

Καρδιογενής Καταπληξία

Published in final edited form as:

Circulation. 2009 March 10; 119(9): 1211–1219. doi:10.1161/CIRCULATIONAHA.108.814947.

Thirty Year Trends (1975-2005) in the Magnitude, Management, and Hospital Death Rates Associated With Cardiogenic Shock in Patients with Acute Myocardial Infarction: A Population-Based Perspective

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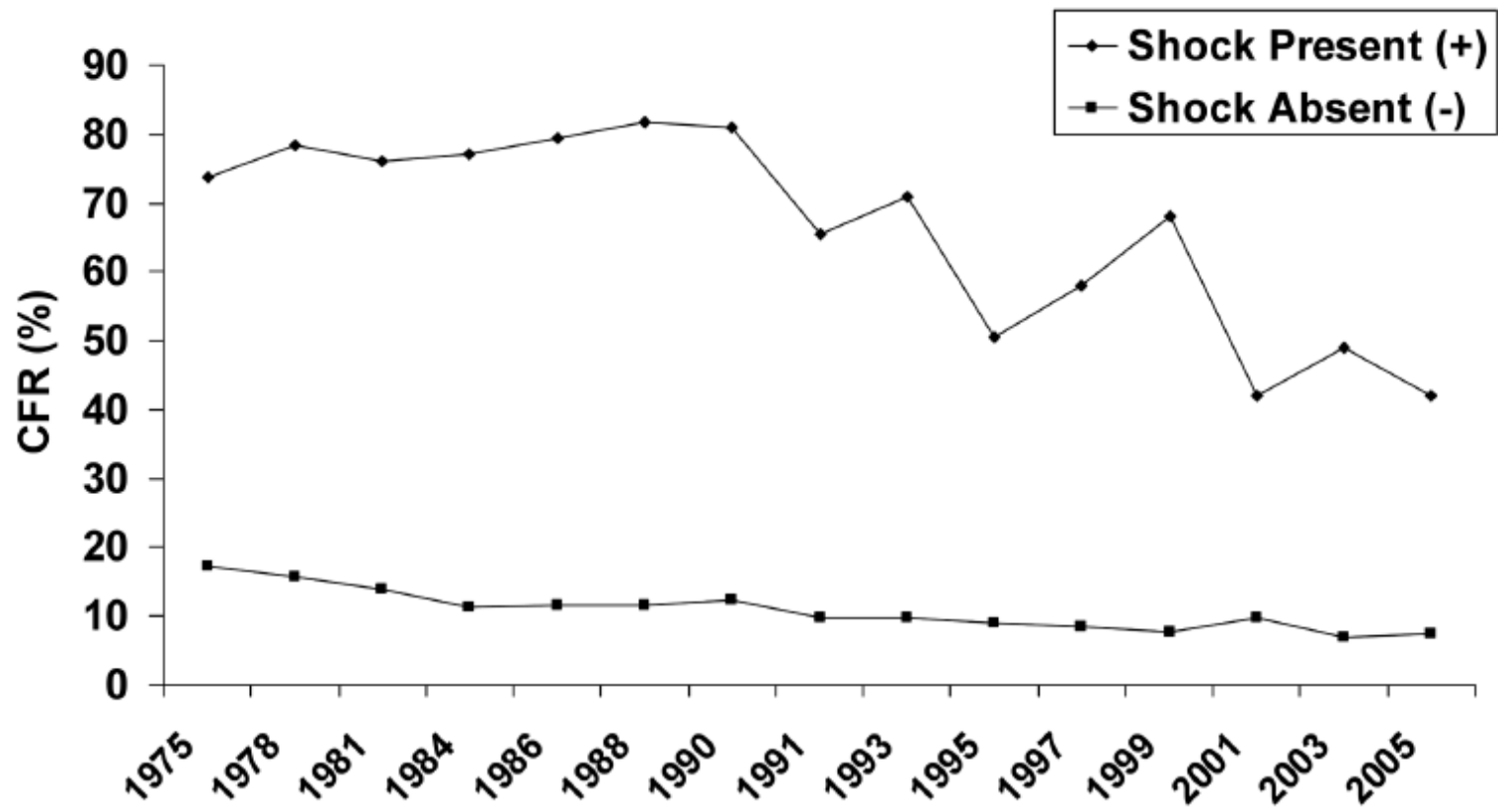


Figure 2.
Trends in Hospital Case-Fatality Rates (CFR's) in Patients With Acute Myocardial Infarction According to the Presence of Cardiogenic Shock

Contemporary Management of Cardiogenic Shock

A Scientific Statement From the American Heart Association

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On behalf of the American Heart Association
Council on Clinical Cardiology; Council
on Cardiovascular and Stroke Nursing; Council
on Quality of Care and Outcomes Research;
and Mission: Lifeline

Circulation. 2017;136:e232–e268. DOI: 10.1161/CIR.0000000000000525

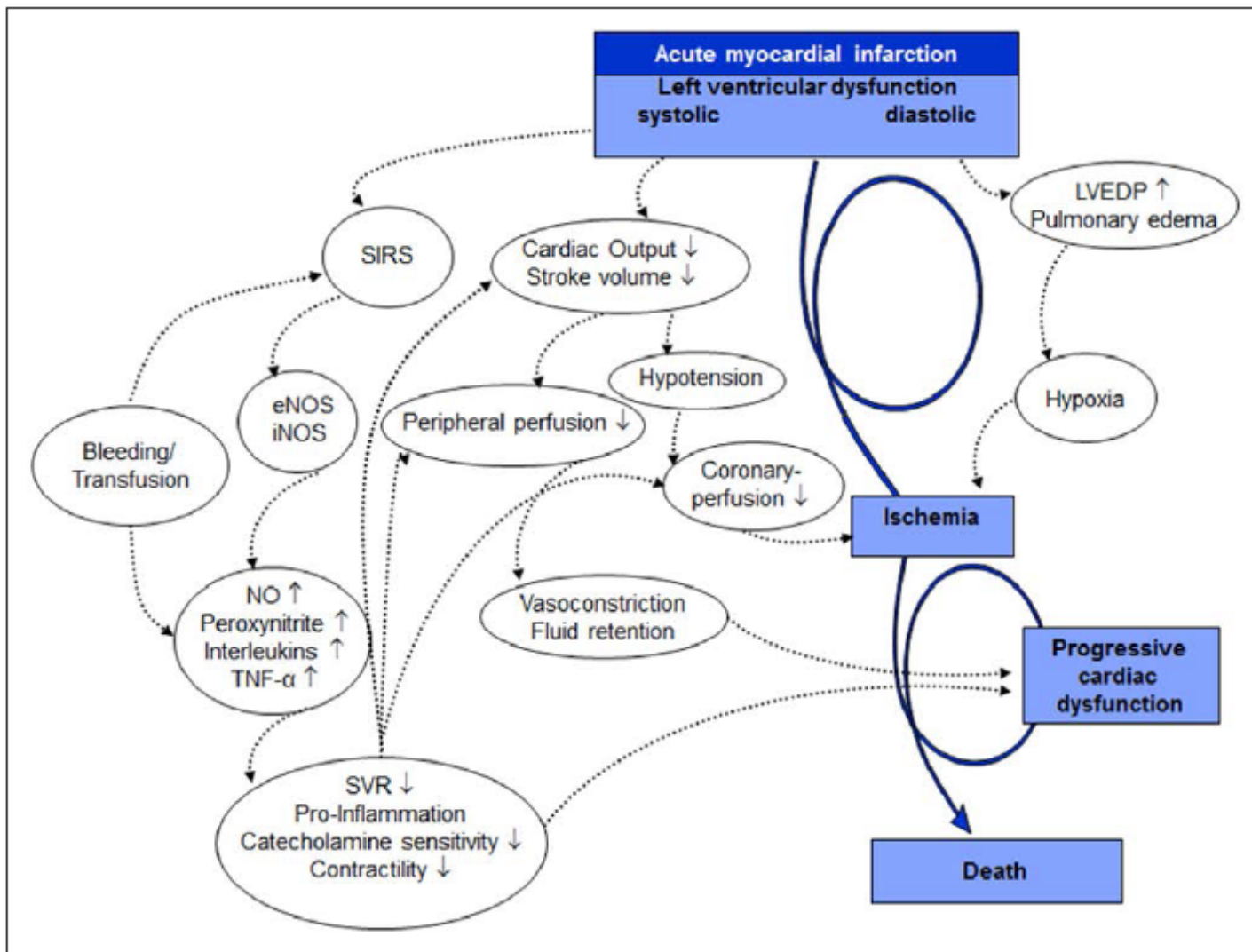


Figure 1. The pathophysiological concept of the expanded cardiogenic shock spiral.

eNOS indicates endothelial nitric oxide synthase; iNOS, inducible nitric oxide synthase; LVEDP, left ventricular end-diastolic pressure; NO, nitric oxide; SIRS, systemic inflammatory response syndrome; SVR, systemic vascular resistance; and TNF- α , tumor necrosis factor- α . Adapted from Hollenberg et al³ with the permission of American College of Physicians, Inc, copyright © 1999, American College of Physicians, all rights reserved; from Hochman,²⁶ copyright © 2003, American Heart Association, Inc; from Reynolds and Hochman,² copyright © 2008, American Heart Association, Inc; and from Thiele et al²⁷ by permission of the European Society of Cardiology, copyright © 2010, The Author.

HEMODYNAMIC PHENOTYPES

		Volume Status	
		Wet	Dry
Peripheral Circulation	Cold	Classic Cardiogenic Shock (↓CI; ↑SVRI; ↑PCWP)	Euvolemic Cardiogenic Shock (↓CI; ↑SVRI; ↔PCWP)
	Warm	Vasodilatory Cardiogenic Shock or Mixed Shock (↓CI; ↓/↔SVRI; ↑PCWP)	Vasodilatory Shock (Not Cardiogenic Shock) (↑CI; ↓SVRI; ↓PCWP)

Figure 2. Potential hemodynamic presentations of cardiogenic shock.

CI indicates cardiac index; PCWP, pulmonary capillary wedge pressure; and SVRI, systemic vascular resistance index.

Do All Nonsurvivors of Cardiogenic Shock Die With a Low Cardiac Index?*

*Noelle Lim, MBBS, MMed; Marc-Jacques Dubois, MD;
Daniel De Backer, MD, PhD; and Jean-Louis Vincent, MD, PhD, FCCP*

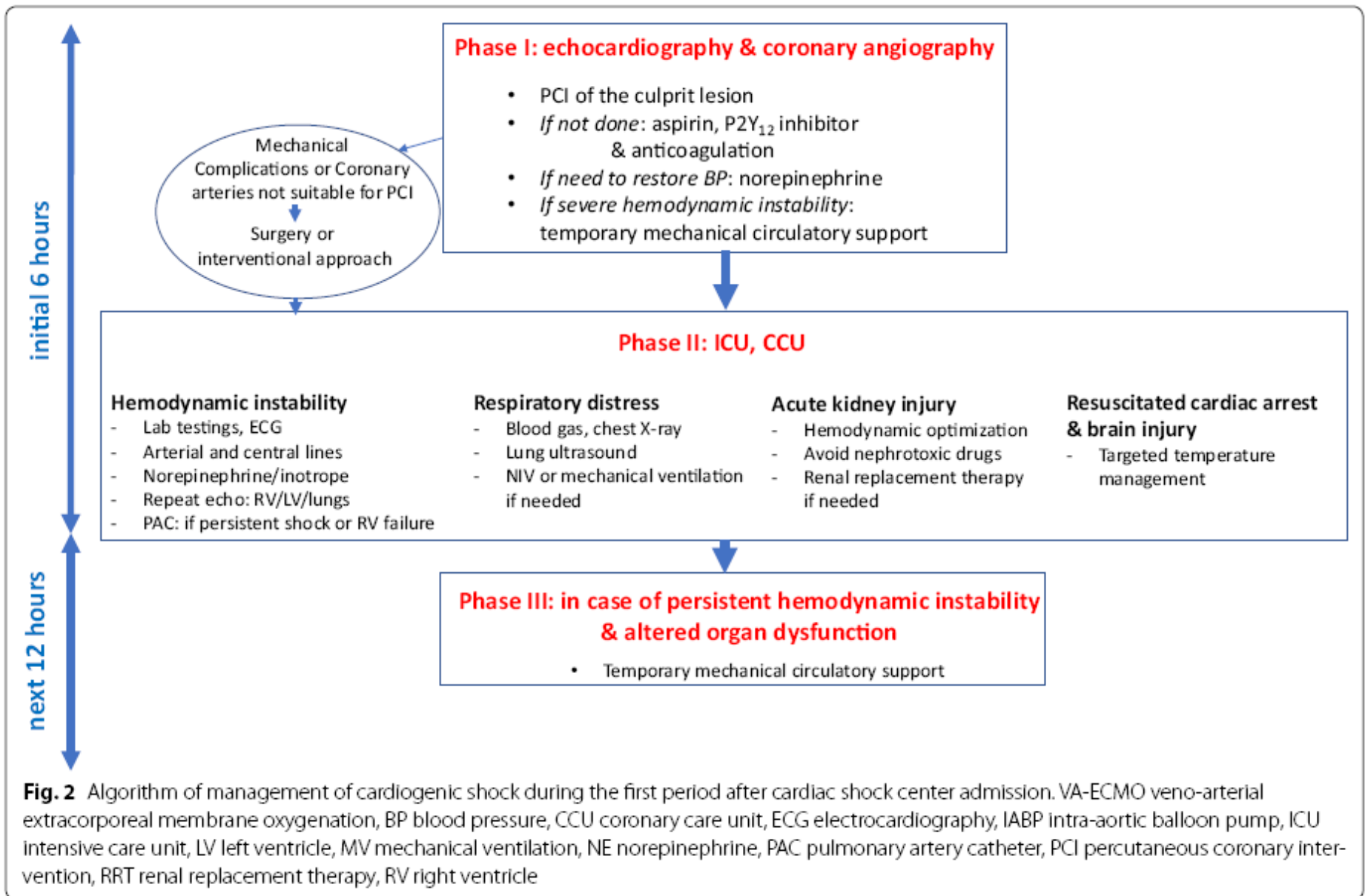
Conclusion: A substantial number of patients with cardiogenic shock die with a normalized CI, suggesting a distributive defect, in the absence of obvious infection. These patients are younger and have a longer ICU course. The release of mediators may be secondary to gut hypoperfusion.
(*CHEST* 2003; 124:1885–1891)

REVIEW



Management of cardiogenic shock complicating myocardial infarction

Alexandre Mebazaa^{1,2,3,4*}, Alain Combes^{5*}, Sean van Diepen⁶, Alexa Hollinger^{2,3,7}, Jaon N. Katz⁸, Giovanni Landoni^{9,10}, Ludhmila Abrahao Hajjar¹¹, Johan Lassus¹², Guillaume Lebreton^{13,14}, Gilles Montalescot^{14,15}, Jin Joo Park¹⁶, Susanna Price¹⁷, Alessandro Sionis^{18,19}, Demetris Yannopoulos²⁰, Veli-Pekka Harjola²¹, Bruno Levy^{22,23,24} and Holger Thiele^{25*}



2019 ESC Guidelines on the diagnosis and management of acute pulmonary embolism

Table 9 Classification of PE based on early mortality risk

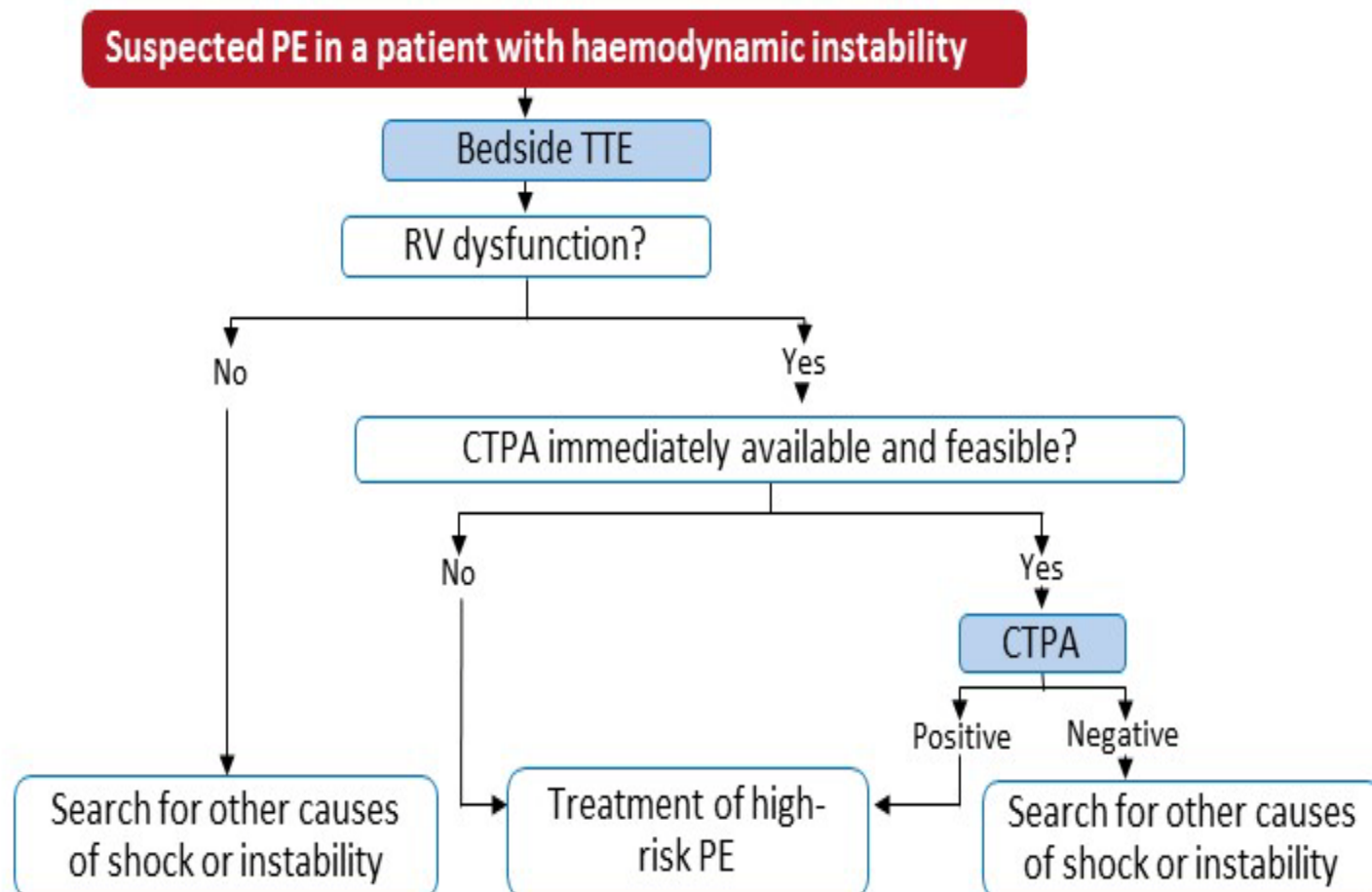
Early mortality risk		Indicators of risk			
		Haemo- dynamic instability	Clinical parameters of PE severity/ comorbidity: PESI III–V or sPESI ≥ 1	RV dysfunction on TTE or CTPA	Elevated cardiac troponin levels
High		+	(+)	+	(+)
Interme- diate	Intermediate–high	-	+	+	+
	Intermediate–low	-	+	One (or none) positive	
Low		-	-	-	Assessment optional; if assessed, negative

CTPA = computed tomography pulmonary angiography; PESI = Pulmonary Embolism Severity Index; TTE = transthoracic echocardiography.

Table 4 Definition of haemodynamic instability

(1) Cardiac arrest	(2) Obstructive shock	(3) Persistent hypotension
Need for cardiopulmonary resuscitation	Systolic BP <90 mmHg, or vasopressors required to achieve a BP \geq 90 mmHg despite adequate filling status	Systolic BP <90 mmHg, or systolic BP drop \geq 40 mmHg, either lasting longer than 15 minutes and not caused by new-onset arrhythmia, hypovolaemia, or sepsis
	And End-organ hypoperfusion (altered mental status; cold, clammy skin; oliguria/anuria; increased serum lactate)	

Figure 3 Diagnostic algorithm for suspected high-risk PE



CTPA = computed tomography pulmonary angiography; RV = right ventricular; TTE = transthoracic echocardiography

Table 9 Classification of PE based on early mortality risk

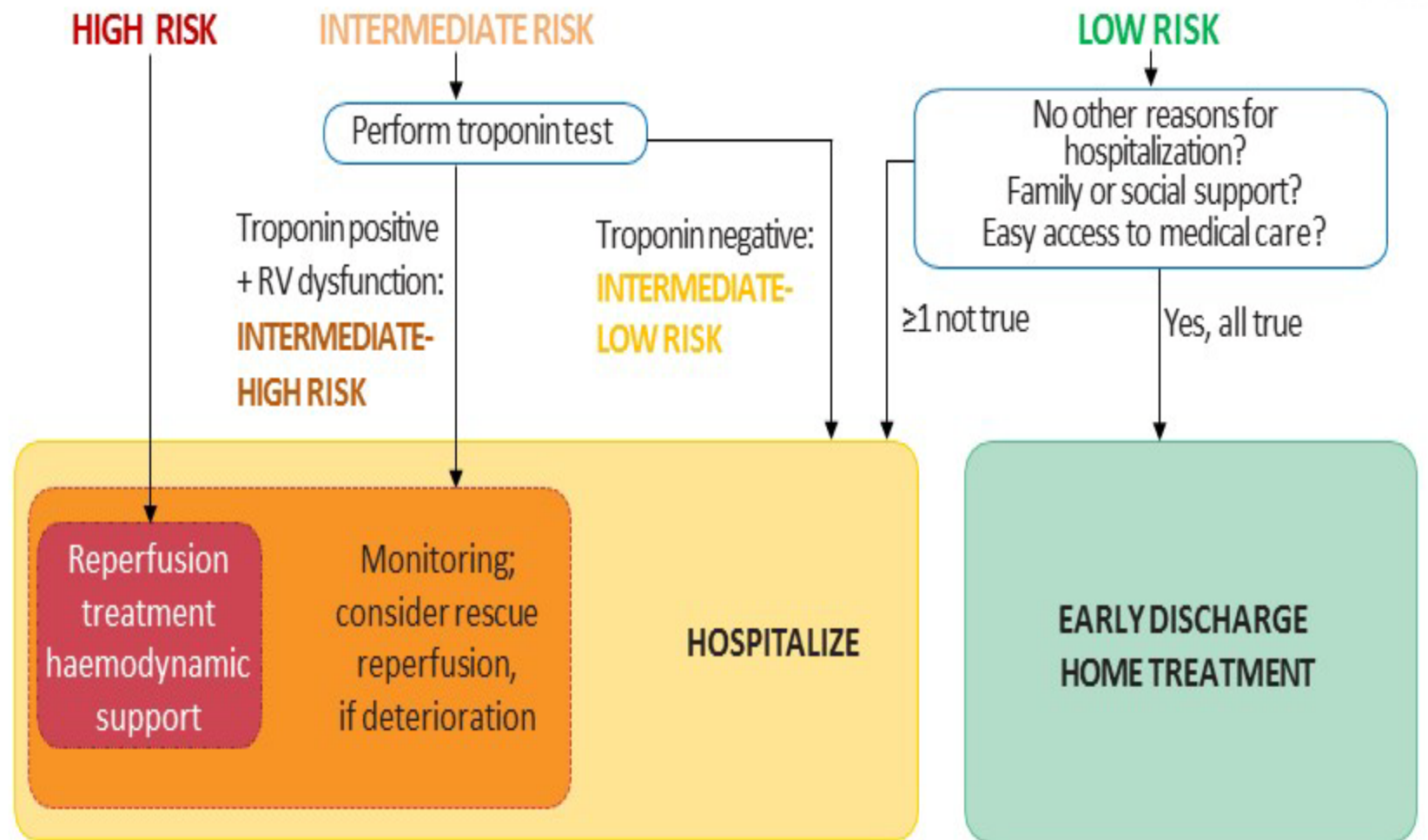
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Figure 5 Risk-adjusted management strategy for acute PE (2)



European Society of Cardiology



CTPA = computed tomography pulmonary angiography; PESI = Pulmonary Embolism Severity Index; RV = right ventricular; TTE = transthoracic echocardiography.

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Recommendations for acute-phase treatment of intermediate- or low- risk PE (3)

Recommendations	Class	Level
Reperfusion treatment		
Rescue thrombolytic therapy is recommended for patients with haemodynamic deterioration on anticoagulation treatment.	I	B
As an alternative to rescue thrombolytic therapy, surgical embolectomy or percutaneous catheter- directed treatment should be considered for patients with haemodynamic deterioration on anticoagulation treatment.	IIa	C
Routine use of primary systemic thrombolysis is not recommended in patients with intermediate- or low-risk PE.	III	B

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Recommendations for multidisciplinary PE teams

Recommendations	Class	Level
Set-up of a multidisciplinary team and programme for management of high-risk and (in selected cases) intermediate-risk PE should be considered, depending on the resources and expertise available in each hospital.	IIa	C

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