



Point-of-Care Ultrasound in the context of COVID-19.

A story of practical deployment.

A Case Study by:
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“Now in this pandemic state, it’s more important than ever to use POCUS to inform critical decisions – but we must ensure it is done safely.”

Introduction

Many ultrasound users know the benefits of ultrasound as a critical adjunct for medical management of patients during the COVID-19 pandemic.¹ However, now more than ever, it is important to be continually mindful that we don’t turn our beloved hand-held devices into vectors for disease transmission. Here I present a real-life and practical example of how, in my clinical practice, I confidently use my from-the-pocket Butterfly device in many new ways within this pandemic state.

Typical Case Presentation

A 48-year-old female presents with severe respiratory distress. As you don your personal protection equipment (PPE), you wonder if you can bring your handy ultrasound device into the treatment room, which is quite possibly a COVID-19 exposure zone.

Response

This is a scenario in which I always take my Butterfly hand-held ultrasound device into the treatment room, particularly now in the context of the COVID-19 pandemic. In my experience, it helps my hospital keep other workers and larger, more difficult-to-clean devices away. In this example, when I am asked to screen a patient with respiratory symptoms, I perform a cardiac and pulmonary ultrasound to look for any information to help inform differentials, such as pneumothorax from pneumonia. Pulmonary ultrasound can be used to rule out alternative pathologies in patients with respiratory distress.¹ It has also been suggested that it can help prognosticate and observe COVID patients as they progress through their disease state.² Other benefits may be the minimizing exposure to other medical staff members by being able to perform bedside imaging assessment, together with the ease of cleaning a small device. I can avoid exposing our large portable X-ray or X-ray department and technicians to unnecessary risk in patients with undifferentiated respiratory complaints. The other benefit is the ease of cleaning my personal device. With my phone and Butterfly covered with protective equipment, I can simply slip each covering off safely, discard it, and clean my personal devices with ease. While we always want to ensure our ultrasound machines stay clean, it is even more imperative now as we face the COVID pandemic. As we will likely see a rise in community transmission in the coming weeks, it is critical that ultrasound machines taken into patients' rooms with respiratory symptoms be covered and cleaned after use.

Lung ultrasound should not be solely or primarily relied upon for COVID-19 diagnosis or triage. In vitro diagnostic testing is currently the only definitive method to diagnose COVID-19. Rx only (USA). For use by trained healthcare practitioners

References

1. <https://www.ncbi.nlm.nih.gov/pmc/articles/PMC7442567/>
2. <https://www.hindawi.com/journals/criem/2021/8847887/>

The Author

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For more information on cleaning and disinfection of the Butterfly device please visit our COVID-19 resource center, [here](#).