

HARBOR-UCLA MEDICAL CENTER

TITLE: Emergency Department Use of Handheld Ultrasound Machines for the Evaluation of Patients with Suspected SARS-CoV-2/COVID-19 Infection

PURPOSE: To provide guidance for emergency physicians and healthcare providers in the emergency department evaluating patients with suspected or confirmed SARS-CoV-2/COVID-19 infection using a handheld ultrasound machine

DEPARTMENTS: Department of Emergency Medicine (DEM)
Department of Medicine

DATE: April 6, 2020

Background

Patients with SARS-CoV-2/COVID-19 must be evaluated and treated with both contact and droplet precautions and may need airborne precautions as well when undergoing certain procedures or treatments (eg, high flow oxygen, nebulized medications, etc). During the course of evaluation and/or treatment, they may also need point-of-care ultrasound for diagnosis (eg, to evaluate the heart and lungs) or to facilitate treatment (eg, central line placement, endotracheal tube confirmation, etc).

The purpose of this to policy is to facilitate a safe use of point-of-care ultrasound in this specific setting and governs the use of handheld ultrasounds for this specific purpose only.

Policy and Procedure:

1. When point-of-care ultrasound is being done in a room with a permanently mounted ultrasound (eg, trauma rooms 1-7), only that ultrasound machine should be used in order to minimize bringing equipment in and out of the room and to decreased the risk of cross-contamination.
2. When point-of-care ultrasound is done in any other room in the emergency department AND the patient has suspected or confirmed SARS-CoV-2/COVID-19 infection, providers should use a handheld ultrasound machine (eg, the Butterfly iQ in the emergent airway drawer in the Purple Physicians work room) whenever possible to decrease risk of cross-contamination and to optimize infection control.
 - a. The unit must be wiped down with an appropriate germicidal wipe (including Cavi-Wipes and Sani-Cloth Bleach) before use.
 - b. The unit must be covered in a sterile probe cover/sheath.

- c. The unit must be wiped down after use with an appropriate germicidal wipe.
3. If a handheld ultrasound unit is not available, then providers may use the X-port machines observing the following:
 - a. All unnecessary extra parts (eg, gel bottles, glove boxes, extra probes) are removed from the machine BEFORE entering the room.
 - b. Make sure the machine has been wiped down with an appropriate germicidal wipe (including Cavi-Wipes and Sani-Cloth Bleach) before use.
 - c. The screen and as much of the machine as possible have been covered with a plastic drape before use.
 - d. The probe is placed in a sterile probe cover/sheath before entering the room.
 - e. The machine is wiped down from top to bottom including the wheels with an appropriate germicidal wipe for the appropriate wet time after use.
4. The Edge2 machines with knobs and buttons should not be used unless absolutely necessary due to the increased risk of virus colonization in crevices and knob/button angles that are harder to clean. If used, procedures 3a-3e must also be followed.
5. An appropriate ultrasound procedure note must be written for all procedures consistent with existing department policy with an annotation that a handheld ultrasound unit was used for the study.

Approved:


Timothy Jang, MD
Director of Emergency Ultrasound


Yiju Liu, MD
Associate Director of Emergency Ultrasound


Amy Kaji, MD, PhD
Acting Chair, Department of Emergency Medicine