

# Ventilation-Perfusion Scintigraphy in the PIOPED Study. Part II. Evaluation of the Scintigraphic Criteria and Interpretations

Alexander Gottschalk, H. Dirk Sostman, R. Edward Coleman, Jack E. Juni, James Thrall, Kenneth A. McKusick, Jerry W. Froelich and Abass Alavi

**J Nucl Med 1993; 34:1119–1126**

**TABLE 5**  
Revised PIOPED V/Q Scan Criteria

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High Probability ( $\geq 80\%$ )

$\geq 2$  Large mismatched segmental perfusion defects or the arithmetic equivalent in moderate or large + moderate defects\*.

Intermediate Probability (20%–79%)

One moderate to two large mismatched segmental perfusion defects or the arithmetic equivalent in moderate or large + moderate defects\*.  
Single matched ventilation-perfusion defect with clear chest radiograph<sup>†</sup>.  
Difficult to categorize as low or high, or not described as low or high.

Low Probability ( $\leq 19\%$ )

Nonsegmental perfusion defects (e.g., cardiomegaly, enlarged aorta, enlarged hila, elevated diaphragm).  
Any perfusion defect with a substantially larger chest radiographic abnormality.  
Perfusion defects matched by ventilation abnormality<sup>‡</sup> provided that there are: (1) clear chest radiograph and (2) some areas of normal perfusion in the lungs.  
Any number of small perfusion defects with a normal chest radiograph.

Normal

No perfusion defects or perfusion outlines exactly the shape of the lungs seen on the chest radiograph (note that hilar and aortic impressions may be seen and the chest radiograph and/or ventilation study may be abnormal).

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\*Two large mismatched perfusion defects are borderline for "high probability." Individual readers may correctly interpret individual scans with this pattern as "high probability." In general, it is recommended that more than this degree of mismatch be present for the "high probability" category.

<sup>†</sup>Very extensive matched defects can be categorized as "low probability." Single V/Q matches are borderline for "low probability" and thus should be categorized as "intermediate" in most circumstances by most readers, although individual readers may correctly interpret individual scans with this pattern as "low probability."

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