Covid-19, a prominent role for UniTrento in ultrasound diagnosis

The techniques proposed by the University acknowledged as scientifically valid. The article published today in the *Journal of Ultrasound in Medicine* – one of the major publications in the field, published by the American Institute of Ultrasound in Medicine – features some of the first lung ultrasound images in patients with the Coronavirus. The protocol was developed in the laboratories of UniTrento with collaboration from a dozen clinical teams in Italy as a response to the pandemic.

Trento, 21 March 2020 – (e.b.) ULTRA - Ultrasound Laboratory Trento, which develops ultrasound diagnostic tools for health applications, is one of the research groups that are at work at the University of Trento to fight the spread of Covid-19. One of the most important international journals on medical ultrasound, the Journal of Ultrasound in Medicine, published today a new paper by Libertario Demi, coordinator of ULTRA (Ultrasound Laboratory Trento), that includes some of the first lung ultrasound images in patients with Covid-19. The article presents the results of the diagnostic protocol for Covid-19 that Libertario Demi developed with a dozen Italian clinical teams that are working very hard in emergency settings.

«For the first time, the scientific validity of the technique we proposed is accepted. We hope our work can help tackle the pandemic», commented Paolo Giorgini, director of the Department of Information Engineering and Computer Science of the University of Trento, which hosts the laboratory.

Libertario Demi told us that he has been in contact with a colleague from the German society of ultrasound in medicine who asked permission to adopt the protocol to implement it in Germany, and explained that Policlinico Gemelli in Rome has already provided some training to medical staff so that they can use these techniques: «We are available to train health care workers and to further develop algorithms that can help them manage the pandemic», affirmed Demi.

Meanwhile, a new wireless probe provided by ATL-Ecografi Wireless Milano was delivered to the University of Trento, on which the software required to make a further step forward to facilitate the diagnosis of Covid-19 will soon be installed and tested. It is a race against the clock: the effectiveness of these new instruments to contain the contagion and improve patients' outcomes also depends on when they will be used in hospitals.

Ultrasound imaging (ultrasonography) examines specific patterns to diagnose patients, determine the seriousness of their condition and hence choose the most appropriate treatment. Ultrasound waves, in other words, are used to 'take a picture' of the lungs and reveal any alterations.
About the article

The article *Is there a role for lung ultrasound during the COVID-19 pandemic?* was published on 21 March 2020 in the Journal of Ultrasound in Medicine.

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