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**REPLY:** There was a remarkable silence within our community when the excellent ventilation agent <sup>81m</sup>Kr was removed from the U.S. market and, worse, when the extremely promising ventilation agent Technegas, which was used by these authors, failed to be introduced here. Both agents would improve the diagnostic certainty of ventilation/perfusion (V/Q) scintigraphy especially when SPECT acquisition is used. Resolution of planar images is better on the surface than with depth, because of attenuation. SPECT provides uniform resolution with depth but generally poorer resolution than does planar imaging on the surface of the imaged organ. V/Q imaging for pulmonary embolism (PE) focuses primarily on superficial and not deep defects, and thus the benefits of SPECT are theoretically less important if enough planar images to avoid “shine-through” obscuration of cold defects are obtained.

Interpretation of lung SPECT studies is often difficult because of the inexperience of physicians and a large array of images. For these theoretic and practical reasons, V/Q SPECT appears to be underutilized despite the published reports of improved sensitivity for diagnosis of PE and elimination of many indeterminate interpretations for PE with SPECT.

It is my experience, as well as that of many of my colleagues, that the art of plain-film interpretation, especially in the dyspneic patient, is fading within the ranks of clinicians and imagers with the advent of high-resolution cross-sectional imaging techniques including multidetector CT. In fact, many Emergency Department clinicians are so overwhelmed by the flood of American patients using their emergency facility improperly as a clinic that they scarcely have the time to properly evaluate their dyspneic patients and provide an adequate, thoughtful referral. Given this dilemma, these clinicians find the anatomic diagnostic information from multidetector CT much more familiar and useful than the more limited diagnostic perspective of the V/Q scan data. As early as 2005, Maurer et al. in a U.S. inner-city environment similar to my workplace reported a 20% increase in multidetector CT and an equivalent 20% decrease in overall V/Q referral patterns for PE (1).

To date, I have successfully preserved 24/7 continuous coverage including V/Q scintigraphy at a time when many other U.S. facilities have withdrawn such after-hours service to be replaced by multi-detector CT sited, staffed, and interpreted promptly within the Emergency Department. Cost and availability will probably prove even more significant in future referral patterns than will the technical and patient safety factors to be considered in the diagnosis of PE if we do not immediately rejoin this discussion. It will be exceedingly difficult to divert referrals away from a multidetector CT angiography technique that rapidly diagnosed PE in PIOPED II in the most clinically relevant central sites 97% (116/120) of the time while offering at the same time an often-definitive evaluation of pulmonary parenchymal disease as the cause of dyspnea.

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