**LAB ALERT #4: SARS-CoV-2 TESTING UPDATES (3/11/20)**

On March 10, 2020, the South Dakota Department of Health (SDDOH) reported its first five cases of COVID-19. These cases were identified using the CDC SARS-CoV-2 RT-PCR assay offered by the South Dakota Public Health Laboratory (SDPHL). SDPHL will continue work with clinical partners throughout the state to ensure access to SARS-CoV-2 testing for individuals identified as a [person under investigation](https://doh.sd.gov/news/Coronavirus.aspx) (PUI) for COVID-19. The following are updates to SDPHL SARS-CoV-2 testing guidelines.

**Preferred Specimens:**

* Upper respiratory specimens: 1 (one) nasopharyngeal swab and 1 (one) oropharyngeal swab should be collected and placed in a single tube of viral transport medium. NOTE: swab specimens should be collected in duplicate if respiratory panel AND SARS-CoV-2 testing is required (see below for more information about testing).
	+ Nasopharyngeal swab: swab both sides of the nasopharynx with a single swab.
	+ Oropharyngeal swab: swab the oropharynx and avoid the tongue.
	+ Swab specimens should be collected using swabs with a synthetic tip (such as polyester or Dacron®) with aluminum or plastic shafts.
	+ Swabs with calcium alginate or cotton tips with wooden shafts are not acceptable.
* Lower respiratory specimen: sputum is acceptable but only if the patient is producing; do not induce.

**Specimen Collection Kits:**

* Collection kits include four flocked swabs, two vials of viral transport medium, and one sterile sputum cup.
* Limited collection supplies are available upon request from SDPHL.

**Specimen Handling and Storage:**

* Specimens can be stored at 4oC for up to 72 hours after collection.
* If a delay in shipping longer than 72 hours is anticipated, store specimens at -70oC.

**Packaging and Shipping**:

* Specimens for SARS-CoV-2 testing should be shipped to the SDPHL on ice packs (4-8oC) as a Category B biological substance.
* Limited packaging and shipping supplies are available from the SDPHL.
* Specimens can be shipped using the SDPHL courier service; the courier can be reached at 877-434-9366.
* Please note, the courier is currently operating on a normal schedule with additional “on-demand” stops as needed.

**Specimen Rejection criteria:**

* Specimens not kept at 2-4°C (≤4 days) or frozen at -70°C or below.
* Incomplete specimen labeling or documentation.
* Inappropriate specimen type.
* Insufficient specimen volume.
* Dry swabs.

**Testing for Common Respiratory Pathogens:**

* COVID-19 PUIs must be tested for common respiratory pathogens such as influenza and RSV, both of which are circulating in South Dakota at the time of this LAB ALERT.
* SDPHL offers the Respiratory Pathogens Panel (RPP) for facilities with limited testing capabilities.
* There is no charge for this testing.

**SARS-CoV-2 Testing and Results**

* SARS-CoV-2 testing will be performed at the SDPHL using the CDC RT-PCR assay.
* Possible results of the SARS-CoV-2 test are as follows:
	+ Presumptive Positive (Presumptive Positive results will be confirmed at CDC)
	+ Negative
	+ Inconclusive (Inconclusive results may require specimen recollection)
	+ Invalid (Invalid results may require specimen recollection)
* There is no charge for this testing.

**Testing Schedule**

* SDPHL is currently performing RPP and SARS-CoV-2 testing Monday through Friday, 8am-5pm.
* Specimens must be received by 12:00pm for same-day SARS-CoV-2 testing.
* Weekend testing will be considered on a case-by-case basis.
* Current turn-around time for RPP and SARS-CoV-2 testing is same-day but this is subject to change.

**Result Reporting**

* Submitting laboratories will receive phone notification of all “Presumptive Positive” SARS-CoV-2 results.
* Official reports will be faxed to submitting laboratories if the laboratory has a Secure Fax Agreement on file with the SDPHL.
* Laboratories that do not have a Secure Fax Agreement with the SDPHL will receive official reports through the US Postal Service.

For any questions regarding the information provided in this LAB ALERT, contact the South Dakota Public Health Laboratory at 605-773-3368.

Please distribute this LAB ALERT to others in your facility that may need this information.