

## **NEWS BRIEF**

### **GE Healthcare Showcases three New MRI systems and AIR Recon DL Extensions at #RSNA21 – all designed to meet today's the most pressing needs of today's radiology departments.**

The healthcare system – and radiology departments in particular – face more strain than ever. In the United States alone, the COVID-19 pandemic is expected to contribute to a 35% drop in MRI procedure volume in 2020 – from 42 million procedures in 2019 to an estimated 27.4 million in 2020<sup>i</sup>. This backlog in non-urgent patient care – combined with today's growing disease burden and industry-wide staff shortages – demands new solutions to help clinicians address today's evolving needs.

In response, GE Healthcare is proud to introduce three new magnetic resonance imaging (MRI) systems as well as new imaging and workflow solutions to help healthcare systems accommodate more patients, and clinicians deliver more confident diagnoses and treatment recommendations.

#### **SIGNA Hero**

At #RSNA21, GE Healthcare is proud to unveil **SIGNA Hero**<sup>ii</sup>, a new 3.0T magnetic resonance imaging (MRI) system named in honor of all the global healthcare workers who continue caring for our global community amidst today's COVID-19 pandemic. Offering new workflows and AIR Recon DL enhancements, SIGNA Hero is designed to help those on the frontlines meet today's most pressing needs, including enhanced productivity, patient comfort, and sustainability<sup>iii</sup>.

To achieve this, SIGNA Hero was designed with a 70 cm bore and detachable table to help accommodate more patients of all shapes and sizes, enhance patient comfort and unlock new clinical workflows for today's healthcare heroes. Additionally, the system offers whole body workflow solutions that leverage artificial intelligence to increase the clarity of images while also increasing operational efficiency. These include GE Healthcare's patented AIR Recon DL, AIR Coils, AIR Touch and AIR x technologies and solutions.

Furthermore, SIGNA Hero was designed with sustainability in mind. To help healthcare systems save on operational costs in the long run, SIGNA Hero is an eco-friendly system designed to be designed to be capable of lowering helium usage up to 67 percent due to GE Healthcare's Intelligent Magnet Technology, which is 1.4x more efficient than previous generations. Moreover, healthcare systems can feel good knowing that the SIGNA Hero magnet – which is already two tons lighter than its predecessor – is designed, produced, and shipped from a facility that is 100 percent carbon neutral. And while they are scanning, the system is designed to easily decrease power consumption and scan time by 30-50 percent with AIR Recon DL, compared to conventional examinations

Finally, GE Healthcare's built-in, instantly accessible Digital Ecosystem provides immediate expert support and coaching to seamlessly educate healthcare system staff, manage department protocols, and remotely update scanner software at times that best suite department schedules.

#### **SIGNA Artist Evo**

Another significant challenge for healthcare systems today is the cost and time involved with replacing aging MRI systems.

## **GE Healthcare at RSNA 2021**

### **Magnetic Resonance**

Today, the process involves shutting down scanning, tearing down walls, removing the current MRI magnet and system cabinets, and sometimes building out the current space to accommodate the MRI scanner. Given today's backlog in patient scans and high disease burden, this process can be intimidating to many healthcare systems, which can't afford to shut down imaging for an extended period of time.

In response, GE Healthcare is introducing **SIGNA Artist Evo**,<sup>iv</sup> which enables healthcare systems to transform their legacy 1.5T narrow 60 cm bore MR systems to a premium, state-of-the-art 1.5T, 70 cm bore system, helping them accommodate more patients of all shapes and sizes. Additionally, SIGNA Artist Evo transforms the existing system's magnet, with the goal of enabling 40 percent faster return on investment (ROI) potential over replacing the whole system<sup>v</sup>.

SIGNA Artist Evo also offers GE Healthcare's patented flexible AIR Coils and AIR Recon DL image reconstruction technology to help provide clearer, sharper and more detailed images faster – enabling shorter patient setup times and reducing table time<sup>vi</sup>. The use of these technologies may be advantageous to healthcare systems, with the potential to result in extra yearly revenue from gaining an average of four additional patient scan time slots per day as well as annual savings by avoiding rescans, while resetting – or restarting – the life of their system<sup>vii, viii</sup>.

### **SIGNA Prime**

GE Healthcare also recently introduced **SIGNA Prime**<sup>ix</sup>, a 1.5T system designed to make MRI adoption simple and seamless with exclusive features for an intuitive user experience and to deliver consistent high-quality images using cutting-edge imaging technology.

For first time MRI users, a simple user interface design that clinicians can easily navigate is essential. With this in mind, GE Healthcare leveled the MRI learning curve with an all-new user experience that can be learned in a matter of hours on SIGNA Prime, enabling users to personalize their MRI system by introducing classic and express modes. It also includes a guided workflow with step-by-step instructions as well as simple protocol selection and planning to help users reach an error-free exam. To further streamline the experience, technologists can monitor and scan their current patient while the system processes their previous patient's images.

SIGNA Prime is also equipped with state-of-the-art Total Digital Imaging (TDI) 2.0 technology, which digitizes inputs from each radio frequency (RF) channel for a signal noise ratio (SNR) increase of up to 30 percent. When paired with GE Healthcare's patented AIR Recon DL capability, SIGNA Prime offers clinicians consistent high-quality images to help inform confident diagnoses and treatment recommendations.

Finally, SIGNA Prime offers more efficient installation, helping to reduce operational costs with an eco-friendly system designed to deliver a 25% lower power rating and a 70% reduction in helium consumption. This is thanks to GE Healthcare's new Intelligent Magnet Technology. Additionally, the wide-bore-ready magnet gives the imaging facility an opportunity to transform the bore size from 60 cm to 70 cm, meaning they have the ability to upgrade their system as their business grows into the future, without the environmental impact, financial burden and administrative strain of acquiring an entirely new system.

### **AIR Recon DL**

AIR Recon DL is GE Healthcare's pioneering deep learning image reconstruction technology that works across all anatomies. Available across all GE Healthcare 1.5T, 3.0T, and 7.0T scanners, AIR Recon DL

## GE Healthcare at RSNA 2021 Magnetic Resonance

makes full use of all the raw data coming off the MRI scanner, maximizing image quality and resolution even with significantly shorter scan times.

To date, AIR Recon DL has benefited nearly one million patients around the world, and feedback from clinical users has been overwhelmingly positive – including observations of sharper and less noisy images as well as a 30-50% reduction in exam times<sup>x</sup>.

Now, at #RSNA21, GE Healthcare is excited to announce two new extensions of this cutting-edge deep learning technology, including **3D** sequences and **PROPELLER** for motion robustness<sup>iii</sup>. Both solutions are designed to provide sharper images with better signal in half the time for nearly 90 percent of the daily clinical scans done, regardless of the anatomy being scanned.

### AIR Coils

Available across GE Healthcare's 1.5T and 3.0T systems, AIR Coils represent an industry-first suite of RF coils designed to enable total freedom in coil positioning and handling during an MRI scan. Each coil is lightweight and flexible to closely wrap around patients, like a blanket, for incredible image quality. GE Healthcare first released AIR Anterior Array coils that provide wider coverage and signal uniformity. Now, the AIR Coil suite is expanding with two additional, smaller AIR Multi-Purpose coils<sup>xi</sup> that are now available to further increase patient comfort and versatility.

AIR Coils are up to 51 percent lighter than conventional coils, benefiting both patients and technologists. The coils offer greater flexibility in all directions to help conform to patients' anatomies and fit all patient sizes and shapes. Additionally, AIR Coils enable accelerated acquisition techniques due to high coil element density.

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<sup>i</sup> IMV Medical Information Division. 2020 MR Market Outlook Report.

<sup>ii</sup> SIGNA™ Hero is 510(k) pending at FDA. Not yet CE marked. Not available for sale in the United States or the EU. Not commercially available in all markets.

<sup>iii</sup> AIR Recon DL 3D and PROPELLER is 510(k) pending at the FDA. Not CE marked. Not available for sale in the United States or EU. Not commercially available in all markets.

<sup>iv</sup> SIGNA Artist Evo is 510(k) pending with the US FDA. Not yet CE Marketed. Not available for sale in the United States or EU. Not commercially available in all markets.

<sup>v</sup> Based on historical ROI of full system upgrades vs. full replacement.

<sup>vi</sup> Exam Slot Calculator JB00012XA

<sup>vii</sup> Results may vary. Customers have reported scanning on average 4 more patients a day per MR with AIR Recon DL (JB03495XX). Calculation based on 22 days/month x \$500/scan x 50 weeks/year x 4

<sup>viii</sup> Andre JB, Bresnahan BW, Mossa-Basha M, et al. Toward quantifying the prevalence, severity, and cost associated with patient motion during clinical MR examinations. J Am Coll Radiol. 2015;12(7):689-695. doi: 10.1016/j.jacr.2015.03.007

<sup>ix</sup> SIGNA Prime is 510(k) pending with the U.S. FDA. \*510(k) pending with the U.S. FDA. Not available for sale in all regions.

<sup>x</sup> GE Healthcare data on file

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