SenoGram®
Decision Support Tool

Enhanced clinical decision-making powered by artificial intelligence

The breast cancer diagnostics process is enhanced with SenoGram®, an artificial intelligence (AI) decision support tool that increases precision and specificity without sacrificing sensitivity and efficiency in interpreting images from the Imagio® Breast Imaging System.

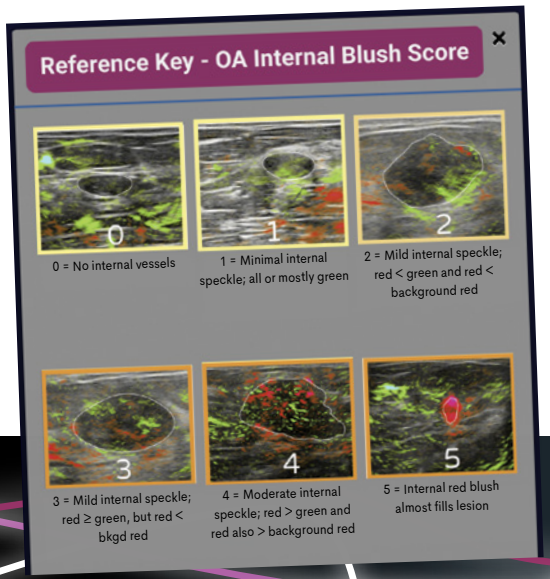
Recent findings from a multi-reader study showed the use of AI in clinical mammography could play a vital role in increasing sensitivity and specificity, especially for radiologists with less experience assessing breast lesions. An article in *JAMA Network Open* showed that using machine-learning methods, such as the Imagio® SenoGram® AI decision support tool, can enhance interpretations, reducing missed cancers and false positives. This study concluded that AI algorithms, combined with radiologist assessment in a single-reader screening environment, improved overall accuracy. Seno's SenoGram® adds yet another level of diagnostic confidence, improving accuracy for optimum interpretation and appropriate follow-up.[1,2]

Imagio® with native SenoGram® results in better precision and diagnostic confidence. This new modality enables clinicians to gain insights into the nature of a mass, providing an earlier diagnosis of malignancy and greater specificity when assessing benign masses.

"This makes you a better radiologist, having more and deeper information. We can decide more certainly with this anatomic and functional information what is the right path for the patient."[3]

– Jeroen Veltman, MD, PhD
MRON Radiologie Oost-Nederland

A breast imager sits at the diagnostic workstation, using reference keys (left monitor) provided for each internal and external OA imaging attribute, to aid in assigning individual feature scores.



Imagio®
OA/US Breast Imaging System

To learn more about Imagio® and the SenoGram® Decision Support Tool, visit **ExperienceImagio.com**

A Digital Assistant

SenoGram® decision support enables readers to objectively and efficiently interpret the images produced using Imagio®, assess the likelihood of malignancy (LOM), and assign a more precise diagnostic BI-RADS. Using AI and machine learning, SenoGram® integrates findings from the OA/US exam with demographic variables to objectively and precisely calculate LOM.

In essence, SenoGram® improves what breast imagers can achieve with their subjective assignments of LOM alone. This technology addresses two key problems faced by readers:

- It reduces information overload that affects the LOM by combining fourteen variables from both the Imagio® scan and demographics in the estimate of LOM, and
- the SenoGram® AI can easily overcome discordances that frequently occur in breast masses and provide a "second set of eyes" for radiologists to provide additional precision and confidence in their assignments.[4]

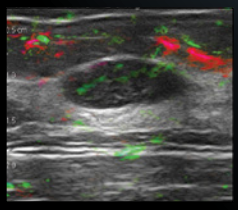
Clinically Efficacious

In an independent, multi-reader pivotal study, readers achieved higher specificity at 98% sensitivity using SenoGram® compared to subjective assessments. Readers also reported greater confidence in their assignments of LOM and BI-RADS categories with SenoGram® decision support.[5] The outcome is better diagnosis through data and machine learning.

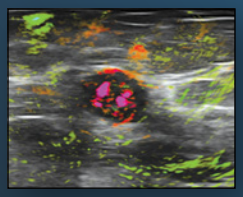
Imagio®

OA/US Breast Imaging System

Learn about the SenoGram® Decision Support Tool at **ExperienceImagio.com**.

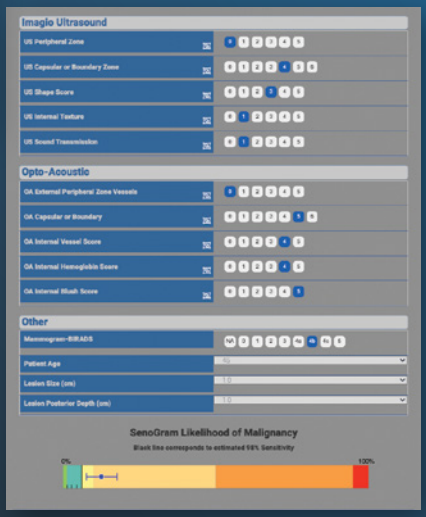


Benign case – Fibroadenoma



ER - (negative)
PR - (negative)
HER2 - (negative)
ki67 - 50

Invasive Ductal Carcinoma Grade III



1. Bassi, E., Russo, A., Oliboni, E., et al. (2023). The role of an artificial intelligence software in clinical senology: A mammography multi-reader study. *Breast Radiology*. https://link.springer.com/article/10.1007/s11547-023-01751-1 **2.** Schaffter, T., Buist, D. S. M., Lee, C. I., et al. (2020). Evaluation of combined artificial intelligence and radiologist assessment to interpret screening mammograms. *JAMA Network Open*. https://jamanetwork.com/journals/jamanetworkopen/fullarticle/2761795 **3.** Kania, J. (2022) Opto-acoustic imaging: A new modality changing the future of breast imaging. *Radiology Business*. https://radiologybusiness.com/sponsored/57816/seno-medical/topics/medical-imaging/womens-imaging/breast-imaging/opto-acoustic **4.** Fornell, D. (2023). Mismatch between radiologist shortages, rising exam volumes a growing concern in medical imaging. *Radiology Business*. https://radiologybusiness.com/topics/healthcare-management/healthcare-staffing/mismatch-between-radiologist-shortages-rising-exam-volumes-growing-concern-medical-imaging **5.** Seiler, J. S., Neuschler, E. I., Butler, R. S., Lavin, P. T., & Dogan, B. E. Opto-acoustic imaging with decision support for differentiation of benign and malignant breast masses: A 15-reader retrospective study. *Amer J of Roentgenology*. https://www.ajronline.org/doi/abs/10.2214/AJR.22.28470

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