

TO: Vermont Health Care Providers and Health Care Facilities
FROM: Mark Levine, MD, Commissioner of Health

COVID-19 Diagnostic Testing in Vermont

National and Global Situation:

- As of March 13, 2020, the SARS-CoV-2 virus – the causative agent of the new “coronavirus disease 2019” (COVID-19) – has been detected in the U.S. and at least 111 countries. Cases of COVID-19 in the U.S. include imported cases in travelers, cases among close contacts of a known case, and community-acquired cases where the source of the infection is unknown.
- The number of known cases in the U.S. continues to grow quickly with cases reported in almost all states. Three U.S. states (California, Oregon, and Washington) are experiencing sustained community spread.
- On March 11, 2020 The World Health Organization [publicly characterized COVID-19 as a pandemic](#).
- The following groups of people are at elevated risk of exposure: health care workers caring for patients with COVID-19, close contacts of people with COVID-19, and travelers returning from affected international locations where community spread is occurring.
- The situation is rapidly evolving. For updates on the situation in Vermont: www.healthvermont.gov/covid19

Clinical spectrum of illness with COVID-19:

- Reported COVID-19 illnesses have ranged from mild to severe, including death.
- The current understanding is that most patients with COVID-19 have mild illness, with severe illness occurring in only 15-20% of patients.
- Frequently reported signs and symptoms at illness onset of hospitalized patients with COVID-19 include:
 - Fever (77-98%)
 - Cough (46-82%)
 - Myalgia or fatigue (11-52%)
 - Shortness of breath (3-31%)
- Less commonly reported symptoms include sore throat, headache, cough with sputum production and/or hemoptysis, nausea and diarrhea.
- Risk factors for serious disease associated with COVID-19 include older age and comorbidities (e.g., heart disease, lung disease, and diabetes).
- Mildly ill patients should be encouraged to stay home and contact their health care provider by phone for guidance about clinical management. Patients with severe symptoms, such as difficulty breathing, should seek care immediately. Older patients and individuals who have underlying medical conditions or are immunocompromised should contact their physician early in the course of even mild illness.

Diagnostic testing for COVID-19:

- The Vermont Department of Health Laboratory is performing testing for the COVID-19 virus (SARS-CoV-2) at no cost to the patient.
- Commercial laboratories are developing their own COVID-19 diagnostic tests.
- A serological test for COVID-19 is under development by CDC.

REQUESTED ACTIONS: Testing for COVID-19

Criteria to Guide Evaluation and Laboratory Testing:

- Clinicians should use their judgment to determine if a patient has signs and symptoms compatible with COVID-19 and whether the patient should be tested. Most patients with confirmed COVID-19 have developed fever and/or symptoms of acute respiratory illness (e.g., cough, difficulty breathing). Asymptomatic persons should not be tested.
- It is important to consider other potential etiologies of the patient's illness, including other respiratory viruses such as influenza and respiratory syncytial virus (RSV).
- Priorities for testing may include:
 - Hospitalized patients who have signs and symptoms compatible with COVID-19 in order to inform decisions related to infection control.
 - Other symptomatic individuals such as, older adults (age \geq 65 years) and individuals with chronic medical conditions and/or an immunocompromised state that may put them at higher risk for poor outcomes (e.g., diabetes, heart disease, receiving immunosuppressive medications, chronic lung disease, chronic kidney disease).
 - Any persons including healthcare personnel, who within 14 days of symptom onset had close contact with a suspect or laboratory-confirmed COVID-19 patient, or who have a history of travel from affected geographic areas (see below) within 14 days of their symptom onset.

Specimen Collection and Submission:

- To obtain COVID-19 testing through the Health Department Laboratory, a clinician who has decided COVID-19 testing is warranted should call the Health Department Infectious Disease – Epidemiology (ID-Epi) program at 802-863-7240 (24/7) to coordinate submission and ensure that the appropriate infection prevention and movement restrictions have been put into place.
- COVID-19 diagnostic testing is expected to become more available through clinical laboratories. The reporting of patients suspected of having COVID-19 to ID-Epi is still required even if testing is not requested through the Health Department Laboratory.
- Specimens should be collected as soon as possible once COVID-19 is suspected, regardless of the time of symptom onset.
- For upper respiratory tract specimens, collect only a nasopharyngeal (NP) swab. This supersedes information provided in the [VDHL Testing for Novel Coronavirus \(COVID-19\)](#)

[HAN](#) dated March 6. Use only synthetic fiber swabs with plastic shafts. Do not use calcium alginate swabs or swabs with wooden shafts.

- A lower respiratory tract specimen (bronchoalveolar lavage, tracheal aspirate) may also be submitted if indicated for those receiving invasive mechanical ventilation. The induction of sputum is not recommended.
- Additional information, including the [Clinical Test Request Form](#) can be found in the [VDHL Testing for Novel Coronavirus \(COVID-19\) HAN](#) dated March 6 and in CDC's [Interim Guidelines for Collecting, Handling, and Testing Clinical Specimens from Persons Under Investigation \(PUIs\) for Coronavirus Disease 2019 \(COVID-19\)](#). Previously, CDC recommended the collection of both a nasopharyngeal (NP) and oropharyngeal (OP) samples and combining both specimens in a single vial of viral transport medium for testing. As of today, CDC is now recommending collecting only the nasopharyngeal swab.
- Instructions for packing and shipping specimens for COVID-19 testing can be found in CDC's [Interim Laboratory Biosafety Guidelines for Handling and Processing Specimens Associated with Coronavirus Disease 2019 \(COVID-19\)](#).

Reporting Results

- Test results will be available within 24-48 hours. Test results are reported by Vermont Department of Health Laboratory to the hospital or clinical laboratory where the test was collected, which in turn notifies the ordering physician or other healthcare provider. Test results are sent using the fax, email or phone information provided on the clinical test requisition form. The health care provider notifies the patient of the results.
- Please ensure an after-hours/weekend telephone number and fax number is indicated on the test request.

If you have any questions, please contact the HAN Coordinator at 802-859-5900 or vthan@vermont.gov

HAN Message Type Definitions

Health Alert: Conveys the highest level of importance; warrants immediate action or attention.

Health Advisory: Provides important information for a specific incident or situation may not require immediate action.

Health Update: Provides updated information regarding an incident or situation; unlikely to require immediate action.

Info Service Message: Provides general correspondence from VDH, which is not necessarily considered to be of an emergent nature.