

Alaska Section of Epidemiology (SOE) Guidance for Coronavirus Disease 2019 (COVID-19) Testing in Alaska

December 7, 2020

Key Points

- Providers must report laboratory-confirmed cases of COVID-19 to SOE via fax using the [standard Infectious Disease report form](#) or via electronic means. **As of November 1, the reporting hotline was discontinued.**
- SOE staff can be reached for consultation at **907-269-8000** or **800-478-0084** (after-hours).
- The [Alaska State Public Health Laboratories](#) in Anchorage (ASPHL) and Fairbanks (ASVL) are running specimens 7 days a week at both facilities. STAT testing is generally not being offered. See [Laboratory Test Directory](#) (page 23); specimens must be submitted with a [COVID Test Request form](#).
- Anyone with symptoms who is being tested for COVID-19 should be informed to act as if they have COVID-19 until a result comes back. SOE guidance on what outpatients should do if they have COVID-19 or if a COVID-19 test is pending is available [here](#).
- CDC guidance for discontinuation of home isolation for persons with COVID-19 is available [here](#).

Test Anybody in Alaska Who Is Experiencing Symptoms of COVID-19

- Symptoms of COVID-19 may include any of the following: fever, cough, shortness of breath, difficulty breathing, chills, decreased appetite, diminished sense of taste or smell, diarrhea, fatigue, headache, muscle/joint aches, nausea, rash, rigors, runny nose, sore throat, or sputum production.
- Positive test results that occur within 3 months of each other are not generally considered a second infection. However, a positive test in a prior case with onset of *new* symptoms should not necessarily be ruled out as a residual infection. Consult with SOE regarding the possibility for second cases.

Targeted Testing for Asymptomatic Persons

- [In Accordance with State Health Orders](#) or as required per local communities:
 - Upon admission to a health care facility
 - Patients who may be at higher risk of spreading COVID-19, including those who require aerosolizing procedures such as suctioning, intubation, or breathing treatments or delivery
 - Patients at higher risk for complication associated with intubation if COVID positive
- Other settings where asymptomatic testing may be considered:
 - [All close contacts of confirmed COVID-19 patients](#)
 - Health care workers in hospitals and congregate living settings
 - Residents in congregate living settings (see [DHSS guidance](#) for specific groups)
 - Other high-consequence settings (e.g., people coming into remote communities from areas where COVID-19 is circulating)
 - People involved in discrete outbreaks (in consultation with public health)
 - Other patients who may be at increased risk for infection, per the discretion of a clinician
- Asymptomatic persons who have had a positive test in the past 90 days should NOT be re-tested.
- During quarantine: while a 14-day quarantine period is still the safest quarantine duration, based on emerging science, [CDC has issued updated guidance](#) to provide two acceptable alternatives to shorten the quarantine period (Table). The first of these two options requires a test, and should only be offered if sufficient testing resources are available.

Table. Options to reduce quarantine period for close contacts.

	Option 1	Option 2
	7-day Quarantine + Test	10-day Quarantine
What type of test is required and when should it be obtained?	Molecular or antigen; specimen must be collected <48 hours before the time of planned quarantine discontinuation	No Test Required
Can quarantine be further shortened with a negative test result?	No	No
When is the earliest that a person can be released from quarantine and go back to work or school?	8 days after exposure with a negative test result	11 days after exposure
What should patients do if they haven't gotten their test result back before the time of planned quarantine discontinuation?	Remain in quarantine until they get a negative test result or 10 days have passed, whichever is earlier	No Test Required
Estimated residual post-quarantine transmission risk	5% (upper limit: 12%)	1% (upper limit: 10%)
What added precautions should people take after being released from quarantine under option 1 or 2?	Take extra precautions until 14 days after exposure: watch for symptoms, wear a mask when in public areas, avoid crowds, maintain 6-foot distance from others, wash hands frequently, avoid any contact with high-risk persons, discuss with employer whether it is safe to return to work.	

Notes:

1. *The above options are only for contacts who have remained asymptomatic for the entire duration of their quarantine. Anyone who develops symptoms within 14 days of an exposure (regardless of whether or not they remain in quarantine) should immediately self-isolate and seek testing.*
2. *Persons can continue to be quarantined for 14 days per existing CDC recommendations; this option maximally reduces the risk of post-quarantine transmission and is the strategy with the greatest collective experience at present.*
3. *Due to the added risk of transmission associated with reduced quarantine periods, a full 14-day quarantine period is recommended for persons in certain high-risk settings, such as long-term care facility residents and correctional facility inmates. Administrators of such facilities should also consider excluding staff from work for 14 days after exposure, if operationally feasible.*
4. *[CDC guidance for health care workers](#) who are close contacts has not changed from the standard 14-day quarantine.*
5. *Local community leadership (e.g., city mayor or Incident Command) may decide to continue a 14-day quarantine for residents of their communities, based on local conditions and needs. Prior to making this decision, community leadership should reach out to the Alaska Section of Public Health Nursing or the Section of Epidemiology to assure unified coordination.*

Guidance for Facilities with Their Own COVID-19 Molecular Laboratory Testing Capacity

- Providers must report laboratory-confirmed cases of COVID-19 to SOE via fax using the [standard Infectious Disease report form](#) or via electronic means.
 - As of November 1, the reporting hotline was discontinued.
 - All results (i.e., positive, negative, indeterminate, etc.) must be reported via either integration into existing electronic laboratory reporting (ELR) data feeds, submission of a standard format CSV via SFTP, or fax (907-563-7868). Please email Megan Tompkins (megan.tompkins@alaska.gov) at SOE to inform us about how your facility will report.

- If your facility is performing validation, contact ASPHL at 907-334-2100 to request a small panel of samples for verification purposes.
- Send all *positive* specimens as Category B samples to ASVL in Fairbanks for whole genome sequencing, per shipping instructions available [here](#).
 - Positives can be batched and submitted once per week.
 - This does not require a re-collection; ASVL will sequence from the original specimen.
 - Providers are not required to re-collect specimens from patients testing positive on the Abbott ID NOW, Cue, or antigen tests for the purposes of sequencing.
- On September 17, 2020, FDA issued an [amendment](#) for the Abbott ID NOW COVID-19 assay and its [Instructions for Use](#). Changes include:
 - The assay is intended for detection from individuals within the first 7 days of symptom onset.
 - For best performance, it is highly recommended the test swab is placed in a clean, unused tube, capped tightly, and stored at room temperature for up to 1 hour prior to testing. If greater than a 1-hour delay occurs, dispose of sample and re-test the individual.
 - Negative results should be treated as presumptive and, if inconsistent with clinical signs and symptoms or necessary for patient management, patients should be re-swabbed and tested with a higher sensitivity molecular test (e.g., RT-PCR or Cepheid).
 - Positive results from symptomatic individuals obtained by the provider do not need to be confirmed by the ASPHL or ASVL. If they want to confirm for some reason, they must collect a new specimen in the appropriate transport media and send to ASPHL or ASVL.

Specimen Type and Priority (based on [CDC Guidance](#))

- FDA guidance on swabs and specimen transport media is available [here](#).
- Please refer to the Table below to determine the appropriate swabs to use for testing.

Swab Type	NP	OP	Mid-turbinate	Nasal
Nasopharyngeal swab with tips made of polyester, rayon, or flocked nylon	Yes	Yes	Yes	Yes
Flocked tapered swab	No	No	Yes	Yes
Flocked or spun polyester swab	No	No	Yes	Yes
3D printed swabs	Yes	Yes	Yes	Yes
Cotton	No	No	No	No
Calcium alginate	No	No	No	No
Wood or metal (non-aluminum) shaft	No	No	No	No
Aluminum shaft	Yes	Yes	Yes	Yes

- All swabs should be placed in a transport tube containing either viral/universal transport medium, Amies transport medium, sterile RNase-free saline or phosphate buffered saline (PBS).
- NOTE: Swab samples for testing on the Abbott ID NOW instrument should be placed directly into the instrument for testing. They should not be placed in any other media as this can reduce the sensitivity of the test through dilution, which can potentially lead to false negative result.
- An NP collection guidance video is available [here](#). A self-collection guidance video is available [here](#).
- Testing may be performed on lower respiratory tract specimens, if available.
 - For patients who develop a productive cough, sputum should be collected and tested for SARS-CoV-2. The induction of sputum is not recommended.
 - When it is clinically indicated (e.g., those receiving invasive mechanical ventilation), a lower respiratory tract aspirate or bronchoalveolar lavage sample should be collected and tested as a lower respiratory tract specimen.
- Maintain [proper infection control](#) when collecting specimens. See [Biosafety FAQs](#) for handling and processing specimens from suspected case patients.

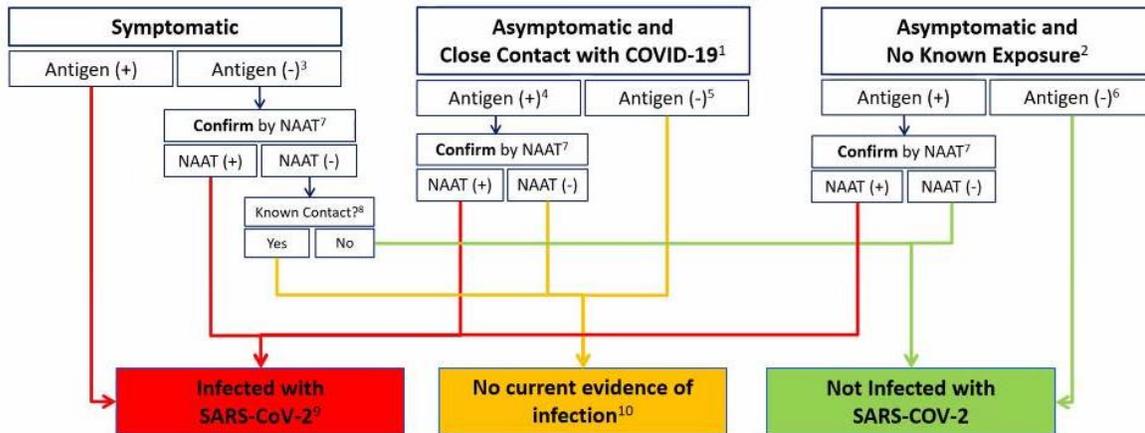
Molecular Diagnostic Testing Accuracy

- The accuracy of SARS-CoV-2 molecular diagnostic tests have not been systematically evaluated.
- Their specificity is generally considered to be excellent (>99%).
- Their sensitivity is variable; reported false-negative rates have ranged from <5% to >30%.
- Sensitivity depends on the type and quality of the specimen obtained, when the patient was tested during the course of their infection, the technical ability of the person performing the test, and the performance characteristics of the specific assay.

Antigen Testing

- On December 5, CDC released the following antigen testing algorithm in their [Interim Guidance for Antigen Testing for SARS-CoV-2](#):

Antigen Testing Algorithm



Technical Notes

1. Single, multiple, or continuous known exposure to a person with COVID-19 within the last 14 days; perform NAAT first if short turnaround time is available, if person cannot be effectively and safely quarantined, or if there are barriers to possible confirmatory testing
2. No known exposure to a person with COVID-19 within the last 14 days
3. If a symptomatic person has a low likelihood of SARS-CoV-2 infection, clinical discretion should determine if this negative antigen test result requires confirmatory testing
4. In instances of higher pretest probability, such as high incidence of infection in the community, clinical discretion should determine if this positive antigen result requires confirmation
5. In certain settings, serial antigen testing could be considered for those with a negative antigen test result; serial testing may not require confirmation of negative results
6. If prevalence of infection is not low in the community, clinical discretion should consider whether this negative antigen result requires confirmation
7. Nucleic acid amplification test; confirm within 48 hours using a NAAT, such as RT-PCR, that has been evaluated against FDA's reference panel for analytical sensitivity
8. Known exposure to a person with COVID-19 within the last 14 days; if unsure, clinical discretion should determine whether isolation is necessary
9. Isolation is necessary for at least 10 days since symptom onset or positive test result, and at least 24 hours with no fever without fever-reducing medication
10. Infection control measures are necessary for 14 days after last known exposure to a person with COVID-19; clinical discretion should determine if and when additional testing is necessary

- Tests that identify SARS-CoV-2 antigen are on the market and the [FDA has issued emergency use authorizations](#) for some of these tests.
- The main advantages of these tests are that they are point-of-care with quick results and have high specificity. The main disadvantage is they are typically less sensitive than molecular diagnostic tests.
- As with molecular testing, providers must report laboratory-confirmed cases of COVID-19 to SOE via fax using the [standard Infectious Disease report form](#) or via electronic means.
- In addition, all results (i.e., positive, negative, indeterminate, etc.) must be reported via either integration into existing electronic laboratory reporting (ELR) data feeds, submission of a standard format csv via SFTP, or fax (907-563-7868). Please email Megan Tompkins (megan.tompkins@alaska.gov) to inform us about how your facility will report.
- On August 5, [CSTE updated the case definition for COVID-19](#). Cases with positive results via antigen testing are now classified as “probable.” The public health response (i.e., case investigation and contact tracing) is the same for these cases as for “confirmed” cases (i.e., those with positive results via molecular testing methods).

Guidance on Serologic Testing

- Please read the Infectious Diseases Society of America (IDSA) Guidelines on the Diagnosis of COVID-19 regarding serologic testing [here](#).
- CDC’s webpage for COVID-19 Serology Surveillance is available [here](#).
- At this time, serological tests should not be used as an alternative to molecular detection tests for the diagnosis of COVID-19 in symptomatic patients. Regardless of their serologic results, symptomatic patients should be tested for COVID-19 via molecular methods.
- Interpreting positive serologic test results can be particularly difficult in persons who did not have a prior clinically compatible illness or a positive RT-PCR test for COVID-19.
 - When the prevalence (or pre-test probability) of infection is <5%, a test with a specificity between 96%-98% will be more likely to give a false positive than a true positive result. The prevalence of prior SARS-CoV-2 infection is likely <1% in the general Alaska population at this point. We do not yet have a good understanding of the specificity of the various serologic assays for COVID-19.
 - Cross-reactivity with other common coronaviruses may also lead to false-positive serologic test results.
- Even if a person does have antibodies to SARS-CoV-2, whether these antibodies confer immunity is unknown. Therefore, IDSA recommends that antibody tests not be used to make decisions about whether personal protective equipment is needed.
- Providers must report laboratory-confirmed cases of COVID-19 to SOE via fax using the [standard Infectious Disease report form](#) or via electronic means.
- In addition, all results (i.e., positive, negative, indeterminate, etc.) must be reported via either integration into existing electronic laboratory reporting (ELR) data feeds, submission of a standard format csv via SFTP, or fax (907-563-7868). Please email Megan Tompkins (megan.tompkins@alaska.gov) to inform us about how your facility will report.

Note: *Because the sensitivity of all COVID-19 tests is <100%, a negative test result does not rule out infection. This is a particularly important point to consider when caring for patients with a clinically compatible illness and known contact to a confirmed case.*

Please check the [DHSS COVID-19 website](#) and [CDC’s COVID-19 website](#) frequently for updates.