

CLINICAL PRACTICE GUIDELINE

2026 Acute Pulmonary Embolism Guideline-at-a-Glance



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INTRODUCTION

With the increasing use of interventional therapies for acute pulmonary embolism (PE), multidisciplinary teams are essential for appropriate risk stratification and management. The [2026 AHA/ACC/ACCP/ACEP/CHEST/SCAI/SHM/SIR/SVM/SVN Guideline for Evaluation and Management of Acute Pulmonary Embolism in Adults¹](#) (AHA/ACC/Multisociety Acute PE Guideline) focuses on evaluation, management, and follow-up of adult patients with acute PE. This is the first clinical practice guideline on this topic issued by the American College of Cardiology (ACC) and American Heart Association (AHA).

The AHA/ACC/Multisociety Acute PE Guideline offers a structured approach to help identify patients who may benefit from evolving technology. The guideline provides a Class 1 recommendation for the use of multidisciplinary PE response teams (PERTs) and introduces AHA/ACC Acute PE Clinical Categories, to more finely characterize PE risk-stratification and inform the management of patients with acute PE. The guideline also covers technological innovation for the management of acute PE, which represents an area of intense research and development efforts. This Guideline-at-a-Glance highlights practice-changing recommendations from the guideline to accelerate adoption.

ACC guideline dissemination is an organization-wide effort facilitated by the Solution Set Oversight Committee to ensure the integration of guideline content throughout ACC's clinical policy, education, registry, membership, and advocacy efforts. For each guideline, an individual ACC Guideline Dissemination Workgroup is created to influence dissemination strategy and to develop tools to facilitate the

implementation of key changes in practice. This multidisciplinary committee of subject-matter experts was appointed by the Solution Set Oversight Committee. The guideline dissemination tools include a [Central Illustration](#) to graphically convey key concepts, as well as tables highlighting comparisons to the 2019 European Society of Cardiology (ESC) Guidelines for the diagnosis and management of acute pulmonary embolism.²

TOP TAKE-HOME MESSAGES

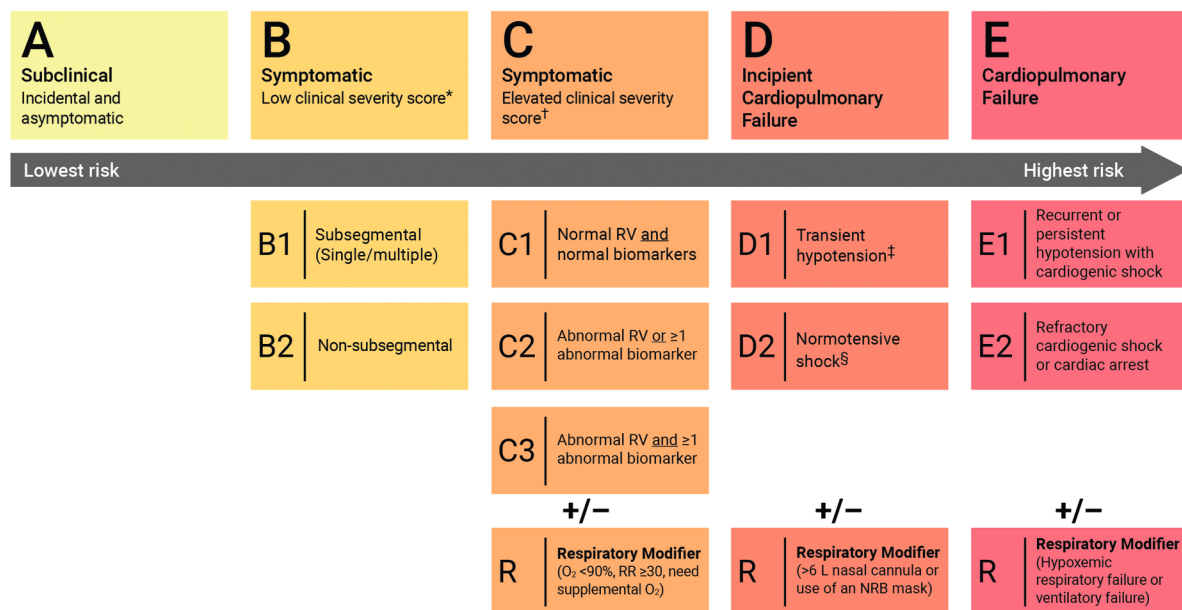
The following Top Take-Home Messages are taken directly from the AHA/ACC/Multisociety Acute PE Guideline.¹ Messages 1, 5, and 6 (in **bold** below) were selected as key themes by the ACC Acute PE Guideline Dissemination Workgroup for this Guideline-at-a-Glance as they represent the most impactful changes and address established gaps in clinical practice.

- 1. A new clinical classification scheme is presented, entitled “Acute Pulmonary Embolism Clinical Categories,” with 5 categories (A-E) and sub-categories, ranging from low to high risk for adverse outcomes, in order to enhance the precision of severity classification, prognosis assessment, and evidence-based therapeutic decision-making for patients presenting with acute PE.**
2. Patients with acute PE who are asymptomatic (AHA/ACC PE Category A) can safely be discharged home from the emergency room and do not need to be hospitalized.
3. Early hospital discharge is generally recommended for patients with acute PE who are symptomatic but have a low clinical severity score (AHA/ACC PE Category B).
4. Symptomatic patients with acute PE and an elevated clinical severity score, including those

*On behalf of the ACC Solution Set Oversight Committee.

FIGURE 1 AHA/ACC Acute PE Clinical Categories

AHA/ACC Acute PE Clinical Categories



2026 Adults With Acute Pulmonary Embolism
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When patients meet the respiratory modifier status criteria, then add "R" to the category description (eg, C3R, D2R). *Low Clinical Severity Score includes PESI ≤85 or sPESI =0 or Bova ≤4. †Elevated Clinical Severity Score includes PESI >85 or sPESI ≥1 or Bova >4. ‡Systolic blood pressure <90 or decrease >40 mm Hg lasting <15 min or responding to IV fluids. §Any: Lactate >2 mmol/L, acute kidney injury, urine output <0.5 mL/kg/h, mental status change, cardiac index <2.2 L/min/m², mean arterial pressure <60 mm Hg, increased shock score/stage (SCAI stage, CPES score). ACC = American College of Cardiology; AHA = American Heart Association; CPES = Composite Pulmonary Embolism Shock; IV = intravenous; NC = nasal cannula; NRB = nonrebreather; O₂ = oxygen; PE = pulmonary embolism; PESI = Pulmonary Embolism Severity Index; RR = respiratory rate; RV = right ventricle; sPESI = simplified PESI.

with elevated biomarkers and/or right ventricular dysfunction (AHA/ACC PE Category C), incipient cardiopulmonary failure (AHA/ACC PE Category D), and those with cardiopulmonary failure characterized by persistent hypotension (AHA/ACC PE Category E) should be hospitalized to optimize treatment strategies.

5. Advanced therapies, including systemic thrombolysis, catheter-based thrombolysis, mechanical thrombectomy, and surgical embolectomy are reasonable for patients with acute PE in AHA/ACC PE Category E1 and can be considered for patients with acute PE in AHA/ACC PE Category D1-2.

6. PE response teams (PERTs) are recommended to improve timeliness of care.

7. In patients with acute PE who require initial parenteral anticoagulant therapy, low-molecular-weight

heparin is recommended over unfractionated heparin.

8. In patients with acute PE who are eligible for oral anticoagulation, direct oral anticoagulants are recommended over vitamin K antagonists, unless contraindicated, to prevent recurrent venous thromboembolism and reduce major bleeding.

9. In patients with a first acute PE without a major reversible risk factor and in those with a persistent risk factor, continuing anticoagulation beyond the initial treatment phase (3-6 months) into the extended phase is recommended.

10. Patients who have had acute PE should be asked about PE-related symptoms and functional limitations at every visit for at least 1 year to screen for chronic thromboembolic pulmonary disease or other causes of dyspnea and functional limitation.

AHA/ACC ACUTE PE CLINICAL CATEGORIES

The AHA/ACC/Multisociety Acute PE Guideline introduces the new AHA/ACC Acute PE Clinical Categories. **Figure 1**, “AHA/ACC Acute PE Clinical Categories” is reproduced directly from the guideline¹ for user reference.

CENTRAL ILLUSTRATION:
MANAGEMENT OF ACUTE PE PATIENTS BY
AHA/ACC ACUTE PE CLINICAL CATEGORIES

The 2026 Acute PE Guideline-at-a-Glance **Central Illustration** highlights initial management of patients with acute PE based on their categorization within the

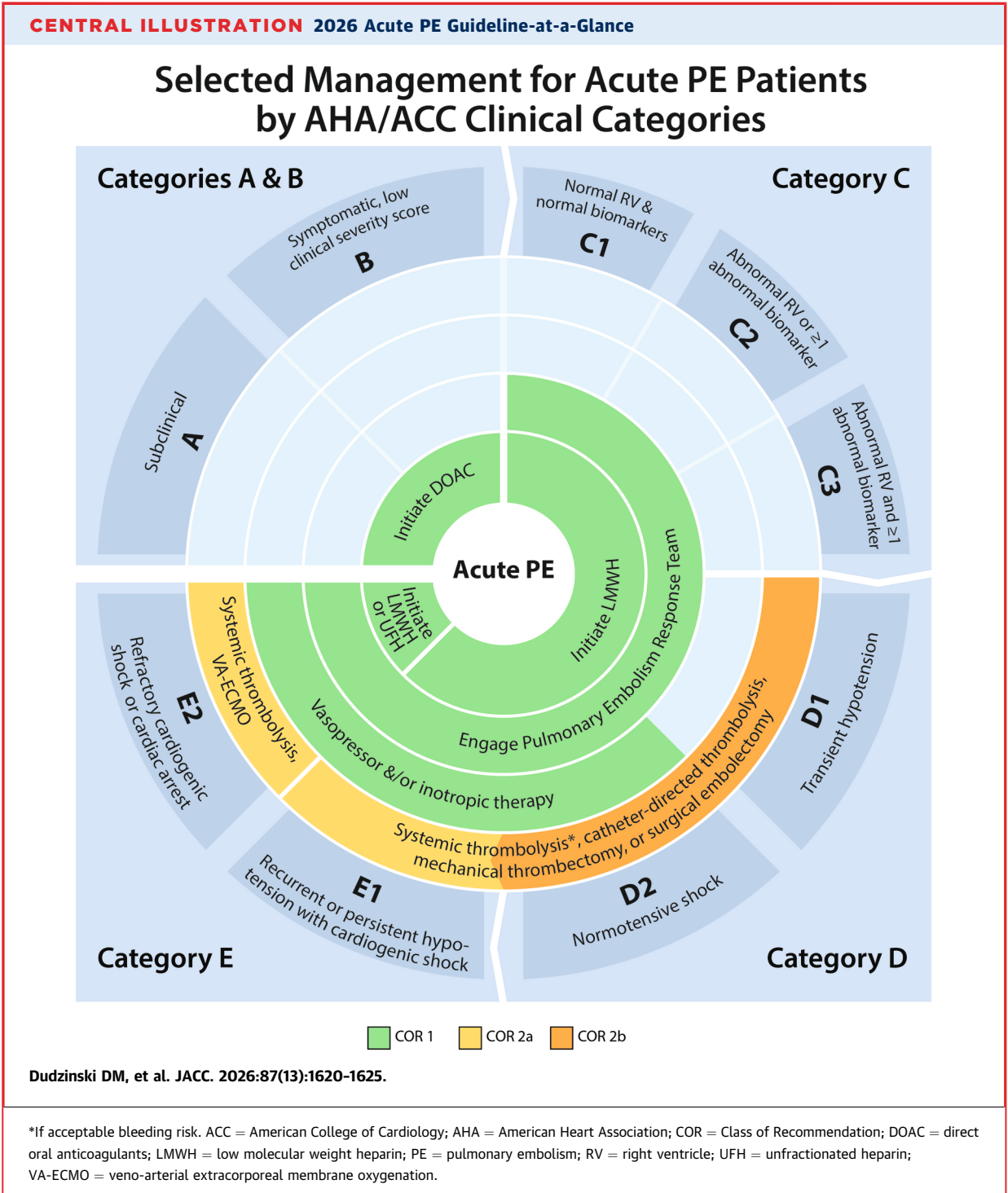


TABLE 1 Select Comparison of 2026 AHA/ACC/Multisociety and 2019 ESC Acute PE Guidelines

	2019 ESC Guideline ²		2026 AHA/ACC/Multisociety Guideline ¹	
	COR*	ESC Recommendations	COR*	AHA/ACC/Multisociety Recommendations
Classification schemes (Top Take-Home Message 1)	1	Initial risk stratification of suspected or confirmed PE, based on the presence of hemodynamic instability, is recommended to identify patients at high risk of early mortality.	N/A	Top Take-Home Message 1: A new clinical classification scheme is presented, entitled “Acute Pulmonary Embolism Clinical Categories,” with 5 categories (A-E) and subcategories, ranging from low to high risk for adverse outcomes, in order to enhance the precision of severity classification, prognosis assessment, and evidence-based therapeutic decision-making for patients presenting with acute PE.
	Low Risk	Non-elevated risk score (eg, PESI class I-II or sPESI = 0) Normal right ventricle on imaging	A	Subclinical–incidental and asymptomatic PE
			B	Symptomatic PE with low clinical severity score (eg, PESI class I-II, sPESI = 0, Hestia = 0)
	Intermediate – Low Risk	Elevated risk score (eg, PESI class III-IV or sPESI ≥1) None or 1 positive of either troponin or right ventricular dysfunction on imaging	C	Symptomatic PE with elevated clinical severity score (eg, PESI class III-V, sPESI ≥1, Hestia ≥1), and C1: Normal RV and normal biomarkers C2: Abnormal RV or ≥1 abnormal biomarker
				C3: Abnormal RV and ≥1 abnormal biomarker
	Intermediate – High Risk	Elevated risk score (eg, PESI class III-IV or sPESI ≥1) Both positive troponin and right ventricular dysfunction on imaging		
	High Risk	Hemodynamic instability	D	Incipient cardiopulmonary failure (eg, normotensive shock, transient hypotension)
			E	Cardiopulmonary failure (persistent hypotension with cardiogenic shock, cardiac arrest)
PERTs (Top Take-Home Message 6)	2a	Set-up of a multidisciplinary team and a programme for the management of high- and (in selected cases) intermediate-risk PE should be considered, depending on the resources and expertise available in each hospital.	1	In patients with acute PE who are at increased risk of adverse outcomes (ie, AHA/ACC PE Categories C-E), [†] a multidisciplinary PERT assessment is recommended to improve in-hospital clinical care delivery.

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new classification scheme (see [Figure 1](#). AHA/ACC Acute PE Clinical Categories). The [Central Illustration](#) is intended to guide PERTs in determining appropriate management strategies and highlights several Top Take-Home Messages.

AHA/ACC/MULTISOCIETY ACUTE PE GUIDELINE COMPARISON TO ESC ACUTE PE GUIDELINE

In 2019, the ESC published a guideline for the diagnosis and management of acute pulmonary embolism.² [Table 1](#) compares recommendations on classification schemes, advanced therapies, and PERTs between the 2026 AHA/ACC/Multisociety Acute PE Guideline and the 2019 ESC Acute PE Guideline, focusing specifically on Top Take-Home Messages 1, 5, and 6.

For further details, refer to the corresponding sections of the AHA/ACC/Multisociety Acute PE guideline¹:

- Section 3.2. “PE Outcomes Risk Stratification”
- Section 4.1.4. “Pulmonary Embolism Response Team”
- Section 4.2. “Medical Management”
- Section 4.4. “Advanced Management”

For further details, refer to the corresponding sections of the ESC Acute PE guideline²:

- Section 5.7. “Recommendations for Prognostic Assessment”
- Section 6.8. “Recommendations for Multidisciplinary Pulmonary Embolism Teams”
- Section 6.6. “Recommendations for Acute-phase Treatment of High-risk Pulmonary Embolism”

TABLE 1 Continued

2019 ESC Guideline ²		2026 AHA/ACC/Multisociety Guideline ¹		
COR*	ESC Recommendations	COR*	AHA/ACC/Multisociety Recommendations	
Advanced Therapies (Top Take-Home Message 5)	Systemic Thrombolysis			
	1	Systemic thrombolytic therapy is recommended for high-risk PE.	2a	In patients with acute PE in AHA/ACC PE Categories E1-2 and acceptable bleeding risk, in whom advanced therapy is being considered, systemic thrombolysis and anticoagulation is reasonable over anticoagulation alone to reduce mortality and recurrent PE.
			2b	In patients with acute PE in AHA/ACC PE Categories D1-2 and an acceptable bleeding risk, in whom advanced therapy is being considered, systemic thrombolysis and anticoagulation may be considered over anticoagulation alone to prevent further clinical deterioration.
	3	Routine use of primary systemic thrombolysis is not recommended in patients with intermediate- or low-risk PE.	3: Harm	In patients with acute PE in AHA/ACC PE Categories A1-C2, systemic thrombolysis should not be used over anticoagulation alone due to increased risk of major bleeding and intracranial hemorrhage.
			2b	In patients with acute PE in AHA/ ACC PE Category C3 and acceptable bleeding risk, in whom advanced therapy is being considered, the use of systemic thrombolysis and anticoagulation over anticoagulation alone to prevent further clinical deterioration is uncertain.
No corresponding guideline recommendation		2b	In patients with acute PE being treated with systemic thrombolysis, lower dose systemic thrombolytics may be considered to reduce risk of bleeding.	
Catheter-Directed Thrombolysis and Mechanical Thrombectomy				
2a	Percutaneous catheter-directed treatment should be considered for patients with high-risk PE, in whom thrombolysis is contraindicated or has failed.	2a	In patients with acute PE in AHA/ACC PE Category E1, catheter-directed thrombolysis plus anticoagulation is reasonable to prevent further clinical deterioration and early mortality.	
		2b	In patients with acute PE in AHA/ACC PE Categories D1-2 in whom advanced therapy is being considered, catheter-directed thrombolysis plus anticoagulation may be considered to prevent further clinical deterioration.	
		2b	In patients with acute PE in AHA/ACC PE Categories D1-E1 in whom thrombolysis is being considered, the efficacy of catheter-directed thrombolysis over systemic thrombolysis to reduce short-term fatal/nonfatal clinical deterioration, and improve long-term survival, functional capacity, and quality of life is unclear, but catheter-directed thrombolysis may be considered over systemic thrombolysis to reduce major bleeding risks.	
		2a	In patients with acute PE in AHA/ACC PE Category E1, it is reasonable to choose MT plus anticoagulation over anticoagulation alone to prevent further clinical decompensation and acute mortality.	
		2b	In patients with acute PE in AHA/ACC PE Categories D1-2 in whom advanced therapy is being considered, MT plus anticoagulation may be considered over anticoagulation alone to prevent further clinical deterioration.	
		2b	In patients with acute PE in AHA/ACC PE Categories D1-E1 in whom advanced therapy is being considered, the efficacy of MT to reduce short-term fatal/nonfatal clinical deterioration and improve long-term survival, functional capacity, and quality of life over systemic thrombolysis is unclear, but MT may be considered over systemic thrombolysis to reduce major bleeding risks.	
Surgical Embolectomy				
1	Surgical pulmonary embolectomy is recommended for patients with high-risk PE, in whom thrombolysis is contraindicated or has failed.	2a	In patients with acute PE in AHA/ACC PE Category E1, surgical embolectomy compared with anticoagulation alone is reasonable to prevent further clinical decompensation and acute mortality.	
		2b	In patients with acute PE in AHA/ACC PE Categories D1-2 in whom advanced treatment is being considered, surgical embolectomy plus anticoagulation may be considered over anticoagulation alone to prevent further clinical deterioration.	
		2b	In patients with acute PE in AHA/ACC PE Categories D1-E1 who are surgical candidates and in whom advanced therapy is being considered, the benefits of surgical embolectomy to reduce short-term fatal/nonfatal clinical deterioration and improve long-term survival, functional capacity, and quality of life over systemic thrombolysis is unclear, but surgical embolectomy may be considered over systemic thrombolysis to reduce the risk of intracranial hemorrhage.	
		3: No Benefit	In patients with acute PE in AHA/ACC PE Category E2 not on mechanical circulatory support, surgical embolectomy is not recommended over other advanced therapies for preventing short-term mortality.	

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TABLE 1 Continued

2019 ESC Guideline ²		2026 AHA/ACC/Multisociety Guideline ¹	
COR*	ESC Recommendations	COR*	AHA/ACC/Multisociety Recommendations
Special Considerations			
2b	ECMO may be considered, in combination with surgical embolectomy or catheter-directed treatment, in patients with PE and refractory circulatory collapse or cardiac arrest.	2a	In patients with acute, refractory cardiogenic shock as a result of known or suspected acute PE (AHA/ACC PE Category E2), it is reasonable to institute VA-ECMO, provided appropriate resources are available, to stabilize hemodynamics and improve oxygenation.
		2b	In patients with acute PE in AHA/ACC PE Category E2 who are placed on VA-ECMO support, the usefulness of additional advanced therapies is not well established.
2a	As an alternative to rescue thrombolytic therapy, surgical embolectomy† or percutaneous catheter-directed treatment‡ should be considered for patients with hemodynamic deterioration on anticoagulation treatment.	2b	In patients with acute PE in AHA/ACC PE Categories C2-D2 and without contraindications to thrombolysis, and in whom advanced therapy is being considered, the usefulness of either catheter-directed thrombolysis or MT over the other is uncertain for reduction in mortality or major bleeding.
		2b	In patients with acute PE in AHA/ACC PE Categories C2-3, the benefit of catheter-directed thrombolysis plus anticoagulation compared with anticoagulation alone to prevent short-term fatal/nonfatal clinical deterioration, and improve long-term mortality, functional capacity, and quality of life is unclear.
		2b	In patients with acute PE in AHA/ACC PE Categories C2-3, the benefit of MT plus anticoagulation compared with anticoagulation alone is unclear in preventing short-term fatal/nonfatal clinical deterioration and improving long-term survival and functional capacity.
No corresponding guideline recommendation		2a	In patients with acute PE in AHA/ACC PE Categories C3-E2 who have evidence of free-floating right atrial and/or RV clot-in-transit, the utilization of advanced therapies over anticoagulation alone is reasonable to reduce the risk of clinical deterioration.

*Colors in this table align with the classification system found in Table 2, "Applying American College of Cardiology/American Heart Association Class of Recommendation and Level of Evidence to Clinical Strategies, Interventions, Treatments, or Diagnostic Testing in Patient Care," in the AHA/ACC/Multisociety Acute PE Guideline.¹

†AHA/ACC PE Categories A or B with multiple comorbidities may also benefit from a PERT (eg, Category B with intracranial hemorrhage).

‡If appropriate expertise and resources are available on-site.

ACC = American College of Cardiology; AHA = American Heart Association; COR = Class of Recommendation; ECMO = extracorporeal membrane oxygenation; ESC = European Society of Cardiology; MT = mechanical thrombectomy; PE = pulmonary embolism; PERT = pulmonary embolism response team; PESI = pulmonary embolism severity index; RV = right ventricle; sPESI = simplified PESI; VA-ECMO = veno-arterial ECMO.

- Section 6.7. "Recommendations for Acute-phase Treatment of Intermediate- or Low-risk Pulmonary Embolism"

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2. Konstantinides SV, Meyer G, Becattini C, et al. 2019 ESC guidelines for the diagnosis and management of acute pulmonary embolism developed in collaboration with the European Respiratory Society (ERS): the Task Force for the Diagnosis and Management of Acute Pulmonary Embolism of the European Society of Cardiology (ESC). *Eur Heart J*. 2020;41:543-603.