

Clinical updates for diagnostic ultrasound during coronavirus disease (COVID-19) pandemic

June 11 2020



Before entering the patient's room, US equipment (e.g., battery, probe, gel) is inspected to prevent failure during the examination, then covered with disposable plastic; in the room, the two imaging staff are designated nonpatient contact and direct patient contact. Credit: American Journal of Roentgenology (AJR)

An open-access article published in the *American Journal of Roentgenology* (AJR) by radiologists in Singapore recommends a number of applied updates to the workflow of diagnostic ultrasound (US) to prevent nosocomial transmission of coronavirus disease (COVID-19) to frontline US service providers, who could inadvertently become vectors for onward transmission.

According to first author Apoorva Gogna and colleagues at Singapore General Hospital, "inpatient US services are segregated into the tertiary hospital and a colocated community hospital," adding that rooms with negative pressure ventilation are dedicated for isolation case scans. With all inpatient scans vetted for clinical urgency and COVID-19 status, patients not suspected of having COVID-19 arrive at a specified US imaging center via predefined route.

Suspected and confirmed COVID-19 cases, as well as [intensive care patients](#) or those in reverse isolation due to an immunocompromised state, receive portable bedside US by a sonographer and an attending radiologist. "This is in contrast to our regular inpatient portable US workflow in which a trained sonographer performs the scan alone and uploads the images (usually for several patients consecutively), and the images are then sent to a dedicated radiologist for reporting," explained Gogna et al. Acknowledging that throughput is diminished when an on-

duty radiologist and a sonographer work in tandem, Gogna maintains that this sacrifice ensures neither repeat scans nor additional images will be necessary.

Before entering the patient's room, US equipment (e.g., battery, probe, gel) is inspected to prevent failure during the examination, then covered with disposable plastic; in the room, the two imaging staff are designated nonpatient contact and direct patient contact.

To help balance speed and clinical relevance, abbreviated scan protocols are acceptable, although Gogna points out that scanning time may not be significantly shortened. Sick patients may not be able to fully cooperate with the examination, and greater attention must be paid to safeguard against breaks in staff protection.

Meanwhile, outpatient US services at Singapore General Hospital are physically segregated into two locations (general US and subspecialty US), and every outpatient request is vetted and prioritized according to clinical urgency. To prevent [cross contamination](#), inpatients are not allowed to move to the outpatient scan area. Gogna advises simple steps, such as rearranging the seating in outpatient waiting areas, to help US departments reinforce social distancing guidelines.

As of June 2020, all [patients](#) and visitors to Singapore General Hospital are required to wear [face masks](#), and present policy restricts each patient to one accompanying person.

US staff—mostly segregated by location or by time—can be assigned to standby teams to cover any personnel shortage. As Gogna et al. note, "segregating manpower into redundant functional teams allows continued provision of essential services in the unfortunate event of intrahospital transmission that could require coworkers to be quarantined." Because staff segregation "does significantly affect

department workload," the authors of this AJR article suggest reducing elective case listing.

More information: Apoorva Gogna et al, Diagnostic Ultrasound Services During the Coronavirus Disease (COVID-19) Pandemic, *American Journal of Roentgenology* (2020). [DOI: 10.2214/AJR.20.23167](https://doi.org/10.2214/AJR.20.23167)

Provided by American Roentgen Ray Society

Citation: Clinical updates for diagnostic ultrasound during coronavirus disease (COVID-19) pandemic (2020, June 11) retrieved 12 May 2024 from <https://medicalxpress.com/news/2020-06-clinical-diagnostic-ultrasound-coronavirus-disease.html>

This document is subject to copyright. Apart from any fair dealing for the purpose of private study or research, no part may be reproduced without the written permission. The content is provided for information purposes only.