



GE Healthcare Launches New AI Suite to Detect Chest X-ray Abnormalities, Including Pneumonia Caused by COVID-19 & Tuberculosis

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- GE Healthcare continues to provide tools to support clinicians in today's COVID-19 environment
- Thoracic Care Suite harnesses the power of AI to scan for eight chest x-ray abnormalities, including pneumonia indicative of COVID-19 – a key cause of mortality in patients who contract coronavirus [\[1\]](#)
- The AI suite, featuring Lunit INSIGHT CXR [\[2\]](#), also includes an algorithm to detect tuberculosis, which affects approximately 10 million people every year [\[3\]](#)

[GE Healthcare Launches New AI Suite to Detect Chest X-ray Abnormalities...](#)
[IMAGE/PNG - 52.92 MB](#)

Chalfont St Giles, UK, June 18, 2020 – GE Healthcare today introduced its Thoracic Care Suite, a collection of eight artificial intelligence (AI) algorithms from Lunit INSIGHT CXR to help alleviate clinical strain due to COVID-19. The AI suite quickly analyzes chest x-ray findings and flags abnormalities to radiologists for review, including pneumonia, which may be indicative of COVID-19 as well as tuberculosis, lung nodules, and other radiological findings.

“The launch of our Thoracic Care Suite is a part of GE Healthcare’s larger effort to help ensure clinicians and partners on the front lines have the equipment they need to quickly diagnose and effectively treat COVID-19 patients,” says Kieran Murphy, President & CEO, GE Healthcare. “The pandemic has proven that data, analytics, AI and connectivity will only become more central to delivering care. For GE Healthcare, that means continuing to advance intelligent health and providing innovative technologies. This new offering is the latest example of how x-ray and AI can uphold the highest standard of patient care amidst the most modern of disease threats.”

To date, more than 8 million cases [\[4\]](#) of COVID-19 have been confirmed worldwide – overwhelming radiologists, technologists, and physicians. As the spread of the virus stabilizes, clinicians continue to need tools to help manage new cases and complications caused by the virus – including pneumonia and acute respiratory distress – which have further increased pressure on radiologists to quickly read chest x-ray exams.

With approximately 1.44 billion chest x-ray exams taking place each year [\[5\]](#), radiologists are overwhelmed, especially as they may be looking for multiple indications per exam.

Thoracic Care Suite harnesses the power of AI to help alleviate these pressures by automatically analyzing images for the presence of eight abnormal radiologic findings, including suspected tuberculosis and pneumonia findings, which can be indicative of COVID-19. Upon reading the flagged report in picture archiving and communication systems (PACS), radiologists can quickly find the abnormality score for each of the eight possible abnormalities, an image overlay, and a written location description to help expedite diagnosis and treatment.

“Clinicians are looking for clinically proven methods to help identify symptoms early and determine which patients are at higher risk of complications and need to be actively monitored,” explains Professor Fergus Gleeson, Consultant Radiologist, Professor of Radiology at the University of Oxford, and the 2020 President of the European Society of Thoracic Imaging. “AI can help identify these distinctions and enable hospital resources to be targeted to those that will need them whilst in hospital and following discharge.”

Thoracic Care Suite provides much needed support to help quickly identify high-risk cases as well as monitor patients showing the progression and regression of mild respiratory symptoms. With 97-99% accuracy rate (Area Under the Curve - AUC), the powerful algorithms behind the AI suite have been trained to detect radiologic findings within seconds. In one study, results showed a 34% reduction in reading time per case [\[6\]](#).

In addition to detecting pneumonia, Thoracic Care Suite also supports tuberculosis, atelectasis, calcification, cardiomegaly, fibrosis, mediastinal widening, lung nodule, and pleural effusion detection.

Thoracic Care Suite is available to GE Healthcare’s thousands of global fixed, mobile and R&F x-ray customers at point of sale, meaning the technology can more quickly be deployed in market and in hospital without the fear of annual fees – an important consideration if a second wave of COVID-19 were to occur. Furthermore, installation of the technology does not require customers to engage with any enterprise IT projects, helping to lower the barrier for entry in adopting AI.

“To have our AI made available with a market-leading vendor like GE Healthcare – especially as part of the Thoracic Care Suite – is a significant advancement in delivering solutions to various customers within GE Healthcare’s install base and bringing us all one step closer to embracing AI as a part of today’s standard of care,” says Brandon Suh, CEO of Lunit.

To provide this technology, GE Healthcare partnered with [Lunit](#), a South Korean medical AI software company that develops AI-powered analysis of lung diseases via chest x-ray images. Founded in 2013, Lunit has been recognized for its advanced, state-of-the-art technology and medical imaging applications in international competitions – including ImageNet, TUPAC, and Camelyon.

The collaboration between GE Healthcare and Lunit is one of the first of its kind to bring commercially available AI products from a medical AI startup to an existing X-ray equipment manufacturer.

For more information on GE Healthcare’s Thoracic Care Suite and COVID-19 solutions visit [gehealthcare.com](https://www.gehealthcare.com).

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About GE Healthcare:

GE Healthcare is the \$16.7 billion healthcare business of GE (NYSE: GE). As a leading global medical technology and digital solutions innovator, GE Healthcare enables clinicians to make faster, more informed decisions through intelligent devices, data analytics, applications and services, supported by its Edison intelligence platform. With over 100 years of healthcare industry experience and around 50,000 employees globally, the company operates at the center of an ecosystem working toward precision health, digitizing healthcare, helping drive productivity and improve outcomes for patients, providers, health systems and researchers around the world.

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[1] Provisional Death Counts for Coronavirus Disease (COVID-19). Published June 12, 2020. Accessed June 12, 2020, from <https://www.cdc.gov/nchs/nvss/vsrr/covid19/index.htm>.

[2] Available in select CE Mark countries. Not available in all regions.

[3] Tuberculosis. (n.d.). Retrieved June 12, 2020, from <https://www.who.int/health-topics/tuberculosis>

[4] WHO Coronavirus Disease (COVID-19) Dashboard. Published June 17, 2020. Retrieved June 18, 2020, from <https://covid19.who.int/>.

[5] Dutta, S., Lanvin, B., & Wunsch-Vincent, S. (Eds.). (2019). GLOBAL INNOVATION INDEX 2019 Creating Healthy Lives—The Future of Medical Innovation (12th ed.). Ithaca, NJ: Cornell University, INSEAD, and the World Intellectual Property Organization. https://www.wipo.int/edocs/pubdocs/en/wipo_pub_gii_2019-chapter8.pdf

[6] GE Healthcare data on file.

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