



Handling of histopathology, hematology and cytology specimens of COVID 19 suspected/ positive cases

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IMPORTANT

All specimens collected for
laboratory investigations
should be regarded as
potentially infectious



Transfer of Pathology Specimen from suspicious/ confirmed COVID-19 to the pathology laboratories



- All pathology COVID-19 suspicious/confirmed specimens must be labeled clearly.
- transferred into formalin-filled, properly sealed designated pathology containers with adequate amount of formalin to be added to cover the tissue in the container.





Formalin fixation time

- Change the formalin in the container
- Let it fix for 24 hrs
- Then gross and process it
- The Corona virus gets fixed in 24 hrs with formaldehyde and 48 hrs in glutaraldehyde





Transfer of Pathology Specimen from suspicious/ confirmed COVID-19 to the pathology laboratories



- All pathology specimens must be further placed in a secondary container to minimize the potential for breakage or a spill.
 - Small containers are placed in larger secondary containers.
 - All these containers then shall be put in a large plastic box-with biohazard label (COVID-19).

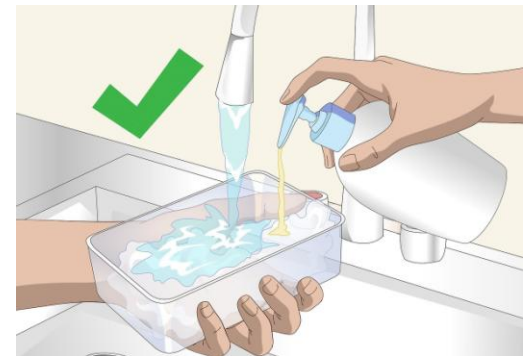




Handling fresh pathology specimen of COVID-19 in pathology laboratories



- Frozen section procedures must not be performed on any specimen from patient with suspected/ confirmed COVID-19 infection
- All fresh or partially fixed specimens must be handled under biosafety cabinet level II
- External surfaces of specimen containers must be decontaminated using a disinfectant (70% alcohol, 0.1% hypochlorite)
- The fresh or partially fixed specimens must be handled, open if needed and transferred to another formalin filled container for further fixation in order to be grossed as formalin- fixed routine cases.





Handling formalin fixed pathology specimens of COVID-19



- *Follow Standard Precautions* when handling clinical specimens
 - Standard Precautions include hand hygiene and the use of personal protective equipment (PPE), such as disposable gowns, gloves, and eye protection.
- Precautions and *disinfection of the external surface* of the specimens' containers prior to touch and open them must be taken using the appropriate disinfecting reagents.
- Pathologist /technicians must ensure *proper fixation* of the specimens prior handling them.



Handling cytology & hematology specimens of COVID-19

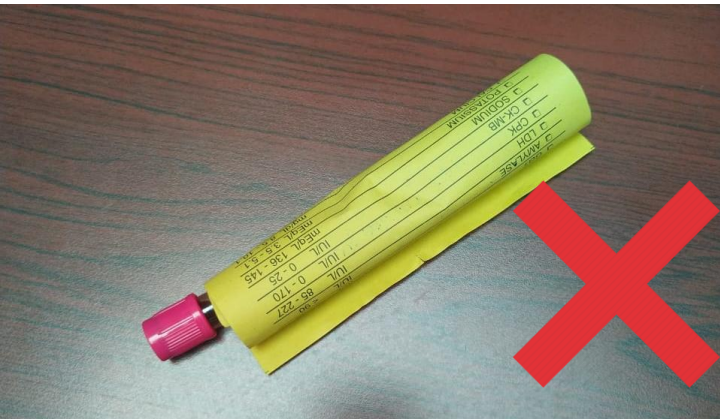


- Cytotechnicians & hematology technicians processing fresh cytology / hematology samples must wear appropriate personal protective equipment (PPE) (i.e., eye protection, N95 mask, a long-sleeved gown, gloves)
- All manipulations of potentially infectious materials, including those that may cause splashes, droplets, or aerosols of infectious materials (e.g. loading and unloading of sealed centrifuge cups, blending, vigorous shaking, vortexing or mixing) however, should be performed by trained personnel with demonstrated capability.
- CENTRIFUGING OF CYTOLOCAL & HEMATOLOGICAL SPECIMEN SHALL NOT BE DONE





DO'S AND DON'T'S FOR WARD STAFF WHILE TRANSFERING SAMPLES



Do not send blood/serum/cytology/ pathology samples rolled up in the forms



This is a secondary plastic container where all Corona +ve / suspected samples shall be sent
These boxes are avbl in AFMC Path Dept



PPE instruction for pathology lab personnel



- Laboratory staff must wear personal protective equipment (PPE) when conducting work in the laboratory. PPE must be removed on leaving the laboratory and hygiene practices including hand washing must be rigorously maintained.
- PPE must include disposable gloves and a laboratory coat or gown as a minimum, and may also include eye protection and other equipment, as identified by risk assessment.





Work area and equipment disinfection



- Irrespective of the containment level, work surfaces and equipment must be decontaminated after specimens have been processed.
- Pay attention to all surfaces that may have come into contact with specimens or specimen containers.
- Use a disinfectant solution with proven activity against enveloped RNA viruses including sodium hypochlorite (bleach) (e.g. 1,000 ppm (0.1%) for general surface disinfection and 10,000 ppm (1%) for disinfection of blood spills)
- Contact time -30 minutes





Waste management



- Infectious material to be disposed in a separate yellow bag labeled COVID





References

- *CDC interim laboratory biosafety guidelines for handling and processing specimens associated with corona virus*
- *WHO- Laboratory biosafety guidance related to the novel coronavirus (2019-nCoV)*
- *Guidance COVID-19: safe handling and processing for samples in laboratories. Public health England*