



aium®

Q&A—CUDA+ AIUM: COVID-19 Meets Ultrasound

The following questions were submitted during the COVID-19 digital conference, a collaborative event between the AIUM and CUDA, that took place on April 24, 2020. You can find the record of the conference [here](#). The questions and answers are those presented by the attendees and the presenters. The information and opinions belong to them. Please visit the [AIUM's COVID-19 Resources](#) page for more information.

The presenters did acknowledge that not all questions were answered. They also stated that some of what was presented is from a preliminary exploratory clinical study that includes very few patients. The technical details cannot be published at this time.

Q: 1. Do you limit your exams for only COVID patients?

A: No. We don't limit exams only for COVID patients. We do the necessary ultrasound examinations based on the patient's needs, and the longest examination we did was 4 hours of testing and monitoring.

Q: How do you operate the ultrasound scanner trackball through a protective sheath?

A: Use a large protective film to completely wrap the operation panel of the ultrasound machine, paying careful attention not to wrap it too tightly. If it's too tight the protective film will affect the operation. Of course, in this case, your sense of touch will differ with and without the protective film.

Q: How many patients do you scan per day/room/sonographer?

A: 30-35pt/day/room/one sonographer. I scan 4 to 20 patients a day, depending on the clinical situation and how much each person needs to be examined.

Q: Do you use multi-use gel bottles? Do you refill?

A: No. We don't use multi-use gel bottles. We don't refill, either. We used 20-gram sterile disposable gel bottles.

Q: Do you disinfect thoroughly all of your equipment and the room between patients?

A: We worked in a hospital that specialized in COVID-19 patients in order to reduce the risk of cross-infection between patients. However, doctors who did Echo had a PPE of Grade 3. Ultrasound examinations were performed at the bedside for COVID-19 patients in their wards in Wuhan. Therefore, it was not needed to disinfect the ultrasound equipment once after each exam, but we did disinfect the instruments after each shift. There is one point that needs special attention: most critical COVID-19 patients in the ICU may also have multiple drug-resistant bacterial infections. Therefore, when ultrasound was performed on them, we used a disposable probe cover for each patient and replaced it right after the examination. We do a thorough disinfection during the transfer of the equipment and after the ward is vacated. We routinely disinfect surfaces and hands before and after using the equipment.

Q: Is spraying an aerosolized disinfectant on a surface just as effective wiping down a surface with a disinfectant?

A: We used alcohol- or chlorine-containing sanitizer to disinfect the surface of the instruments and probe lead. Since the alcohol may damage the sound sensitive layer of the probe, it is necessary to wipe the residual alcohol off the probe surface. We then disinfect the ultrasound instrument by ultraviolet irradiation for 1–2 hours.

Q: As a MSK sonologist do I need to use a full PPE suit while performing an ultrasound examination on asymptomatic patients?

A: Yes, definitely you should.

Q: Any Echo follow-up for this patient? (Case 1)

A: Yes, we did follow-up about 4 times, and all the findings were normal.

Q: As a MSK sonologist, is it safe that I use only face shield, N95 mask, and gloves?

A: Even as an MSK sonologist, you may still meet COVID-19 patients. Unless you know the results of CT and SARS-COV-2 anti-body IgM of each patient you care for, you should prepare PPE accordingly. Otherwise, we suggest that besides face shield, N95, and gloves, you should also put on a shield coat at least.