NUANCE | WHAT'S NEXT BLOG

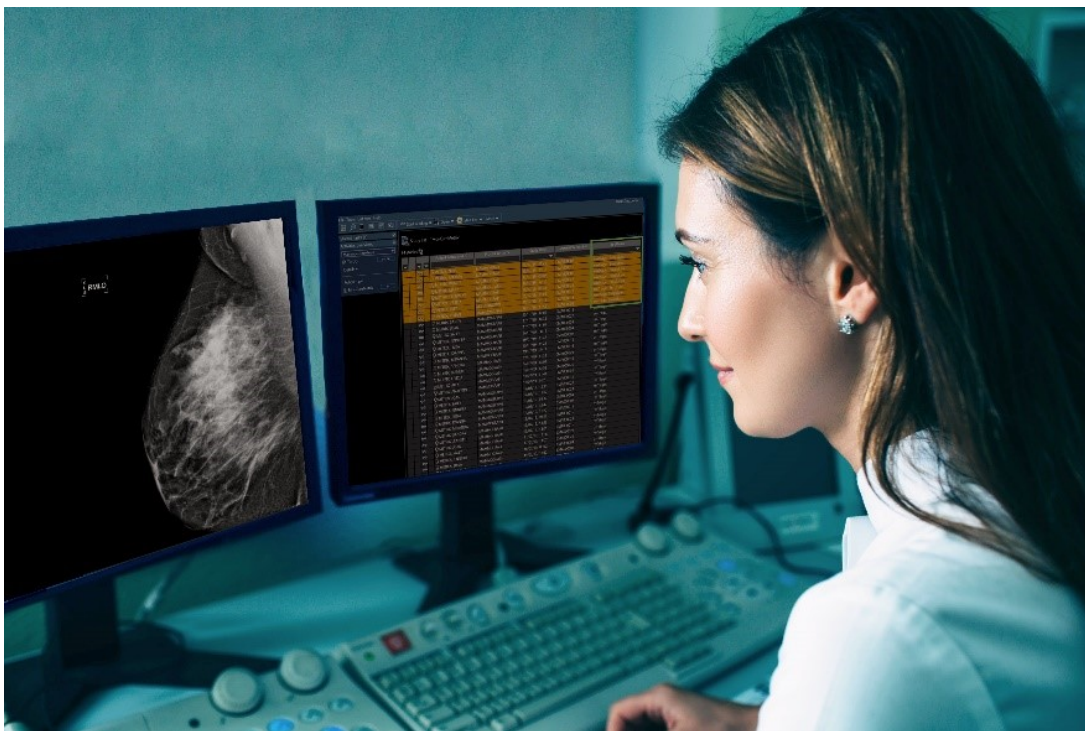Healthcare AI, Radiology solutions

CureMetrix integrates with Nuance AI Marketplace to deliver breast cancer screening solutions

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CureMetrix is a global leader in artificial intelligence (AI) for medical imaging, committed to the advancement of technology that improves cancer survival rates worldwide. For streamlined access to leading FDA-cleared worklist management solutions like cmTriage, and AI-based detection tools like cmAssist (investigational SaaS), CureMetrix solutions* are being integrated with workflow and reporting solutions through Nuance PowerScribe, the Nuance AI Marketplace, and PowerShare Network, which connects over 7,000 healthcare facilities in the U.S.

Disclaimer: cmTriage™ is FDA-cleared for commercial use in the United States. cmAssist® is proprietary and investigational and is not yet available for commercial use.

CureMetrix was founded to address a mission-critical need in the industry—to help radiologists better detect breast cancer with the objective, data-driven answers they need. The CureMetrix AI-based software supports the radiologist and the practice in delivering significantly faster reading time, reduced false

positives, and improved cancer detection. Kevin Harris, co-founder and president of CureMetrix, shares his thoughts and insights about the company's evolution and vision, and the role that their solutions can play in breast cancer detection.

Q&A

Jonathon Dreyer: *Tell us about your business – when and how you started and your development journey.*

Kevin Harris: CureMetrix was established in 2014 with the goal of early and accurate detection of breast cancer in mammograms. Radiologists have needed a CAD that works for 20 years, and CureMetrix has delivered cmTriage™, the first FDA-cleared AI-based triage software for mammography screening in the U.S.

Our AI-based software helps the radiologist triage, prioritize, identify, mark and score mammography images to streamline the worklist for the practice, help manage the workload of the doctor, and improve cancer detection for better patient outcomes.

JD: *What AI models do you have, and what do they do?*

KH: CureMetrix has two core solutions that support mammography.

cmTriage™ is the first FDA-cleared triage software in the U.S. for mammography that uses the power of artificial intelligence to help a radiologist sort and prioritize their worklist based on suspicious cases that may need immediate attention.

cmAssist® is a proprietary, investigational CAD that uses AI intended to help the radiologist identify, mark, and score regions of interest on screening mammograms.

Both of these AI-based solutions are in practices today*.

JD: *What's the big "Aha" moment when you first show users what your AI model(s) can do for them?*

KH: For doctors who first see the CureMetrix AI, they are excited about the potential for earlier detection, better care, and better outcomes for their patients. Being able to use the AI as a tool to augment their expertise and confirm what they see, even through dense breast tissue, gives them peace of mind and more confidence in their findings. Also, radiologists are interested in the efficiencies that the AI provides, such as helping them prioritize their worklist, focus on the most suspicious cases, and reduce the amount of time they spend reading studies vs. spending time with their patients.

If you take the perspective of the practice leaders and managers, they also see efficiency as one of the major values that CureMetrix demonstrates, giving them the ability to process more mammograms in less time and streamline overall practice workflow while reducing burnout for their radiologists. By finding and confirming more cancers, the potential of reducing risk is also a big "Aha" moment for the practice team. In addition, reducing unnecessary recalls helps the practice deliver a better patient experience.

Practices also like the flexibility that we offer, allowing the practice to determine what role they want the AI to play, whether the AI is used to pre-read mammograms or used to confirm what the doctors find—or both.

Additionally, clinics and their doctors like to be able to promote that their clinic or practice is innovative and using the latest technology and data-driven information they need to better care for their patients and serve their communities.

In addition to the benefits CureMetrix provides now, looking forward CureMetrix AI offers the potential to support a healthcare system that is more predictive than reactive, giving doctors the data-driven answers they need.

JD: *What challenges or needs did you see that drove you to focus on this?*

KH: Breast tissue is complex and varies widely in composition and density across populations, which means digital mammography requires a level of nuance not necessarily required in other imaging. Leveraging artificial intelligence is ideal for helping doctors better find and focus on suspicious regions and identify breast cancer early for better clinical outcomes and a better patient experience. Studies have shown that the CureMetrix AI-based CAD software can significantly enhance radiologists' sensitivity when reading mammograms.

JD: *What's the number one benefit you offer?*

KH: The number one benefit that we offer radiologists, health care practices, and patients is peace of mind. By delivering CAD that works*, studies have shown:

- **Faster reading time**—30% reduction in reading time looking at 2D mammograms
- **Fewer unnecessary patient recalls**—69% reduction in false positives vs. traditional CAD, leaving more time for accurate diagnoses
- **Improved cancer detection**—27% increase in early cancer detection without an increase in

false-positive recalls

JD: Are there any stories you can share about how your AI model(s) drove measurable patient care outcomes?

KH: AI has arrived in radiology, is quickly moving from the lab to clinical use, and there has never been a better time for AI to support radiology—especially digital mammography. The effect that COVID-19 is having on the industry has led to **millions of mammograms being deferred per month** in the U.S. alone. A quick review of a recent internal study helps to convey the impact that CureMetrix can have in helping practices manage coming backlogs while delivering higher cancer detection rates for the future.

For perspective, we took a three month-in-the-life look of an actual academic radiology practice here in the U.S. The study shows how the clinic performed without AI and how it could have performed if the practice had used our AI-based triage product (cmTriage) on their screening mammograms. Had the practice used the triage software during just the three months evaluated, the practice would have realized these following benefits:

- **Worklist optimization**—53% of studies correctly identified as low suspicion
- **Reduced recalls**—55% of recalls correctly identified as low suspicion
- **Increased cancer detection**—Multiple missed cancers brought forward as suspicious

We recently released a video webinar of this study: The Clinical Impact of AI in Practice.

The CureMetrix solution has the potential for dramatic screening workload reduction as well as improved specificity without loss in sensitivity. Combining radiologist's expertise with the support of the AI is empowering for the doctor and efficient for the practice.

JD: What benefits does Nuance and its AI Marketplace for Diagnostic Imaging bring to your users? What problems does the marketplace and integration into Nuance's workflow solve?

KH: The Nuance AI Marketplace helps to streamline integration of the CureMetrix AI into both the Nuance worklist and the existing practice's PACS, allowing radiologists to adopt the technology into their native workflow quickly. CureMetrix is cloud-based and HIPAA compliant, so our technical approach is aligned with Nuance for mutual practice support.

Once implemented, the CureMetrix cmTriage will help the radiologist **triage**, **sort**, and **prioritize** their worklist based on suspicious cases. cmAssist (investigational use only) can then help **identify**, **mark**, and **score** regions of interest*. Depending on the practice preference, radiologists can enable the AI to confirm findings before conducting a reading or after a review.

JD: What has your experience been working with the Nuance team?

KH: The Nuance team is progressive and service-oriented in integrating the CureMetrix AI into their platform. They have also been diligent in helping practice teams and radiologists understand solution benefits, and in streamlining the software implementation quickly so that practices can realize advantages faster.

JD: What is your vision for how your solution(s) will evolve over the next 5 years?

KH: AI is a game-changer in healthcare. Over the next few years, we will see wide-spread industry adoption and growing consumer interest. Patients will come to expect the diagnostic advantages offered by CureMetrix AI applications. AI will accelerate screening and diagnosis, and it will increase the number of diseases we can screen. It will provide more resources to more patients on a broader basis, which translates into better care for all.

JD: In one sentence, tell us what you think the future of medicine will look like.

KH: The future of medicine will evolve into a more predictive model, providing doctors with the data, information, and tools they need to be proactive while giving patients the tools they need to be more preventive in managing their overall health.

Learn more

To learn more about CureMetrix solutions cmTriage and cmAssist, please visit https://curemetrix.com/cm-triage/ and follow us on social media

Tags: AI Marketplace, Breast cancer awareness, Radiology partner, Future of medicine

More Information

Unlock the power of AI

Learn more about Nuance AI Marketplace for Diagnostic Imaging

Learn more

About Jonathon Dreyer

Jonathon Dreyer is the vice president of solutions marketing for Nuance where he is driving a physician-first approach to medicine by bringing cloud-based speech recognition and clinical language understanding technology to a worldwide community of healthcare IT developers and provider organizations. Prior to his current role, Jon worked as the solutions marketing manager for Diagnostic Imaging at Nuance and previously headed up marketing at Commissure Inc., a provider of clinical documentation and healthcare communication solutions. Jon graduated with Summa Cum Laude honors at Wayne State University where he earned a B.S business administration.

View all posts by Jonathon Dreyer