



# Introduction to Radiology For TB Nurses

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# Chest Radiology in TB

- X-Rays penetrate air, absorbed by fluids/solids
- Chest radiographs show us shadows of organs and structures in the chest
- Interpretation of a chest radiograph is pattern recognition that requires clinical correlation for true diagnosis
- To know what “abnormal” looks like, you have to know what “normal” looks like



# Chest Radiology Basics

- Dark/black = Air
- Dense White = Calcium (Bone Density)
- White = Water Density (Everything else)
  - Water
  - Blood
  - Fat
  - Tissue
  - Pus



# Posterior-Anterior CXR



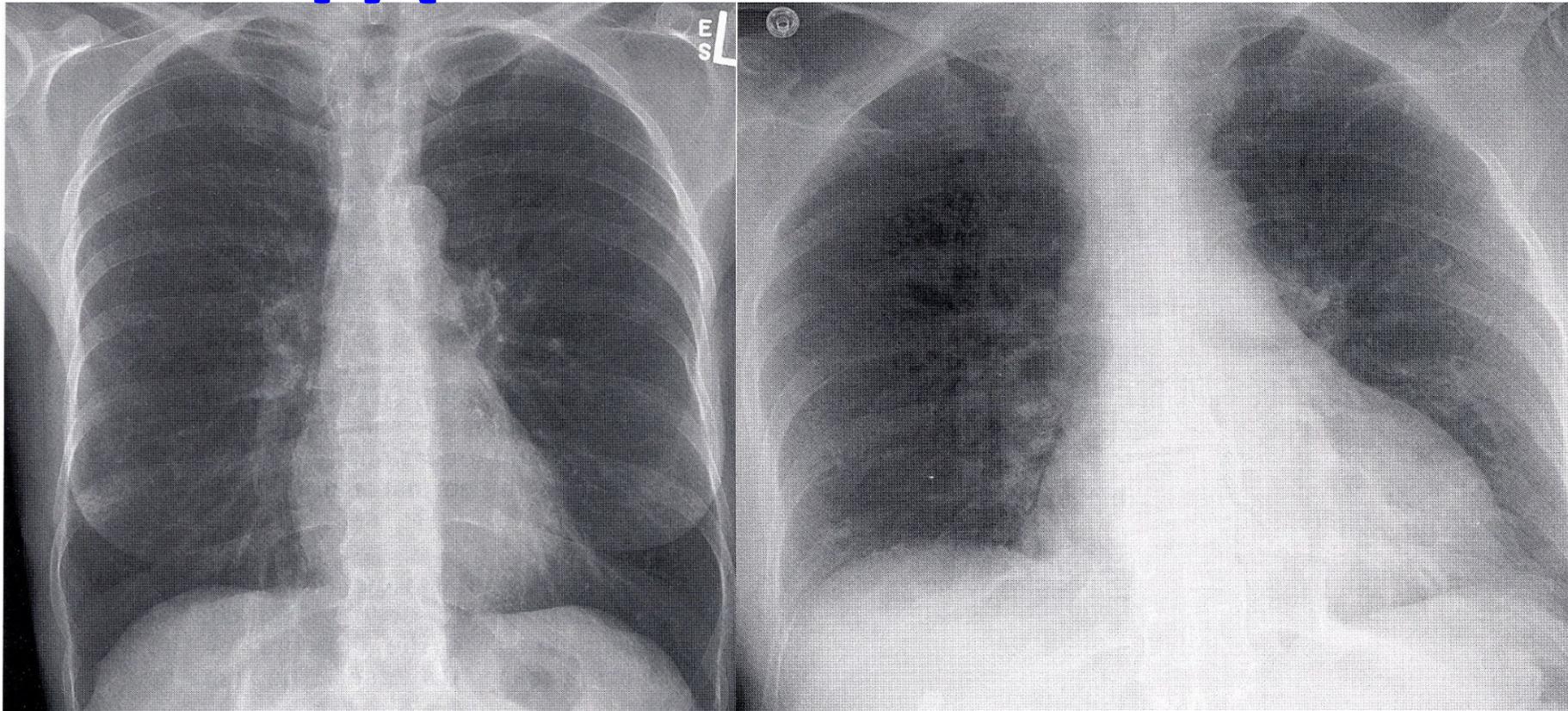
Normal CXR - distance 6 feet from X-ray tube to cassette to reduce magnification and enhance sharpness.



# Same Patient, Two Views

## PA

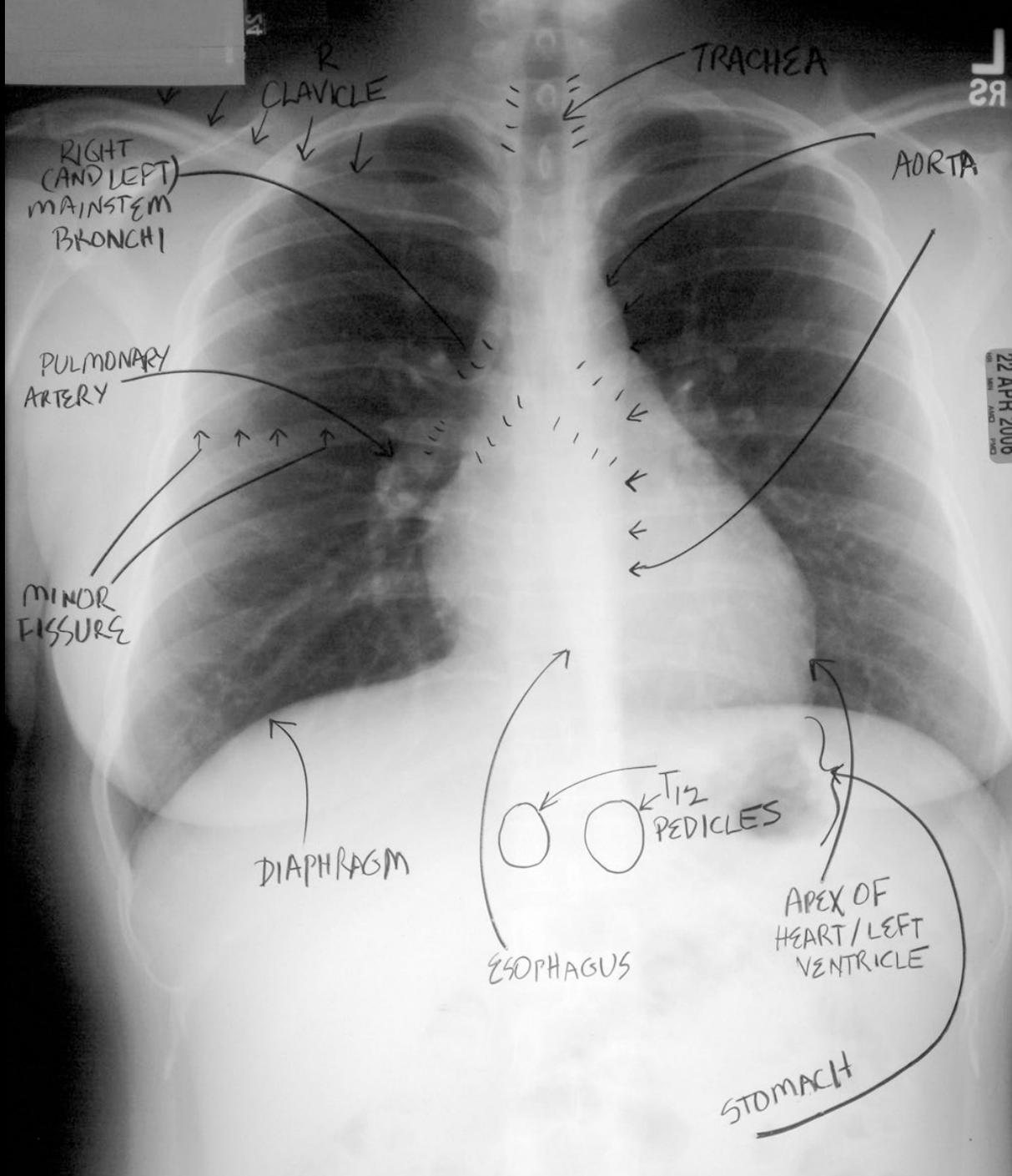
## AP



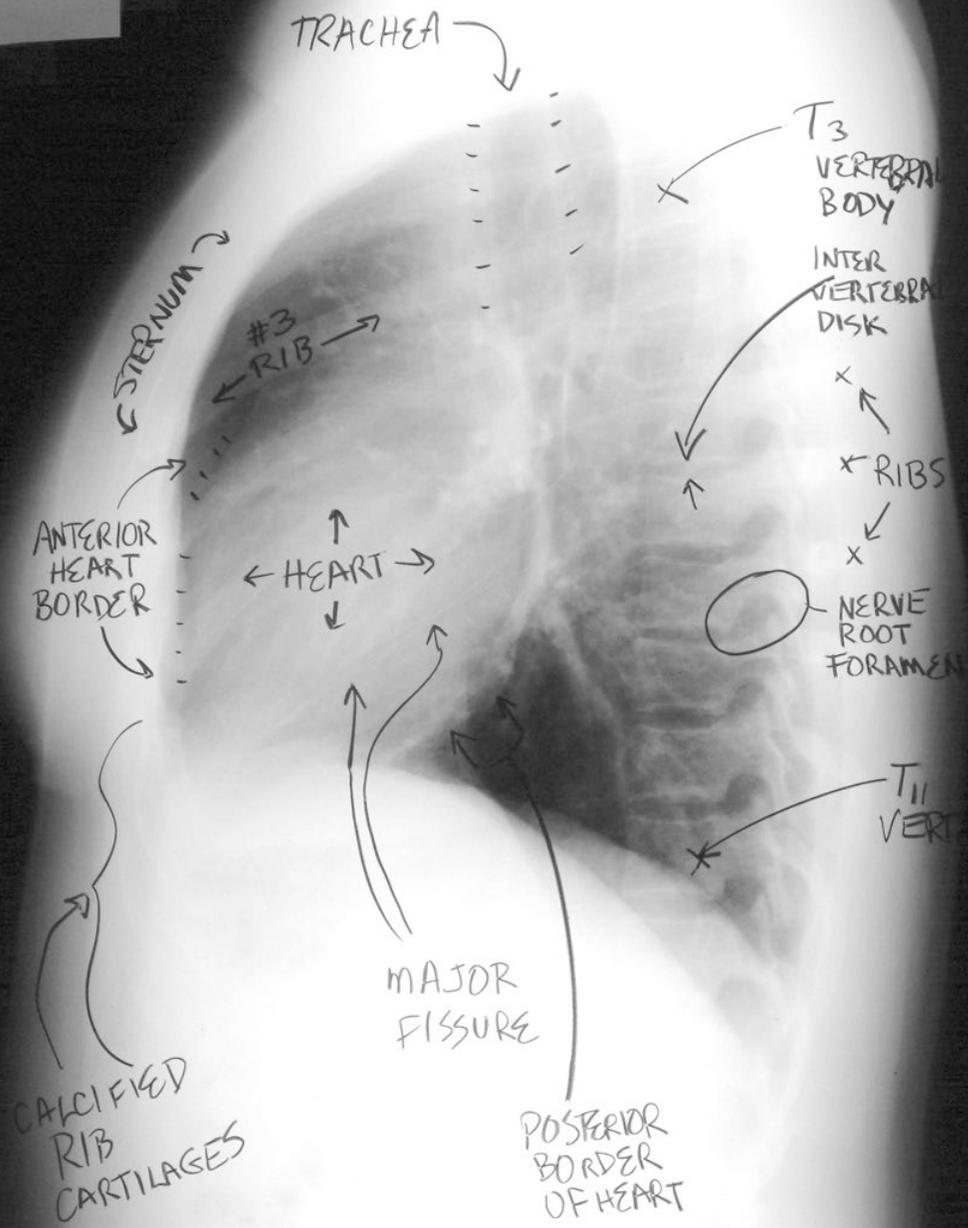
AP is taken at a shorter X-ray tube to receptor distance.

Compared with the PA CXR, the AP has a greater magnification, and the anatomy appears less sharp.





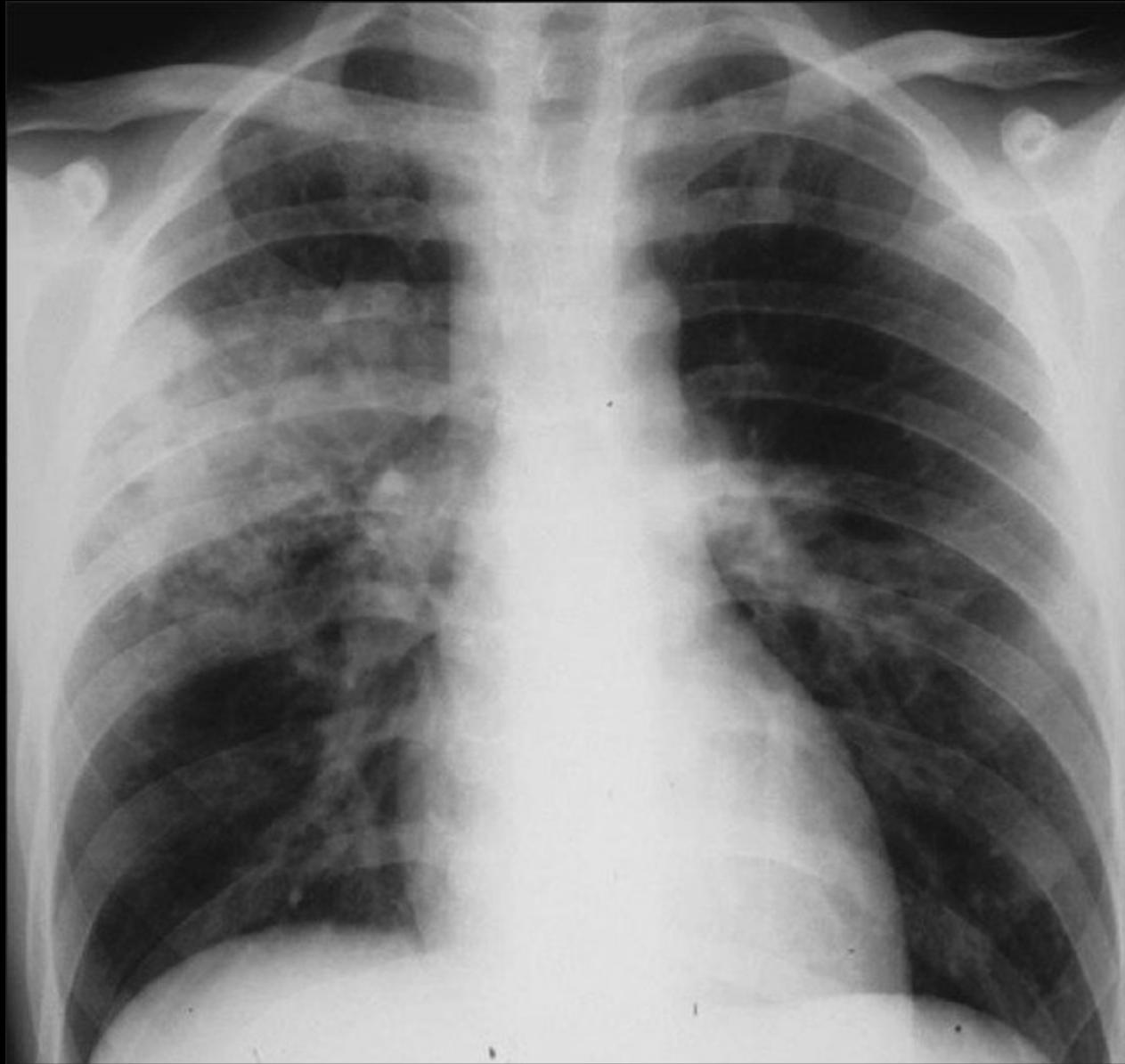
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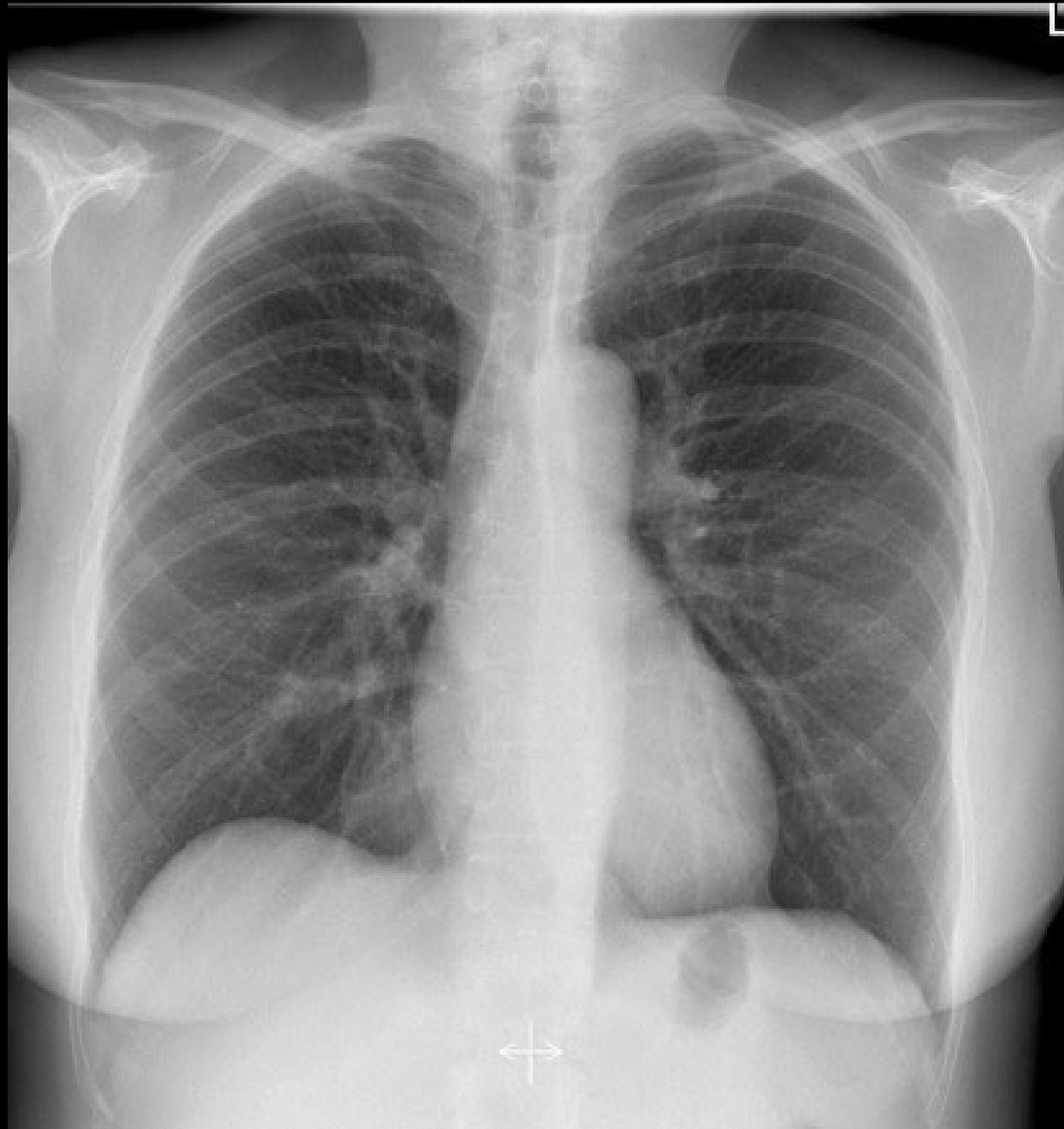
Normal Or Abnormal ?

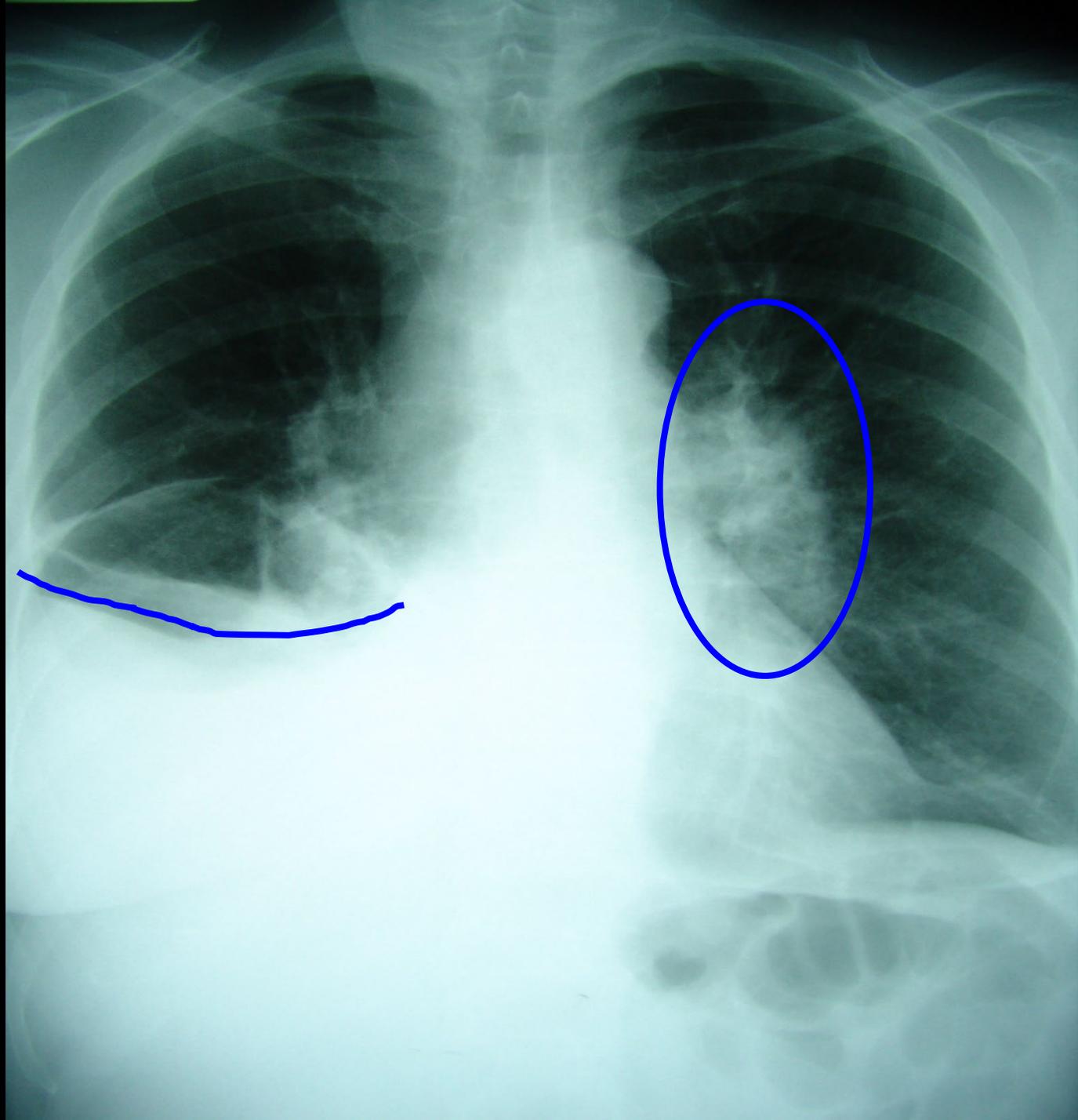


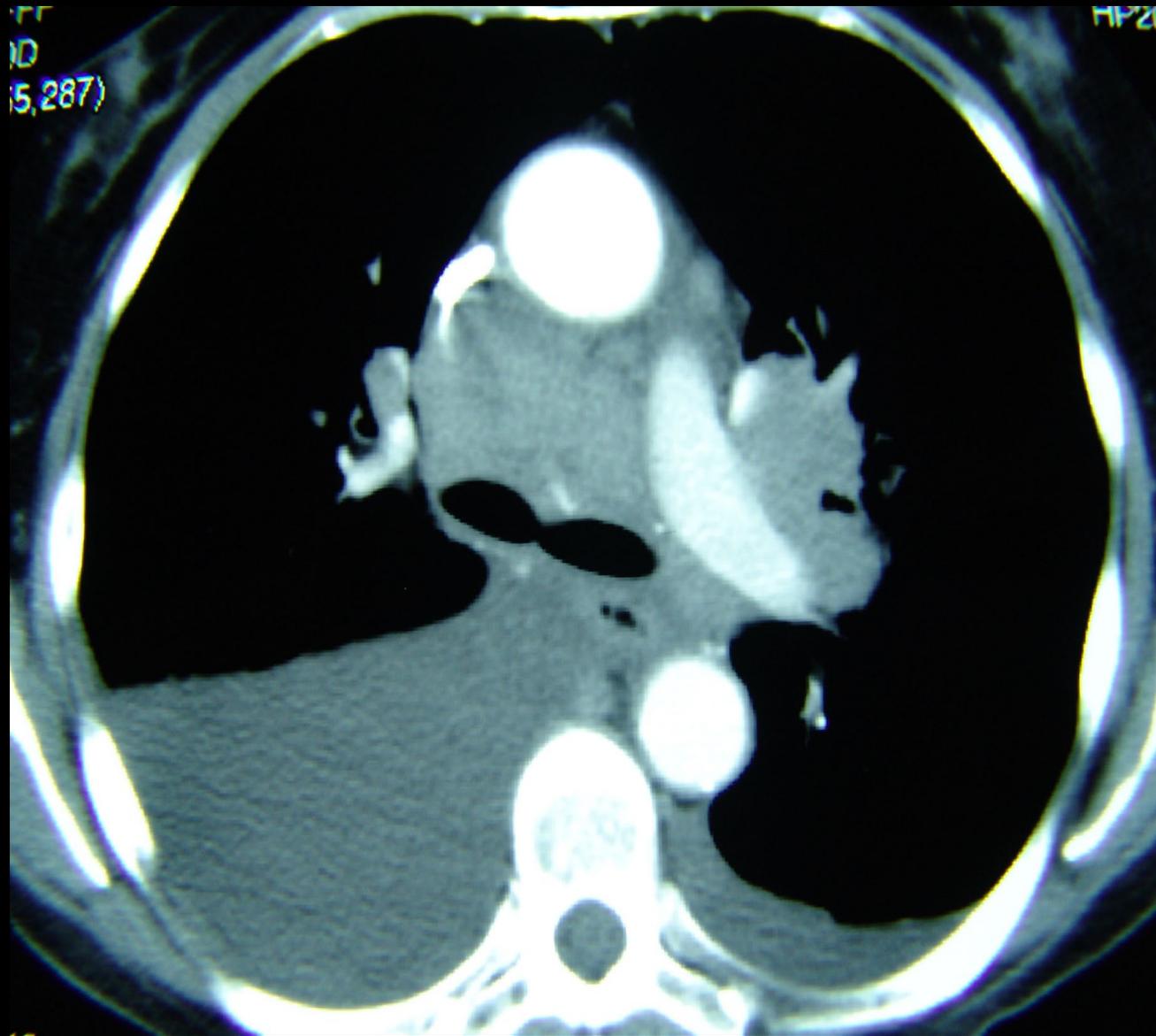


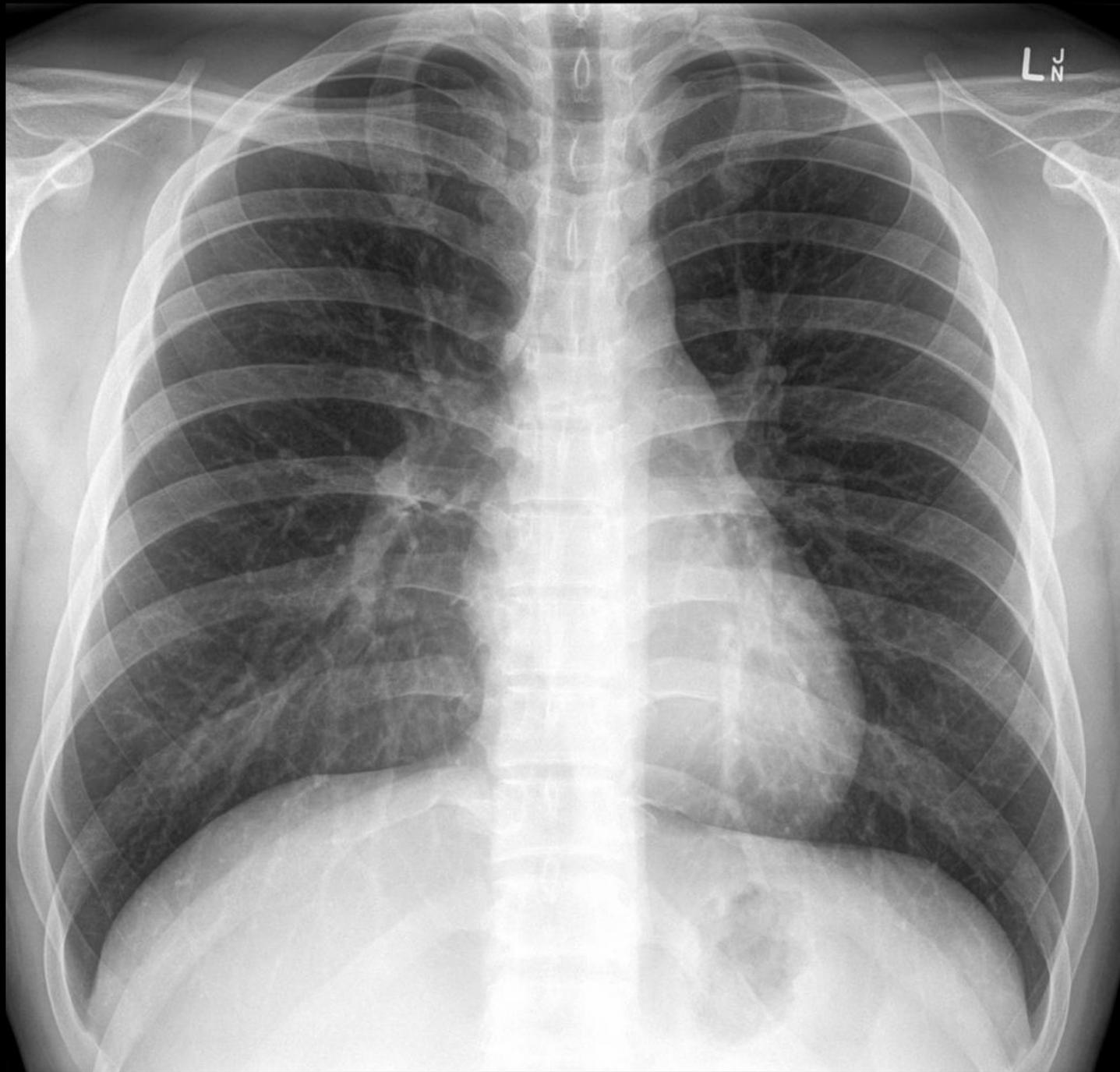






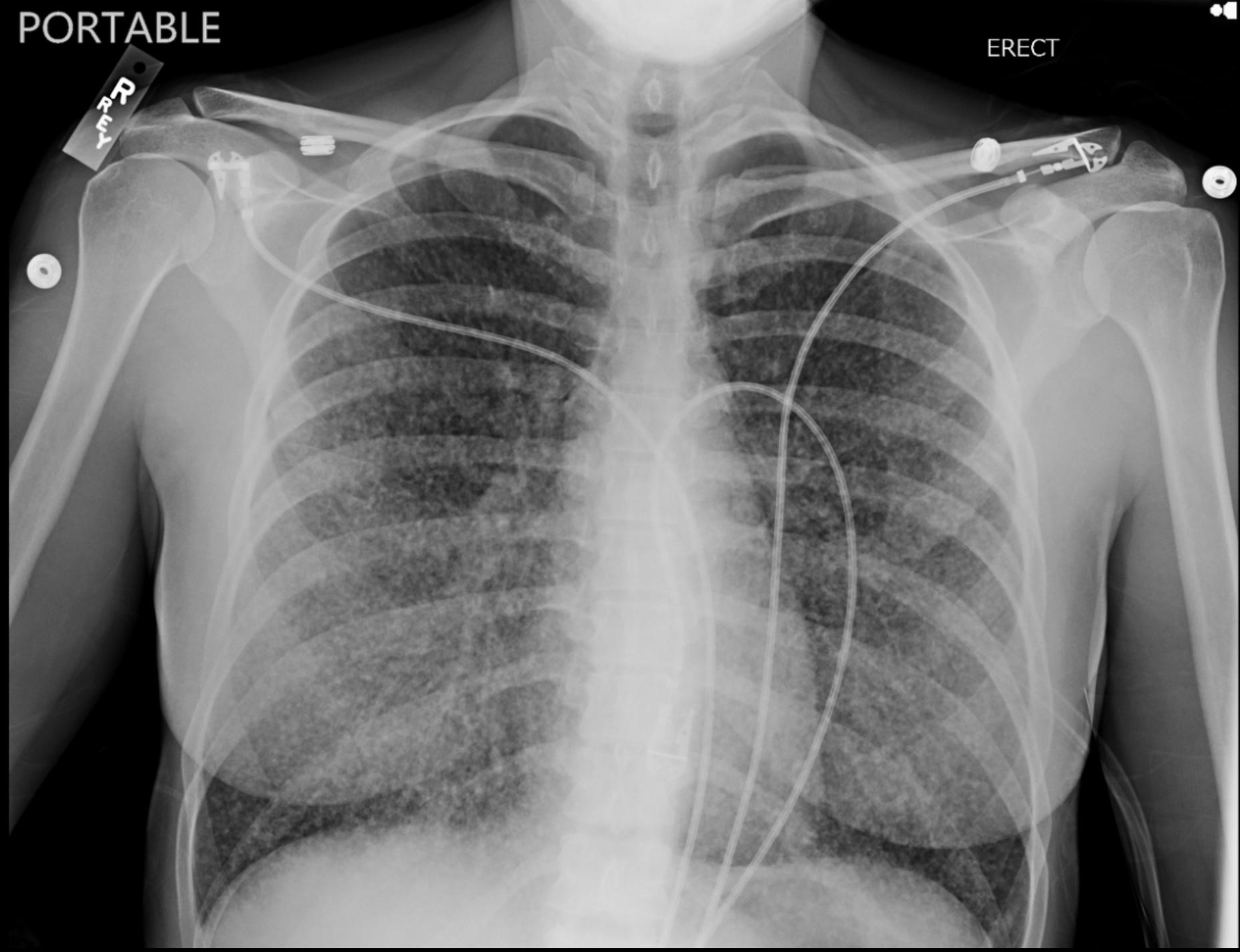






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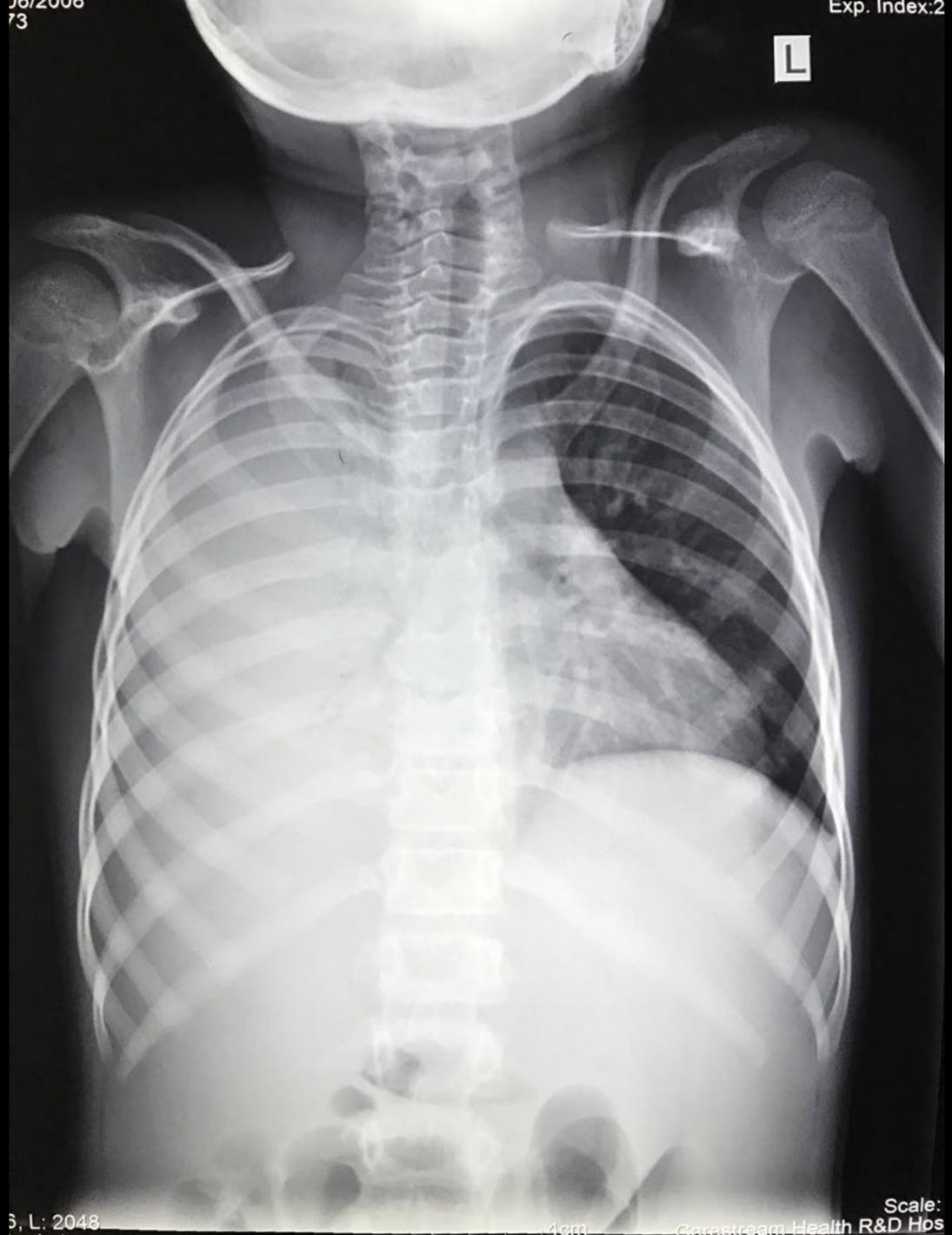
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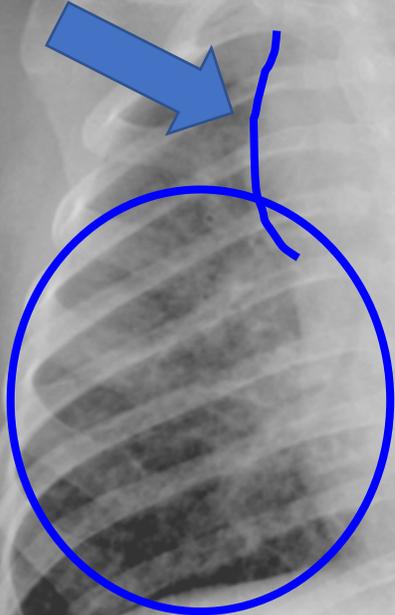
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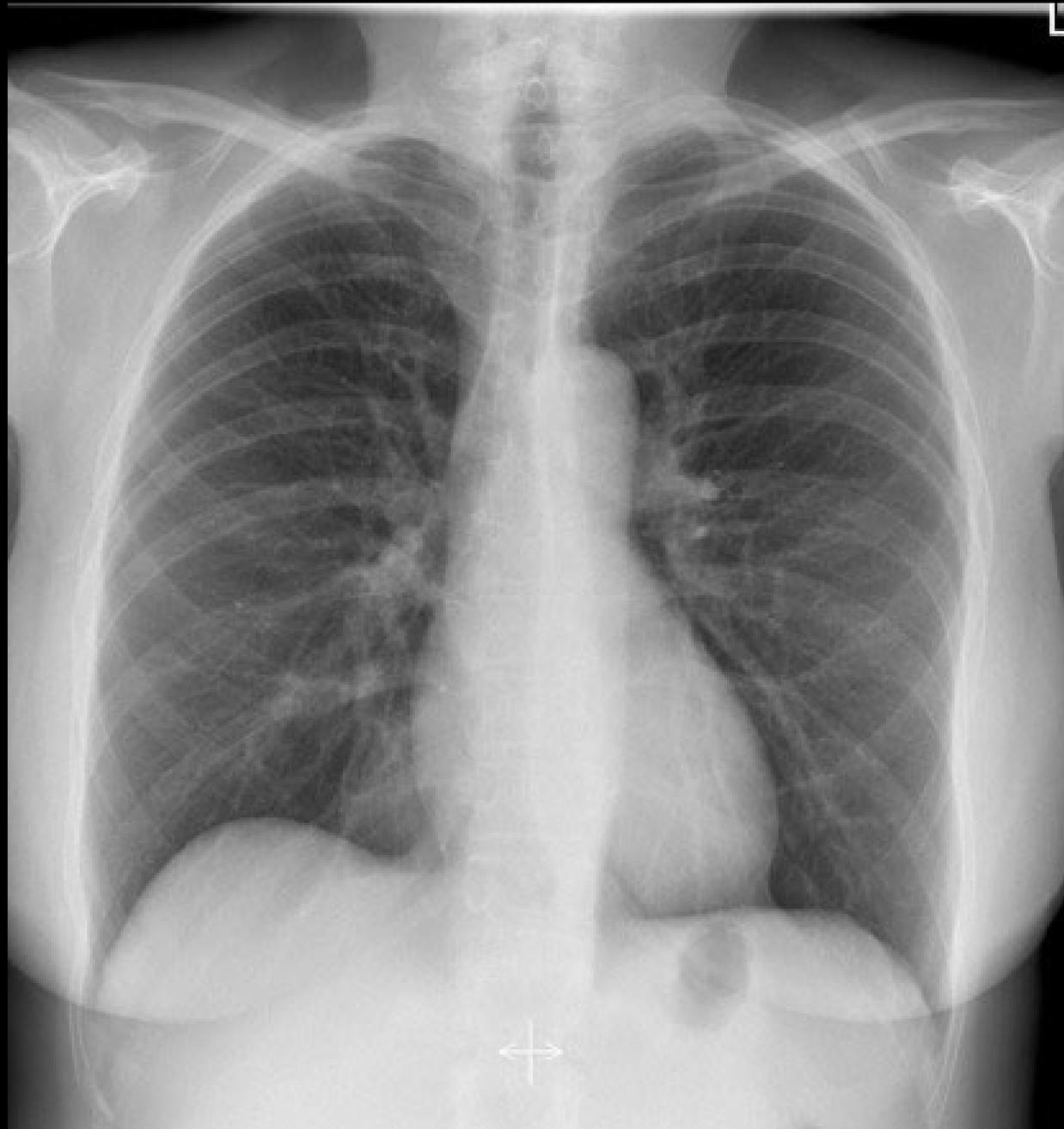


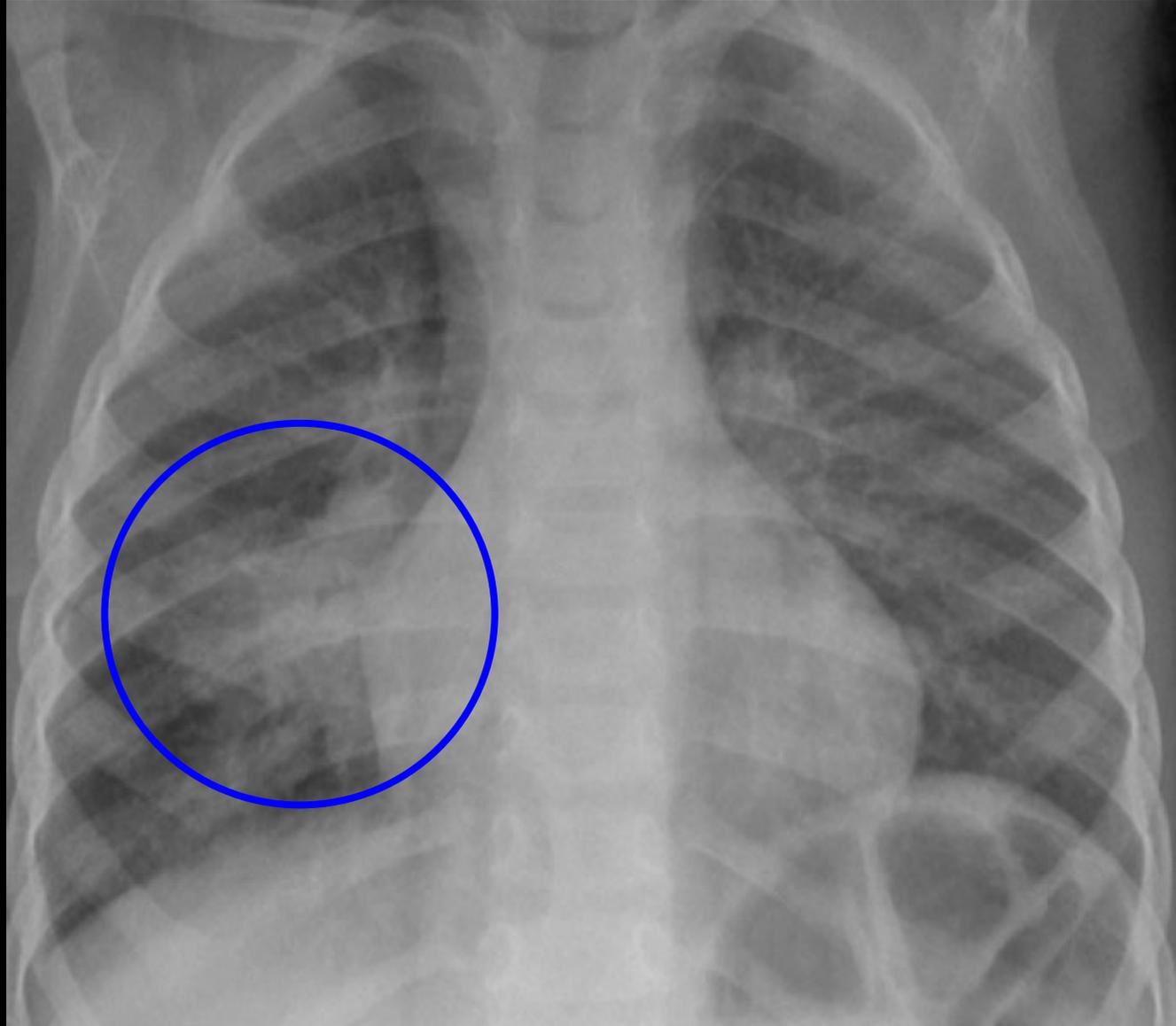
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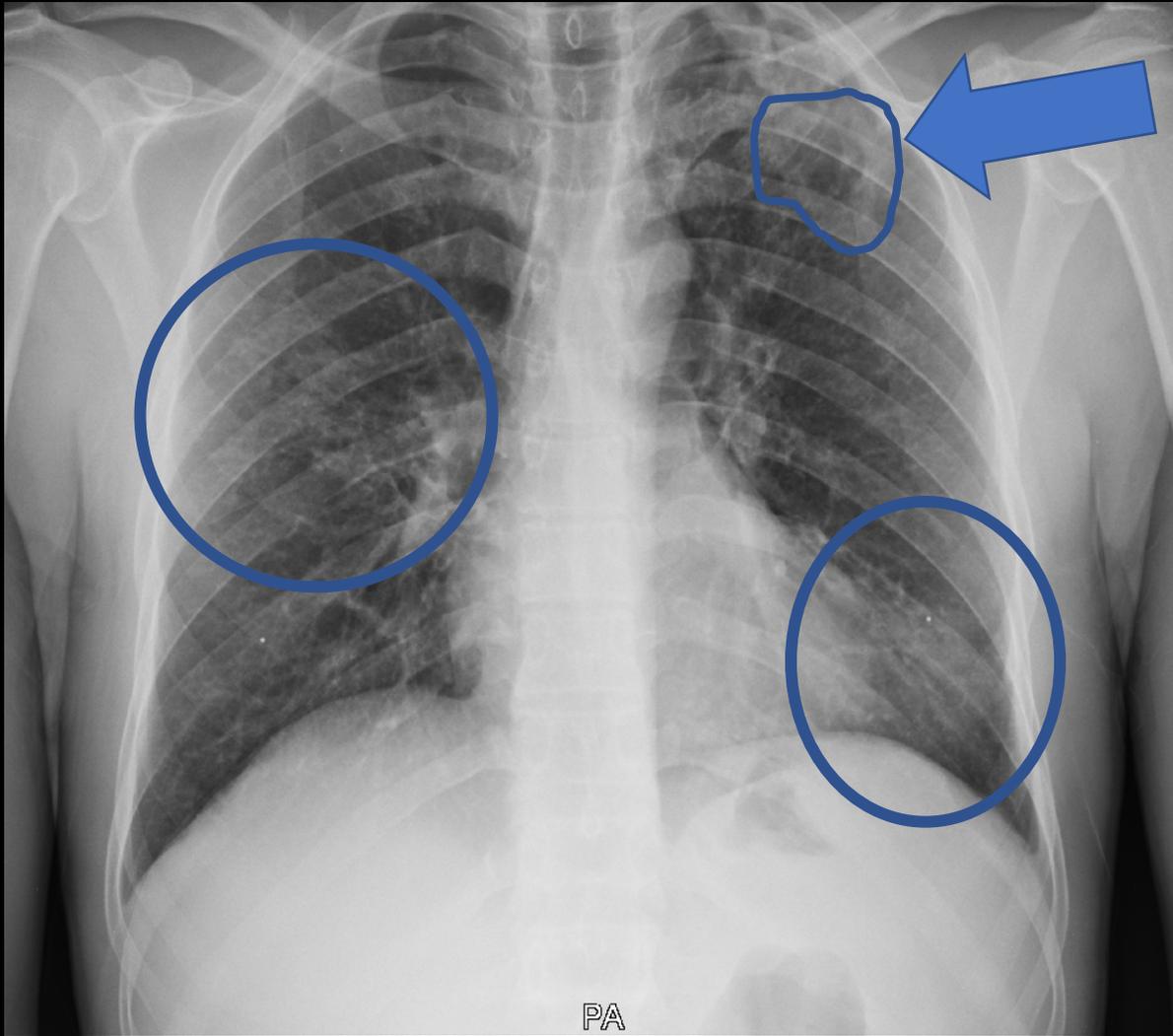




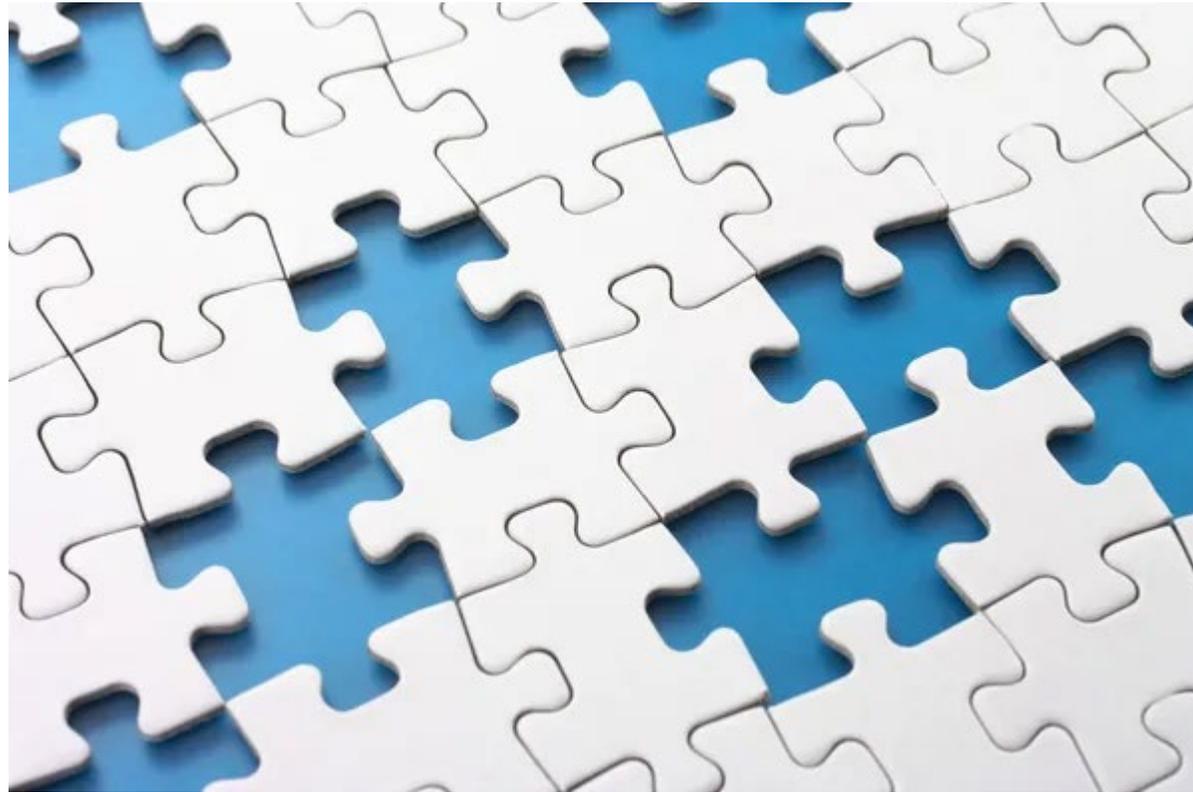


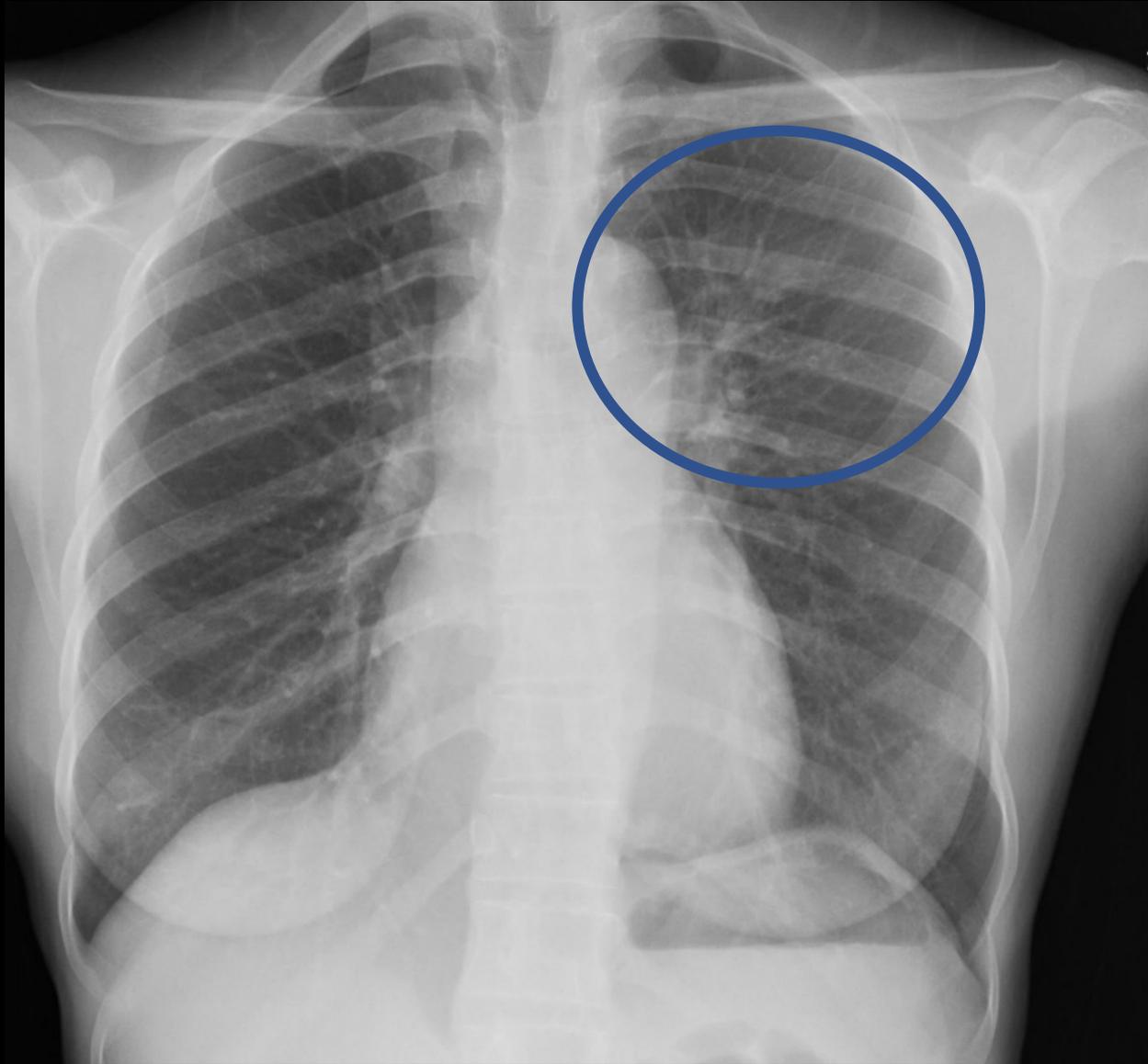






Chest X-ray is one piece of the TB puzzle





# Chest Radiology in TB

- Interpretation of a chest radiograph is pattern recognition that requires clinical correlation for true diagnosis



# Thank you

Heartland National TB Center

