

Healthcare AI, Radiology solutions

A Real View of...Radiology during COVID-19

Nuance Communications

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Radiology departments have transformed complex on-site practices and protected staff by enabling radiologists to work remotely during the COVID-19 pandemic. What would have been a challenge under normal circumstances had to take place in a matter of days during a time of unprecedented clinical and financial stress on healthcare organizations. This is a look at how they've done that by combining their own dedication to patient needs, the capabilities of Nuance cloud-based radiology solutions, and innovations developed by Nuance R&D teams. Kindness also is playing a role.

As the COVID-19 pandemic engulfed hospitals across the country, radiology department leaders had to make a hard and immediate pivot to have their teams work safely from home within a matter of days. That entailed transforming established work routines built around multiple on-site systems to work effectively from multiple locations away from the normally bustling department halls. They also needed to make those changes effectively to maintain continuity of care while under unprecedented clinical and financial stress. Simply speaking, they needed to find a way for radiologists to work together effectively and efficiently while apart, and they needed to do it quickly.

Rapidly changing a radiology department into a remote yet cohesive clinical team entails much more than enabling remote reading and reporting and reliable connectivity. It requires the multiple, comprehensive, cloud-based capabilities of Nuance PowerScribe, the PowerShare image-sharing network, and the Nuance AI Marketplace. It also engages Nuance R&D innovations in response to radiologists identifying the need for new capabilities to help COVID-19 care teams.

During complex and fluid circumstances for which no one has prior experience, we at Nuance are focusing on three general areas to guide our decisions and actions to help radiologists during the pandemic: Needs, capabilities and kindness.

Needs

- Rapid and effective remote communication between radiologists, radiology techs and referring physicians to replace the direct contact possible within hospitals and radiology facilities.
- Worklist prioritization that enables rapid reading of COVID-19 patient scans as well as timely reporting on essential non-COVID-19 cases.
- Immediate access to new scans as well as relevant prior studies in image libraries for comparison because many vulnerable patients often had existing comorbidities.
- Ubiquitous and instantaneous remote image access and sharing connectivity between disparate facilities and healthcare systems with limited or incompatible image-sharing capabilities. This was complicated as some health systems have banned the use of CDs to eliminate the potential for viral contamination. Also, departmental and IT personnel who would normally handle remote connectivity or transferring images from CDs to the PACS are now working at home without physical access to those systems.

Capabilities

Nuance cloud-based radiology platforms were designed with the power and flexibility to address those needs:

- The secure remote reporting capabilities in PowerScribe 360 give radiologists the flexibility to develop diagnostic reports securely from any location.
- The messaging and group chat capabilities available from within the PowerConnect Communicator enable radiologists and techs to maintain the speed of communication and collaboration that they had when working on-site.
- In response to radiologists' requests, our team developed a capability to prioritize exams identified as suspected or diagnosed COVID-19 patients for prioritized reading, reporting and communication to care teams and the ICUs. It was made available to radiology departments rapidly via the cloud.
- The size, performance, and scalability of the PowerShare network has become even more important for accessing and transferring images from multiple locations. In fact, our support team has remotely connected and trained new PowerShare users ranging from individual physicians and patients using mobile phones to entire departments within days to get vital diagnostic information to where it's needed quickly. The network grows daily and now includes more than 7,000 US healthcare facilities, making it an essential platform for supporting rapidly expanding telehealth initiatives.
- The Nuance AI Marketplace integrates access to AI diagnostic models and workflow automation tools for report creation into the PowerScribe reporting workflow when speed and accuracy matter most. This includes the VIDA's LungPrint Discovery AI-powered analysis of chest CT scans. CTs are important for evaluating COVID-19 patients with complications, recognizing possible COVID-19 features for incidental findings and in the event that persons under investigation of COVID-19 require imaging for clinical management.

Kindness

Nuance took multiple actions to help healthcare users minimize the economic damage caused by the pandemic. In radiology, Nuance is giving:

- Free 90-day add-on licenses for PowerScribe 360 Mobile Radiologist software for PowerScribe 360 customers.
- Free virtual support to set-up PowerScribe 360 and PowerScribe One for at-home or remote reading.
- Free volume increases for PowerShare for existing spoke facilities and access to new spoke facilities to provide organizations with increased access to view, manage, and share medical images and diagnostic reports. This helps patients and providers to #ditchthedisk by eliminating the transfer of CDs between hospitals and patients, offering patients free, virtual access to their medical images to stop the spread of disease.
- Free 90-day access to the Nuance AI Marketplace and VIDA's FDA cleared LungPrint Discovery

AI solution* for PowerScribe One and PowerScribe 360 customers

An old saying states that “Luck is a matter of preparation meeting opportunity.” We feel fortunate that we were prepared for the opportunity to help care teams during these difficult circumstances while helping to set the stage for future changes. Sometimes, especially now, we all need a bit of luck – and sometimes we simply need help from each other.

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Here are a few examples of what radiology department leaders at major institutions have shared with us about the changes they have made during such adverse conditions:

— *“Thank you and your team for your help enabling our remote dictating solution for our radiologists. Reviews are very positive, and it’s having a tremendous impact on our ability to keep our radiologists safer.”*

— *“We are fortunate to have such innovative and reliable infrastructure supporting the new normal, so thank you. Our radiologists and trainees are working from home except for one person per reading room in case they need to do procedures. The techs and the other reading room assistants are using the Nuance Communicator for all sections as before, not noticing if we are at home or on-site. And we are working on deploying virtual consult. We are just missing seeing each other, using Zoom as much as possible!”*

— *“We are dividing and sheltering our workforce at home and call them into work in batches, so we keep functional teams intact. A side effect of this all is that telemedicine is going to get a big boost. You have several products related to that space and are therefore definitely an enabler.”*

Tags: [COVID-19](#), [AI in radiology](#)