# NEWS BRIEF

**GE Healthcare is proud to showcase the AIR™ family of products that deliver clinical versatility and comfort, intelligent productivity improvements and consistently superior image quality.**

### AIR Recon DL*

There is an inherent compromise in MR between image quality and scan time. Higher image quality, achieved through higher SNR and/or spatial resolution needed to show anatomical detail, necessitates long scan times, whereas faster scans, desired for patient comfort and productivity, compromise image quality and diagnostic confidence. AIR Recon DL, a new reconstruction technology on GE Healthcare's Edison intelligence platform, a GE-first, deep-learning application is designed to improve signal-to-noise and image sharpness and enable shorter scan times. Clinicians and technologists would no longer have to compromise between image quality and scan time with AIR Recon DL.

This new technology is designed to include trained neural networks to reconstruct the good signal and not the noise. AIR Recon DL was developed using a neural network trained on tens of thousands of images using GE's Edison AI Platform.

Pascal Roux, a radiologist at Centre Cardiologique du Nord (CCN), one of the first global clinical sites to evaluate a prototype version of AIR Recon DL, believes that AIR Recon DL is a solution that could offer a dramatic improvement over existing image reconstruction techniques. "In my experience, AIR Recon DL can demonstrate high-resolution images with no truncation artifact, imperceptible noise and depiction of sharp structure," Dr. Roux says.

Dr. Roux felt that Air Recon DL can help improve SNR and image sharpness, which can enhance spatial resolution, as well as help remove some artifacts or help reduce acquisition time. "I can have the best of both worlds. I do not have to choose between improving the quality of the exam and shortening the exam time," he says. AIR Recon DL also improves workflow. If Dr. Roux's department can increase the number of exams even by a fraction each hour, the cumulative result at the end of the day could be significant. With a three-exam-each-hour schedule, Dr. Roux believes it is possible to add five to six more patients in a 12-hour day.

Edison is GE Healthcare's intelligence platform that helps GE and select strategic partners design, develop, manage, secure and distribute advanced applications and AI algorithms quickly.

### AIR x™

This AI-based, automated workflow tool for brain scanning increases consistency and productivity. AIR x, an application built on Edison, provides automated slice prescriptions to help reduce previously redundant, manual steps. AIR x produces images that have less variability between technologists and between scans, to lower the chances for a patient to be recalled due to incorrect slice placement. And regardless of how the patient's head is positioned, AIR x selects the right slice position. An increase in consistency is particularly important when doing longitudinal assessments for diseases like Alzheimer's and Multiple Sclerosis.

Technologists can set up exams five times faster and perform four times fewer mouse clicks using deep learning with AIR x. This new tool features a pre-trained neural network model that leverages

deep learning algorithms and anatomy recognition to define the correct anatomical landmarks and automate the scanning process for routine to challenging set-ups. The algorithm automatically aligns the scan prescription to anatomical references that are based on a database of over 36,000 images sourced from clinical studies and reference sites.

### AIR Touch™

This intelligent patient recognition software works with AIR Coils to help optimize every scan, improving workflow and productivity up to 59 percent with automated coil selection and landmarking. There is variability from technologist to technologist and patient to patient; AIR Touch connects the coil to the system to automatically tell the scanner exactly where the patient is with just one touch. AIR Touch dramatically simplifies the scan set up for the technologist, reducing scan time by up to 37 percent. This new feature also optimizes key elements in the coil configuration automatically to get an excellent image for every patient while using the full power of each coil.

### AIR Coils

This industry-first suite of RF coils enables total freedom in coil positioning and handling during an MRI scan. AIR Coils are available on 1.5T and 3T systems. The AIR Coil suite is designed to be both comforting and comfortable. Each coil is lightweight, flexible and just like a blanket, designed to closely wrap around patients for incredible image quality.

The AIR Anterior Array (AA) coil is designed to conform to the human body. The ultra-lightweight design makes it easier to scan the patient and addresses several clinical needs, including large field-of-view coverage when scanning chest, abdomen, and pelvis exams without repositioning the patient or the coil. The AIR Multi-Purpose (MP) coil, designed for flexibility in positioning while setting up difficult clinical cases, is used for examinations that were previously difficult, such as casted joints, broken joints, long bones, or other anatomies that do not fit in standard coils.

AIR Coils are up to 60 percent lighter than conventional coils, benefiting both patients and technologists. The coils offer greater flexibility in all axes to help conform to patients' anatomies and fit all patient sizes and shapes. Additionally, AIR Coils provide increased acceleration techniques due to high coil density.

AIR Coils were recently named Best New Radiology Device by Aunt Minnie in the 2019 Minnies Competition.

*AIR Recon DL is 510(k) pending at the US FDA. Not available for sale.

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### MEDIA CONTACT

Amanda Gintoft
Amanda.Gintoft@ge.com
 +1-414-412-7062