



Functional Respiratory Imaging can predict the course of COVID-19

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IN HEALTHCARE THERE ARE NO SHORTCUTS... ANYWHERE.

There is wide consensus that artificial intelligence (AI) has the potential to greatly improve healthcare. At the same time, as healthcare is governed by rules different from many other industries, several companies struggle to find a sustainable business model to harness the power of AI. We see large companies like IBM pulling back from Watson, their flagship AI healthcare application, and a recent article in Nature Machine Intelligence concluded that a majority of AI applications developed for diagnosis and prognosis of COVID-19 from medical images is of little or no clinical use. An often-cited criticism is the lack of clinical data to support the interpretation of the AI output. Virtually none of these algorithms are being developed using properly designed clinical trials. In addition, whether or not the algorithm improves clinical outcomes often depends on the treatment decision by the physician. If the algorithm does not support or improve that decision, the value is limited.

The pandemic has created an environment, understandably, where emergency use authorizations were widely granted, and an array of results were broadly published. Undoubtedly this more cavalier approach has accelerated much needed innovation, but also created a lot of opportunistic parties with little or no track record in respiratory infectious diseases, or even medicine in general. It is becoming more and more clear that there are no shortcuts in healthcare. Urgent circumstances, such as pandemics, can greatly accelerate the development process, but sustainable solutions will still need to adhere to Good Clinical Practice development guidelines and will need to be able to present a strong case in terms of improving clinical outcomes.

At FLUIDDA, we have diligently and patiently built a strong body of evidence demonstrating the clinical value of Functional Respiratory Imaging (FRI). A hallmark feature of this technology is that it does not rely on a black box deep learning algorithm but ties back into the pathophysiology. This provides more confidence that the output makes "medical sense". Originally developed as a treatment assessment tool, FRI greatly facilitates the treatment decision process by including knowledge from the large body of clinical trials into diagnostic and prognostic applications.

We are therefore confident that this approach will prevail when it comes to advancing medicine through AI-based technologies.

In this issue, you will hear from Key Opinion Leaders on how they use FRI in and outside the COVID-19 pandemic and from FLUIDDA colleagues who describe their journey in the company.

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A full list of publications related to scientific research with Fluidda's FRI technology can be found at: www.fluidda.com