

Cautions of working with Covid-19

Zhihu Jiang

University in Shanghai, China

From the last 2 years the world is facing one of the greatest pandemic diseases that is the non- other than Covid-19, which has not only affected the health of the individuals but also have led to the greater damage to the most of the country's economy. The one of its major reasons to spread from one person to other is due to the pathway it has acquired for its transmission is through the water droplets released by the normal breathing of the humans, and thus, had its way to affect the large number of population. Henceforth, major precautions have to be taken in account while dealing with the corona virus as well as with the covid patients.

Each risk mitigation plan must be supported the potential biological hazards unique to the activity and therefore the activity's environment which are as follows:

- The procedures performed
- The hazards involved in the process/procedures
- The competency level of personnel performing the procedures
- The facility and its laboratory equipment
- The resources available

Risk assessments begin with defining the risks related to the hazard. SARS-CoV-2 is believed to be transmitted through exposure of the mucosa like the eyes, nose, and mouth with:

- Infectious respiratory droplets
- Direct contact with infected body fluids
- Exposure to contaminated fomites (e.g., contaminated PPE or used tissue paper)

Once the hazards are identified, it is followed by the preparing of the pyramidal representation of the levels of risks involved by performing different experimental activities comprising of the collection of the specimen, followed by the

Low-risk procedures not anticipated to supply infectious droplets or aerosols include receiving potentially infectious specimens and performing microscope-based assessments of fixed slides. These could also be performed during a grade 2 (BSL-2) laboratories as long as standard precautions are taken when handling clinical specimens (e.g., proper hand washing practices and therefore the use of appropriate PPE).

Taking March 31, 2020 to May 16, 2020 as the third phase, the SEIQLR model is established. According to the data on March 31, the official released information for asymptomatic people for the first time.

Therefore, we also consider asymptomatic infections, that is, we select the daily number of confirmed diagnoses, cumulative deaths, cumulative cures, centralized isolation, suspected number, and daily number of asymptomatic infections.

transport it to the laboratory and finally the waste treatment and disposal of the specimens. Thus, following to be considered:

Experiments with the mild to moderate potentials produces droplets and aerosols for its transmission can be performed with the acquired environment such as the working it in the enclosed laboratories, henceforth separated from rest of the rooms and also needs to be isolated from the rest of the neighboring rooms. The equipment's required for the practice should be always allocated in the same respective rooms and should be accessible to the necessary staffs involved with the desired research work. There should be availability of the inward airflow that should be keep exhausted directly out of the laboratory without any hindrance these kinds of experiments should be taken place within the laminar flow that should be having the vertical inwards airflow that is towards the inner walls of the laminar flow so as to avoid the circulation of the poisonous air with the air within the lab.

The shipping of the infectious samples needs to be done in very restricted way so that it could be minimized the rate of its spreading among the individuals handing it. There should be a air tight container with the required substance as to maintain the integrity of the collected specimens till it is reached to its allocated destination. The individuals involved in the transportation should be kept under check for any of the symptoms shown in them, so that respective regulatory precautions could be taken to eradicate the spreading of the diseases among the community.

The wiping of the surface with the aerosols as soon as is it pour over the infectious spill is not going to degrade its integrity, for its complete degradation the aerosol added to the infectious spill, time should be given for the aerosol to make its effect on the spill. Meanwhile the individuals involved in the research work

Should leave the laboratory with the switching on the ultraviolet lights of the laminar for giving it the adequate amount of the time for the destruction of the microorganism present in the fallen spill as per disposing the infectious waste.

The initial risk assessment helps in determining the appropriate risk mitigation measures for coronavirus research at the performing location. Biosafety practices must be customized to the proposed research also because the existing facility and native regulatory requirements. Proper biosafety measures are critical to conducting safe, high-quality research during this uncertain time.

*Corresponding Author: Zhihu Jiang, University in Shanghai, China. E-mail: jiang582@zhihu.cn

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