

# Clinical validation of lung ultrasound for the diagnosis of COVID-19

No registrations found.

<b>Ethical review</b>	Positive opinion
<b>Status</b>	Recruiting
<b>Health condition type</b>	-
<b>Study type</b>	Observational non invasive

## Summary

### ID

NL-OMON22931

### Source

NTR

### Brief title

TBA

### Health condition

COVID19

## Sponsors and support

**Primary sponsor:** NA

**Source(s) of monetary or material Support:** NA

## Intervention

## Outcome measures

### Primary outcome

Lung ultrasound sensitivity to predict COVID-19 diagnosis

### Secondary outcome

Lung ultrasound specificity to predict COVID-19 diagnosis

## Study description

### Background summary

We will investigate the value of ultrasound as a first-line examination tool in the process of diagnosing COVID-19. We aim to estimate the test characteristics of artificial intelligence methods on lung ultrasound images for diagnosis of COVID-19 on patients entering the hospital emergency department with COVID-19 symptoms. The outcomes of this study will be relevant for hospitals, but also for any other situations or regions where PCR testing or CT scanning is less available.

### Study objective

Artificial intelligence methods on lung ultrasound images is able to predict the presence of lung related signs of COVID-19 with a sensitivity around 90%. Artificial intelligence methods on lung ultrasound images is able to predict the presence of lung related signs of COVID-19 with a specificity around 80%.

### Study design

after entering the emergency department

### Intervention

Lung ultrasound

## Contacts

### Public

Maastricht University Medical Center  
Ronald Henry

043-3871562

### Scientific

Maastricht University Medical Center  
Ronald Henry

043-3871562

## Eligibility criteria

## Inclusion criteria

- patients who enter the emergency department
- 18 years of age or older
- capacitated (able to make a reasonable judgement of their own interests with regards to the study)
- with (newly developed) symptoms of COVID-19 (fever or chills, cough, shortness of breath or difficulty breathing, new loss of taste or smell, sore throat, congestion or runny nose)
- signed informed consent

## Exclusion criteria

- pregnancy
- contra-indications for ultrasound

## Study design

### Design

Study type: Observational non invasive

Intervention model: Other

Allocation: Non controlled trial

**Control:** N/A , unknown

### Recruitment

NL

Recruitment status: Recruiting

Start date (anticipated): 01-02-2021

Enrollment: 150

Type: Anticipated

### IPD sharing statement

**Plan to share IPD:** Undecided

## Ethics review

Positive opinion

Date: 04-02-2021

Application type: First submission

## Study registrations

### Followed up by the following (possibly more current) registration

No registrations found.

### Other (possibly less up-to-date) registrations in this register

No registrations found.

### In other registers

Register	ID
NTR-new	NL9247
Other	Not-WMO METC azM : METC2020-2229

## Study results