AHA/ACC Issue First Acute PE Guidelines With New Clinical Classification System

The American College of Cardiology (ACC)/American Heart Association (AHA) Joint Committee on Clinical Practice Guidelines and eight other professional societies released their first joint clinical practice guideline dedicated to the evaluation and management of acute pulmonary embolism (PE) in adults, introducing a new severity-based classification system and comprehensive recommendations spanning diagnosis, treatment, and follow-up care. The guideline was published in *Circulation* and *Journal of the American College of Cardiology*.[1,2]

The guideline also provides care setting–specific pathways, outlining which patients can be discharged from the emergency department, which require hospitalization, and which warrant escalation to advanced therapies and critical care support based on AHA/ACC PE category and local resources.

"The new multidisciplinary PE guidelines reflect the current state of the PE literature. Catheter-based interventions remain a cornerstone for managing acute PE, in particular in those with signs of hemodynamic compromise, and supported by multidisciplinary PE teams that can weight risks and benefits," said Eric A. Secemsky, MD, in comments to *Endovascular Today*. "These guidelines are meant to be flexible, and as more randomized data supporting catheter-based devices result in the coming years, there will likely be a greater shift in endorsement among lower-risk patients without the need for routine multidisciplinary input." Dr. Secemsky is a coauthor on the new guideline and Director of Vascular Intervention at Beth Israel Deaconess Medical Center as well as Associate Professor of Medicine at Harvard Medical Center in Boston, Massachusetts.

"There have been significant advances in the understanding of PE and treatments to effectively manage this condition," commented writing committee Chair Mark A. Creager, MD, FAHA, FACC, in an AHA-issued press release. "This guideline is a road map to help clinicians navigate these advances for the safest and most effective approaches to care for people with this condition."

KEY FINDINGS

- The 2026 AHA/ACC guidelines introduce a five-tier Acute PE Clinical Category system to stratify severity and guide treatment decisions.
- PERTs are recommended to streamline triage and escalation of care.
- Mechanical thrombectomy receives a class 2a recommendation for high-risk PE (category E1) and class 2b support in selected intermediate-high–risk patients (D1-D2).

REFRAMING RISK STRATIFICATION

Central to the document is the AHA/ACC Acute PE Clinical Categories, which classifies patients from category A (lowest risk) through category E (highest risk) to refine prognostic assessment and therapeutic decision-making.

Patients in category A who are asymptomatic may be discharged from the emergency department without hospitalization. Those in category B, who are symptomatic but have a low clinical severity score, are generally candidates for early discharge. In contrast, symptomatic patients with elevated clinical severity scores, right ventricular dysfunction or elevated biomarkers (category C), incipient cardiopulmonary failure (category D), or persistent hypotension with cardiopulmonary failure (category E) should be hospitalized.

PULMONARY EMBOLISM RESPONSE TEAMS

The guideline emphasizes that use of a high-functioning PE response team (PERT) can significantly impact

clinical care, by facilitating decision-making around acute interventions and improving timeliness of care.

DIAGNOSTIC PATHWAYS

The guideline emphasizes structured assessment of predisposing factors—including recent surgery or hospitalization, trauma, cancer, pregnancy, thrombophilias, and prolonged immobility—to inform pretest probability and downstream diagnostic testing.

The guideline reinforces probability-adjusted diagnostic testing. In patients with low or intermediate pretest probability (< 50%), D-dimer testing is recommended, with imaging reserved for elevated results or high clinical suspicion (> 50%). CT pulmonary angiography remains the primary diagnostic modality, with ventilation/perfusion scanning reserved for patients who cannot undergo contrast-enhanced CT.

TREATMENT STRATEGIES

Per the AHA/ACC guidelines, anticoagulation remains a foundational therapy. Low-molecular-weight heparin is recommended over unfractionated heparin when parenteral therapy is required. For oral therapy, direct oral anticoagulants (DOACs) are recommended over vitamin K antagonists in eligible patients to reduce recurrent venous thromboembolism and major bleeding. DOACs are not recommended during pregnancy; low-molecular-weight heparin or unfractionated heparin are appropriate alternatives.

Extended anticoagulation beyond 3 to 6 months is recommended for patients with a first acute PE without a major reversible risk factor or in the presence of persistent risk factors.

Advanced therapies—including systemic thrombolysis, catheter-based thrombolysis, mechanical thrombectomy (MT), and surgical embolectomy—are considered reasonable for select patients in category E1 and may be considered for select patients in category D1 to D2.

MT received a class 2a recommendation for high-risk PE (category E1), a class 2b recommendation for intermediate-high–risk PE (category D1-D2), and is not recommended (class 3) in low-risk PE (category A-C1). MT may be considered over systemic thrombolysis in D1 to E1 patients when bleeding risk is a concern, although efficacy superiority is unproven.

EMPHASIS ON LONGITUDINAL CARE

Beyond acute management, the guideline outlines a structured follow-up framework: communication or clinic evaluation within 1 week of discharge, reassessment at 3 months to determine anticoagulation duration, and continued screening for chronic thromboembolic pulmonary disease at each visit for at least 1 year.

Additional recommendations address early ambulation after anticoagulation initiation, risk mitigation during long-haul travel (≥ 5 hours), mental health screening, and multidisciplinary counseling for women of childbearing age regarding contraception and pregnancy-associated anticoagulation strategies.

"We anticipate that decisions guided by these recommendations will result in more rapid diagnosis and application of effective, evidence-based treatments, leading to better outcomes, such as decreased risk of death and disability, for people with acute PE," Dr. Creager commented in the AHA press release.

The guideline was developed by the AHA/ACC Joint Committee on Clinical Practice Guidelines and endorsed by the American College of Clinical Pharmacy, the American College of Emergency Physicians, the American College of Chest Physicians, the Society for Cardiovascular Angiography & Interventions, the Society of Hospital Medicine, the Society of Interventional Radiology, the Society for Vascular Medicine, and the Society of Vascular Nursing. ■

1. Writing Committee Members; Creager MA, Barnes GD, Giri J, et al. 2026 AHA/ACC/ACCP/ACEP/CHEST/SCAI/SHM/SIR/SVM/SVN guideline for the evaluation and management of acute pulmonary embolism in adults: a report of the American College of Cardiology/American Heart Association Joint Committee on Clinical Practice Guidelines. Circulation. 2026;153:e977–e1051. doi: 10.1161/CIR.0000000000001415

2. Creager MA, Barnes GD, Giri J, et al. 2026 AHA/ACC/ACCP/ACEP/CHEST/SCAI/SHM/SIR/SVM/SVN Guideline for the evaluation and management of acute pulmonary embolism in adults: a report of the American College of Cardiology/American Heart Association Joint Committee on Clinical Practice Guidelines. J Am Coll Cardiol. Published online February 19, 2026. doi: 10.1016/j.jacc.2025.11.005