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FirstHealth applies AI power to advance lung program

First 60 days of chest CT images analyzed through PIN:

661	54	68
total patients	potential BLVR candidates	presented with >5% emphysema

CHALLENGE: Strengthen lung screening and population health programs to promote earlier diagnosis and less-invasive treatment options.

SOLUTION: Nuance Precision Imaging Network (PIN) combined with Imbio's Lung Density Analysis-Inspiration (LDAi).

RESULTS: Delivered more informed AI imaging insights with greater visualization of patient conditions.

FirstHealth of the Carolinas is a private, not-for-profit health care network headquartered in Pinehurst, NC and comprised of four hospitals that pride themselves on a commitment to safety, quality, and performance excellence. As a specialty service, The Chest Center of the Carolinas integrates a multi-disciplinary team to provide expertise in evaluation of abnormal findings of the chest and continuously pursue ways to improve patient outcomes.

"Having access to the unique combination of Imbio's LDAi population screening application through Nuance PIN further validates my clinical decision-making and extends my ability to offer advanced clinical diagnostic and treatment capabilities to the patients I serve."

— Michael Pritchett, DO, MPH, Director of the Chest Center and Thoracic Oncology, FirstHealth of the Carolinas

A more proactive care plan

Emphysema and other forms of COPD are often underdiagnosed with many patients not receiving a definitive diagnosis until later stages, when it is more difficult to treat. A recent study published in *Clinical Imaging* found that approximately 24% of lung cancer screening patients had CT evidence of emphysema. Of those, 76% had no prior COPD diagnosis even though 23% had moderate or severe emphysema on LDCT.[1]

With an ongoing commitment to offer state-of-the art lung care, The Chest Center wanted to expand diagnostic and treatment capabilities to include a reliable and non-invasive method of identifying severe emphysema as well as patients who may be candidates for bronchoscopic lung volume reduction (BLVR).

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PIN combines the power of Nuance's PowerScribe imaging reporting, PowerShare image sharing, and Microsoft Azure to easily integrate partner AI solutions to add clinical value with actionable AI insights.

Actionable AI findings for added clinical value

As an existing Nuance PowerShare and PowerScribe customer, FirstHealth already had a comprehensive technology foundation in place. Michael Pritchett, Director of the Chest Center and Thoracic Oncology, championed to add PIN and its platform capabilities in order to access multiple AI algorithms and help improve their lung screening and population health programs.

PIN combines the power of Nuance's PowerScribe imaging reporting, PowerShare image sharing, and Microsoft Azure to easily integrate partner AI solutions to add clinical value with actionable AI insights. Specifically, the team elected to deploy Imbio's LDAi which offers fully automated detection, visualization and quantification of certain characteristic that may indicate emphysema and can be used with low-dose CT scans as part of lung cancer screening.

Improving the patient care journey

Together, this platform is advancing the way lung patients are diagnosed, treated, and managed. Using PIN and Imbio LDAi, The Chest Center has enhanced their population screening program by analyzing daily chest CTs to help identify other high-risk patients that may not yet be under care. Additionally, the platform offers physicians a valuable tool to potentially identify additional BLVR candidates who struggle to breathe because of severe emphysema.

As Dr. Pritchett and his care team continue to expand and improve services, Nuance PIN and Imbio LDAi allows for seamless expansion of their AI capabilities while bolstering their confidence and certainty when determining the best care pathway for their patients.

LEARN MORE

To learn more about PIN, Imbio LDAi and other partner AI solutions for your lung health program, contact your local Nuance PIN senior sales executive.

nuance.com/healthcare

Endnotes
1 https://www.clinicalimaging.org/article/S0899-7071(21)00121-2/fulltext