	LUNG QUANTIFICATION SCAN		
	Approval: E. Alvarez, MD	rev:1	12/2025

Radiopharmaceutical: 99mTc-MAA
Dose: 4 mCi
T1/2: 6 hours
Energy: 140 keV
CPT: 78597

Indications:
Approved indications include, but are not limited to:
1. Quantitative evaluation of differential lung function in patients with lung cancer.

Patient Preparation:
• Chest x-ray is required within one week of procedure.

Equipment:
1. Philips Skylight (VXUR collimator)
2. Philips Forte (VXUR collimator)
3. Philips Vertex Plus (LEUR collimator)

Procedure:
1. Inject 99mTc-MAA.
2. Position patient on scan bed in supine position.
3. Acquire ANT, POST, RPO, LAO, LT LAT, RT LAT, LPO, and RAO images for 600k counts each.
Place a 50 µCi marker on patient's right shoulder for ANT/POST acquisition.

Acquisition Parameters:
• Matrix: 256 x 256
• Zoom: 1.0 (Full Field)
• Total Kcounts: 600
• Position: Supine
• Orientation: Feet First

Processing:
1. Create a geometric mean image and use this for image quantification.
    Right click in the blue background→user custom menu→custom applications→geometric lung analysis
2. Left-click the LUNG PERFUSION icon at the top of the Pegasys home screen.
3. If images are not automatically selected, choose the ventilation images in the order that they are requested by the software (POST PERF, ANT PERF, RPO PERF, LPO PERF, RT LAT PERF, LT LAT PERF, RAO PERF, and LAO PERF).
4. Change image zoom to 2.0; be sure to not clip any area of lungs.
5. Change to gray scale.
6. Choose the proper default annotation.
7. SNAPSHOT and QUIT.
8. Double SNAPSHOT each image ending in "_SS".
9. Scan proper documents, type history, and DICOM images to PACS per protocol.