

Shorter exam times and more predictive patient scheduling with AIR™ Recon DL

Based on a webinar with Lawrence Tanenbaum, MD, RadNet, Inc.



Applying AI and deep-learning algorithms to MR image reconstruction is an exciting realization of technology that is enabling improvements in MR that haven't been possible using conventional reconstruction methods. Healthcare providers are using this technology to produce high-quality images with shorter scan times, overcoming the historical trade-offs in MR between scan time and image quality.

GE Healthcare's recent webinar featured a panel of clinicians discussing the impact of AI solutions on MR cases, from a clinical standpoint. They've seen improvements in productivity and return on investment (ROI) that impact their overall imaging operations and workflow.

During the webinar, clinicians presented dynamic improvements in image quality when using AIR™ Recon DL‡ for deep-learning image reconstruction. Additionally, some clinicians shared the equally impressive quantitative performance results they've achieved by incorporating AIR™ Recon DL into their MR workflows.

Lawrence Tanenbaum, MD, Vice President and Medical Director, MRI, CT and Advanced Imaging for Radnet, Inc. in New York City, is using AIR™ Recon DL at one of their busiest centers in Manhattan.

[AIR™ Recon DL] is actually going to elevate your entire imaging chain because there's such powerful noise reduction and greater efficiency. Across the board, and across the range of exams, we run anywhere between thirty and fifty percent reduction [in exam times].

Lawrence Tanenbaum, MDRadNet, Inc.

Dr. Tanenbaum continues, "What does it mean for us? We originally had 20-minute appointment slots; now they are dropping to 15-minute slots. With this innovation, we can have one more patient an hour. That's about 10 more patients a day. And frankly, aside from the throughput benefits, there is improved operational consistency. It allows us to stay on schedule. It gives us a greater ability to accommodate add-ons and handle the typical disruptions that will always come up, like insurance certifications and implanted devices. It certainly keeps us on schedule and allows us to reduce our overtime needs."







Figure 1. T-spine sagittal T1 FLAIR, $1.2 \times 1.0 \times 3$ mm, 1:04 min. (A) Conventional reconstruction with low SNR, and (B) same acquisition as (A), but with improved SNR using AIRTM Recon DL.

Exam	Pre-AIR™ Recon DL exam time (minute)	Post-AIR™ Recon DL exam time (minute)	% Exam time reduction
Shoulder	12:49	6:38	50%
LSP	11:04	6:44	40%
CSP	14:06	8:24	40%
TSP	9:38	6:27	35%
Knee	13:27	8:35	35%
Prostate	17:39	12:50	30%
Hip	17:58	9:23	45%
Wrist	13:47	7:50	45%
Hand	13:07	5:47	50%
Ankle	12:22	7:50	40%
Foot	11:54	7:27	40%
Female pelvis	17:54	12:09	35%
Abdomen	13:02	7:01	40%

Table 1. AIR™ Recon DL substantially improves patient experience and throughput, with scan time reduction for each anatomy. Exam time comparison from Radnet, results may vary.

To learn more, please contact your GE Healthcare sales specialist or visit us online: www.gehealthcare.com/AIR

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