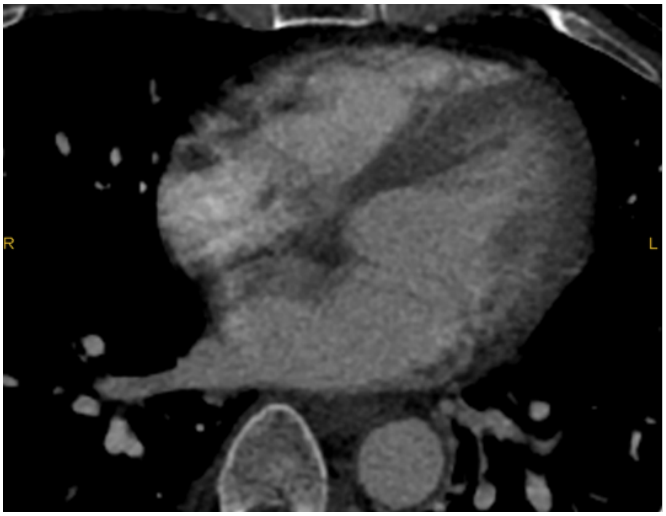
Rad to Rad Learning: PE Diagnostic Quality vs. Accuracy

The Radiology Partners (RP) Cardiothoracic Imaging National Subspecialty Division (NSD) presents our newest Rad to Rad Learning case.

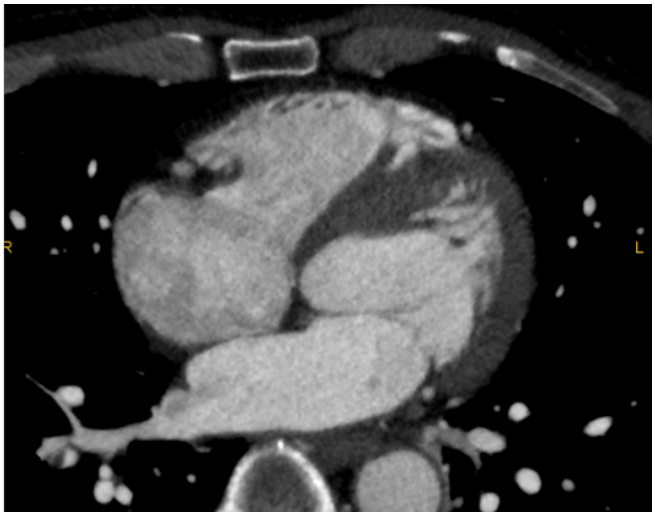
Peer Learning Opportunity

Where’s Waldo? Would I be able to see him if I looked straight at him? Our ability to perceive a PE is governed by the enhancement level throughout the pulmonary arterial tree and how motion-free images are.

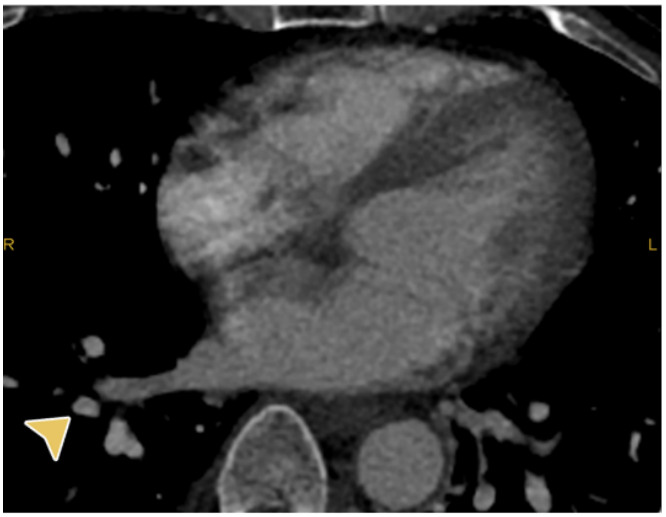
Adequate contrast enhancement is crucial to detect PE. These images are from the same patient. The left is 280HU and the right is 480HU.



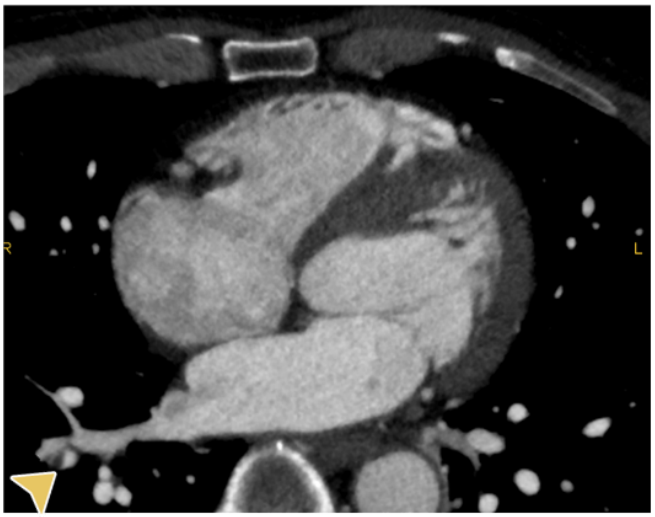
STAT CTA for Chest Pain to rule out PE:



STAT Coronary CTA for Chest pain
5 minutes later:



80 cc Omnipaque 350
@ 2.5 cc/sec



80 cc Omnipaque 350
@ 5 cc/sec

Practical Insights

- **Inadequate enhancement, especially below 250HU, can degrade visualization of distal emboli**
- **Visualization can be degraded in cases of significant motion, even if HU levels are adequate.**

🔔 Takeaway: “I don’t see a PE.” is not the same as “The enhancement is good enough for me to exclude a PE down to this pulmonary arterial division.”

*Shared to improve patient safety and healthcare delivery in the provision of radiology services. The circumstances and facts are changed, altered, or deidentified to preserve confidentiality. Privileges have not been waived.*The Cardiothoracic Imaging Radiology National Subspecialty Division (NSD) is part of RP’s Clinical Value Team, which works to elevate patient care and enhance value through innovation, collaboration and education. To advance this goal, our radiologists and advanced practice providers are committed to sharing peer learning as valuable reminders and insights about what we encounter in our day-to-day practice. Check back here and on X, LinkedIn and Instagram to see these common cases and our findings.

Visit the Clinical Resources page for more cases and to see what we’ve developed to enhance best practice recommendations, elevate image quality and patient care and update current standards throughout RP’s network of practices, all to deliver excellent radiology services to patients, referring clinicians and client partners.



Radiology Partners, through RP Clinical Services and its managed practices, together with Mosaic Clinical Technologies, Inc., its technology and AI division, is the leading provider of technology-enabled radiology services in the U.S., serving more than 3,400 hospitals and other healthcare facilities with high-quality radiology, technology and artificial intelligence solutions. As a physician-led and physician-owned practice, our mission is to transform radiology by innovating across clinical value, technology, and service, while elevating the role of radiology and radiologists in healthcare. For the latest news from RP, follow us on X, LinkedIn, Instagram, YouTube and the blog.