

## **COVID and Chest X-Ray**

DeLaney, Josh Russell and Weinstock

### **CHAPTER SUMMARY:**

Drs. Mike Weinstock and Josh Russell, from Urgent Care RAP, just published a landmark COVID study: CXRs obtained from confirmed and symptomatic COVID-19 patients presenting to the UC were normal in 58.3% of cases, and normal or only mildly abnormal in 89% of patients.

**Tags:** CXR and covid-19, ambulatory CXR, bilateral infiltrates

### **Article Discussed:**

<https://www.jucm.com/documents/jucm-covid-19-studyepub-april-2020.pdf>

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### **MCD:**

Nationwide we are all seeing increasing volumes of patients with potential COVID. The sick patients are easy but the walking wounded and worried well are trickier. Fortunately for most of us (office, UC, ED) the current volumes are manageable so we're not doing strict disaster triage and management.

No clear "standard" approach to these patients

Recent College of Urgent Care Medicine (CUCM) and the American College of Emergency Physicians (ACEP) risk stratified patients based largely on resting and ambulatory sats.

No mention of Chest XRAY

Here with us today to help answer this question we have \_\_\_\_\_

*Chest X-Ray Findings in 636 Ambulatory Patients with COVID-19 Presenting to an Urgent Care Center: A Normal Chest X-Ray Is no Guarantee.*

Before we get into what you guys found, what do we know about how to use CXR in potential COVID patients?

### **MW:**

Background info

### **MCD:**

Walk me through what you guys did?

### **MW:**

Methods

### **MCD:**

What did you find?

### **MW:**

## Results

### **MCD:**

So a negative XR doesn't help us much with potential COVID patients, when you found abnormalities how did this compare to previous studies looking at imaging this group of patients?

### **MW:**

When present, the patterns of abnormal finding were similar to those reported in other series of hospitalized patients with COVID-19 with peripheral, multifocal, and lower lobe involvement and interstitial or ground glass appearance being the most common. Additionally, pleural effusions and lymphadenopathy were relatively rare findings, which is also consistent with existing studies of chest radiography in COVID-19 patients. Interestingly, alveolar disease was only bilateral in 133 (20.9%) of the total 636 CXRs, much less than reported in the CT literature where it is seen in 82% of cases. This may be due to the difficulty of perceiving early ground glass opacities on plain radiography and/or ambulatory patients presenting earlier in the course of illness.

### **MCD:**

It sounds like for most of the patients in this study that CXR was not diagnostic, do you think it is safe and reasonable to leave this out of our workup of potential COVID patients

Josh:

Helpful to look for non-COVID pathology

### **MCD:**

I had two "potential COVIDs" the other week in urgent care who both had spontaneous PTX"

Does this play any role in terms of risk stratifying patients?

### **MW:**

Recently, thoracic imaging consensus guidelines in COVID-19 have been published by the Fleischner Society:

- In patients with mild clinical features, imaging is indicated after a positive viral test if the patient has risk factors for disease progression.
- In a patient with moderate to severe clinical features, imaging is indicated after a positive viral test if the patient is at risk for worsening of pulmonary status.

### **MCD:**

Take home points

### **MW:**

Summary

### **Pearls:**

-Radiographic appearance varies considerably through course of illness and early in illness even less likely to see abnormalities.

-High false negative rate for NP PCR as well.

-Overall, in ambulatory patients who are not high risk, no testing (e.g. no labs, no CXR) is generally safe and recommended by UCA/CUCM & ACEP Joint statement.

-Pulse ox is the only objective data that cannot be ascertained by observation and history so, **let's use telemed as the default for non-high risk patients.**

Here is the link to the full text article:

<https://www.jucm.com/documents/jucm-covid-19-studyepub-april-2020.pdf>