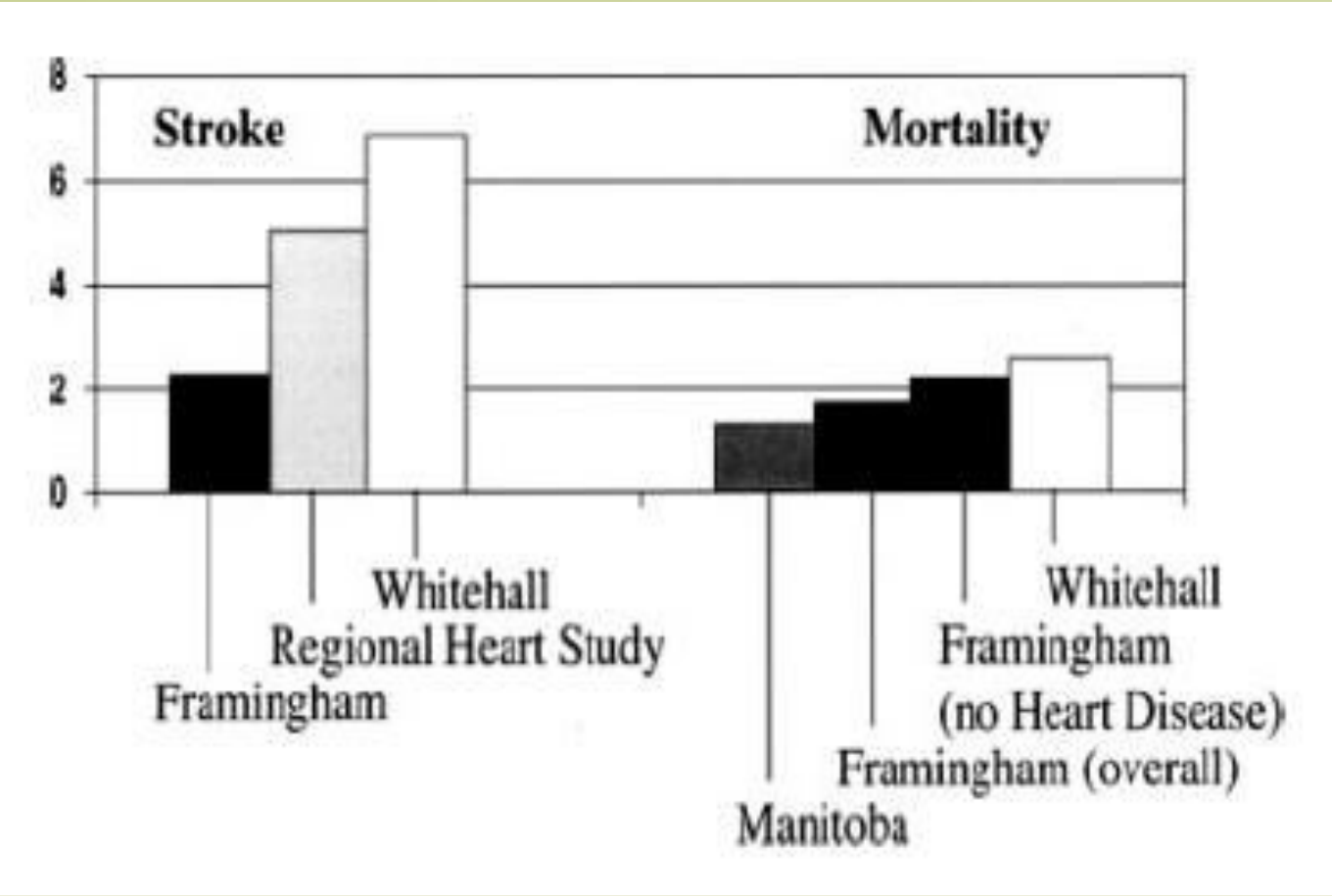
TL : Circulation 2006 : 114 ; e 257 – e 354

Tần suất rung nhĩ theo mức độ suy tim

Predominant NYHA Class	Prevalence of AF (%)	Study
I	4	SOLVD–Prevention (1992) ^{14a}
II-III	10 to 26	SOLVD–Treatment (1991) ^{14b} CHF-STAT (1995) ^{14c} MERIT-HF (1999) ^{14d} DIAMOND-CHF (1999) ⁵⁰¹
II-IV	12 to 27	CHARM (2003) Val-HeFT (2003) ⁸⁴⁸
III-IV	20 to 29	Middlekauff (1991) ^{14e} Stevenson (1996) GESICA (1994) ^{14f}
IV	50	CONSENSUS (1987) ^{14g}

TL : Circulation 2006 : 114 ; e 257 – e 354

Nguy cơ tương đối đột quỵ và tử vong ở bệnh nhân rung nhĩ so với người không rung nhĩ

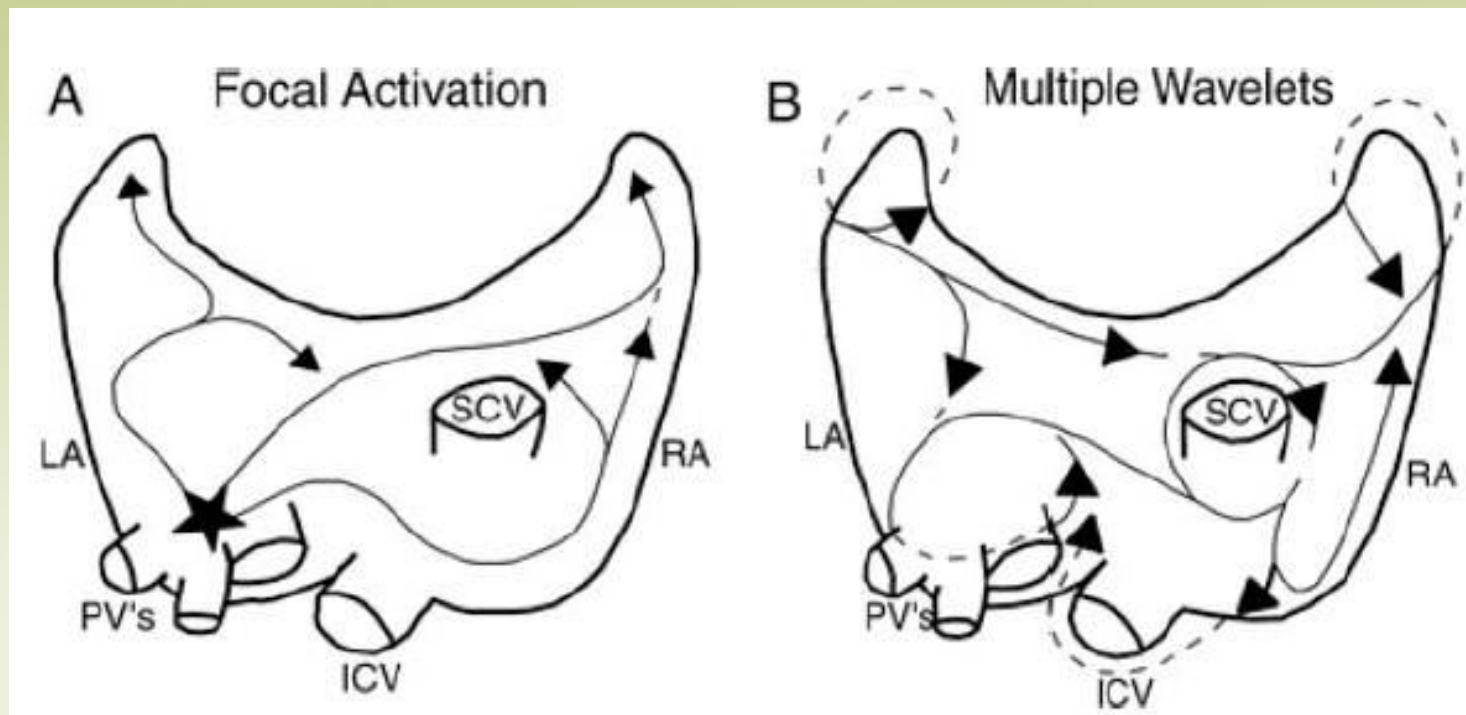


TL : Circulation 2006 : 114 ; e 257 – e 354

Cơ chế sinh lý bệnh Rung nhĩ

- Yếu tố nhĩ : sợi hóa, sau mổ tim
- Dẫn truyền nhĩ thất : có hay không đường phụ
- Hậu quả huyết động và cơ tim của rung nhĩ
- Huyết khối thuyên tắc

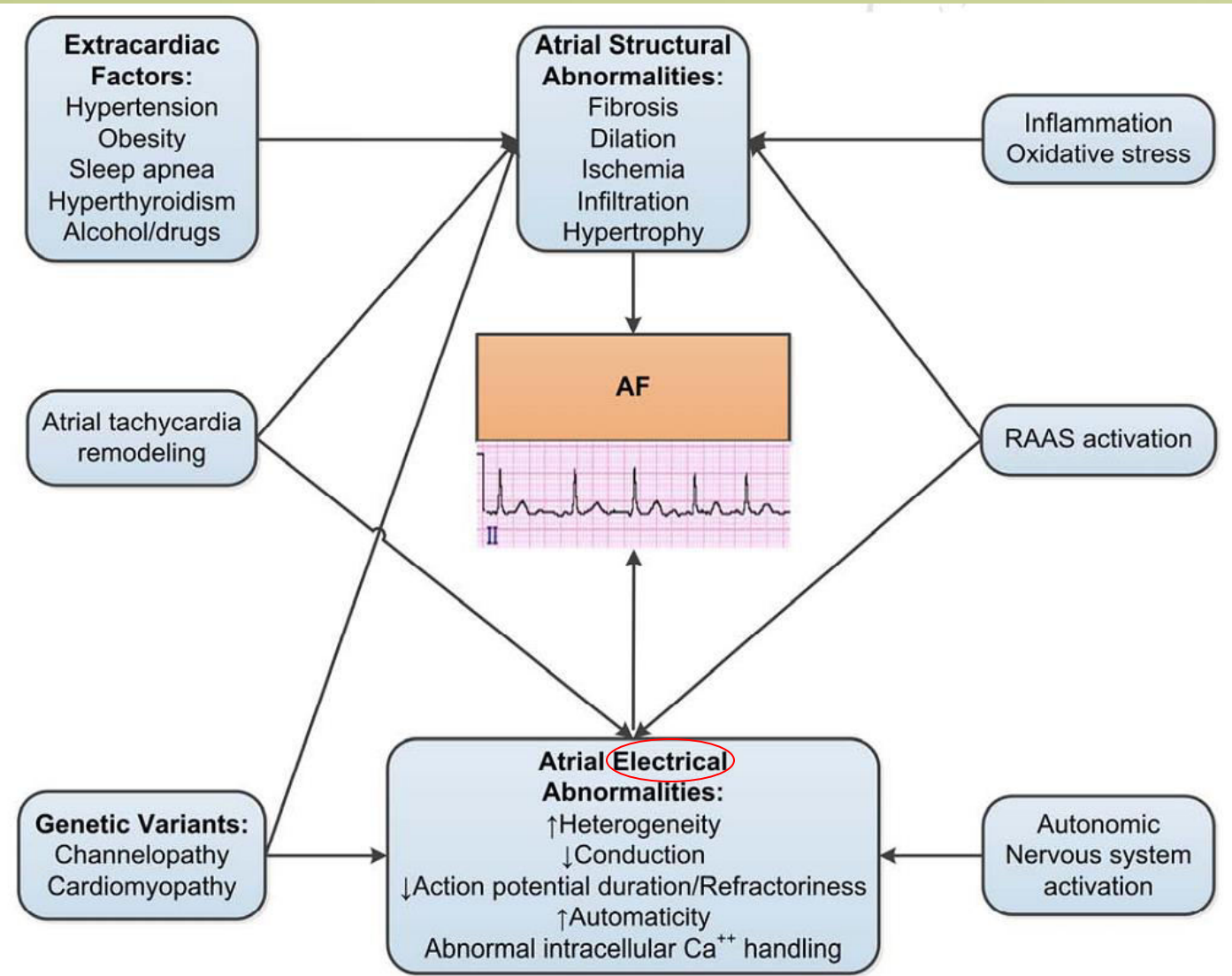
Hai cơ chế của rung nhĩ



- Ổ tự động (automatic focus)
- Vào lại đa sóng nhỏ (Multiple Wavelet Reentry)

TL: *Circulation* 2006; 114; e 257 – e 354

Các cơ chế của rung nhĩ



AF indicates atrial fibrillation; Ca^{++} ionized calcium; and RAAS, renin-angiotensin-aldosterone system.

Điều trị rung nhĩ

- 3 mục tiêu :
- Kiểm soát tần số thất
- Phòng ngừa huyết khối thuyên tắc
- Chuyển nhịp và duy trì

TL : Circulation 2006 : 114 ; e 257 – e 354

Các yếu tố cần khảo sát/chiến lược điều trị

- Kiểu RN, bao lâu?
- Các triệu chứng cơ năng và độ nặng
- Bệnh tim mạch phối hợp
- Tuổi
- Tình trạng bệnh ngoài tim phối hợp
- Mục tiêu ngắn hạn và lâu dài
- Lựa chọn điều trị bằng thuốc hay không thuốc

TL : Circulation 2006 : 114 ; e 257 – e 354

Khuyến cáo phòng ngừa rung nhĩ

- Loại IIa: UCMC hoặc ARB giúp phòng ngừa tiên phát bệnh nhân mới rung nhĩ có suy tim PXTM giảm (MCC:B)
- Loại IIb:
 - UCMC hoặc ARB giúp phòng ngừa tiên phát bệnh nhân mới bị rung nhĩ có THA (MCC: B)
 - Statin giúp phòng ngừa tiên phát bệnh nhân mới bị rung nhĩ sau phẫu thuật BCĐMV (MCC: A)

TL: January CT et al. 2014 AHA/ACC/HRS Guideline for the management of patients with atrial Fibrillation. JACC 2014

Các nghiên cứu so sánh kiểm soát tần số với kiểm soát nhịp (1)

Trial	Reference	Patients (n)	AF Duration	Follow-Up (y)	Age (mean y $\pm$ SD)	Patients in SR*
AFFIRM (2002)	296	4060	†/NR	3.5	70 $\pm$ 9	35% vs. 63% (at 5 y)
RACE (2002)	293	522	1 to 399 d	2.3	68 $\pm$ 9	10% vs. 39% (at 2.3 y)
PIAF (2000)	294	252	7 to 360 d	1	61 $\pm$ 10	10% vs. 56% (at 1 y)
STAF (2003)	343	200	6 $\pm$ 3 mo	1.6	66 $\pm$ 8	11% vs. 26% (at 2 y)
HOT CAFÉ (2004)	344	205	7 to 730 d	1.7	61 $\pm$ 11	NR vs. 64%

TL : Circulation 2006 : 114 ; e 257 – e 354

Các nghiên cứu so sánh kiểm soát tần số với kiểm soát nhịp (2)

Clinical Events (n)			
Stroke/Embolism		Death	
Rate	Rhythm	Rate	Rhythm
88/2027	93/2033	310/2027	356/2033
7/256	16/266	18/256	18/266
0/125	2/127	2/125	2/127
2/100	5/100	8/100	4/100
1/101	3/104	1/101	3/104

Không khác biệt về tử vong và đột quỵ giữa 2 nhóm nghiên cứu

TL : Circulation 2006 : 114 ; e 257 – e 354

Phối hợp thuốc/kiểm soát tần số thất bệnh nhân rung nhĩ

- Digoxin + chẹn beta hoặc đối kháng calci không dihydropyridine (class IIa-B)
- Phối hợp Digoxin + chẹn beta hoặc đối kháng calci không dihydropyridin chưa đủ, có thể thêm amiodarone (class IIb-C)

TL : Circulation 2006 : 114 ; e 257 – e 354

Kiểm soát tần số tim/ Rung nhĩ (1)

Recommendations	COR	LOE	References
Control ventricular rate using a beta blocker or nondihydropyridine calcium channel antagonist for paroxysmal, persistent, or permanent AF	I	B	(94-96)
IV beta blockers or nondihydropyridine calcium channel blocker recommended to slow ventricular heart rate in the acute setting in patients without pre-excitation. In hemodynamically unstable patients, electrical cardioversion is indicated	I	B	(97-100)
For AF, assess heart rate control during exertion, adjusting pharmacological treatment as necessary	I	C	N/A

TL: January CT et al. 2014 AHA/ACC/HRS Guideline for the management of patients with atrial Fibrillation. JACC 2014

Kiểm soát tần số tim/ Rung nhĩ (2)

A heart rate control (resting heart rate <80 bpm) strategy is reasonable for symptomatic management of AF	IIa	B	(96, 101)
IV amiodarone can be useful for rate control in critically ill patients without pre-excitation	IIa	B	(102-104)
AV nodal ablation with permanent ventricular pacing is reasonable when pharmacological management is inadequate and rhythm control is not achievable	IIa	B	(105-107)
Lenient rate control strategy (resting heart rate <110 bpm) may be reasonable with asymptomatic patients and LV systolic function is preserved	IIb	B	(101)
Oral amiodarone may be useful for ventricular rate control when other measures are unsuccessful or contraindicated	IIb	C	N/A

TL: January CT et al. 2014 AHA/ACC/HRS Guideline for the management of patients with atrial Fibrillation. JACC 2014

Kiểm soát tần số tim/ Rung nhĩ (3)

AV nodal ablation should not be performed without <u>prior attempts to achieve rate control</u> with medications	III: Harm	C	N/A
Nondihydropyridine calcium channel antagonists should not be used in decompensated HF	III: Harm	C	N/A
With pre-excitation and AF, digoxin, nondihydropyridine calcium channel antagonists, or amiodarone, should not be administered	III: Harm	B	(108)
Dronedarone should not be used to control ventricular rate with permanent AF	III: Harm	B	(109, 110)

AF indicates atrial fibrillation; AV, atrioventricular; COR, Class of Recommendation; HF, heart failure; IV, intravenous; LOE, Level of Evidence; LV, left ventricular; and N/A, not applicable.

TL: January CT et al. 2014 AHA/ACC/HRS Guideline for the management of patients with atrial Fibrillation. JACC 2014

Liều lượng thường dùng các thuốc kiểm soát tần số thất/ Rung nhĩ (1)

	Intravenous Administration	Usual Oral Maintenance Dose
Beta blockers		
Metoprolol tartrate	2.5–5.0 mg IV bolus over 2 min; up to 3 doses	25–100 mg BID
Metoprolol XL (succinate)	N/A	50–400 mg QD
Atenolol	N/A	25–100 mg QD
Esmolol	500 mcg/kg IV bolus over 1 min, then 50–300 mcg/kg/min IV	N/A
Propranolol	1 mg IV over 1 min, up to 3 doses at 2 min intervals	10–40 mg TID or QID
Nadolol	N/A	10–240 mg QD
Carvedilol	N/A	3.125–25 mg BID
Bisoprolol	N/A	2.5–10 mg QD

TL: January CT et al. 2014 AHA/ACC/HRS Guideline for the management of patients with atrial Fibrillation. JACC 2014

Liều lượng thường dùng các thuốc kiểm soát tần số thất/ Rung nhĩ (2)

Nondihydropyridine calcium channel antagonists		
Verapamil	(0.075-0.15 mg/kg) IV bolus over 2 min, may give an additional 10.0 mg after 30 min if no response, then 0.005 mg/kg/min infusion	180–480 mg QD (ER)
Diltiazem	0.25 mg/kg IV bolus over 2 min, then 5-15 mg/h	120–360 mg QD (ER)
Digitalis glycosides		
Digoxin	0.25 mg IV with repeat dosing to a maximum of 1.5 mg over 24 h	0.125–0.25 mg QD
Others		
Amiodarone	300 mg IV over 1 h, then 10–50 mg/h over 24 h	100–200 mg QD

AF indicates atrial fibrillation; BID, twice daily; ER, extended release; IV, intravenous; N/A, not applicable; QD, once daily; QID, four times a day; and TID, three times a day.

TL: January CT et al. 2014 AHA/ACC/HRS Guideline for the management of patients with atrial Fibrillation. JACC 2014

Phòng ngừa huyết khối thuyên tắc/ Rung nhĩ (1)

Recommendations	COR	LOE	References
Antithrombotic therapy based on shared decision-making, discussion of risks of stroke and bleeding, and patient's preferences	I	C	N/A
Antithrombotic therapy selection based on risk of thromboembolism	I	B	(65-68)
CHA ₂ DS ₂ -VASc score recommended to assess stroke risk	I	B	(69-71)
Warfarin recommended with mechanical heart valves. Target INR intensity should be based on the type and location of prosthesis	I	B	(72-74)
With prior stroke, TIA, or CHA ₂ DS ₂ -VASc score ≥ 2 , oral anticoagulants recommended. Options include:			
• Warfarin	I	A	(69-71)
• Dabigatran, rivaroxaban, or apixaban	I	B	(75-77)

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Phòng ngừa huyết khối thuyên tắc/ Rung nhĩ (2)

With warfarin, determine INR at least weekly during initiation and monthly when stable	I	A	(78-80)
Direct thrombin or factor Xa inhibitor recommended, if unable to maintain therapeutic INR	I	C	N/A
Re-evaluate the need for anticoagulation at periodic intervals	I	C	N/A
Bridging therapy with LMWH or UFH recommended with a mechanical heart valve if warfarin is interrupted. Bridging therapy should balance risks of stroke and bleeding	I	C	N/A

TL: January CT et al. 2014 AHA/ACC/HRS Guideline for the management of patients with atrial Fibrillation. JACC 2014

Phòng ngừa huyết khối thuyên tắc/ Rung nhĩ (3)

Without a mechanical heart valve, bridging therapy decisions should balance stroke and bleeding risks against the duration of time patient will not be anticoagulated	I	C	N/A
Evaluate renal function prior to initiation of direct thrombin or factor Xa inhibitors, and re-evaluate when clinically indicated and at least annually	I	B	(81-83)
For atrial flutter, antithrombotic therapy is recommended as for AF	I	C	N/A
With nonvalvular AF and CHA ₂ DS ₂ -VASc score of 0, it is reasonable to omit antithrombotic therapy	IIa	B	(81, 82)
With CHA ₂ DS ₂ -VASc score ≥2 and end-stage CKD (CrCl <15 mL/min) or on hemodialysis, it is reasonable to prescribe warfarin for oral anticoagulation	IIa	B	(83)

TL: January CT et al. 2014 AHA/ACC/HRS Guideline for the management of patients with atrial Fibrillation. JACC 2014

Lựa chọn liều lượng thuốc kháng đông/ RN không bệnh van tim kèm bệnh thận mạn

Renal Function	Warfarin (93)	Dabigatran† (75)	Rivaroxaban† (76)	Apixaban† (77)
Normal/Mild Impairment	Dose adjusted for INR 2.0–3.0	150 mg BID (CrCl >30 mL/min)	20 mg HS (CrCl >50 mL/min)	5.0 or 2.5 mg BID‡
Moderate Impairment	Dose adjusted for INR 2.0–3.0	150 mg BID or 75 mg BID§ (CrCl >30 mL/min)	15 mg HS (CrCl 30–50 mL/min)	5.0 or 2.5 mg BID‡
Severe Impairment	Dose adjusted for INR 2.0–3.0	75 mg BID§ (CrCl 15–30 mL/min)	15 mg HS (CrCl 15–30 mL/min)	No recommendation, See section 4.2.2.2.¶
End-Stage CKD Not on Dialysis	Dose adjusted for INR 2.0–3.0	Not recommended¶ (CrCl <15 mL/min)	Not recommended¶ (CrCl <15 mL/min)	No recommendation, See section 4.2.2.2.¶
End-Stage CKD on Dialysis	Dose adjusted for INR 2.0–3.0	Not recommended¶ (CrCl <15 mL/min)	Not recommended¶ (CrCl <15 mL/min)	No recommendation, See section 4.2.2.2.¶#

- Severe impairment RF: Clor 15-30 ml/m

Nghiên cứu ACTIVE-W (Atrial Fibrillation Clopidogrel Trial with Irbesartan for Prevention of Vascular Events)

- Hai nhóm:
 - Clopidogrel + aspirin
 - Warfarin
- Tiêu chí chính: đột quỵ, thuyên tắc hệ thống không hệ thần kinh trung tâm, NMCT, tử vong do mạch máu
- Kết quả:
 - Warfarin hiệu quả hơn ASA + clopidogrel ($p = 0,0003$)
 - Xuất huyết tương đương 2 nhóm

TL: Conolly S et al. Lancet 2006; 367: 1903-1912

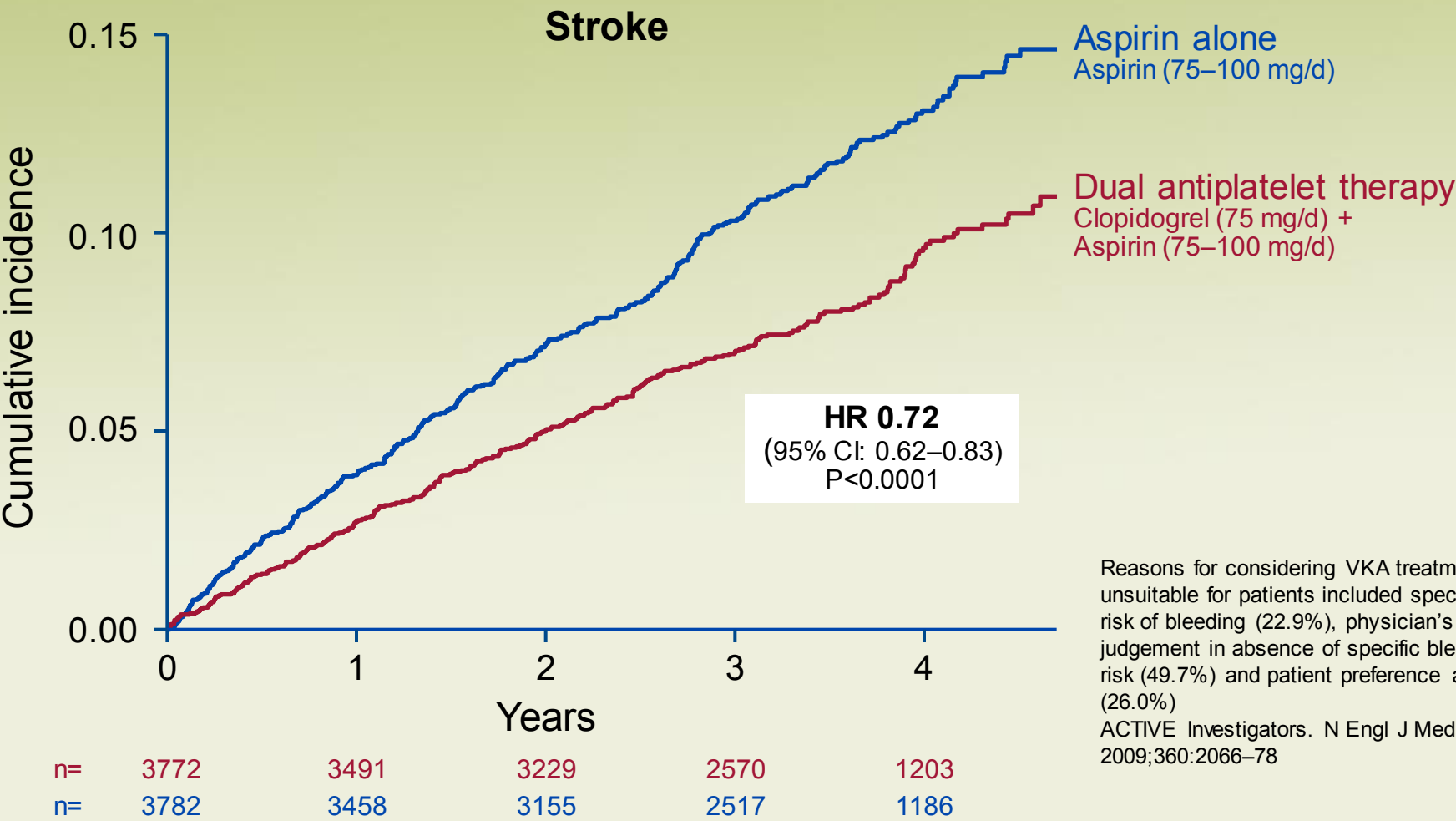
Nghiên cứu ACTIVE-A

(Effect of clopidogrel Added to Aspirin in Patients with Atrial Fibrillation)

- Bệnh nhân không sử dụng được kháng đông: do nguy cơ đặc biệt chảy máu (22,9%), ý muốn bệnh nhân (26%) ý muốn thầy thuốc (49,7%)
- Hai nhóm:
- Aspirin + clopidogrel
- Aspirin + placebo
- Tiêu chí chính: đột quy, NMCT, thuyên tắc hệ thống không hệ thần kinh trung tâm, tử vong do mạch máu
- Kết quả (sau 3,6 năm)
- Tiêu chí chính: ASA + clopidogrel < ASA + placebo ($p < 0,01$) chủ yếu giảm đột quy
- Xuất huyết lớn: ASA + clopidogrel > ASA + placebo ($p < 0,001$)

TL: Connolly SJ et al. N Engl J Med 2009; 360: 2066- 2078

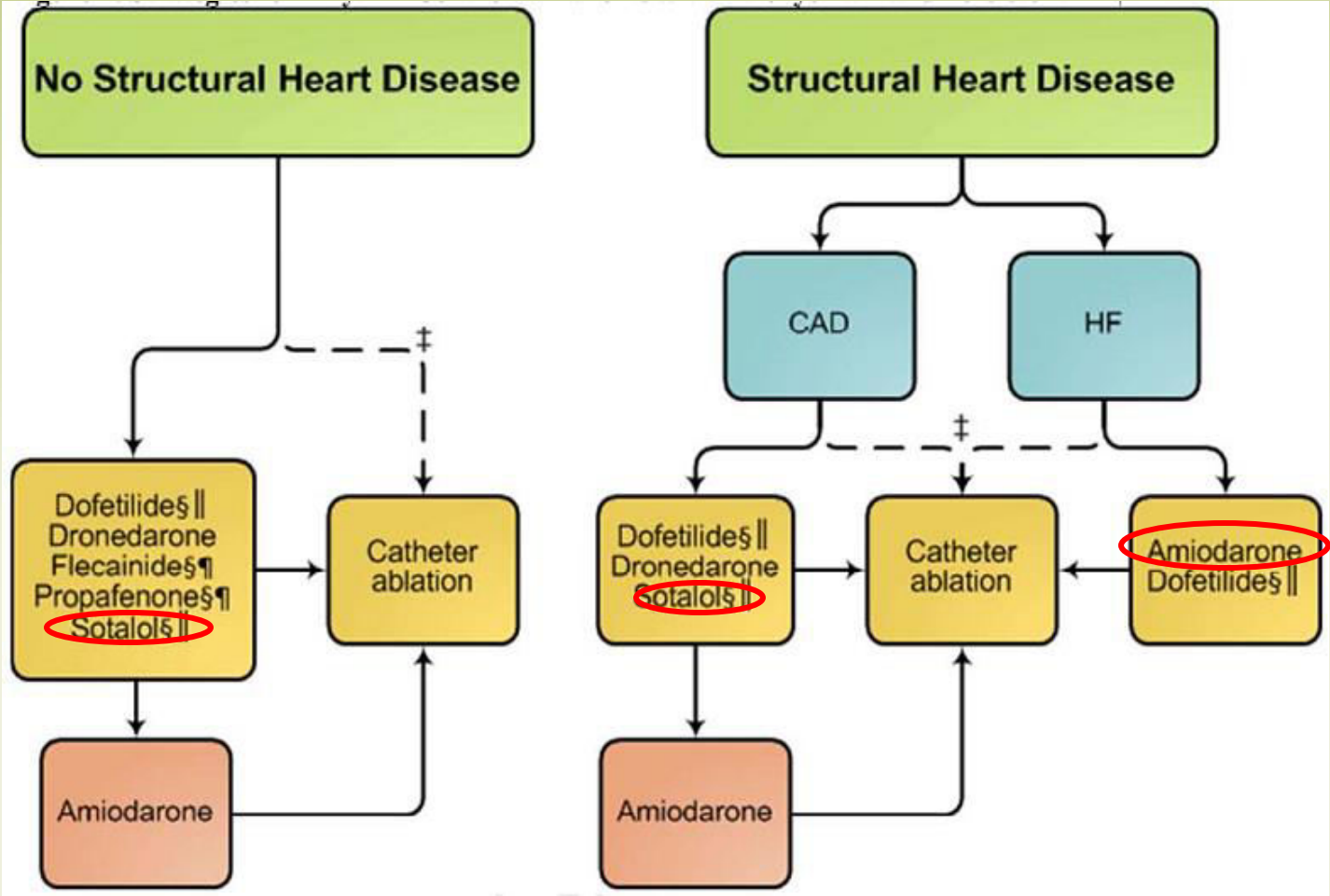
ACTIVE A: dual antiplatelet therapy superior to Aspirin alone for stroke prevention in AF



Reasons for considering VKA treatment unsuitable for patients included specific risk of bleeding (22.9%), physician's judgement in absence of specific bleeding risk (49.7%) and patient preference alone (26.0%)
ACTIVE Investigators. N Engl J Med 2009;360:2066–78

- Bít tiểu nhĩ trái hoặc cắt bỏ tiểu nhĩ trái khi bệnh nhân phẫu thuật tim: giúp phòng ngừa huyết khối thuyên tắc (Class IIb, MCC:C)

Chiến lược kiểm soát nhịp/bệnh nhân RN cơn hay RN kéo dài



Kiểm soát nhịp/Rung nhĩ (1)

Recommendations	COR	LOE	References
Thromboembolism prevention			
With AF or atrial flutter for ≥ 48 h, or unknown duration, anticoagulate with warfarin for at least 3 wk prior to and 4 wk after cardioversion	I	B	(111-114)
With AF or atrial flutter for >48 h or unknown duration requiring immediate cardioversion, anticoagulate as soon as possible and continue for at least 4 wk	I	C	N/A
With AF or atrial flutter <48 h and high stroke risk, IV heparin or LMWH, or factor Xa or direct thrombin inhibitor, is recommended before or immediately after cardioversion, followed by long-term anticoagulation	I	C	N/A
Following cardioversion of AF, long-term anticoagulation should be based on thromboembolic risk	I	C	N/A

TL: January CT et al. 2014 AHA/ACC/HRS Guideline for the management of patients with atrial Fibrillation. JACC 2014

Kiểm soát nhịp/Rung nhĩ (2)

With AF or atrial flutter for ≥ 48 h or unknown duration and no anticoagulation for preceding 3 wk, it is reasonable to perform a TEE prior to cardioversion, and then cardiovert if no LA thrombus is identified, provided anticoagulation is achieved before TEE and maintained after cardioversion for at least 4 wk	IIa	B	(115)
With AF or atrial flutter ≥ 48 h, or unknown duration, anticoagulation with dabigatran, rivaroxaban, or apixaban is reasonable for ≥ 3 wk prior to and 4 wk after cardioversion	IIa	C	(116-118)
With AF or atrial flutter < 48 h and low thromboembolic risk, IV heparin, LMWH, a new oral anticoagulant, or no antithrombotic may be considered for cardioversion	IIb	C	(119)

TL: January CT et al. 2014 AHA/ACC/HRS Guideline for the management of patients with atrial Fibrillation. JACC 2014

Kiểm soát nhịp/Rung nhĩ (3)

Direct-current cardioversion			
Cardioversion is recommended for AF or atrial flutter to restore sinus rhythm. If unsuccessful, repeat cardioversion attempts may be made	I	B	(120)
Cardioversion is recommended for AF or atrial flutter with RVR, that does not respond to pharmacological therapies	I	C	N/A
Cardioversion is recommended for AF or atrial flutter and pre-excitation with hemodynamic instability	I	C	N/A
It is reasonable to repeat cardioversions in persistent AF when sinus rhythm is maintained for a clinically meaningful time period between procedures	IIa	C	N/A

TL: January CT et al. 2014 AHA/ACC/HRS Guideline for the management of patients with atrial Fibrillation. JACC 2014

Kiểm soát nhịp/Rung nhĩ (4)

Pharmacological cardioversion			
Flecainide, dofetilide, propafenone, and IV ibutilide are useful for cardioversion of AF or atrial flutter provided contraindications to the selected drug are absent	I	A	(121-126)
Amiodarone is reasonable for pharmacological cardioversion of AF	IIa	A	(127, 128)
Propafenone or flecainide (“pill-in-the-pocket”) to terminate AF out of hospital is reasonable once observed to be safe in a monitored setting	IIa	B	(121)
Dofetilide should not be initiated out of hospital	III: Harm	B	(125, 129)

AF indicates atrial fibrillation; COR, Class of Recommendation; IV, intravenous; LA, left atrial; LOE, Level of Evidence; LMWH, low-molecular-weight heparin; N/A, not applicable; RVR, rapid ventricular response; and TEE, transesophageal echocardiogram.

TL: January CT et al. 2014 AHA/ACC/HRS Guideline for the management of patients with atrial Fibrillation. JACC 2014

Liều lượng và thuốc duy trì nhịp xoang (1)

Drug	Usual Doses	Exclude/Use with Caution	Major Pharmacokinetic Drug Interactions
Vaughan Williams Class IA			
Disopyramide	• Immediate release: 100–200 mg once every 6 h • Extended release: 200–400 mg once every 12 h	• HF • Prolonged QT interval • Prostatism, glaucoma • Avoid other QT interval-prolonging drugs	• Metabolized by <i>CYP3A4</i>: caution with inhibitors (e.g., verapamil, diltiazem, ketoconazole, macrolide antibiotics, protease inhibitors, grapefruit juice) and inducers (e.g., rifampin, phenobarbital, phenytoin)
Quinidine	• 324–648 mg every 8 h	• Prolonged QT interval • Diarrhea	• Inhibits <i>CYP2D6</i>: ↑ concentrations of tricyclic antidepressants, metoprolol, antipsychotics; ↓ efficacy of codeine • Inhibits P-glycoprotein: ↑ digoxin concentration
Vaughan Williams Class IC			
Flecainide	• 50–200 mg once every 12 h	• Sinus or AV node dysfunction • HF • CAD • Atrial flutter • Infranodal conduction	• Metabolized by <i>CYP2D6</i> (inhibitors include quinidine, fluoxetine, tricyclics; also genetically absent in 7%–10% of population) and renal excretion (dual impairment can ↑↑ plasma concentration)
		• disease • Brugada syndrome • Renal or liver disease	
Propafenone	• Immediate release: 150–300 mg once every 8 h • Extended release: 225–425 mg once every 12 h	• Sinus or AV node dysfunction • HF • CAD • Atrial flutter • Infranodal conduction disease • Brugada syndrome • Liver disease • Asthma	• Metabolized by <i>CYP2D6</i> (inhibitors include quinidine, fluoxetine, tricyclics; also genetically absent in 7%–10% of population)—poor metabolizers have ↑ beta blockade • Inhibits P-glycoprotein: ↑ digoxin concentration • Inhibits <i>CYP2C9</i>: ↑ warfarin concentration (↑ INR 25%)

TL: January CT et al. 2014
AHA/ACC/HRS Guideline
for the management of
patients with atrial
Fibrillation. JACC 2014

Liều lượng và thuốc duy trì nhịp xoang (2)

Vaughan Williams Class III		Exclude/ use with caution	
Amiodarone	• Oral: 400–600 mg daily in divided doses for 2-4 wk; maintenance typically 100-200 mg QD • IV: 150 mg over 10 min; then 1 mg/min for 6 h; then 0.5 mg/min for 18 h or change to oral dosing; after 24 h, consider decreasing dose to 0.25 mg/min	• Sinus or AV node dysfunction • Infranodal conduction disease • Lung disease • Prolonged QT interval	• Inhibits most CYPs to cause drug interaction: ↑concentrations of warfarin (↑INR 0%–200%), statins, many other drugs • Inhibits P-glycoprotein: ↑digoxin concentration
Dofetilide	• 125–500 mcg once every 12 h	• Prolonged QT interval • Renal disease • Hypokalemia • Diuretic therapy • Avoid other QT interval prolonging drugs	• Metabolized by <i>CYP3A</i>: verapamil, HCTZ, cimetidine, ketoconazole, trimethoprim, prochlorperazine, and megestrol are contraindicated; discontinue amiodarone at least 3 mo before initiation

TL: January CT et al. 2014 AHA/ACC/HRS Guideline for the management of patients with atrial Fibrillation. JACC 2014

Liều lượng và thuốc duy trì nhịp xoang (3)

Dronedarone	• 400 mg once every 12 h	• Bradycardia • HF • Long-standing persistent AF/flutter • Liver disease • Prolonged QT interval	• Metabolized by <i>CYP3A</i>: caution with inhibitors (e.g., verapamil, diltiazem, ketoconazole, macrolide antibiotics, protease inhibitors, grapefruit juice) and inducers (e.g., rifampin, phenobarbital, phenytoin) • Inhibits <i>CYP3A</i>, <i>CYP2D6</i>, P-glycoprotein: ↑concentrations of some statins, sirolimus, tacrolimus, beta blockers, digoxin
Sotalol	• 40–160 mg once every 12 h	• Prolonged QT interval • Renal disease • Hypokalemia • Diuretic therapy • Avoid other QT interval prolonging drugs • Sinus or AV nodal dysfunction • HF • Asthma	• None (renal excretion)

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Hủy rung nhĩ bằng catheter để duy trì nhịp xoang

- Loại I: RN cơn có triệu chứng cơ năng kháng trị hoặc không dung nạp ít nhất một thuốc nhóm I hoặc III, khi mới kiểm soát nhịp
- Loại III:
 - Không huỷ RN ở bệnh nhân không thể điều trị bằng kháng đông trong lúc và sau thủ thuật (MCC: C)
 - Không huỷ RN chỉ với một mục tiêu tránh dùng kháng đông (MCC: C)

Khuyến cáo điều trị RN/ nhóm bệnh đặc biệt (1)

Recommendations	COR	LOE	References
Hypertrophic cardiomyopathy			
Anticoagulation indicated in HCM with AF independent of the CHA ₂ DS ₂ -VASc score	I	B	(170, 171)
Antiarrhythmic drugs can be useful to prevent recurrent AF in HCM. Amiodarone, or disopyramide combined with beta blockers or nondihydropyridine calcium channel antagonist are reasonable	IIa	C	N/A
AF catheter ablation can be beneficial for HCM to facilitate a rhythm-control strategy when antiarrhythmics fail or are not tolerated	IIa	B	(172-175)
Sotalol, dofetilide, and dronedarone may be considered for a rhythm-control strategy in HCM	IIb	C	(13)

TL: January CT et al. 2014 AHA/ACC/HRS Guideline for the management of patients with atrial Fibrillation. JACC 2014

Khuyến cáo điều trị RN/ nhóm bệnh đặc biệt (2)

AF complicating ACS			
Urgent cardioversion of new onset AF in setting of ACS is recommended for patients with hemodynamic compromise, ongoing ischemia, or inadequate rate control	I	C	N/A
IV beta blockers are recommended to slow RVR with ACS and no HF, hemodynamic instability, or bronchospasm	I	C	N/A
With ACS and AF with CHA ₂ DS ₂ -VASc (score ≥ 2), anticoagulation with warfarin is recommended unless contraindicated	I	C	N/A
Amiodarone or digoxin may be considered to slow a RVR with ACS and AF, and severe LV dysfunction and HF or hemodynamic instability	IIb	C	N/A
Nondihydropyridine calcium antagonists might be considered to slow a RVR with ACS and AF only in the absence of significant HF or hemodynamic instability	IIb	C	N/A

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Khuyến cáo điều trị RN/ nhóm bệnh đặc biệt (3)

Hyperthyroidism			
Beta blockers are recommended to control ventricular rate with AF complicating thyrotoxicosis, unless contraindicated	I	C	N/A
Nondihydropyridine calcium channel antagonist is recommended to control the ventricular rate with AF and thyrotoxicosis when beta blocker cannot be used	I	C	N/A
Pulmonary diseases			
Nondihydropyridine calcium channel antagonist is recommended to control the ventricular rate with COPD and AF	I	C	N/A
Cardioversion should be attempted with pulmonary disease patients who become hemodynamically unstable with new onset AF	I	C	N/A

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Điều trị rung nhĩ/ cường giáp

- Loại I
 1. Chẹn beta giúp kiểm soát tần số thất (MCC: B)
 2. Chống chỉ định chẹn beta: sử dụng ức chế calci, không DHP (MCC:B)
 3. Kháng đông (INR 2-3) phòng ngừa huyết khối thuyên tắc (MCC: C)
 4. Đã bình giáp: sử dụng kháng đông phòng ngừa huyết khối tương tự b/n không bị bệnh tuyến giáp (MCC:C)

Khuyến cáo điều trị RN/ nhóm bệnh đặc biệt (4)

WPW and pre-excitation syndromes			
Cardioversion recommended with AF, WPW, and RVR who are hemodynamically compromised	I	C	(176)
IV procainamide or ibutilide to restore sinus rhythm or slow ventricular rate recommended with pre-excited AF and RVR who are not hemodynamically compromised	I	C	(176)
Catheter ablation of accessory pathway is recommended in symptomatic patients with pre-excited AF, especially if the accessory pathway has a short refractory period	I	C	(176)
IV amiodarone, adenosine, digoxin, or nondihydropyridine calcium channel antagonists with WPW who have pre-excited AF is potentially harmful	III: Harm	B	(177-179)

- RVR: rapid Ventricular rate

Điều trị rung nhĩ/ hội chứng Wolf-Parkinson- White (1)

- Loại I
 1. Hủy đường phụ bằng catheter/ RN có triệu chứng cơ năng kèm hội chứng WPW; đặc biệt ở b/n có ngất (MCC: B)
 2. Sốc điện trực tiếp/ RN kèm WPW có rối loạn huyết động (MCC:B)
 3. Procainamide hoặc ibutilide tiêm mạch: phục hồi nhịp xoang/ RN kèm WPW có tần số thất nhanh hoặc $QRS \geq 120$ msec (MCC: C)

TL: Practice Guideline of Management of Patients with Atrial Fibrillation. J Am. Coll. Cardiol; vol 61, No 8, 2013

Điều trị rung nhĩ/ hội chứng Wolf-Parkinson- White (2)

- Loại IIa
 1. Flecainide TM hoặc sốc điện trực tiếp: RN dẫn truyền qua đường phụ, có tần số thất nhanh (MCC: B)
- Loại IIb
 1. Quinidine TM, procainamide TM, disopyramide TM, ibutilide TM, amiodarone TM, RN qua đường phụ có huyết động ổn định (MCC: B)

TL: Practice Guideline of Management of Patients with Atrial Fibrillation. J Am. Coll. Cardiol; vol 61, No 8, 2013

Điều trị rung nhĩ/ hội chứng Wolf-Parkinson- White (3)

- Loại III
 1. Không sử dụng digoxin TM, ức chế calci không DHP tiêm mạch/ RN kèm WPW kích hoạt thất qua đường phụ (MCC: B)

TL: Practice Guideline of Management of Patients with Atrial Fibrillation. J Am. Coll. Cardiol; vol 61, No 8, 2013

Khuyến cáo điều trị RN/ nhóm bệnh đặc biệt (5)

Heart failure			
Beta blocker or nondihydropyridine calcium channel antagonist is recommended for persistent or permanent AF in patients with HFpEF	I	B	(96)
In the absence of pre-excitation, IV beta blocker (or a nondihydropyridine calcium channel antagonist with HFpEF) is recommended to slow ventricular response to AF in the acute setting, exercising caution in patients with overt congestion, hypotension or	I	B	(180-183)
HFrEF			
In the absence of pre-excitation, IV digoxin or amiodarone is recommended to acutely control heart rate	I	B	(104, 181, 184, 185)
Assess heart rate during exercise and adjust pharmacological treatment in symptomatic patients during activity	I	C	N/A
Digoxin is effective to control resting heart rate with HFrEF	I	C	N/A

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Khuyến cáo điều trị RN/ nhóm bệnh đặc biệt (6)

Combination digoxin and beta blocker (or a nondihydropyridine calcium channel antagonist with HFpEF), is reasonable to control rest and exercise heart rate with AF	Ila	B	(94, 181)
Reasonable to perform AV node ablation with ventricular pacing to control heart rate when pharmacological therapy insufficient or not tolerated	Ila	B	(96, 186, 187)
IV amiodarone can be useful to control the heart rate with AF when other measures are unsuccessful or contraindicated	Ila	C	N/A
With AF and RVR, causing or suspected of causing tachycardia-induced cardiomyopathy, it is reasonable to achieve rate control by AV nodal blockade or rhythm control strategy	Ila	B	(188-190)
In chronic HF patients who remain symptomatic from AF despite a rate-control strategy, it is reasonable to use a rhythm-control strategy	Ila	C	N/A

- RVR: rapid Ventricular rate

Khuyến cáo điều trị RN/ nhóm bệnh đặc biệt (7)

Familial (Genetic) AF			
With AF and multigenerational AF family members, referral to a tertiary care center for <u>genetic counseling</u> and testing may be considered	IIb	C	N/A
Postoperative cardiac and thoracic surgery			
<u>Beta blocker</u> is recommended to treat postoperative AF unless contraindicated	I	A	(191-194)
A nondihydropyridine calcium channel blocker is recommended when a beta <u>blocker is inadequate</u> to achieve rate control with postoperative AF	I	B	(195)

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Khuyến cáo điều trị RN/ nhóm bệnh đặc biệt (8)

Preoperative amiodarone reduces AF with cardiac surgery and is reasonable as prophylactic therapy for high risk of postoperative AF	Ila	A	(196-198)
It is reasonable to restore sinus rhythm pharmacologically with ibutilide or direct-current cardioversion with postoperative AF	Ila	B	(199)
It is reasonable to administer antiarrhythmic medications to maintain sinus rhythm with recurrent or refractory postoperative AF	Ila	B	(195)
It is reasonable to administer antithrombotic medications for postoperative AF	Ila	B	(200)
It is reasonable to manage new-onset postoperative AF with rate control and anticoagulation with cardioversion if AF does not revert spontaneously to sinus rhythm during follow-up	Ila	C	N/A
Prophylactic sotalol may be considered for patients with AF risk following cardiac surgery	Ilb	B	(194, 201)
Colchicine may be considered postoperatively to reduce AF following cardiac surgery	Ilb	B	(202)

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Điều trị rung nhĩ/ bệnh phổi mạn tắc nghẽn (COPD)

- Xử trí giảm oxy máu và toan máu/ RN kèm COPD trong giai đoạn cấp COPD hoặc bệnh phổi mạn nặng hơn (Loại I, MCC: C)
- Kiểm soát tần số thất: ức chế calci không – DHP (Diltiazem, Verapamil) (Loại I, MCC: C)
- Huyết động không ổn: sốc điện trực tiếp (Loại I, MCC:C)
- Không sử dụng: chẹn beta, sotalol, propafenol và adenosine (Loại III, MCC: C)
- Không sử dụng theophylline và thuốc trợ beta giao cảm (TD: salbutamol...)/ bệnh co phế quản b/c RN

Điều trị rung nhĩ/ thai kỳ (1)

- Loại I
 1. Digoxin, chẹn beta, ức chế calci không DHP: kiểm soát tần số thất bệnh nhân RN kèm có thai (MCC: C)
 2. Sốc điện trực tiếp khi có rối loạn huyết động do RN (MCC:C)
 3. Điều trị phòng ngừa huyết khối thuyên tắc tùy theo giai đoạn thai kỳ và theo khuyến cáo kháng đông (MCC: C)

Điều trị rung nhĩ/ thai kỳ (2)

- Loại IIb
 1. Heparin không phân đoạn TM hoặc TDD (giữa aPTT khoảng 1,5-2 chứng) – MCC: B
 2. Heparin trọng lượng phân tử thấp (MCC:C)
 3. Kháng đông uống vào tam cá nguyệt thứ 2 của thai kỳ (MCC:C)
 4. Quinidine hoặc procainamide: chuyển nhịp/RN kèm thai kỳ có huyết động ổn định (MCC:C)

TL: Practice Guideline of Management of Patients with Atrial Fibrillation. J Am. Coll. Cardiol; vol 61, No 8, 2013

Kết luận

- Rung nhĩ:
 - “Bệnh dịch”
 - Tần suất tăng theo tuổi
- Kiểm soát tần số tim $\geq$ kiểm soát nhịp
- Kháng đông cũ, kháng đông mới
- Nguyên nhân RN; biến chứng của RN