



Radiological Society  
of North America

## Surge Preparedness

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Given the emerging and evolving nature of the situation, many institutions, hospitals and clinics have also established their own local guidelines. We urge you to follow the evolving Centers for Disease Control and Prevention (CDC) recommendations and your local requirements. The information in this document is subject to change as information regarding COVID-19 changes.

### **RSNA COVID-19 Task Force**

Communities and hospitals across the country are either experiencing or soon expecting large surges of patients with COVID-19, which will stretch thin or exhaust hospital resources including hospital beds, personal protective equipment (PPE), and staff and faculty resources. In coordination with their hospitals, radiology departments need to prepare for the expected patient surge.

## COVID-19 Patient Screening

- In the setting of a patient surge, the need for rapid diagnosis and patient triage becomes critical.
  - In regions of the country where PCR testing is limited, imaging can be used to assess severity and aid in triage decisions in patients with moderate to severe respiratory symptoms and to identify any alternative diagnoses. Caution should be used when using imaging as a routine method for diagnosis, as a negative imaging study does not indicate a patient does not have COVID-19.
- Some institutions are turning to point-of-care US for the diagnosis and longitudinal evaluation of COVID-19.
  - Limited potential exposure of health care workers (HCWs) and other patients and more rapid test relative to CT
  - Limited data to support its value at this point

## Rapid Triage Environments

- Hospitals may set up temporary triage environments isolated from the hospital to manage patient surges (**Figure 1**).
  - Radiology can set up imaging to support the temporary triage clinics (**Figure 2**).
    - Portable x-ray equipment dedicated to the clinics
    - Portable or mobile CT units or isolated CT scanners that are easily accessible from the triage clinic
    - Dedicated CT units for COVID-19 patient imaging to reduce patient and HCW exposures
      - Consider using scanners that may not typically perform routine CT imaging (ie, SPECT/CT units) and developing protocols for chest CT and other imaging.
- Establish workflow for advanced imaging studies performed in surge patients who are positive for or suspected of having COVID-19, including contrast-enhanced CT, MRI, and angiography.
  - Combining CT Angiography Chest, CT Abdomen and Pelvis with intravenous contrast material, and CT Thighs with intravenous contrast material can rapidly assess for pulmonary embolism and deep vein thrombosis while sparing the need for an US technologist
- Develop workflows to reduce all patient transportation and congestion considering exposure risk.
  - For inpatients and outpatients, perform urgent imaging and consider delay for non–time-sensitive imaging and procedures.
  - Develop portable imaging and procedure workflows when possible, even for non-COVID patients.

## Redeployment of Radiologists to the Front Lines

- Potential for radiologists (faculty and trainees) to get redeployed to intensive care unit, acute care, and emergency department environments
  - Generation of list of willing and capable radiologists who can be redeployed who are not vulnerable to poor outcomes from COVID-19 infection
  - Survey radiologists on baseline procedural and clinical management skills to maximize effective redeployment

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**Figure 1:** Triage tent at Harborview Medical Center (Seattle, Washington) for rapid evaluation of patients with COVID-19 during the patient surge.



**Figure 2:** In surge preparation, patients will be placed in wheelchairs in the triage tent (not shown), with imaging performed through glass doors.