**Title: Artificial Intelligence in Healthcare: Job Displacement or Role Transformation?**

AI’s impact on radiology is most evident in diagnostic imaging, where it analyses scans faster than human experts. AI-powered tools are already used to detect lung cancer, fractures, and cardiovascular diseases, significantly improving diagnostic speed. However, while AI enhances efficiency, it does not replace radiologists. Instead, it shifts their role from manual interpretation to AI-assisted decision-making. A 2025 study in Clinical Radiology found that radiologists expected AI to reduce workload, but once implemented, it actually created more work due to false positives, workflow disruptions, and extra review time (Togher et al., 2025). This shows that AI isn’t an instant solution and

References:

1. Silicon Valley Bank. (2024). *The AI-powered healthcare experience: Investment trends and industry impact.* SVB. Retrieved from <https://www.svb.com/trends-insights/reports/artificial-intelligence-ai-in-healthcare>

2. Togher, D., et al. (2025). Evolution of radiology staff perspectives during artificial intelligence (AI) implementation for expedited lung cancer triage. *Clinical Radiology, 81, 106704.* 10https://doi.org/10.1016/j.crad.2024.09.010

3. Chavoshi, M., et al. (2024). Diagnostic performance of deep learning models versus radiologists in COVID-19 pneumonia: A systematic review and meta-analysis. *Clinical Imaging*, *107*, 110092. https://doi.org/10.1016/j.clinimag.2024.110092

4. Kumar, A., et al. (2023). Evaluation of 5G techniques affecting the deployment of smart hospital infrastructure: Understanding 5G, AI and IoT role in smart hospital. *Alexandria Engineering Journal*, *83*, 335–354. https://doi.org/10.1016/j.aej.2023.10.065

5. Rahimi, A. K., et al. (2024). Implementing AI in hospitals to achieve a learning health system: Systematic review of current enablers and barriers. *Journal of Medical Internet Research*, *26*, e49655. https://doi.org/10.2196/49655

6. Rigas, E. S., et al. (2024). Semantic interoperability for an AI-based applications platform for smart hospitals using HL7 FHIR. *Journal of Systems and Software*, *215*, 112093. https://doi.org/10.1016/j.jss.2024.112093