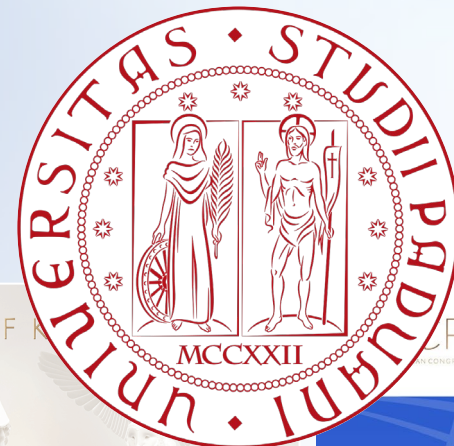


Beyond Chest X-Ray: The Hidden Pathology Revealed by DTS

Emilio Quaia, MD

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Chair - University of Padova (Italy) Honorary Clinical
Senior Lecturer - University of Edinburgh (UK)



RAYS OF KNOWLEDGE
 2026
 UNIVERSITY OF PADUA
 MARCH 04 - 08
 NANOX

COCKTAIL EVENT
 Beyond Chest X-Ray:
 The Hidden Pathology Revealed by DTS.

**Thursday
 March 5th**
 17:30-19:30
 Altia Skybar
 (57 Lounge / 58th floor)

PROF. EMILIO QUAIA
 Professor of Radiology,
 Director of Radiology, University of Padova

EUROPEAN CONGRESS OF RADIOLOGY / VIENNA / MARCH 04 - 08
 UNISIR / UNISIR / EPRS / ESHR / MYER.ORG

Digital Tomosynthesis Lung Applications

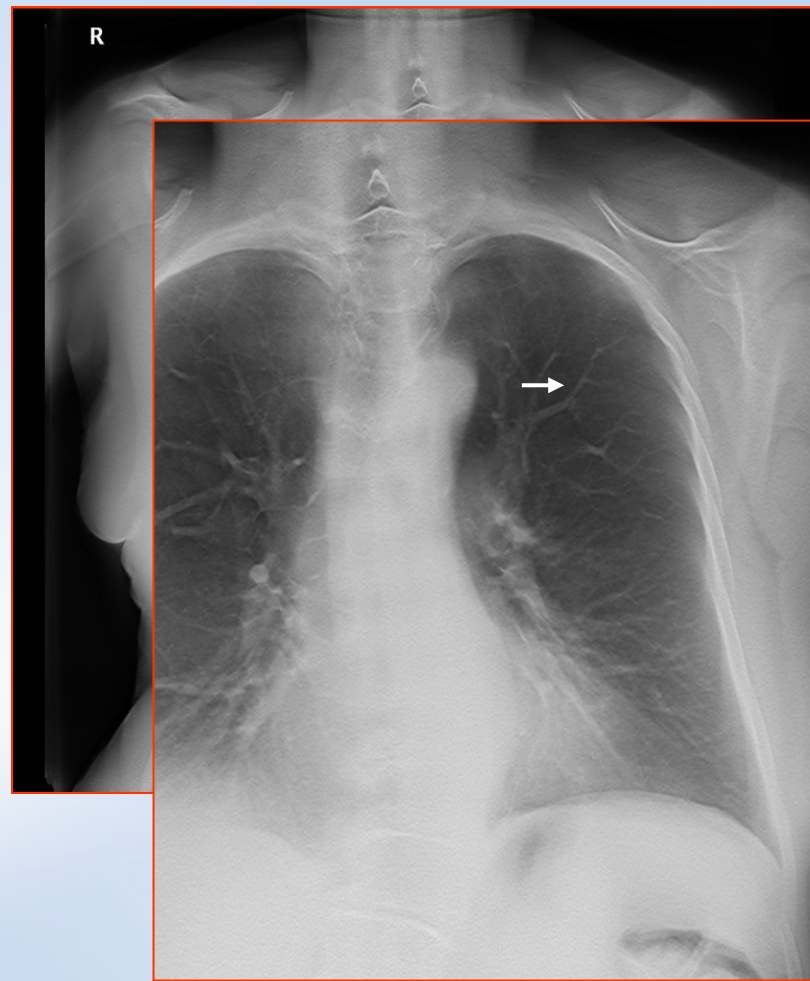
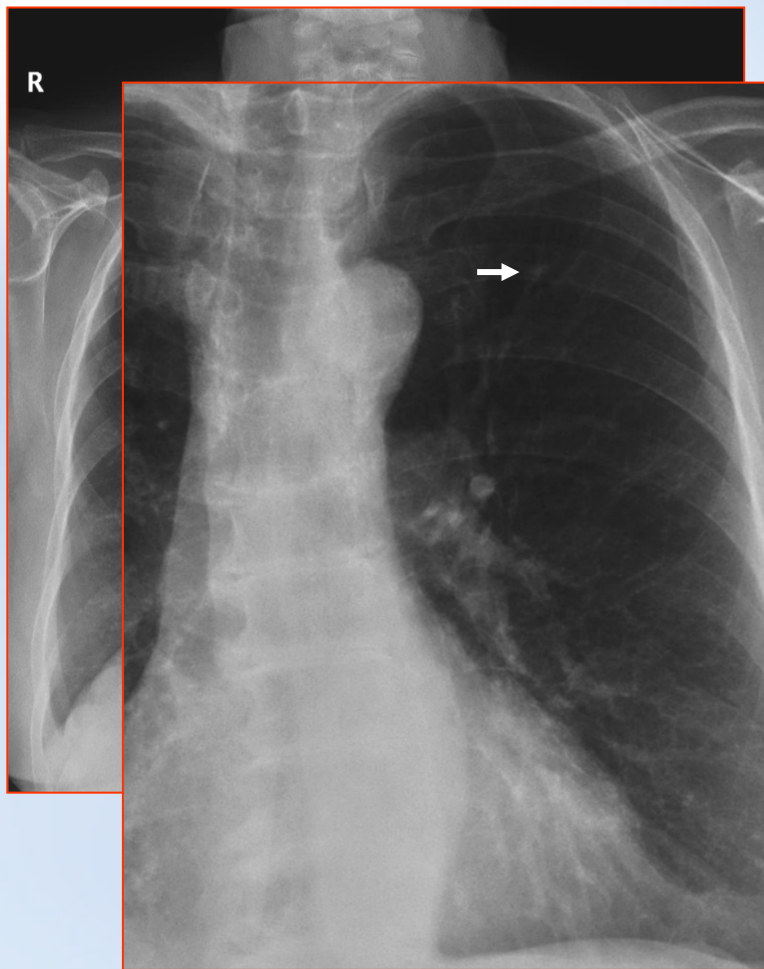
1. Pulmonary Pseudolesions
2. Lung Nodule Detection
3. Lung Opacities
4. Lung Apex Lesions
5. Chest Wall alterations



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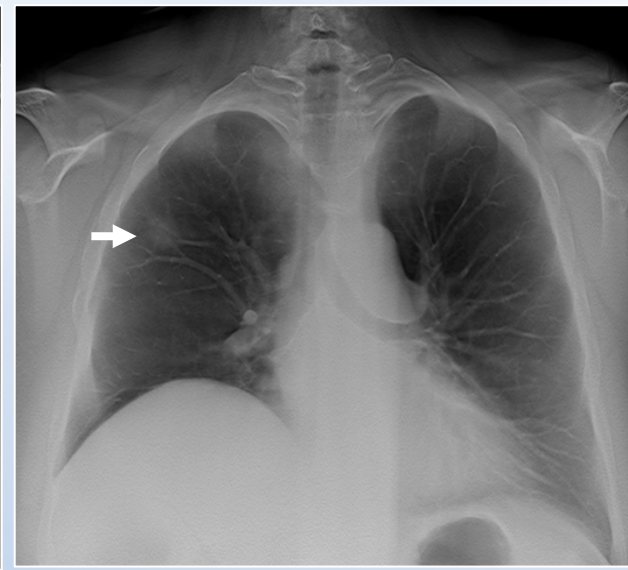
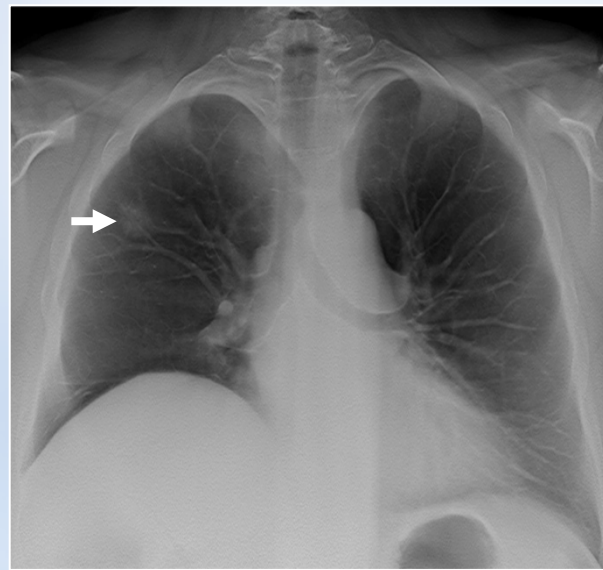
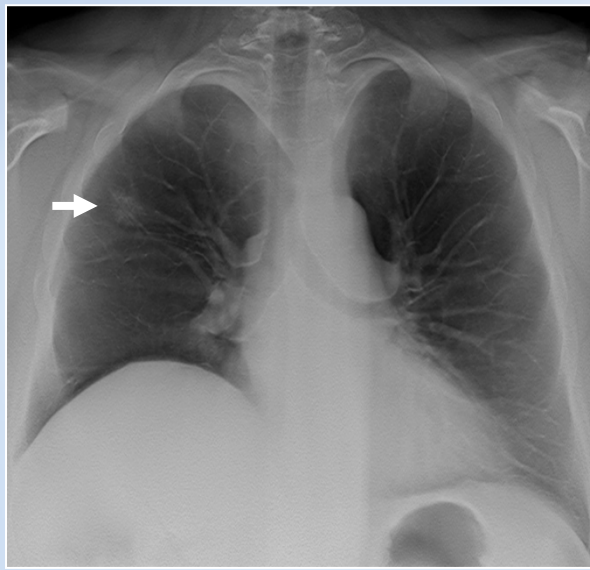
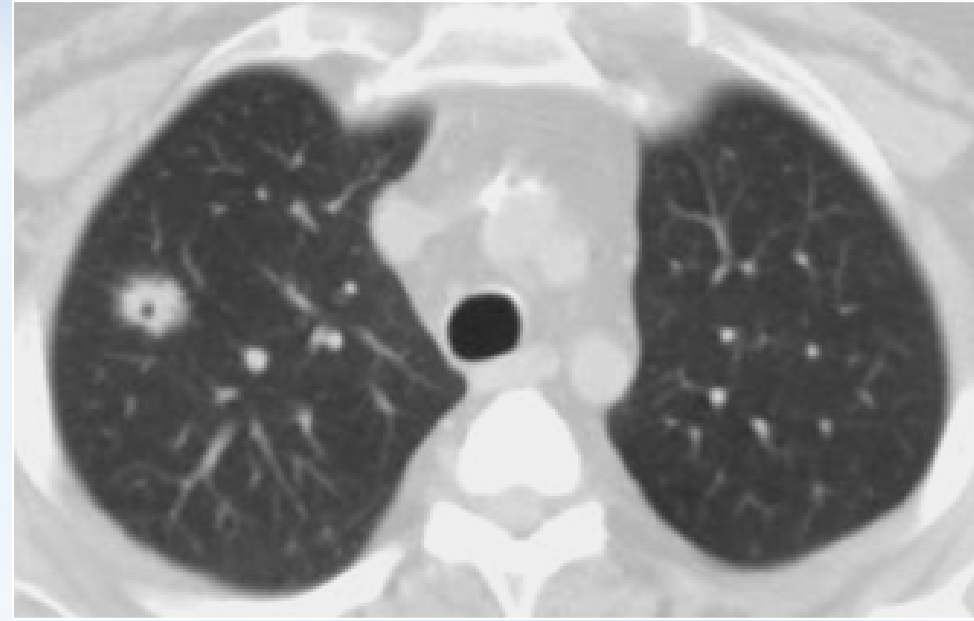


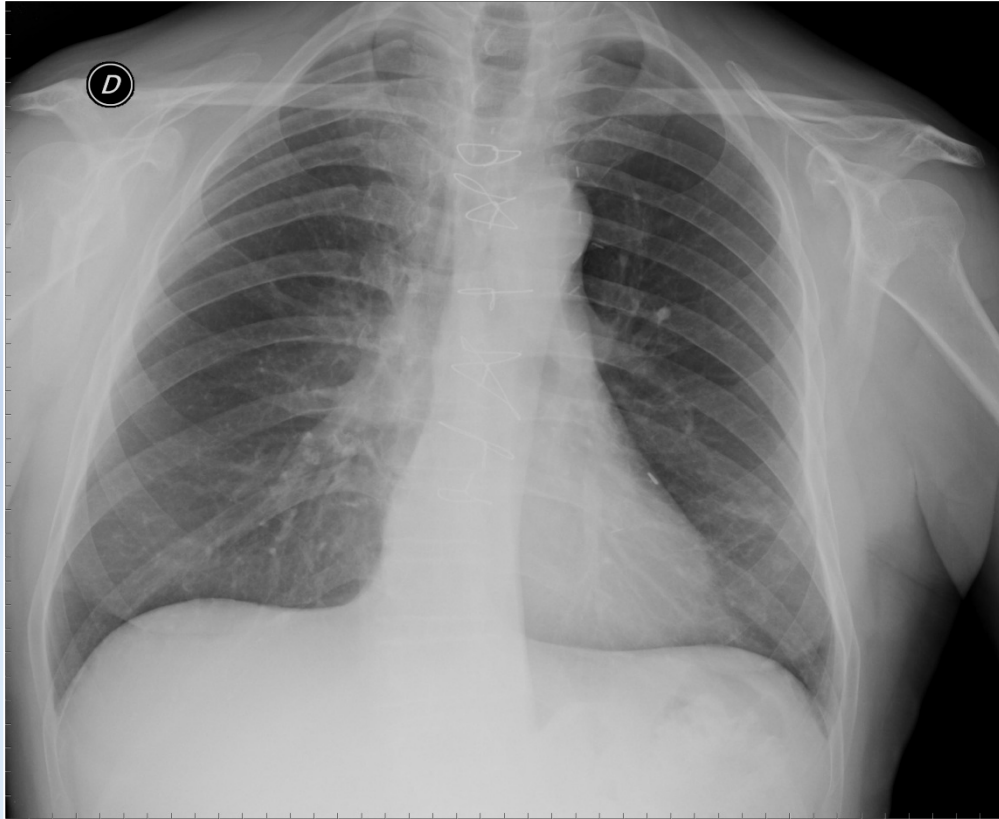


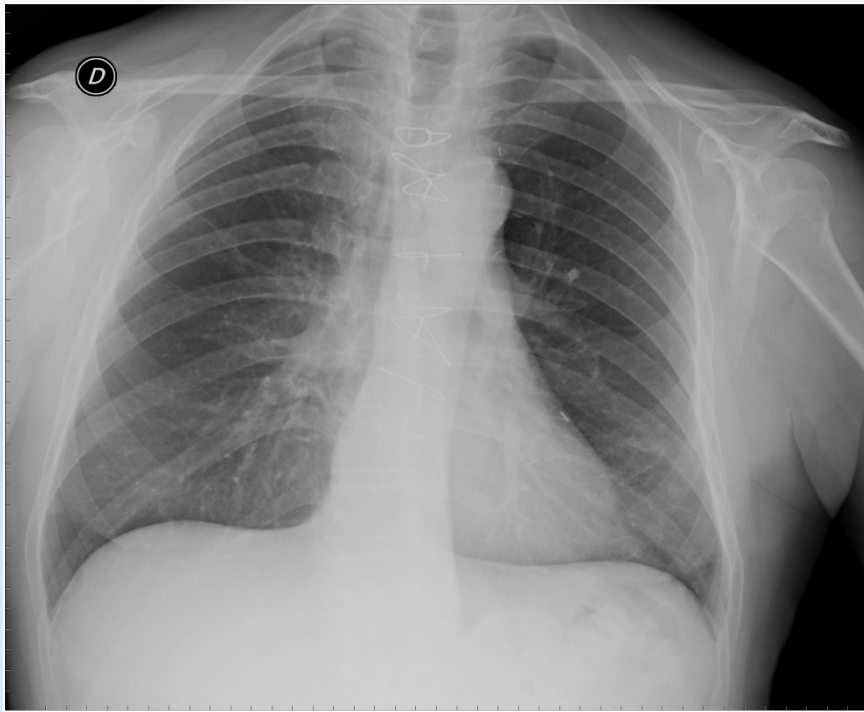
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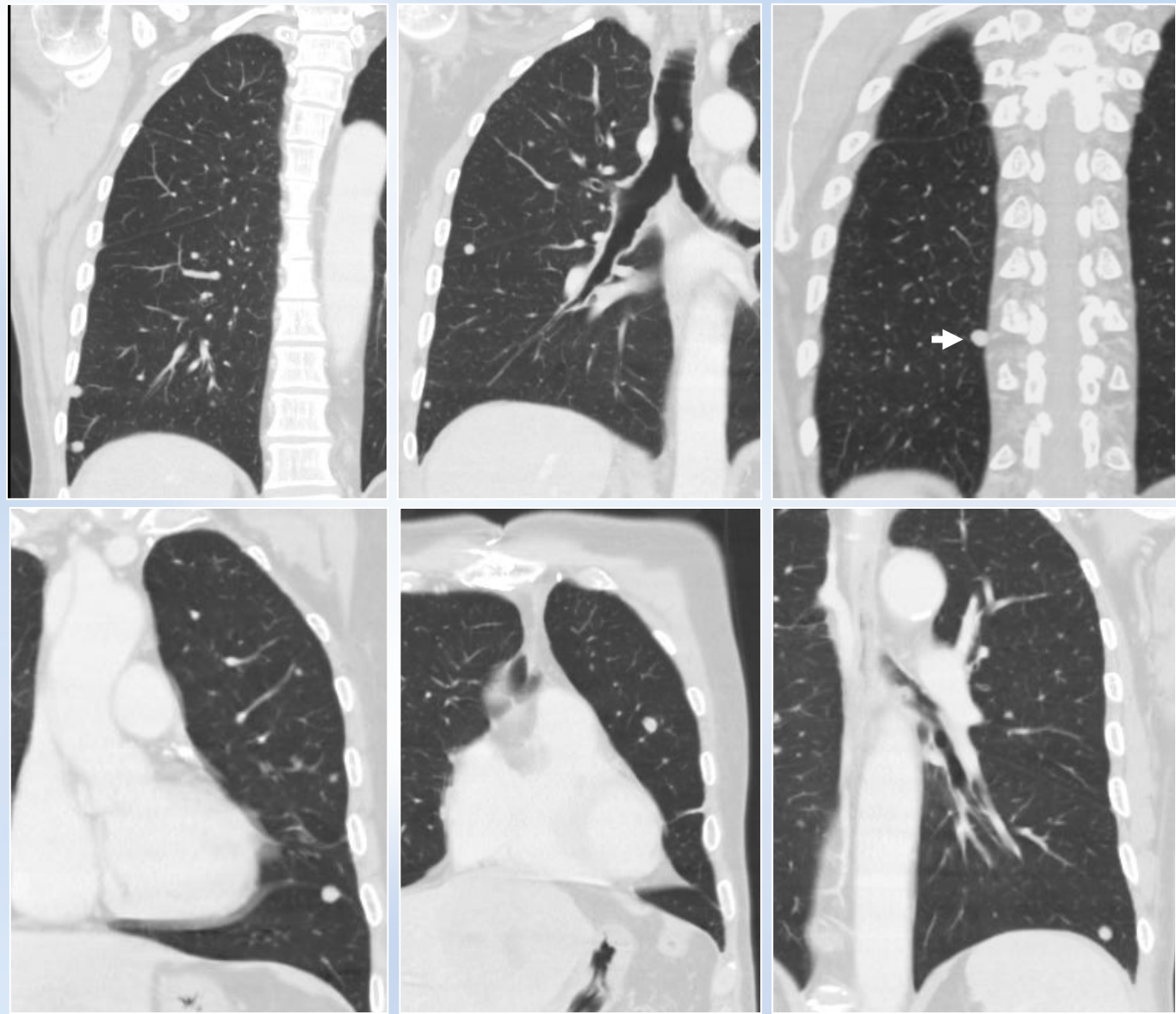
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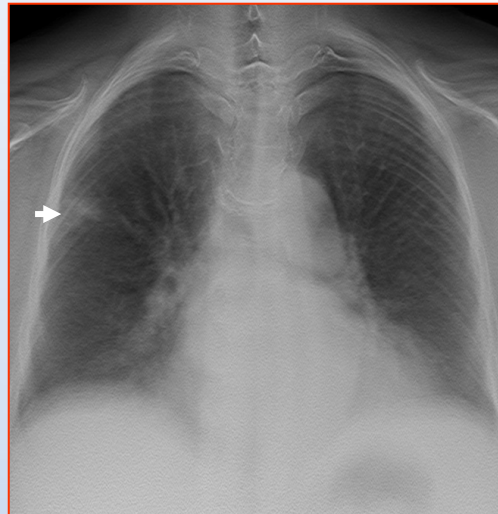
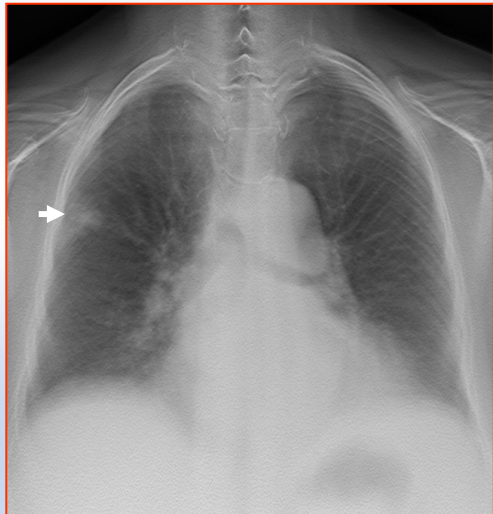
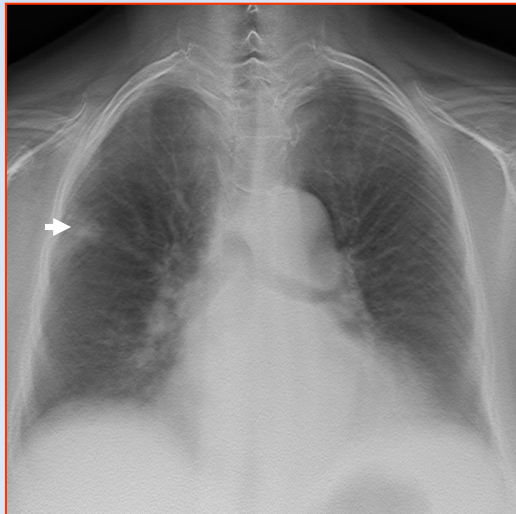
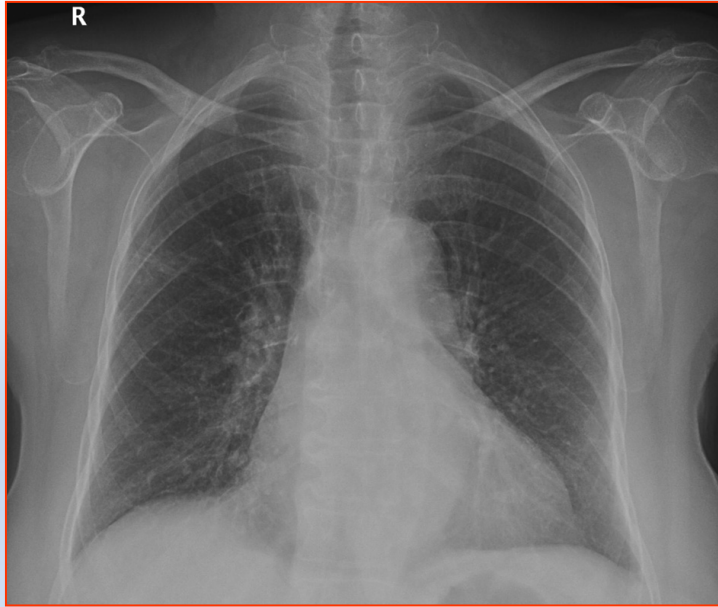


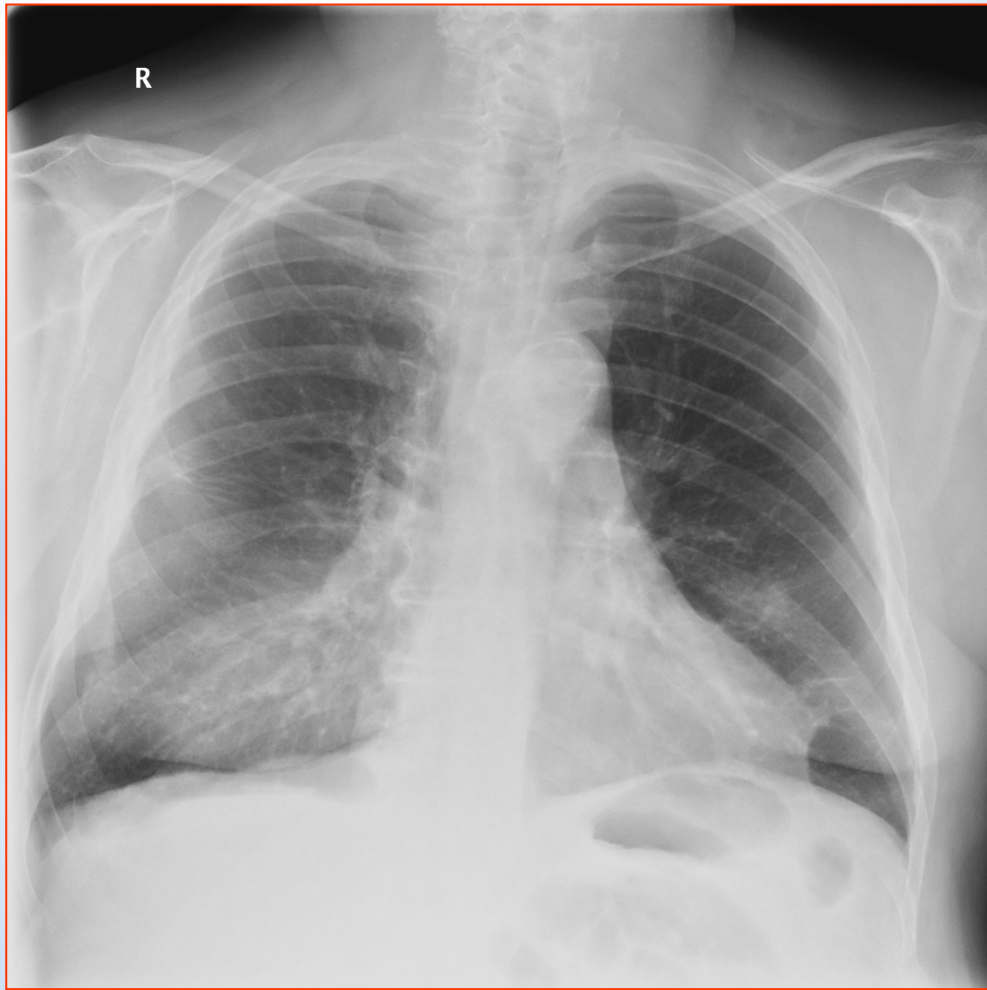


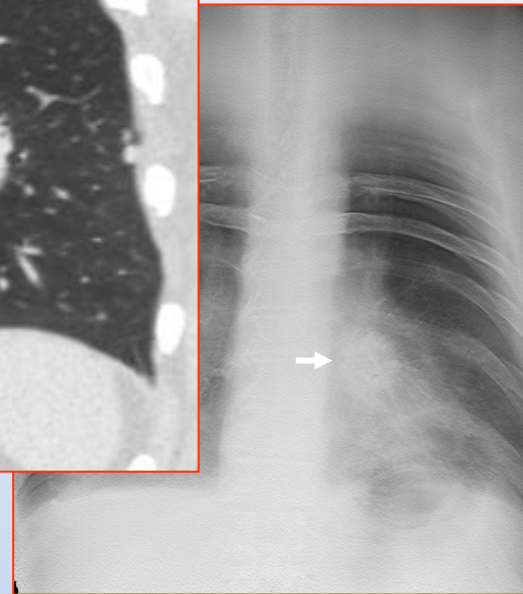
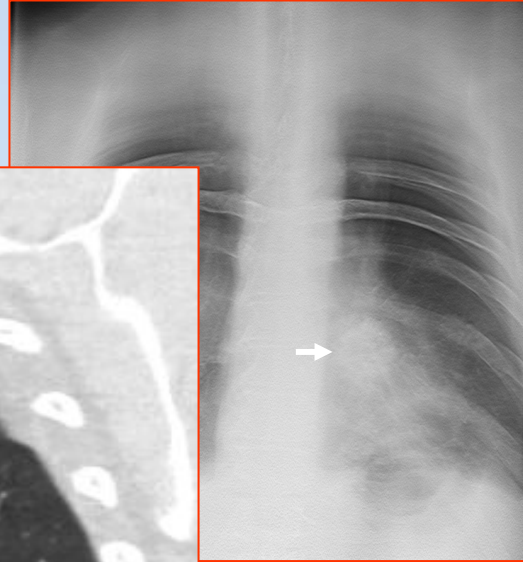
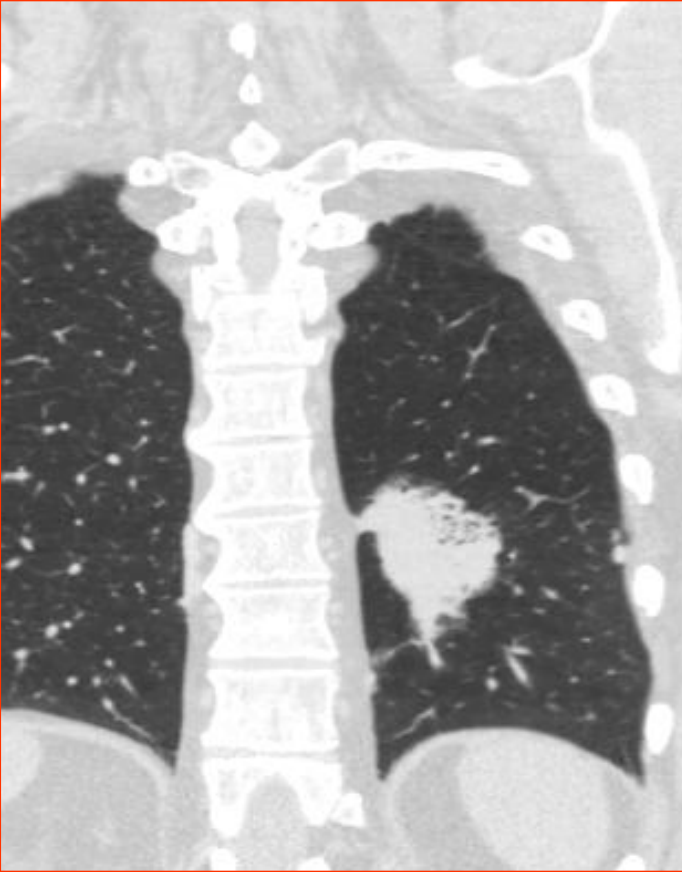
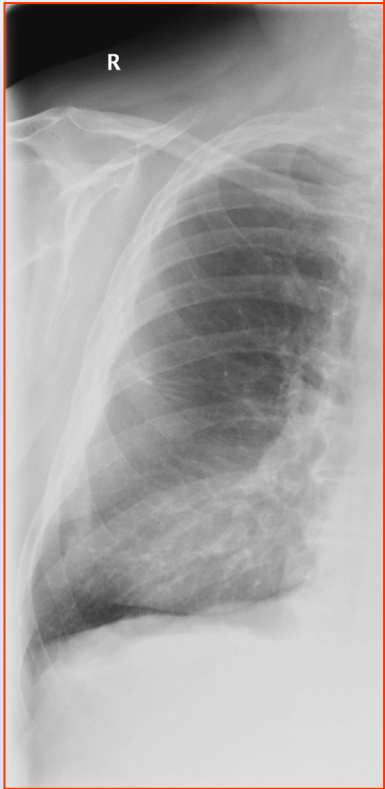
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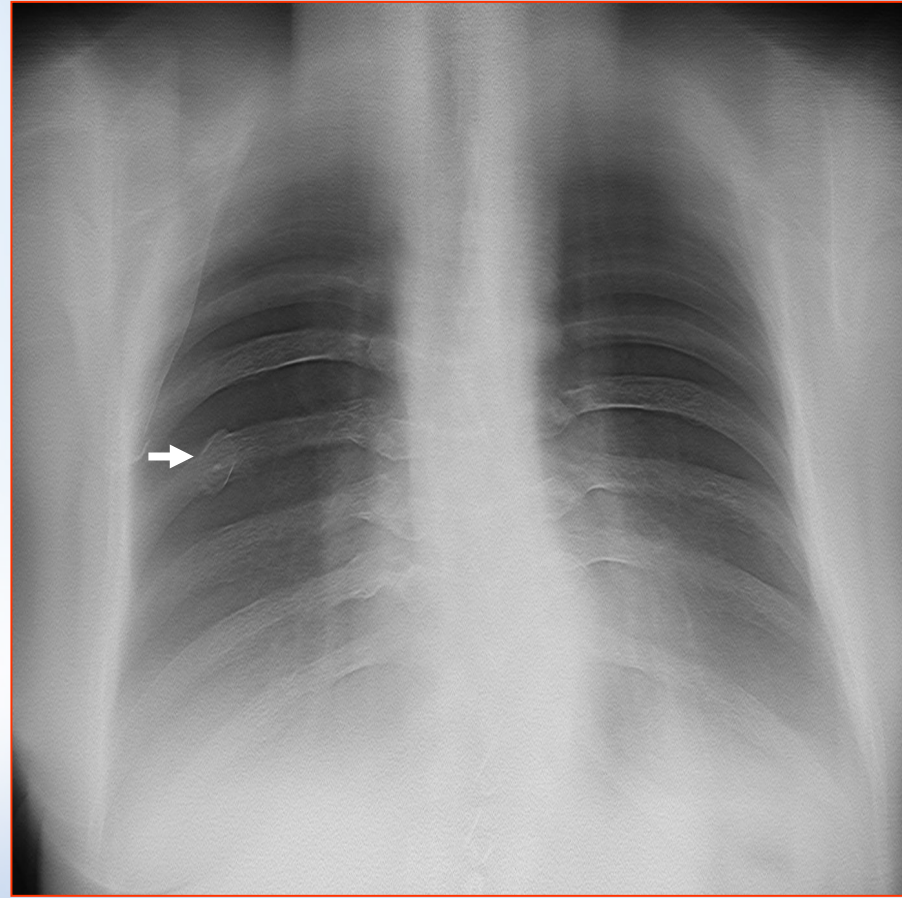
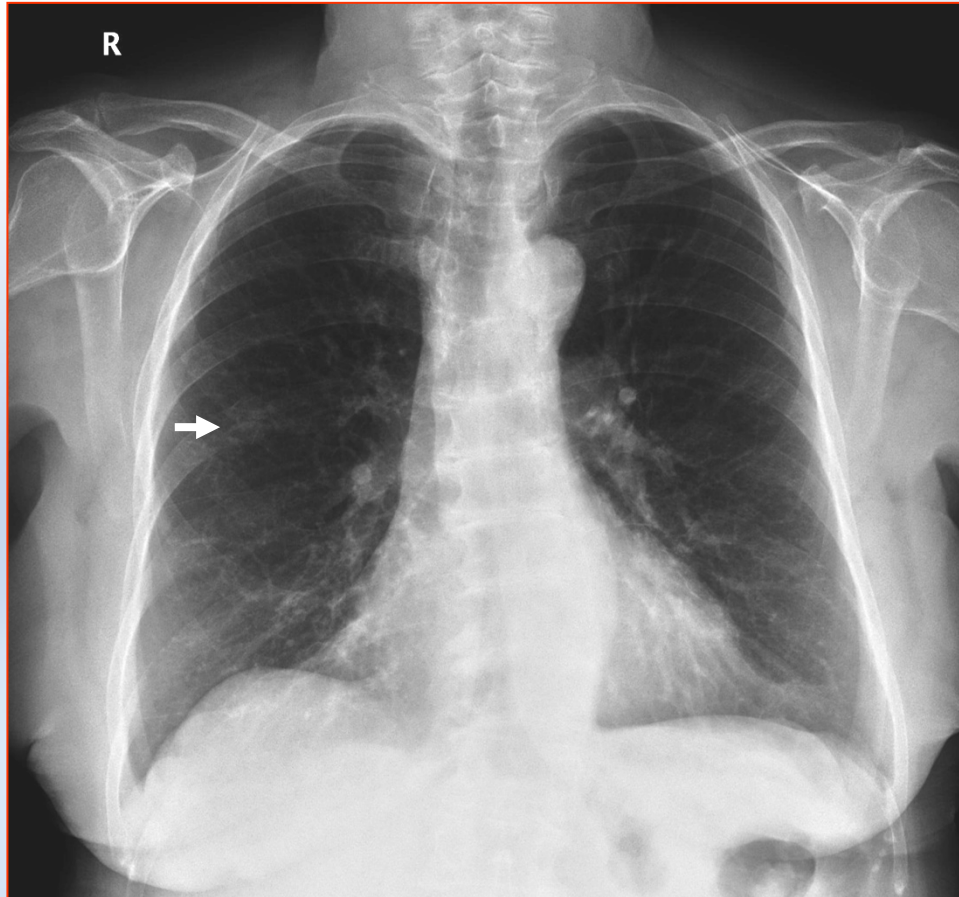




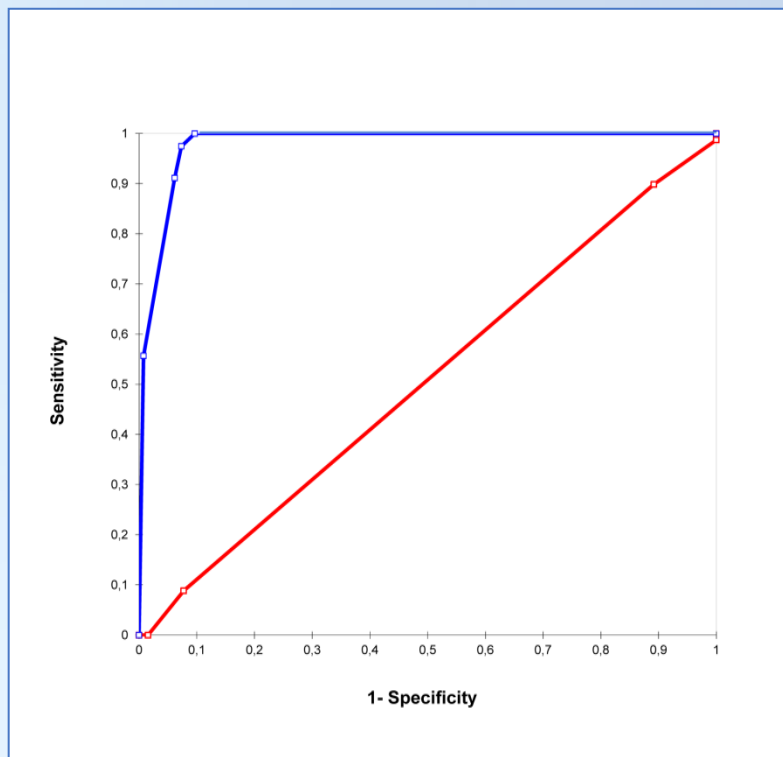
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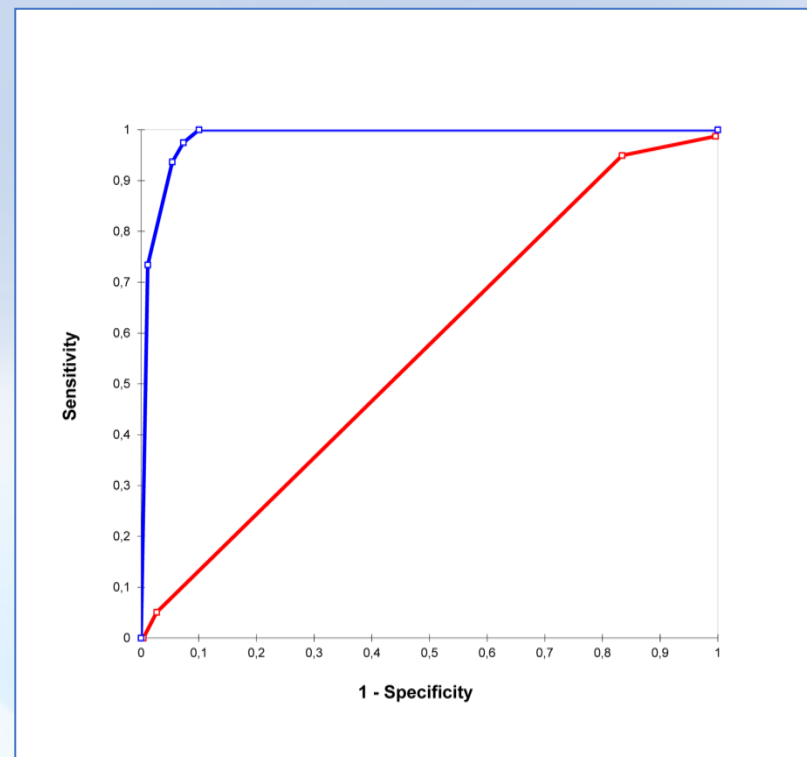


Diagnostic Confidence (Area under ROC curve)



AUC (95% CI):

CXR = .507 (.434-.580)
DTS = .979 (.975-1)

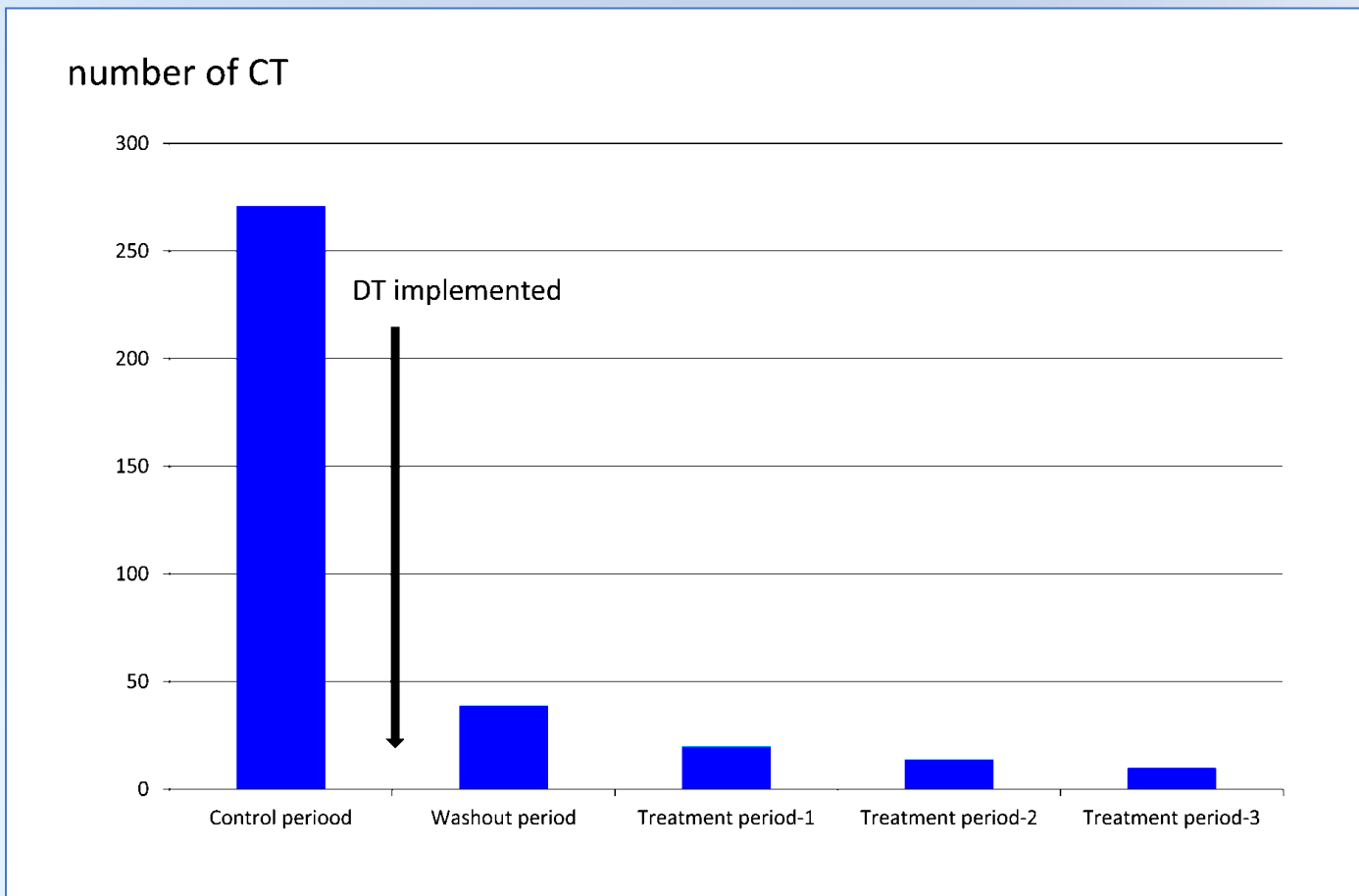


AUC (95% CI):

CXR = .565 (.491-.639)
DTS = .984 (.965-1)



Diagnostic Impact of DTS



Results – Annual Costs

- ✓ Without DTS: CXR (n=12) and CT (n=271)
- ✓ With DTS: CXR (n=91), DTS (n=130), and CT (n=39)

	Without DTS	With DTS	Cost saving
Unenhanced CT	€ 17891,35	€ 9328,8	€ 8562,55
Contrast-enhanced CT	€ 30983,66	€ 11212,89	€ 19771,66



Conclusions

Digital tomosynthesis represents a first-line imaging technique to rule out pulmonary lesions instead of CT

Immediate resolution of diagnostic problems directly in the x-ray unit

Reduction of chest CT examination overload (3/4 of doubtful lesions are solved by tomosynthesis)

