

# Optimize your workflow with Artificial Intelligence

## COLLABORATION PROPOSAL

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**Rayvolve**

A high-performance computer-aided diagnosis tool that detects all types of fractures on x-rays



## High-performance solution based on Artificial Intelligence

### Automatic Detection

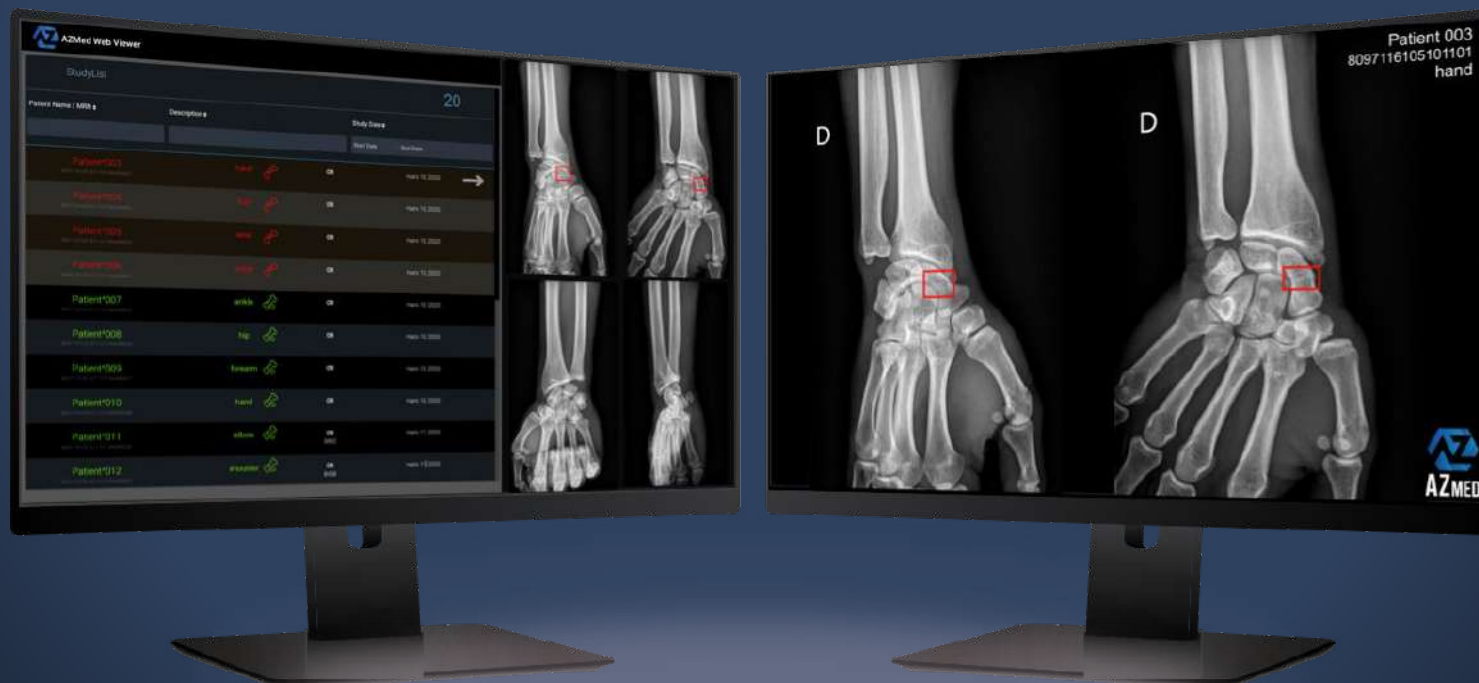
MSK, Chest

### Sorting of exams

by priority order

### Smooth integration

on all types of viewers





**University  
Hospitals**



**2 626 patients**

from 21 University hospitals



**No image from the hospital**

was used to train the algorithm



**3 MSK radiologists**

to define the Gold Standard

# Clinical Studies

Scientifically validated performance  
by the University Hospital of Cleveland

**99%**

Sensitivity / patient

**89%**

Specificity / patient

**99.6%**

**Negative Predictive Value \***

False Negative Rate = 0,4 %



**878 patients**

Under 18 years old



**11 physicians**

2 pediatric radiologists - 5 emergency physicians - 2 senior residents - 2 junior residents



**Ground Truthing**

2 pediatric radiologists (experience from 10 to 25 years)  
only one being a study co-author

# Clinical Studies

Evaluation of Rayvolve for the detection of appendicular fractures in children conducted with CHU CAEN, Pediatric Radiology 2023

**95.6%**

Sensitivity / patient

**91.6%**

Specificity / patient

**98.76%**

**Negative Predictive Value**

False Negative Rate = 0,4 %



**University  
Hospitals**



### **24 certified physicians**

8 MSK radiologists  
8 non-MSK radiologists  
8 Emergency Physicians



### **No image from the hospital**

was used to train the algorithm

# Clinical Studies

Scientifically validated performance  
by the University Hospital of Cleveland

**67%**

False negatives avoided

**27%**

Time saved

**+ 9% sensitivity / case**

+0.6% specificity / case

19% for MSK radiologists

33% for non-MSK radiologists

28% for Emergency Physicians





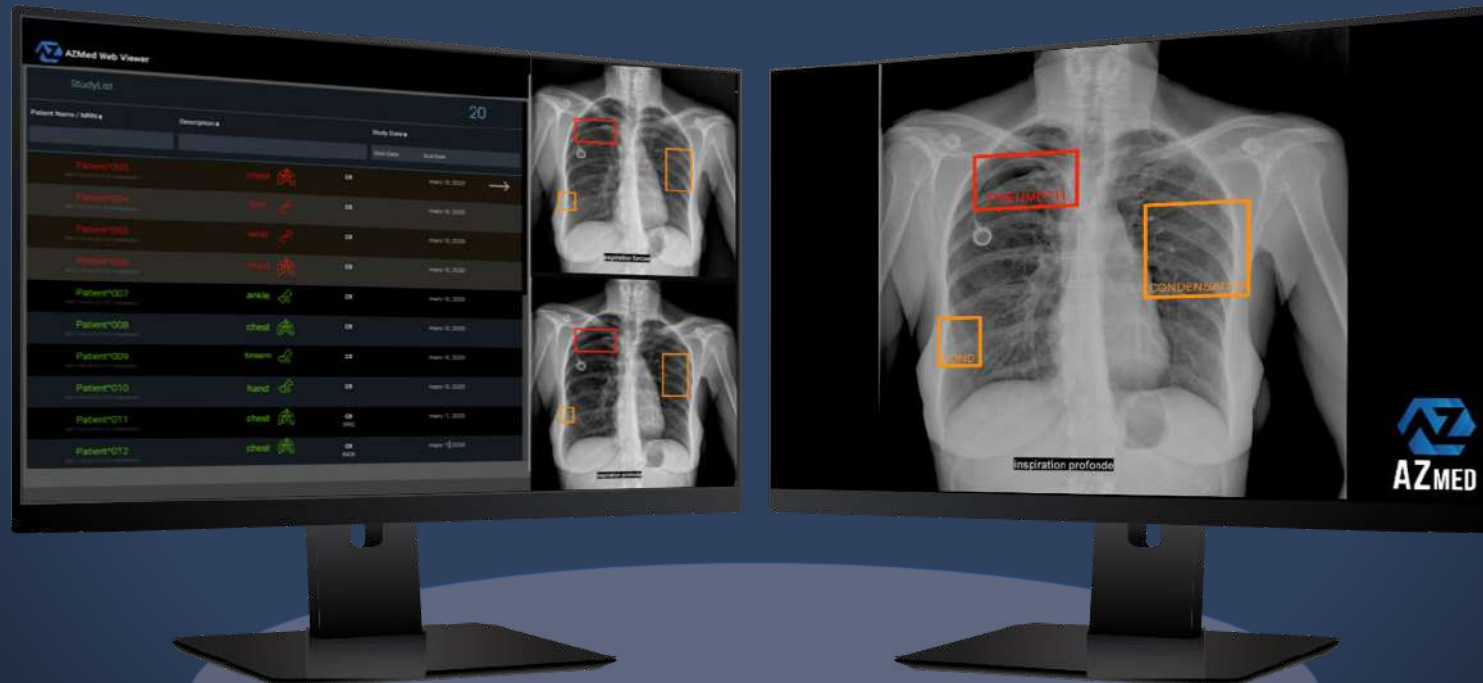
# Rayvolve

## Chest x-rays

### Classification of detected chest pathologies

35,9%

Time saved



+11,5%

Sensitivity / Patient

# Rayvolve

Chest x-rays

## Classification of detected chest pathologies

**35,9%**

Time saved

Consolidation

Pneumothorax

Pleural effusion

Acute Pulmonary Edema

Cardiomegaly

Pulmonary nodules

Costal grill fractures

**+11,5%**

Sensitivity / Patient



42 countries

5 continents

> 1000 partners

