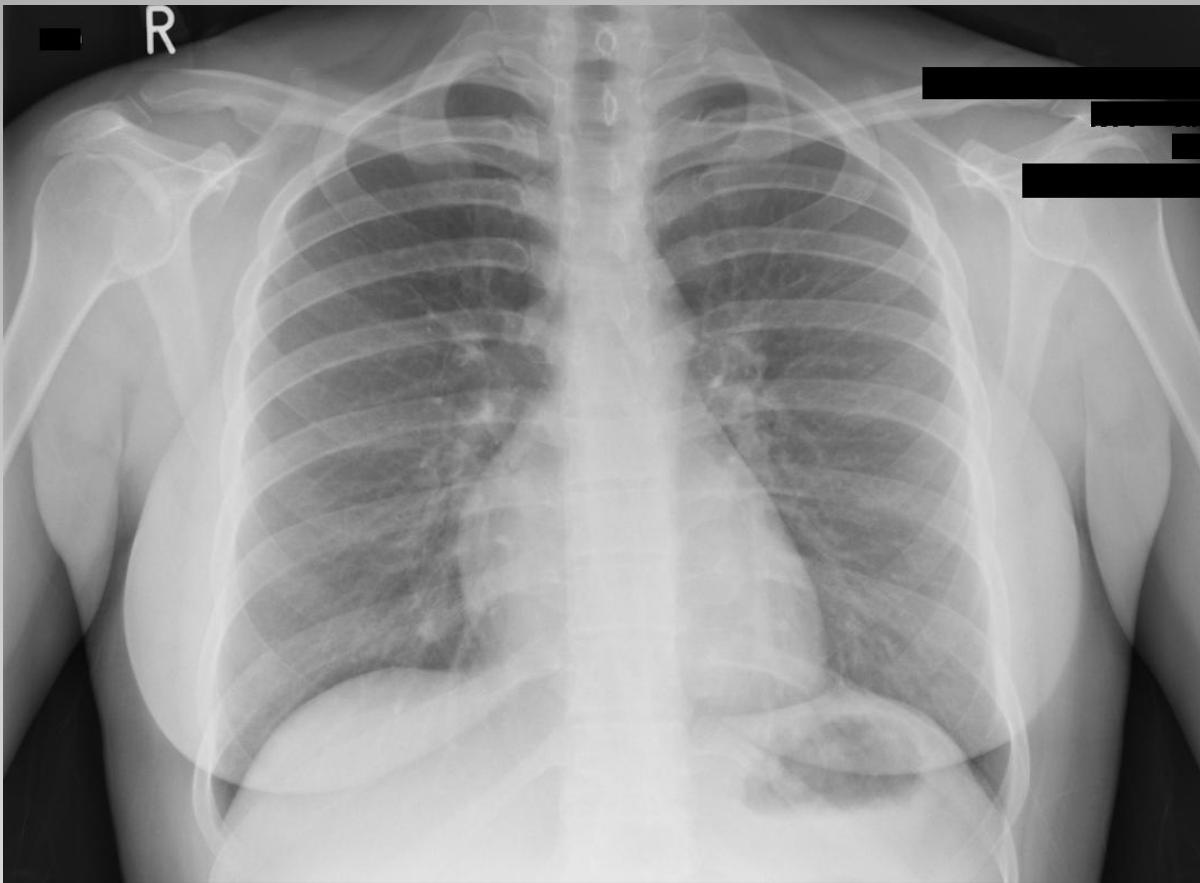


# Reporting SPECT-VQ

Alp Notghi

- 20 year old female
- 24 weeks pregnant
- Clinical History : SOB and chest pain for past 3 days. ?PE
- Doppler USS excluded DVT

**Case 4413041 Normal**



**Case 4413041**

- CXR report:
  - The heart and lungs appear normal.

**Case 4413041**

- SPECT-VQ images

**Case 4413041**



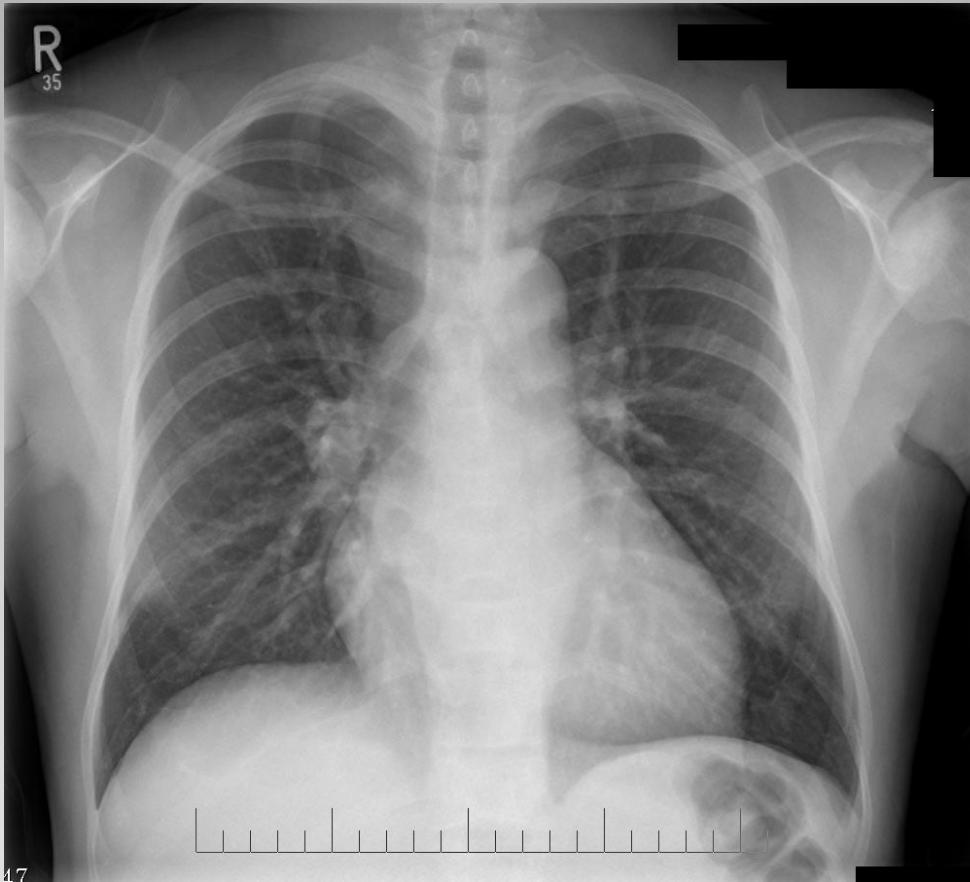
**Case 4413041**

- SPECT-VQ report:
  - Normal ventilation and perfusion to both lungs.  
No evidence  
of PE on current study.
  - Patient discharged / FU by GP

**Case 4413041**

- 33 year old male
- Homozygous sickle cell disease
- Admitted with painful crisis
- Chest pain, SOB, Pleural rub on auscultation (right base)
- PO2 10.2 on air

**Case 3304322 Sickle/infarct**



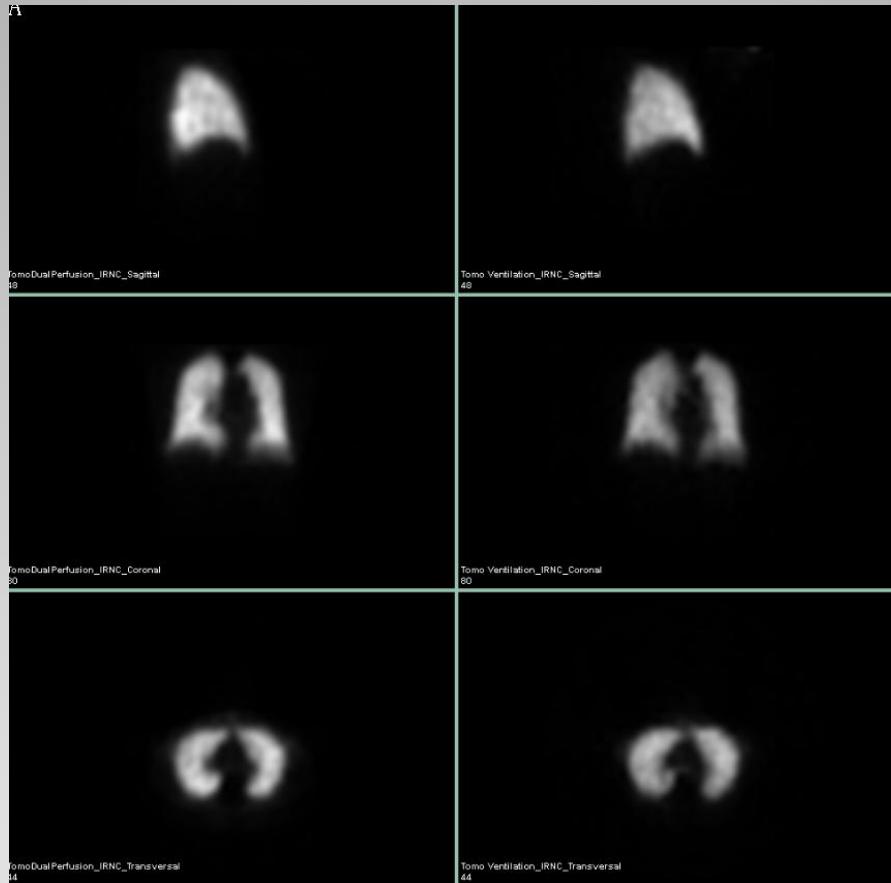
**Case 3304322**

- CXR report:
  - Appearances have not changed since the previous film in February 2011. The heart is enlarged, CTR 15/27. Upper lobe vessels are prominent. No focal lung lesion seen. Multiple endplate depression noted in the thoracic spine consistent with sickle cell disease.

**Case 3304322**

- SPECT-CT images

**Case 3304322**



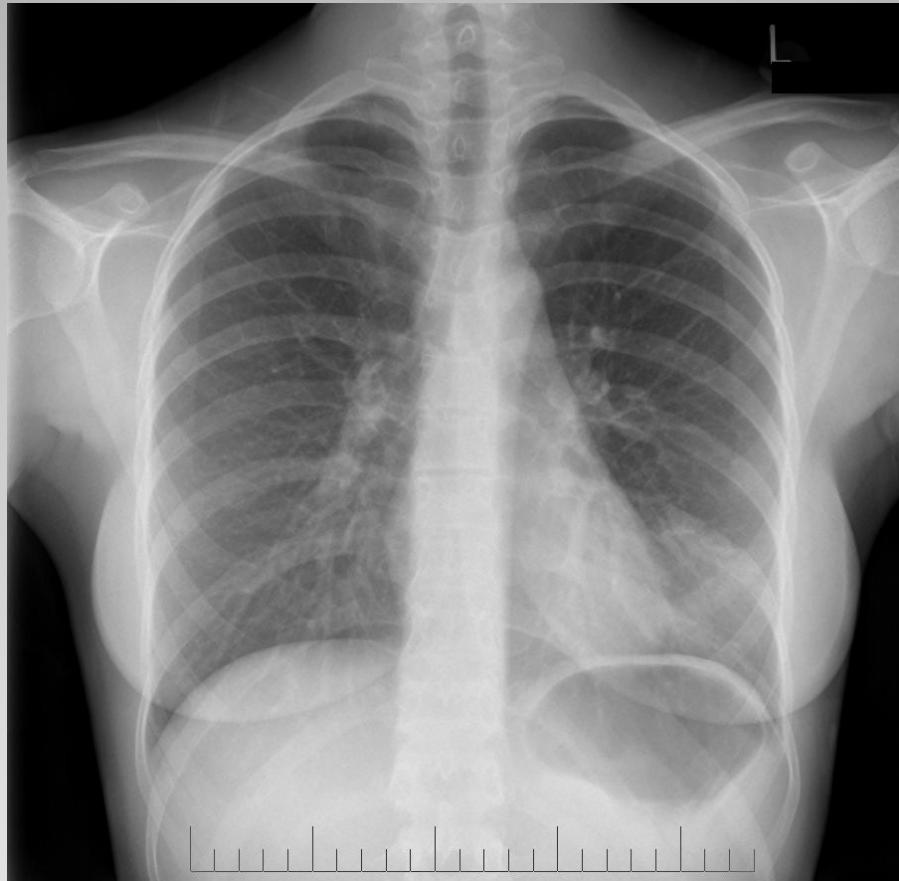
# Case 3304322

- SPECT-CT report:
  - Normal ventilation and perfusion to both lungs.
  - ? Subsegmental matched defect in Right mid-zone
  - No evidence of PE on the current study.

**Case 3304322**

- 25 year old female
- Sudden onset of pleuritic chest pain
- Well's score is 1.5
- OCP, Smoker

**Case 4091933 multi matched**



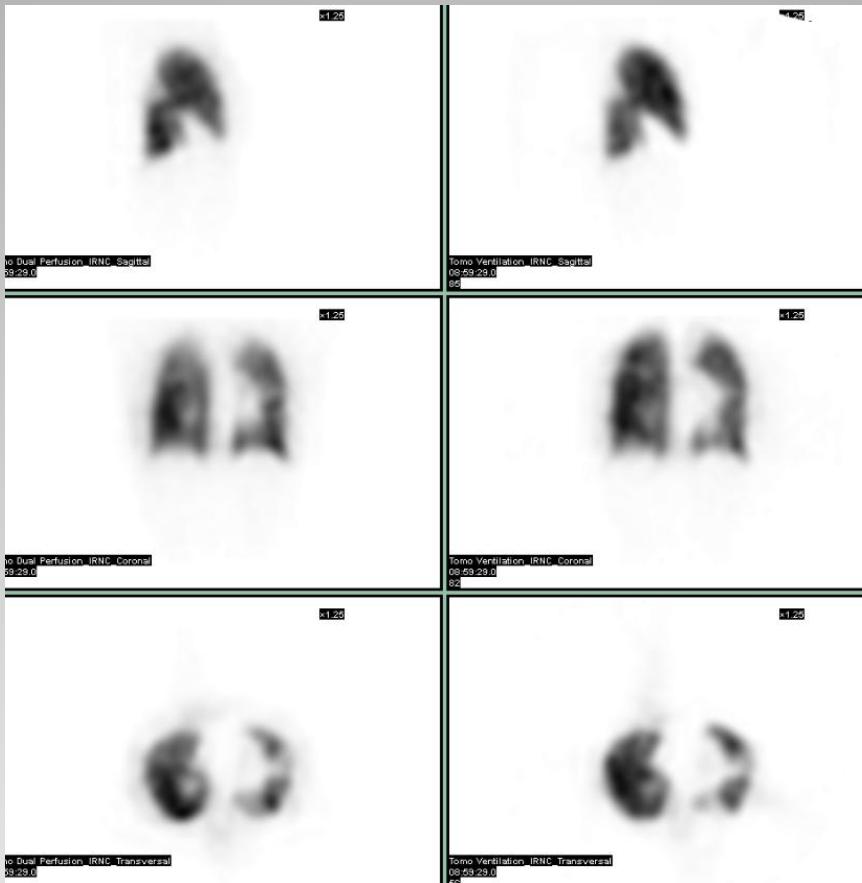
**Case 4091933**

- CXR report:
  - There is some faint consolidation in the lingula.

**Case 4091933**

- SPECT-CT images

**Case 4091933**



# Case 4091933

- SPECT-VQ report:

- There are multiple matched defects in both lungs, in particular there is a large segmental matched defect in the mid zone of the left lung.
- There are no unmatched perfusion defects to suggest acute PE, however the appearance of the matched defect in the left lung may be due to an infarct, but in the absence of an unmatched perfusion defect this is not certain.
- Conclusion: No unmatched defects to suggest PE, although PE with infarct cannot be ruled out.

**Case 4091933**

- Proceeded to CTCA

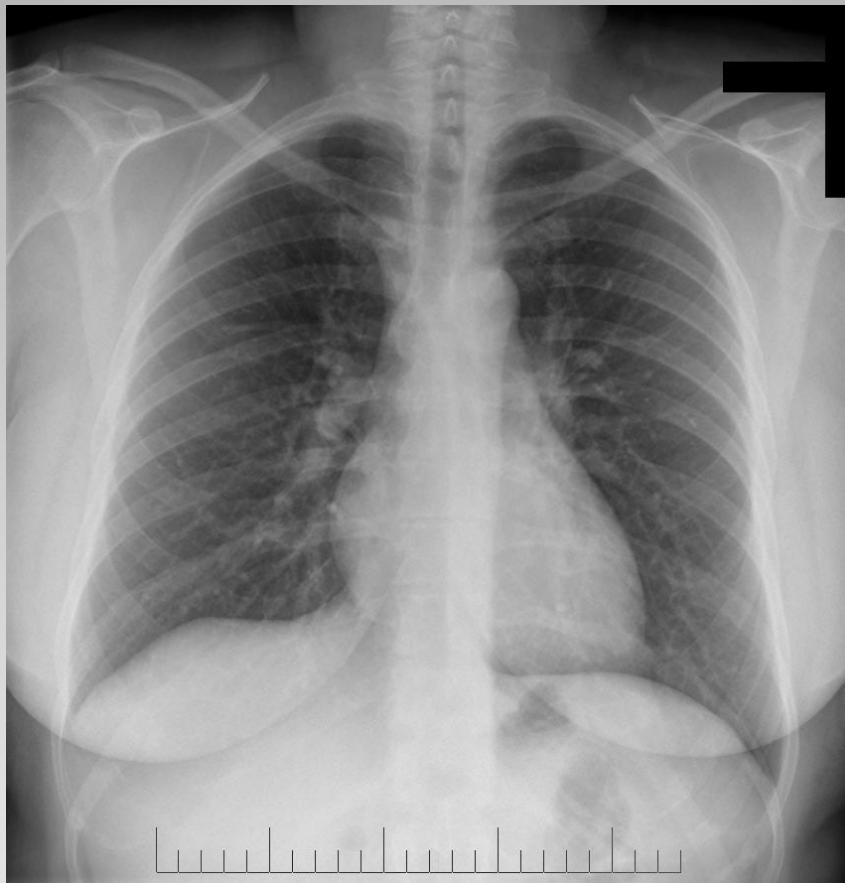
**Case 4091933**

- CTPA report:
  - There is no evidence of intra-arterial thrombosis noted in major pulmonary arteries and their branches
  - There is consolidation noted in left lingular lobe
  - Remaining lungs appear clear. No significant hilar or mediastinal lymphadenopathy noted.

**Case 4091933**

- 42 year old female
- Sudden onset Retro-sternal chest pain
- SOB
- ECG Right axis deviation
- D-dimer positive
- ? PE

**Case 4709430 normalish!**



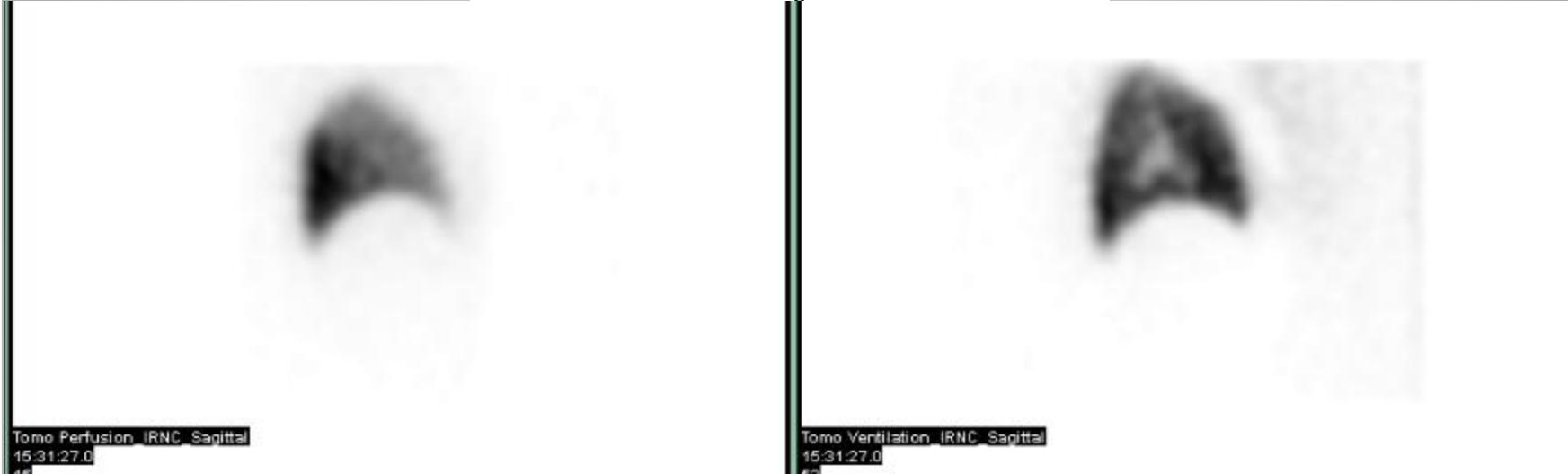
**Case 4709430**

- CXR report:
  - The heart is not enlarged
  - No lung lesion seen.

**Case 4709430**

- SPECT-VQ images

**Case 4709430**



Tomo Perfusion IRNC Sagittal  
15:31:27.0

45

Tomo Ventilation\_IRNC Sagittal  
15:31:27.0

52

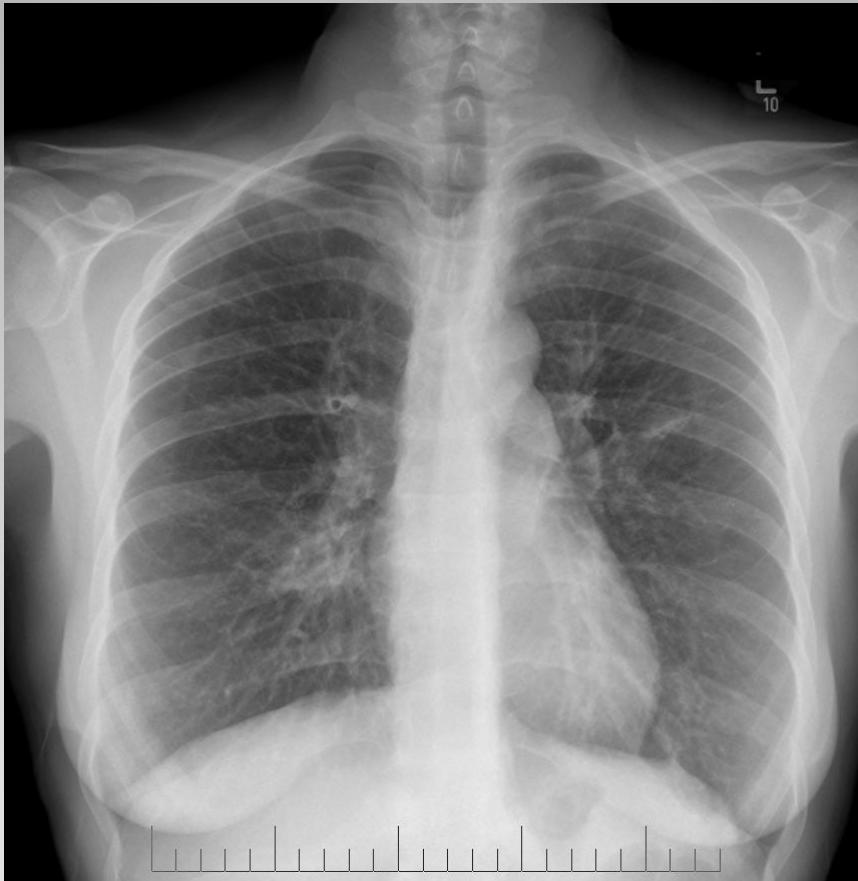
# Case 4709430

- SPECT-VQ report:
  - There is a small matched defect in the posterior aspect of the left lung.
  - Perfusion and ventilation to the remaining of both lungs is within normal limits.
  - Conclusion: No unmatched perfusion defect to suggest PE.

**Case 4709430**

- 40 year old female
- SOB
- pO<sub>2</sub> 8.9
- ?PE

**Case 4625990**



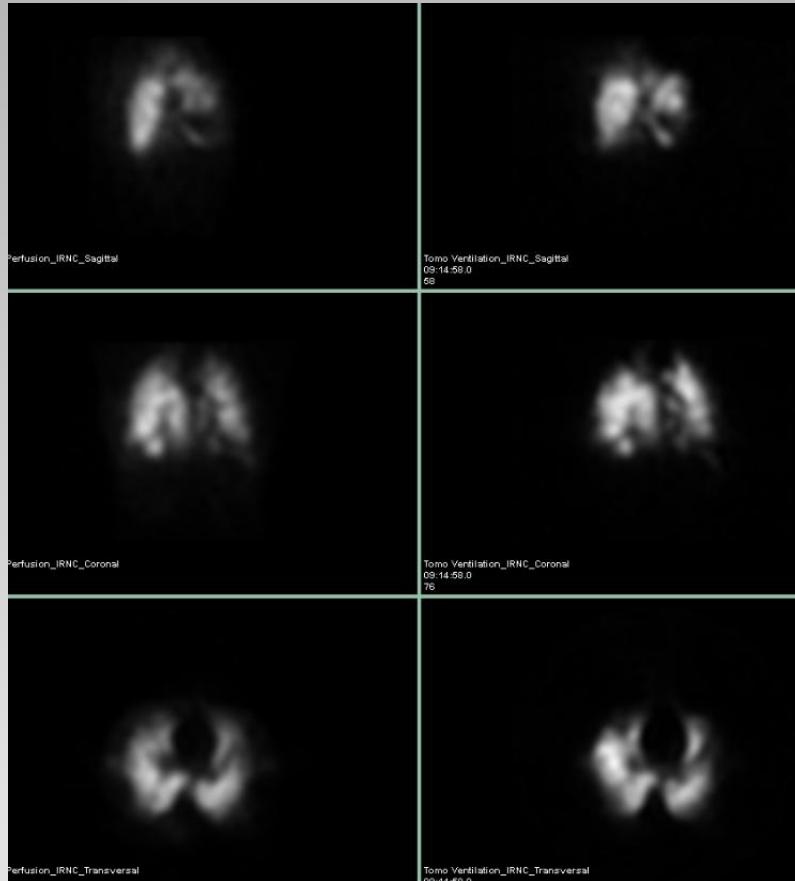
**Case 4625990**

- CXR report:
  - No major focal areas of collapse or consolidation.
  - The heart is not enlarged.

**Case 4625990**

- SPECT-VQ images

**Case 4625990**



**Case 4625990**

- SPECT-VQ report:
  - There are numerous matched perfusion defects and some unmatched ventilation defects seen in both lungs. However a single right sided partially matched perfusion defect is seen in the right lung medially. It is not possible to exclude a PE in this case.
  - Conclusion: Indeterminate probability for the diagnosis of PE.

**Case 4625990**

- Proceeded to CTPA

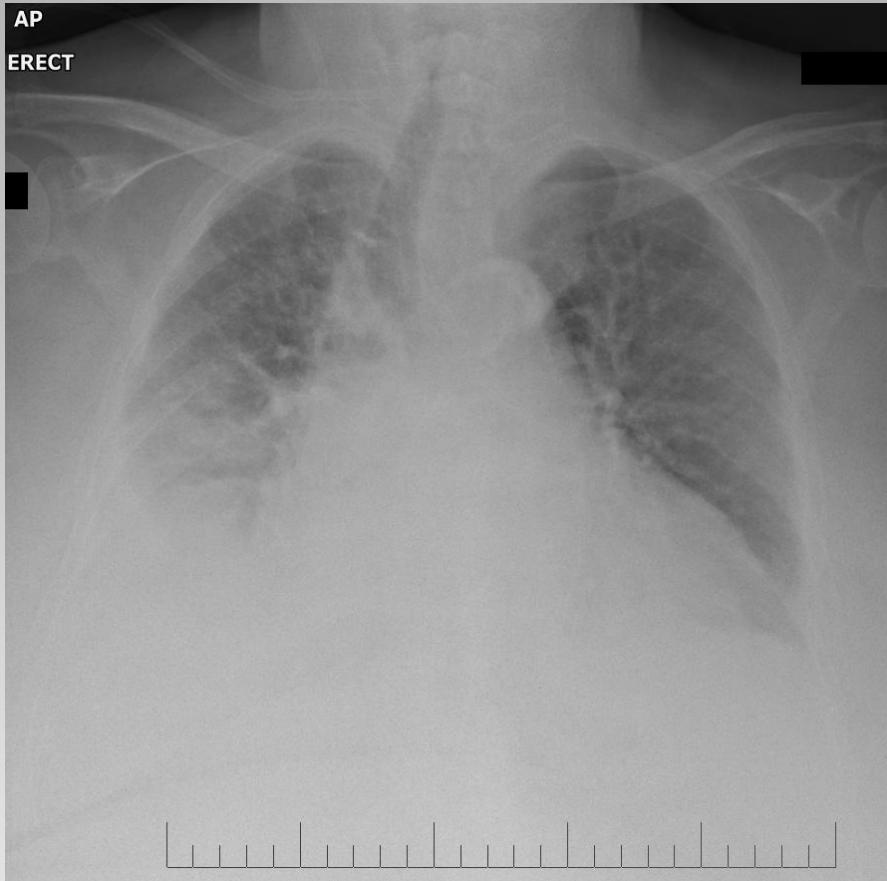
**Case 4625990**

- CTPA report:
  - The pulmonary arteries enhance normally and there is no evidence of acute pulmonary embolism. There is mild patchy ground-glass shadowing in both lungs which is non-specific.

**Case 4625990**

- 87 year old female
- Last weekend had an episode of desaturation
- For the last 24 hours has been suffering severe pleuritic chest pain
- To exclude PE

**Case 3275247 (PE)**



**Case 3275247**

- CXR report:

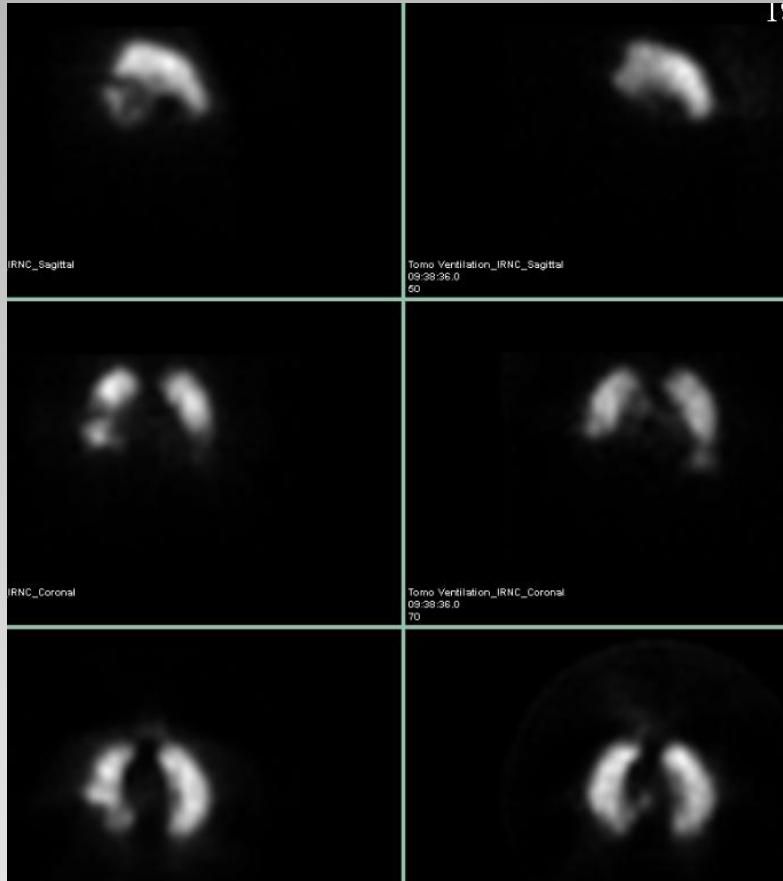
- There is no pneumothorax, major collapse or consolidation.
- The heart appears enlarged.

**Case 3275247**

- SPECT-VQ

**Case 3275247**

19



**Case 3275247**

- SPECT-VQ report:
  - There is a large unmatched segmental perfusion defect in the right lung. A smaller unmatched perfusion defect is seen in the left lung.
  - Conclusion: The appearances are in keeping with a diagnosis of multiple PE.

**Case 3275247**

- 74 year old female
- Swollen right leg – tender ++
- Treated empirically as DVT
- ABG shows hypoxia (oxygen levels of 8 on air)
- ?PE?

**Case 3253984**



**Case 3253984**

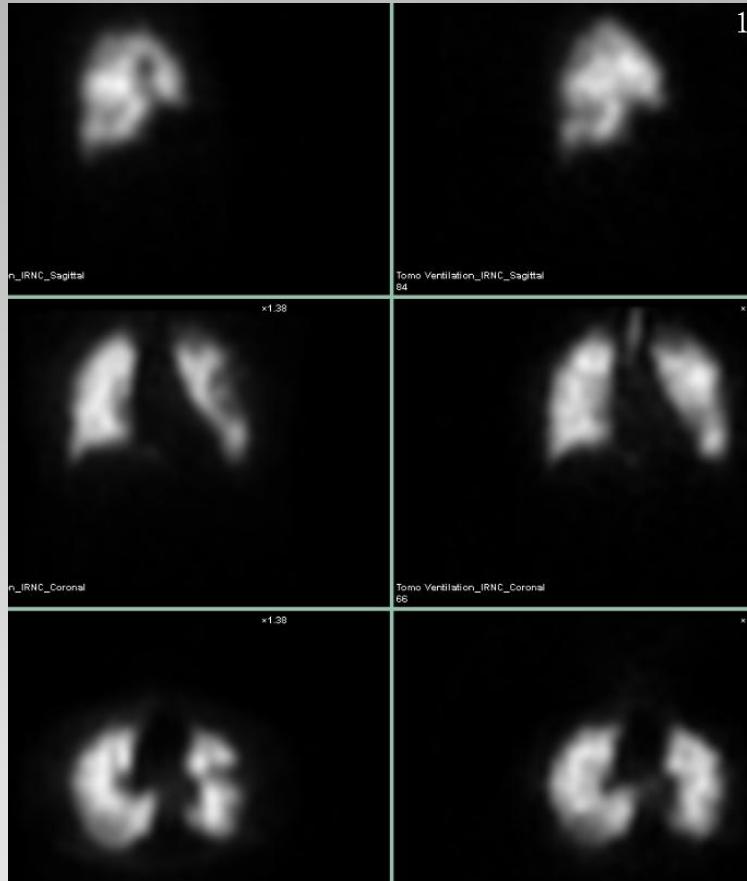
- CXR report:
  - Midline sternotomy noted.
  - No major collapse or consolidation seen.

**Case 3253984**

- SPECT-VQ images

**Case 3253984**

19



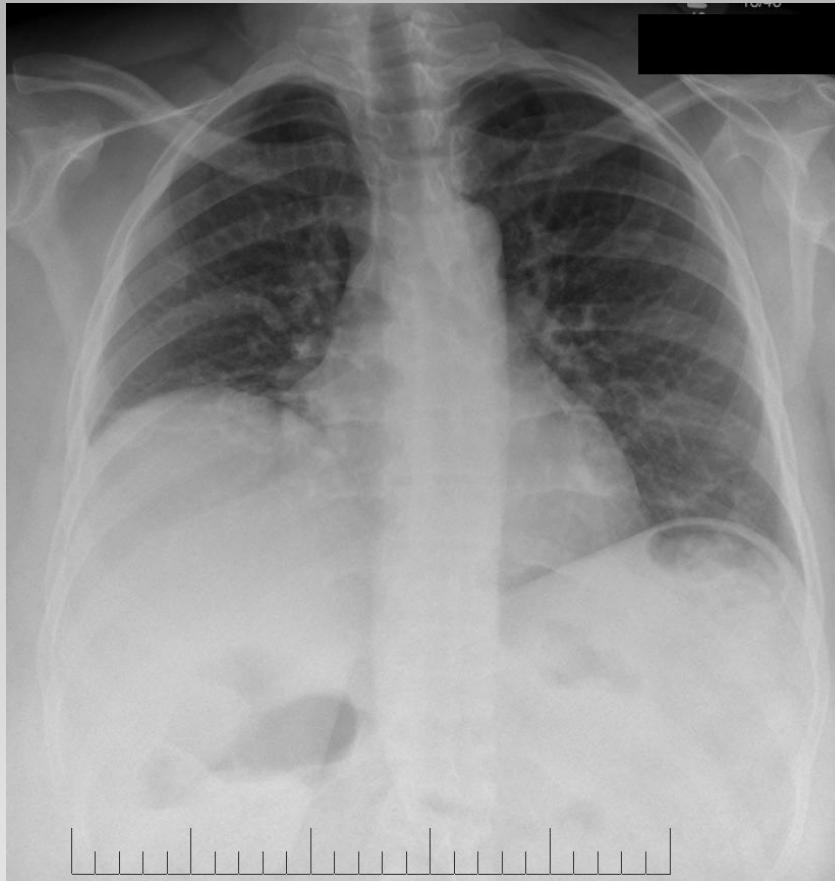
**Case 3253984**

- SPECT-VQ report:
  - There is a large unmatched perfusion defect in the left lung in the mid zone laterally. This is consistent with PE. There are also several matched defects in both lungs.

**Case 3253984**

- 42 year old female
- admitted with SOB, cannot climb 5 stairs
- chest pain, worse on inspiration & chest wall palpation
- No cough, no pyrexia
- Previous PE in 2006, no longer on warfarin.

**Case 3039920 (PE)**



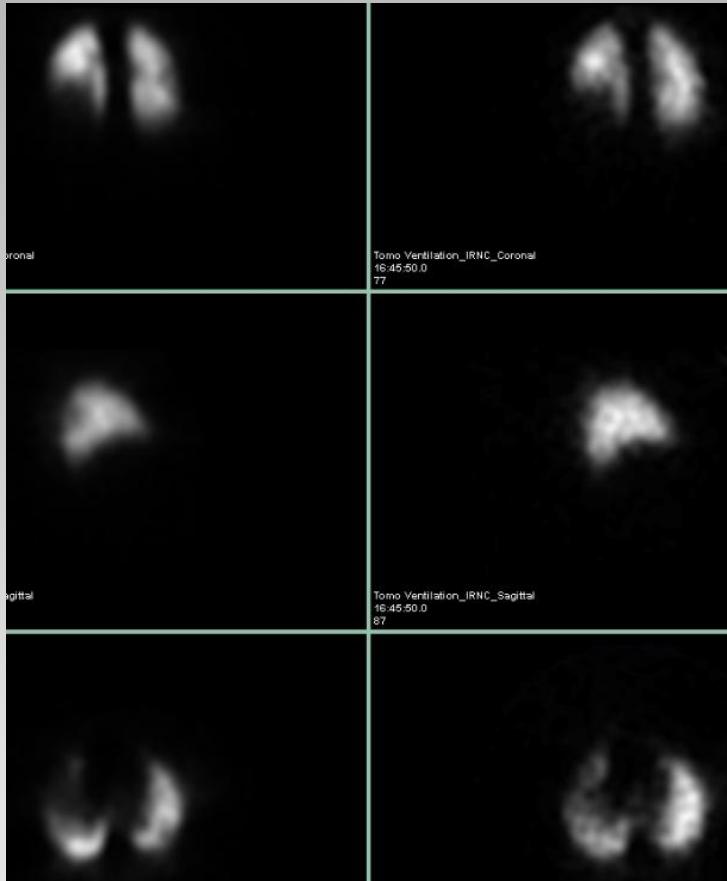
**Case 3039920**

- CXR report:
  - Heart size is within normal limits.
  - There is unexplained elevation of the right hemidiaphragm as noted on the recent chest x-ray of 11/3/11.
  - The rest of the lungs otherwise appear clear.

**Case 3039920**

- SPECT-VQ images

**Case 3039920**



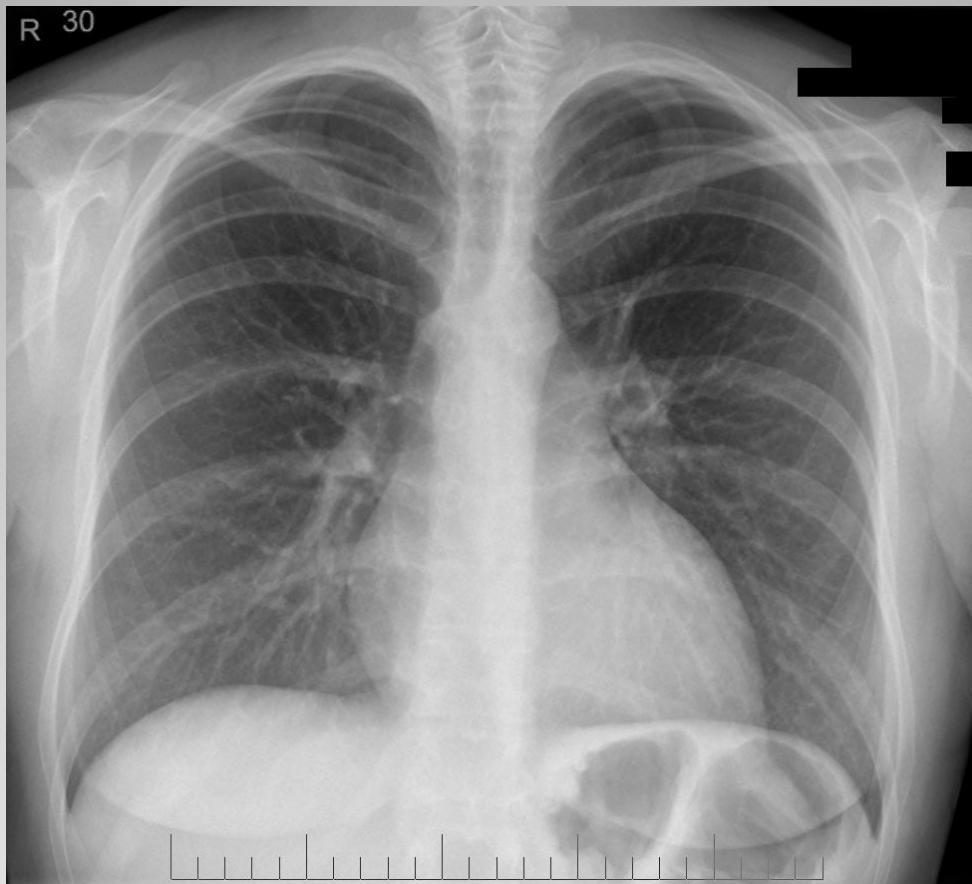
**Case 3039920**

- SPECT-VQ report:
  - There is a segmental unmatched perfusion defect in the left lung. Perfusion elsewhere is within normal limits.
  - Raised right hemidiaphragm noted.
  - Conclusion: The study is in-keeping with the diagnosis of pulmonary embolism to the left lung.

**Case 3039920**

- 25 year old female
- 1/7 Hx of SOB and pleuritic chest pain
- 2.52 post partum
- ?PE

**Case 4706612 (PE)**



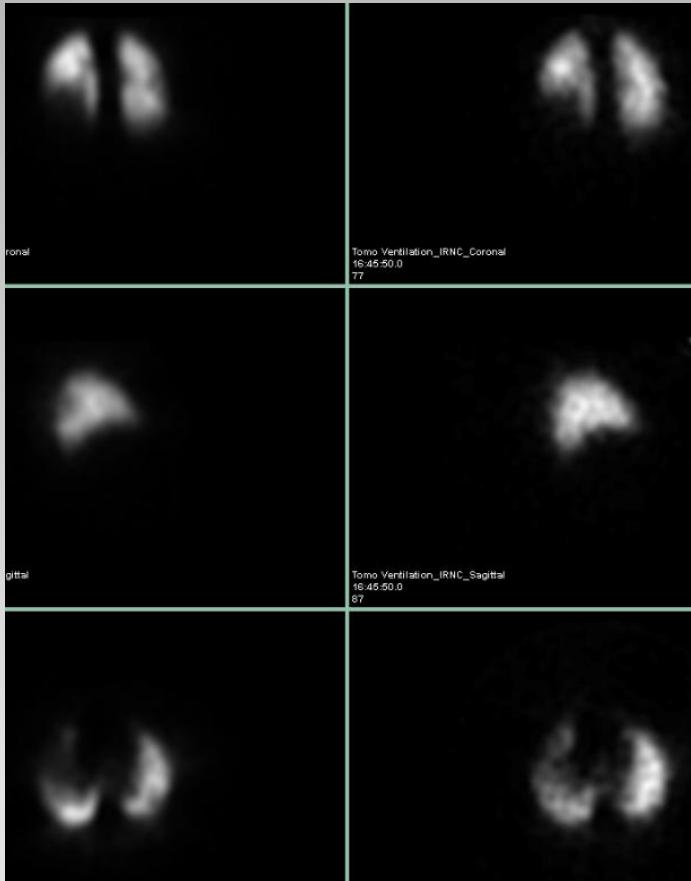
**Case 4706612**

- CXR report:
  - The lungs and pleural spaces are clear.
  - The heart is not enlarged.
  - No pneumothorax.

**Case 4706612**

- SPECT-VQ images

**Case 4706612**



**Case 4706612**

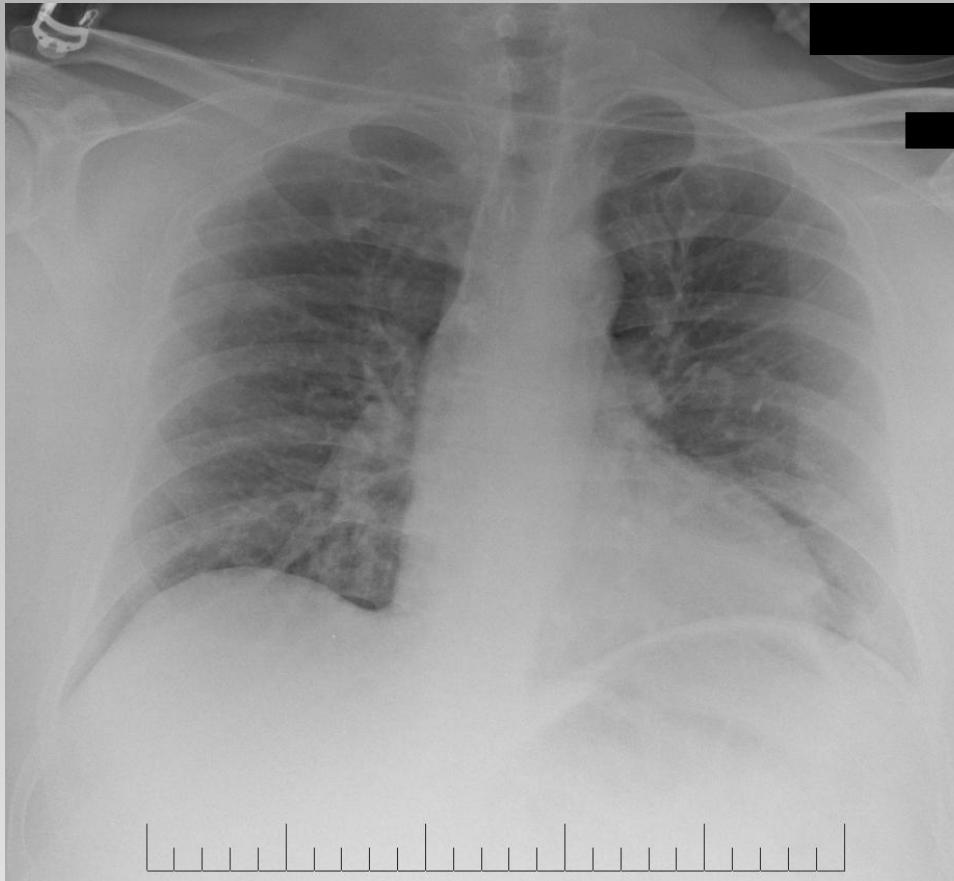
- SPECT-VQ report:

- There is a single subsegmental unmatched perfusion defect in the right lung apical zone, otherwise perfusion is within normal limits.
- Conclusion: Appearances would be in keeping with a small subsegmental PE in the right lung apex.
- May be segmental?

**Case 4706612**

- 61 year old male
- SOB and central chest pain
- p02 8.69. Low sats.

**Case 3014581**



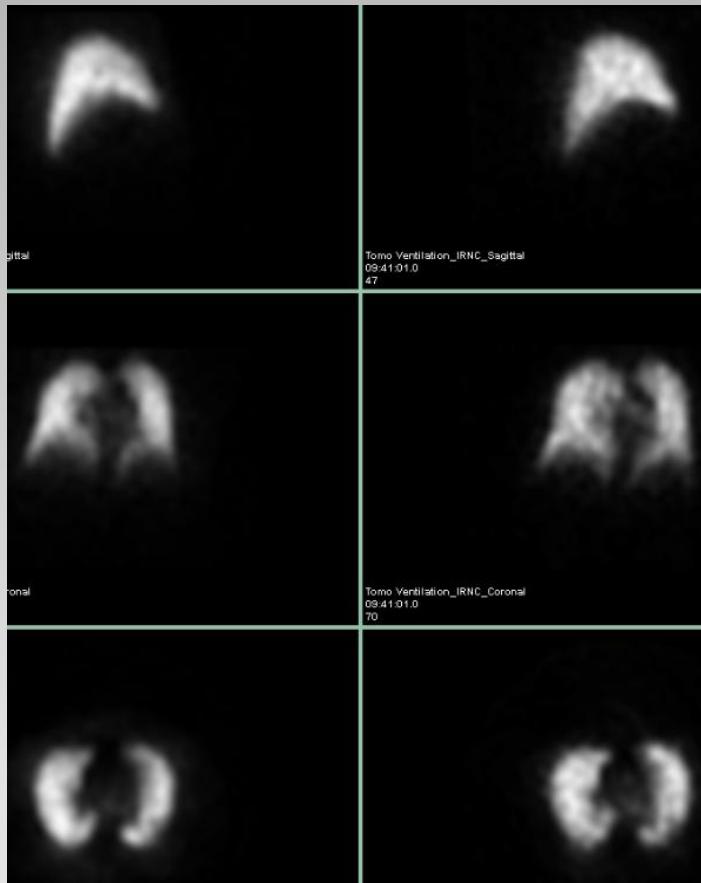
**Case 3014581**

- CXR report:
  - AP erect film.
  - No major focal areas of collapse or consolidation.
  - The heart is not enlarged.

**Case 3014581 (poor Kr, no PE)**

- SPECT-VQ images

**Case 3014581**



**Case 3014581**

- SPECT-VQ report:
  - There are a few segmental matched perfusion defects seen in the left lung, otherwise perfusion is within normal limits.
  - Conclusion: No unmatched perfusion defects are seen to confirm a diagnosis of PE.

**Case 3014581**

- Proceeded to CTPA

**Case 3014581**

- CTPA report:
  - No thrombus identified within the pulmonary arterial tree. No intra-thoracic or axillary lymphadenopathy. The lungs appear clear. There is degenerative change in the thoracic spine. No destructive bony lesion seen.
  - Conclusion: No evidence of PE identified.

**Case 3014581**

# Thank you