What biosafety level applies to activities that require handling of clinical specimens from human subjects known or suspected to be actively infected with COVID-19?

In short, biologically-inactivated specimens can be handled at BSL-2 but those that are collected directly from the patient in the absence of an inactivating media need to be handled in a way that aerosols are further contained until an inactivation step is carried out. See the VEHS website links below to read the full documents.

Biosafety & Biocontainment Action Grid: COVID-19/SARS-CoV-2 Risk Materials
Considerations for Handling Potential SARS-CoV-2 Samples

What biological inactivation methods are effective for inactivating SARS-CoV-2?

There are several techniques documented in the literature, and the responsibility of performing effective inactivation and providing documentation of that process lies with the party who originally obtained the viable biological sample. The Institutional Biosafety Committee (IBC) recently endorsed a document that includes the commonly used inactivation techniques. This document also outlines the expectations for researchers when inactivating and transferring samples. Visit the link below for more details.

Biological Inactivation of COVID-19/SARS-CoV-2 Specimens for Handling Under BSL-2 Containment

My core will be receiving biologically inactivated COVID-19 specimens from researchers. Does this activity need to be approved by the IBC, or is documentation that the specimens are inactivated all that’s needed?

Work with inactivated specimens needs to be carried out under BSL-2 conditions. If your lab is not currently on record with the IBC and approved for BSL-2 activities, an IBC registration will be needed if your team will handle samples. You can start the registration process by completing a VEHS Biosafety Intake Form for COVID-19/SARS-CoV-2 Materials. This form is available as a fillable word document at this link. VEHS Biosafety will then work with you to collect additional information needed for an IBC registration and determine the need for additional training, safety equipment and procedures.

My core does not plan to specifically receive specimens collected from actively infected COVID-19 patients, but we do receive and handle human clinical specimens such as blood and urine as part of our service. Should we be taking additional safety measures regardless?

Whenever possible, additional measures should be taken, especially if the samples in question have been collected in the last 6 months. While blood is considered low risk based on research studies thus far, federal and international guidance do not exclude blood from the list of body fluids that should be handled at BSL-2 under enhanced containment practices at this time. Below is the link to the document that explains what these practices include. Please bear in mind that all labs are configured differently and not all elements of this document will apply to all scenarios. VEHS Biosafety will be happy to assist you in assessing your current operation and determining additional biosafety measures that can alleviate risk.


What measures should equipment cores take relative to COVID-19/SARS-CoV-2 research support requests?

To help protect all and ensure all biocontainment measures are in place, collect information from the end user at the time of equipment reservation. Ask specifically if the materials being brought into the core will include potential COVID-19/SARS-CoV-2 materials. If possible, make the reservation contingent upon confirmation from VEHS Biosafety that the materials and activities are IBC-approved. (While the current COVID-19/SARS-CoV-2 Intake form includes fields for entries about core-related activities, it is possible that end users may have acquired materials that are not on record with the IBC.)