

WORKFLOW AND WORK PROCESS FOR RADIOLOGICAL EXAMINATION DURING COVID-19 OUTBREAK

1. Mobile X-ray

- Request made manually or online
- The ward staff shall call and inform the radiology personnel of the examination to be performed.
- An appropriate time is determined for the examination to be carried out.

1.1.Registration

All request for radiological exam shall be pre-registered prior to receiving the patient.

1.2.The Radiographer

- The radiographer has to abide by the precautions given in the Infection Prevention and Control measures (**Annex 8**) on the necessary steps to limit COVID-19 transmission.
- Recommended to have just a core number of radiographers trained for this exercise.

1.3.Lead gown

- Clean on both sides (front and back).
- Lead gown to be worn before the radiographers donned the PPE for infection control.

1.4.Mobile x-ray Machine

- Clean the mobile x-ray machine especially the wheels.
- Drape the machine with plastic wrap if available. Alternatively, use non-alcohol germicidal disposable wipes when resources are low.

1.5.X-Ray cassettes

- Clean on both sides (front and back)
- Placed in two layers of disposable plastic bags.

1.6.Anatomical Markers

- Clean on both sides
- Places in two layers of disposable biohazard plastic bags.

1.7.Performing the examination

The radiographer shall be assisted by a ward staff namely a nurse in:

- opening of doors to the cubicles if patient is in cubicle/room
- positioning the patient for the x-ray examination

1.8. Post X-Ray exposure

The radiographers shall be assisted by a ward staff in: -

- Removal of the imaging cassette from under the patient
- Removal of the imaging cassette from the contaminated plastic bags. *(These bags are disposed in the yellow clinical waste bin)*
- Opening of the doors of the cubicle/room if patient is in the cubicle/room.
- This is followed by decontamination of the mobile X-ray machine and the radiographers as per recommendation.

2. Mobile Ultrasound

The hospital authorities shall assign one machine for mobile ultrasound examination purposes.

- The cleaning of the ultrasound machine before and after the procedure and the draping is similar to that of the mobile x-ray machine.
- The ultrasound probes must be cleaned and properly covered with disposable probe covers.
- Alternatively, when resources are low disposable sterile gloves and sterile green paper can be used to cover the probes and wrap the cables.

2.1.Assistance

The Radiologist performing shall be assisted in a similar manner as the radiographer performing the Mobile X-Ray.

2.2.PPE

The radiologist shall take all necessary infection control precaution in accordance to Infection Prevention and Control measures.

3. Special Examinations

The case needs to be discussed with the Radiologist in charge of the modality.

3.1.Scheduling

Cases requiring special examination shall be scheduled at a later part of day preferably after completion of elective list

4. Workflow to the Radiology Department/ Unit

- Wherever possible, access through a separate entrance.
- The ward staff has to wait for the call from radiology staff before sending the patient in order to minimize contact time in Imaging Department.
- The case shall be pre-registered before being called.
- The hospital authorities to recommend the flow of the patient from the ward to the Radiology Department.
- The security guards may be involved to manage the patient flow.
- The radiology personnel shall take all necessary infection control precaution in accordance to Infection Prevention and Control measures.
- The radiology personnel in charge of modality (CT/MRI/IR) shall allow adequate “time off” for disinfection of equipment in between the case.

Radiological Criteria for COVID-19

Suspected case with chest imaging showing findings suggestive of COVID-19 as following will be considered as **probable case** :

A suspect case with chest imaging showing findings suggestive of COVID-19 disease:

- Chest radiography : hazy opacities, often rounded in morphology, with peripheral and lower lung distribution

OR

- Chest CT : multiple bilateral ground glass opacities, often rounded in morphology, with peripheral and lower lung distribution

OR

- Lung Ultrasound : Pleural irregularities, B lines (multifocal, discrete or confluent, consolidative/subpleural consolidation with or without airbronchogram at bilateral/patchy distribution mainly posterior and inferior.