TO: Healthcare Providers, Infection Control, Hospitals, Labs, and Public Health

FROM: Thomas J. Safranek, M.D.  Gary Anthone, MD
State Epidemiologist  Director of Public Health and Chief Medical Officer

RE: Need for Increased COVID-19 Testing: Increased In-State Capacity

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With increased availability of in-state and national laboratory testing capacity, and turnaround times running in the 2-4 day range, federal, state and local public health agencies are asking providers to **pivot away from clinical diagnosis of COVID-19 in favor of laboratory confirmation**.

Providers need to consider COVID-19 in their differential diagnosis, and should have a low threshold for ordering a COVID-19 test.

Widespread testing for COVID-19 virus is among the most critical tools in reducing the spread of COVID-19 disease, and enabling return to a more normal lifestyle.

In-state laboratories include Nebraska Public Health Laboratory (NPHL), Creighton-CHI, Regional Pathology Services at the Nebraska Medical Center, Bryan Health (which went in to production this past week), along with several laboratories which recently implemented point-of-care testing.

In-state testing capacity currently exceeds 1,000 tests per day and continues to grow as more vendors develop and ship test kits for their installed base of test instruments.

Providers should continue to use national labs (LabCorp and Quest) which have provided an excellent supply of COVID-19 testing with excellent turnaround time.

A confirmatory lab test facilitates public health engagement to ensure COVID-infected patients are isolated and their contacts are identified and quarantined.

Both Abbott (ID-NOW) and Cepheid (Xpert® Xpress SARS-CoV-2) have shipped test kits to Nebraska providers, and those supplies are expected to increase in the coming weeks. Providers should connect with their sales representatives to pursue test kits.

Providers are encouraged to use their established reference laboratories to ensure ease of ordering and the resulting back of test results into electronic health records.
As an alternative to the in-state and national commercial laboratories, providers are now welcome to order COVID-19 testing at NPHL on any patient suspected of COVID-19 infection.

Workers at and the communities surrounding meat packing plants have emerged as an extremely high risk and challenging COVID-19 group. Providers seeing these workers should have a high index of suspicion for COVID-19 and test aggressively.

The clinical manifestations of COVID-19 infection are frequently non-specific. The diagnosis should be considered in persons who, in the absence of a known diagnosis, have fever (measured or subjective), cough, shortness of breath, difficulty breathing, chills, rigors, myalgia, headache, sore throat, new olfactory and taste disorder(s), or sudden onset of fatigue/lassitude. These symptoms may evolve alone or in combination over 14 or more days.

To maximize throughput at NPHL, the lab is group-testing pooled specimens. Pools are created using five individual specimens. If the pool tests negative, all five contributors are considered negative. If the pool tests positive, the individual contributors to the pool are retested separately. This conserves reagents and allows more persons to be tested. To optimize this method, we request that ordering providers use their clinical judgement in categorizing a patient as high or low likelihood of COVID-19 infection. Low likelihood specimens will be pooled to conserve kits and reagents used to run the test.

Examples of high risk include:
- Hospitalized with acute respiratory infection with no other pathogen detected
- Symptomatic, direct exposure to a person with COVID-19
- Symptomatic, travel to an area where COVID-19 is endemic
- Persons with two or more of the signs/symptoms mentioned above.

These recommendations are subject to revision depending on COVID-19 lab testing capacity at NPHL and commercial laboratories.

Directions for ordering COVID-19 tests at NPHL are available here:

http://dhhs.ne.gov/han%20Documents/ADVISORY04022020.pdf