



# ABSA INTERNATIONAL

*The Association for Biosafety and Biosecurity*

1200 Allanson Road • Mundelein, IL 60060-3808 • 866-425-1385 • Fax: 847-566-4580 • E-mail: [info@absa.org](mailto:info@absa.org) • Web Site: [www.absa.org](http://www.absa.org)

## SARS-CoV-2 Sample Type Risk Assessment

Sample types	Potential hazards	Engineering controls	Administrative controls	PPE	Additional controls/processes
<b>Point of Care sample collection</b>	-Droplet -Fomites -Aerosol	-Negative air flow, if available -Dispersal if outside collection	-Standard precautions -Biohazardous waste -Agent-specific training -Disinfection SOP -Doffing SOP	-Solid front gown, -Single gloves, -Eye protection plus face shield (if available), -Respirator (or mucosal protection if a respirator is not available)	-Hand hygiene
<b>Swabs (collection)</b>	-Droplet -Fomites -Aerosol	Negative air flow, if available	-Standard precautions -Biohazardous waste -Agent-specific training -Disinfection SOP -Doffing SOP	-Solid front gown, -Single gloves, -Eye protection plus face shield (if available), -Respirator or mucosal protection (if a respirator is not available)	-placed in a transport tube containing either viral transport medium, Amies transport medium, or sterile saline <sup>3</sup> -Hand hygiene
<b>Processing blood, plasma/serum (convalescent, confirmed negative)</b>	-Droplet -Fomites -Aerosol	-Negative air flow (BSC preferred) -Centrifuge cup & lid or sealed rotor	-Universal precautions -Biohazardous waste -SARS-CoV-2 -specific training -Disinfection SOP -Doffing SOP -BSL-2 proficiency documented -Bloodborne Pathogen training	-Solid front gown, -Single gloves, -Eye protection, -Respirator or mucosal protection (if a respirator is not available)	-Hand hygiene

Sample types	Potential hazards	Engineering controls	Administrative controls	PPE	Additional controls/processes
<b>Processing Blood (suspected or confirmed SARS-CoV-2)</b>	-Droplet -Fomites -Aerosol	-Negative air flow -BSC -Centrifuge cup & lid or sealed rotor	-Universal precautions -Biohazardous waste -Disinfection SOP -Doffing SOP -SARS-CoV-2 specific training -BSL-2 proficiency documented -Bloodborne Pathogen training	-Solid front gown (not cloth), -Eye protection -Mucosal protection -Face shield (if risk for splash) -Double gloves	-Cytometry has Aerosol control features and/or specimens are inactivated -If BSC not available, work behind a splash shield -Hand hygiene -Specimens, cultures, or isolates should be packaged and shipped as UN 3373 Biological Substance, Category B
<b>Processing swab (suspected or confirmed SARS-CoV-2)</b>	-Droplet -Fomites -Aerosol	-Negative air flow -BSC -Centrifuge cup & lid or sealed rotor	-Universal precautions -Biohazardous waste -Disinfection SOP -Doffing SOP -SARS-CoV-2 -specific training -BSL-2 proficiency documented	-Solid front gown (not cloth), -Eye protection -Mucosal protection -Face shield (if risk for splash) -Double gloves	-Hand hygiene -Specimens, cultures, or isolates should be packaged and shipped as UN 3373 Biological Substance, Category B
<b>Urine (suspected or confirmed SARS-CoV-2)</b>	-Droplet -Fomites -Aerosol	-Negative air flow -BSC (if available) -Centrifuge cup & lid (recommended)	-Universal precautions -Biohazardous waste -Disinfection SOP -Doffing SOP -SARS-CoV-2 -specific training -BSL-2 proficiency documented	-Solid front gown (not cloth), -Eye protection -Mucosal protection -Face shield (if risk for splash) -Double gloves	-Hand hygiene -Specimens, cultures, or isolates should be packaged and shipped as UN 3373 Biological Substance, Category B

Sample types	Potential hazards	Engineering controls	Administrative controls	PPE	Additional controls/processes
<b>Stool (suspected or confirmed SARS-CoV-2)</b>	-Droplet -Fomites -Aerosol	-BSC -Negative air flow -Centrifuge cup & lid (recommended)	-Universal precautions -Biohazardous waste -Disinfection SOP -Doffing SOP - SARS-CoV-2 -specific training -BSL-2 proficiency documented	--Solid front gown (not cloth), -Eye protection -Respirator or mucosal protection (if a respirator is not available) -Face shield (if risk for splash) -Double gloves	-Hand hygiene -Specimens, cultures, or isolates should be packaged and shipped as UN 3373 Biological Substance, Category B
<b>Lower Respiratory samples</b>	-Droplet -Fomites -Aerosol	-BSC -Negative air flow -Centrifuge cup & lid or sealed rotor	-Universal precautions -Biohazardous waste -Disinfection SOP -Doffing SOP - SARS-CoV-2 -specific training -BSL-2 proficiency documented	--Solid front gown (not cloth), -Eye protection -Respirator or mucosal protection (if a respirator is not available) -Face shield (if risk for splash) -Double gloves	-Hand hygiene -Specimens, cultures, or isolates should be packaged and shipped as UN 3373 Biological Substance, Category B
<b>Higher Respiratory samples</b>	-Droplet -Fomites -Aerosol	-BSC -Negative air flow -Centrifuge cup & lid or sealed rotor	-Universal precautions -Biohazardous waste -Disinfection SOP -Doffing SOP - SARS-CoV-2 -specific training -BSL-2 proficiency documented	--Solid front gown (not cloth), -Eye protection -Respirator or mucosal protection (if a respirator is not available) -Face shield (if risk for splash) -Double gloves	-Hand hygiene -Specimens, cultures, or isolates should be packaged and shipped as UN 3373 Biological Substance, Category B

Sample types	Potential hazards	Engineering controls	Administrative controls	PPE	Additional controls/processes
<b>Environmental samples (wastewater/sewage)</b>	-Higher concentration of virus -Droplet -Fomites -Aerosol	-BSC -Negative air flow -Centrifuge cup & lid or sealed rotor (recommended)	-Universal precautions -Biohazardous waste -Disinfection SOP -Doffing SOP - SARS-CoV-2 -specific training -BSL-2 proficiency documented	--Solid front gown (not cloth), -Eye protection -Respirator or mucosal protection (if a respirator is not available) -Face shield (if risk for splash) -Double gloves	-Hand hygiene -Precipitation; membrane filtration <sup>1</sup>
<b>Environmental samples (Surface sampling)</b>	-Droplet -Fomites -Aerosol	-Negative air flow -Centrifuge cup & lid or sealed rotor (recommended)	-Universal precautions -Biohazardous waste -Disinfection SOP -Doffing SOP - SARS-CoV-2 -specific training -BSL-2 proficiency documented	--Solid front gown (not cloth), -Eye protection -Mucosal protection -Face shield (if risk for splash) -Double gloves	-Hand hygiene

1. <https://www.cdc.gov/coronavirus/2019-nCoV/lab/lab-biosafety-guidelines.html#testing>
2. <https://www.cdc.gov/coronavirus/2019-ncov/php/water.html>
3. <https://www.cdc.gov/coronavirus/2019-nCoV/lab/guidelines-clinical-specimens.html>