



RUBEE® Chest X-Ray AI ClearRead Package

Powered by Riverain Technologies ClearRead® Xray

Embedded intelligence, supporting the clinical workflow

That's life in **flow**.

AGFA 
HealthCare

Embedded augmented intelligence, advancing the clinical workflow

RUBEE® and the significance of the Enterprise Imaging platform

Healthcare systems across the globe are exploring the potential application and benefits of Artificial Intelligence when it comes to improving quality care, focused on outcomes.

The path towards realizing the benefits opens another opportunity: addressing the interoperability and integration aspects. Already, there are hundreds of start-ups and developers working in the healthcare arena, each focusing on highly specific applications. Selecting which ones you need, and then integrating them into your system and workflows is far from simple.

RUBEE®, as part of your Enterprise Imaging platform, enables a seamless Augmented Intelligence (AI) experience for your clinicians. Carefully curated 'packages' embed best-of-breed AI apps that work seamlessly to support your clinical workflow from start to finish.

You get more out of your AI investments, while enriching the value of your Enterprise Imaging. It's a win-win-win for your hospital, your clinicians and your patients.



What are RUBEE® AI Packages?

With RUBEE AI Packages, you can enable our AI specialty packages into your clinical workflows. RUBEE visualizes the metadata generated by algorithms such as deep learning, machine learning, image analysis and natural language processing. It also uses that information to automate and optimize your workflows, all within your Enterprise Imaging ecosystem.

Forward-thinking and clinically relevant

'Augmented Intelligence' (AI) does just that: offering a set of tools that let your clinicians maximize the value of their own expertise, increase their productivity and enhance the diagnostic process. But to get the real benefits to your clinicians, the tools need to be embedded right into the workflows and systems they use every day.

Your Enterprise Imaging system already offers a forward-thinking, multi-specialty platform that consolidates your hospital's wealth of data. With RUBEE AI Packages, it also becomes your AI-enabled ecosystem.

Standards-based workflows are embedded with niche and specialty-focused AI apps, delivering clinical relevance. No need for an additional, complex and costly dedicated AI platform or marketplace. And, instead of worrying about which apps to select and how to integrate them, you are leaping ahead with an ecosystem of seamlessly embedded AI.



“Your Enterprise Imaging already offers a forward-thinking, multi-specialty platform that consolidates your hospital’s wealth of data. With RUBEE®, it also becomes your AI enabled ecosystem.”



Best-in-Class AI apps, Specialty Packages

We have taken the guesswork out of your AI journey. Our AI specialty packages have been carefully curated to enable interoperability and integration of best-of-class algorithms. You can be confident that all the algorithms come from reliable companies, and are trained on evidence-based data.

Most of all, they are powered by RUBEE AI Packages, to help meet your specific clinical needs from start to finish. So, there’s no ‘trial and error’: just proven value.

Enrich your Enterprise Imaging workflows

With AI fully embedded in your Enterprise Imaging platform, your clinicians see benefits all along the line.

- Task assignments and case distribution are smoothly automated, based on the metadata generated from the AI apps.
- Hanging protocols get ‘smart’, with dedicated reading protocols.
- Report automation by auto-including AI results into the reporting workflow.

Offering advanced visualizations, workflow optimization and automation, RUBEE AI Packages help your clinicians to focus their efforts on cases that require immediate attention.

RUBEE® Chest X-Ray AI ClearRead Package



A leap forward for reading efficiency and fast results

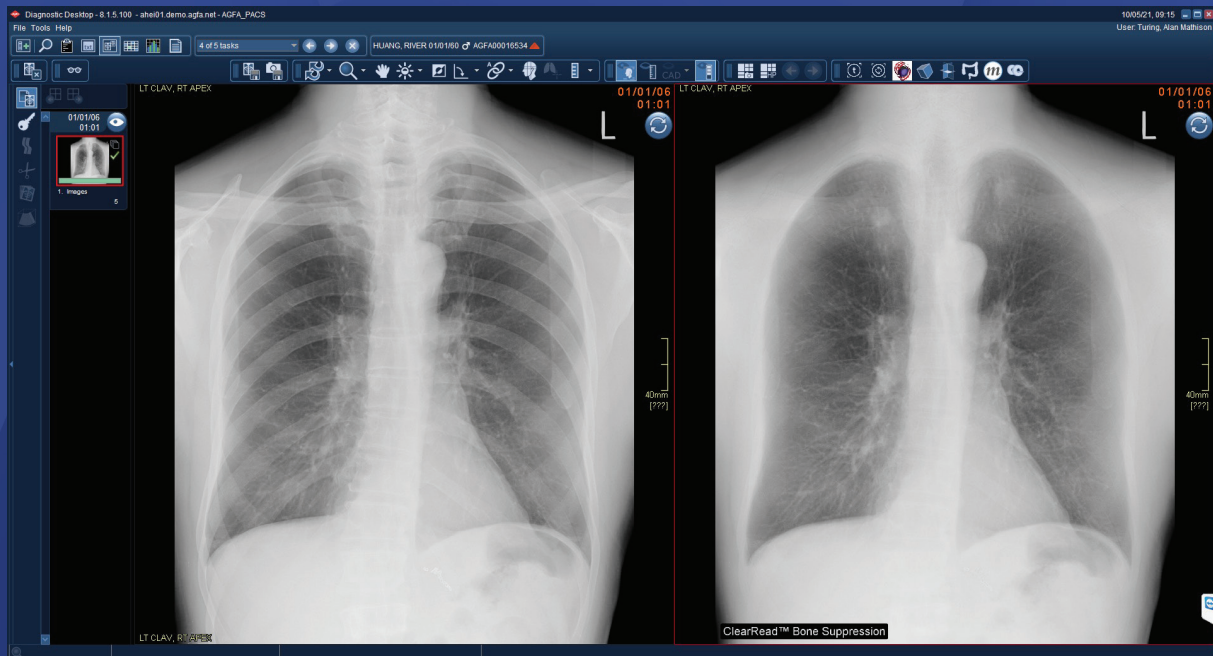
RUBEE® brings carefully curated augmented intelligence packages for your Enterprise Imaging clinical workflows. The AGFA HealthCare RUBEE® Chest X-Ray AI ClearRead Package is powered by the Riverain Technologies ClearRead® Xray platform.

It is comprised of three FDA-cleared applications designed to improve reading efficiency and accuracy across the hospital enterprise without requiring additional dedicated hardware. The solution optimizes the diagnostic value of all portable and upright images.

- Enterprise-wide capability powered by acquisition normalization technology that allows “plug in” ability across all manufacturers and diverse imaging protocols.
- High throughput, scalable computation on off-the-shelf hardware and virtual machine deployments.
- No additional radiation dose or changes to existing imaging protocols are required.
- Reduces the time spent for visual search and assessment.
- Automatically inserts the images into the patient’s file for instant access.

Bone suppress

Innovative image enhancement technology designed to increase the clarity of chest X-rays by suppressing bone on digital images.



Original

Bone suppress image

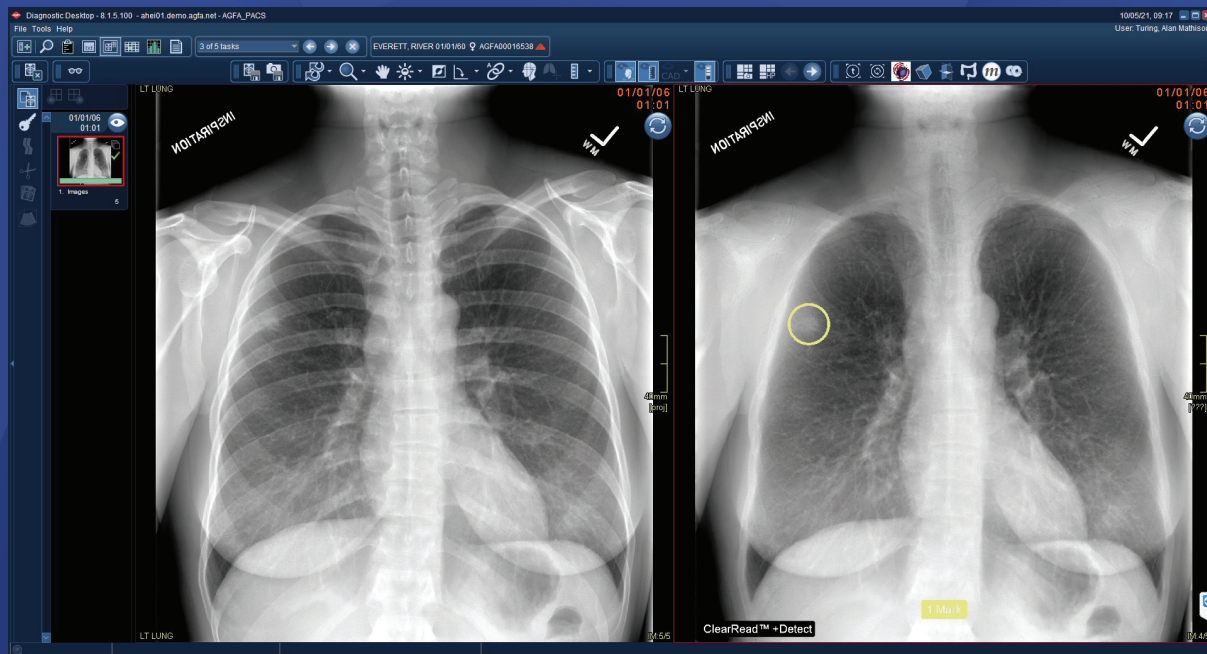
- ClearRead Xray Bone Suppress increases the visibility of soft tissue in standard chest X-rays by suppressing the bone on the digital image without the need for two exposures. The bone-suppressed image helps radiologists to detect 1 out of 6 previously missed nodules.⁽¹⁾
- Early detection of lung disease, including lung cancer, is critical to improving patient outcomes. Bone Suppress improves clarity by subtracting the bone that occludes over 40% of a chest X-ray, allowing radiologists to see more and detect more.



17%
Improved nodule
detection⁽¹⁾

Detect

Advanced computer-aided detection (CAD) technology that identifies areas on a chest X-ray that may be lung nodules and helps prevent oversight.



Original

Detect Image

ClearRead Xray Detect identifies regions of interest that warrant further examination. The software is able to detect 1 in 2 previously missed

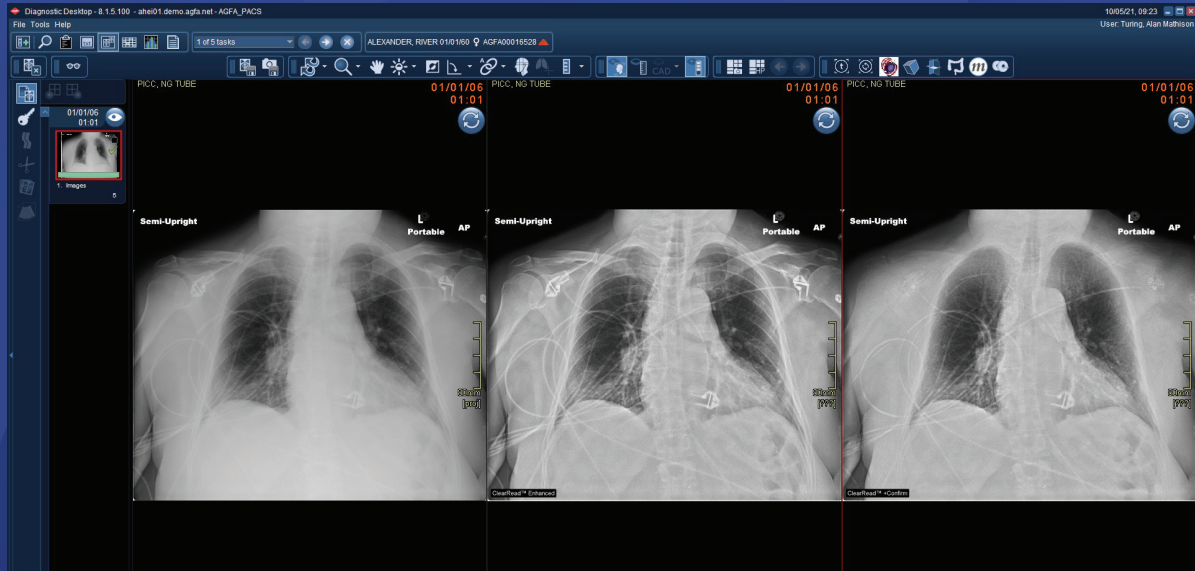
nodules⁽²⁾ and allows for the identification of lung cancer up to 18 months sooner.⁽³⁾



up to 18 months
Possible sooner lung
cancer identification ⁽³⁾

Confirm

Software that identifies and highlights lines and tubes on portable chest X-ray images while maintaining excellent image quality.

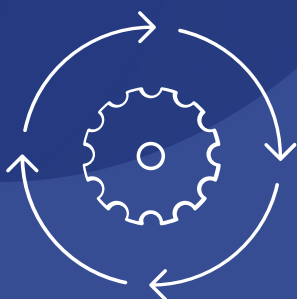


Original

Enhance image
(without bone suppression)

Confirm image
(with bone suppression)

- ClearRead Xray Confirm optimizes and standardizes portable chest X-rays and improves the conspicuity of lines and tubes without compromising diagnostic image quality. The application minimizes or eliminates the need for image adjustments, reducing reading time by 19%.⁽⁴⁾
- The application highlights lines and tubes while maintaining excellent image quality so that clinicians can minimize imaging adjustments and decrease reading time. This helps radiologists and the PICC team to precisely confirm line and tube placements.



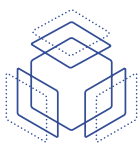
19%
Faster reads⁽⁴⁾

References

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2. Chen, J. and White, C. (2008). Use of CAD to Evaluate Lung Cancer on Chest Radiography. *Journal of Thoracic Imaging*, 23:93–96.
3. Gilkeson, Robert C. and Frolkis, Calen. Performance of a Next Generation Computer-aided Detection algorithm for the detection of overlooked lung cancers on Chest Radiographs. *RSN*, 2013.
4. Riverain Technologies ClearRead Confirm FDA 510(k) Reader Study Results, 2012.

Contact your AGFA HealthCare Client Executive to get started

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Imaging
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