Applying the 2026 Pulmonary Embolism Guideline: Evidence-Based Approaches to Ensuring Excellence

Translating the 2026 PE guideline recommendations into practice to enhance decision-making, streamline care pathways, and optimize acute PE care.

With Jay Giri, MD, MPH

The 2026 American Heart Association/American College of Cardiology (AHA/ACC) pulmonary embolism (PE) guideline introduces a number of key updates, perhaps none more focal than the five-tier Acute PE Clinical Category system.[1] How would you summarize the utility of this system?

It has been recognized by the PE community that current acute categorization schemes do not capture the granularity necessary to fully characterize the clinical conditions of an acute PE patient. Prior guidelines have had three or four categories, but issues such as syncope, normotensive shock, refractory shock, and respiratory signs/symptoms were not reflected in these frameworks. The writing committee aimed to reimagine PE categorization in a format that would be very comprehensive for expert PE response team (PERT) clinicians and relatively easy for those with more limited responsibilities for PE care. Thus, the format of five categories for the general practitioner with subcategories for experts was devised.

What are a few of the biggest changes from previous systems and nomenclature?

The new system recognizes that prior categories of "intermediate" and "high" risk represent a much broader spectrum of illness than was being captured in those schemas. Hence, the move was made toward a five-category system with subcategories as noted previously.

What are the best first steps to ensure all staff who encounter PE can quickly and efficiently incorporate the category system? How is your team at Penn rolling it out?

The electronic medical record can partially facilitate the transition through modification of template PERT consult notes. For hospitals that utilize artificial intelligence software, we are hopeful that the new categories will be easily assessed in a semiautomated fashion by these programs. However, we recognize that the main socialization of the new categories will have to occur through concerted effort in the countless everyday interactions we all experience when taking care of PE patients. The AHA and partner societies are committed to educational efforts to facilitate this transition.

In your view as an interventional cardiologist, how does the class 2a recommendation for mechanical thrombectomy in high-risk PE and class 2b in selected intermediate-high–risk patients translate to application in real-world practice at a high-volume PE center?

This does not represent a significant change from how we practice now at Penn Medicine. However, the guidelines are an acknowledgement of the position that advanced therapies hold in modern PE management,

with concomitant recognition that higher-level data are needed for more unreserved recommendations. The class 2a recommendation for category E1 patients is notable because this acknowledged that catheter-based advanced therapies have equipoise for the management of this population in contrast to prior guidelines, which had given the position of primacy in these clinical situations to systemic thrombolysis.

How would you break down the recommendations for inferior vena cava (IVC) filter use? What are the implications in practice, and how are these best communicated throughout the care team?

The simple takeaway is that IVC filters are most clearly indicated in those patients who have acute venous thromboembolism with contraindication to anticoagulation. Temporary filters are nearly always preferred; filters should be closely monitored, with retrieval performed at the earliest possible clinically indicated time point.

With the acknowledgement that the ink is barely dry on the 2026 guideline, how might data from ongoing trials affect the next iteration? What kind of outcomes would sway a stronger recommendation, and vice versa?

The area that is moving most rapidly is related to advanced therapies, particularly mechanical thrombectomy and catheter-directed thrombolysis. We expect randomized controlled trials evaluating a total of nearly 3,000 patients to report their results over the next 2 years, and the results of these trials are sure to influence the guidelines, with processes in place for more rapid incorporation of these results into guideline updates than in the past. The guidelines committee was clear that recommendations would only be made regarding "hard clinical" or patient-centric functional outcomes. We expect the currently enrolling trials to have lots of data in these domains.

Working closely on PE trials as well as this guideline, what advice would you offer investigators designing the next trials for PE interventions?

There are two different important types of PE studies. The first type of study evaluates novel devices and aims to address current areas of unmet need and technical shortfalls with current procedures. I hope that innovation in this space stays robust. The second type of study is that which seeks to move guideline recommendations. At this point, I think that investigators should "take a breath" and wait for the reports from the first round of megatrials before making decisions about the best ways to allocate resources to the next round of large clinical studies. We are likely to learn a lot about the correct questions to ask once these trials are completed (which is around the corner!).

How can the recommendation regarding PERTs influence the adoption of this organized team approach to PE care? How might this support manifest in early PERT-adopting programs like Penn Medicine? And, at institutions that have not yet formalized a PERT?

I do not think the current guidelines will greatly affect those PERT programs that already exist, but I am hopeful that the level 1 recommendation leads to expansion of PERT programs at many hospitals that have not yet committed resources to defined management of hospitalized patients with PE. The PERT is the vehicle to improve delivery of care in this population as the guidelines have recognized, but it will take continued efforts to expand these systems of care. ■

1. 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. Published online February 19, 2026. doi: 10.1161/CIR.0000000000001415

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