
More Information and Higher Diagnostic Reliability Thanks to AI



Isala overcomes daily challenges with contextflow ADVANCE Chest CT

More patients in the healthcare system - that's what healthcare economists predict – and that means more radiological examinations and findings. "If the predictions come true, we will have to become more efficient in what we do. I see artificial intelligence (AI) as part of the possible solution," says Martijn F. Boomsma, MD, Radiologist at Isala in Zwolle.

The department of Medical Imaging has been using diagnostic AI applications for four years and has been using contextflow ADVANCE Chest CT since the end of 2022. Before going live, numerous hurdles had to be overcome. Implementation was not a plug-and-play process. The hurdle was not only the vendors, but also internal processes. But it is also the point at which trust is built. "This is where true partnership shows itself, and we are still experiencing this with contextflow," Dr. Boomsma is pleased to say.

Valuable support for the findings

Dr. Boomsma also notes contextflow's effort to continuously develop its solution in close cooperation with its users in order to optimize the workflow and thus increase diagnostic value. "We see a high level of professionalism and agility, as well as the company's vision to get the best out of AI in thoracic imaging," the radiologist reports.

"ADVANCE Chest CT helps me identify and quantify nodules. This allows me to clearly identify whether the disease is progressive or stable," Dr. Boomsma elaborates. Not only does he use the AI for pulmonary nodules, but also for the detection and quantification of emphysema. He also sees the potential to speed up the reporting of findings, citing scans without significant findings as an example. The algorithm can mark these as such, so that the radiologist only has to check them once and can then concentrate on more complex cases.

More than other AI algorithms

"ADVANCE Chest CT gives me much more information than AI solutions from other vendors. It detects and quantifies nodules, emphysema and also fibrosis. The precise information on the extent of manifestation of suspected pathology adds real value to the findings because it can be indicative and correlate with the patient's condition and may guide the need for therapy," Dr. Boomsma points out. He highlights ADVANCE Chest CT's SEARCH feature as another unique selling point. With a single mouse click, an overview of similar cases opens from an extensive database, which radiologists can use to support their diagnosis.

The TIMELINE module is a further facilitator. It clearly visualizes the changes in the detected nodules over time showing the percentage of growth as well as the time of volume doubling.

About contextflow

contextflow is a spin-off of the Medical University of Vienna (MUW) and the European research project KHRESMOI, which is supported by the Vienna University of Technology (TU). The company was founded in July 2016 by a team of AI and engineering experts and has already received numerous awards; most recently, contextflow was named Born Global Champion 2021 by the Austrian Chamber of Commerce.

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