TO: Health care providers, labs, infection control, hospitals, and public health
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This Health Alert is to advise regarding:

- increased COVID-19 lab testing options
- modified recommendations for COVID-19 laboratory testing.

One of our highest priorities is to increase COVID-19 testing to identify as many persons currently infected with COVID-19 virus, so these persons can be isolated, and their contacts quarantined.

Testing pipelines are opening wider by the day but supply chain issues could arise, including: nasopharyngeal swabs, viral transport media, personal protective equipment (PPE) for those collecting the N-P swabs, and lab reagents required for extraction, processing, and testing.

Additional testing capacity is expected to evolve soon as companies with an installed platform base (e.g.s, Cepheid and Biofire) move to COVID-19 testing on their systems.

Public health welcomes and encourages additional testing capacity to fulfill our goal to test persons with symptoms consistent with COVID-19 infection.

CURRENT LABORATORY TESTING OPTIONS:

CHI Health-Creighton Core Lab (Omaha):
- ABBOTT M2000: 94/tests/run; up to three runs/day

Regional Pathology Service (RPS) Laboratory, affiliated with Nebraska Medicine:
- UDT TEST: 100 tests/day
- ROCHE COBAS 6800: 180 tests/day
- TOTAL: 280 tests/day

Nebraska Public Health Laboratory (NPHL) based at UNMC in Omaha:
- CDC-public health test: up to 400 tests/day
Commercial labs (LabCorp, Quest, Mayo Clinic, ARUP, etc.):

- Currently reporting approximately 100 total tests /day; future capacity, unknown. These labs accept orders for COVID-19 tests without restrictions or prescreening.

To best utilize the in-state lab capacity, we recommend using existing reference lab referral pathways:

1) If currently enrolled with the **Omaha CHI-Health laboratory**: order COVID-19 tests through that. This includes all CHI in-patient facilities (Kearney Good Samaritan, St. Francis, St. Elizabeth, St. Mary's-Nebraska City, CHI-Schuyler), along with providers, clinics and other entities with an established relationship with the CHI Health Laboratory.

2) If currently enrolled with **RPS** operated out of UNMC, order COVID-19 tests through RPS.

3) If your reference laboratory services are other than these, follow their recommendations for routine and priority COVID-19 testing.

4) **Nebraska Public Health Laboratory (NPHL)** can test up to 400 specimens/day, prioritizes testing statewide for ALL in-patients (except as noted above) with COVID-19, healthcare workers (especially outside of the CHI and RPS networks), and suspected COVID-19-infected patients from group settings and other vulnerable populations (e.g., long-term care facilities).

5) On Friday, March 20, CEO of Nebraska Medicine Jim Linder, M.D., e-mailed an invitation offering COVID-19 testing to several other health systems across the state. RPS offers both an in-house (“UDT”) test with a capacity of 90-100/day, plus a COVID test run on the Roche COBAS platform with a capacity of approximately 200/day.

**PRIORITIZATION OF PATIENTS FOR COVID-19 LAB TESTING**

Given the increased availability of COVID-19 laboratory testing along with a marked decrease in reports of influenza, public health is modifying the test algorithms and expanding those patients recommended for COVID-19 testing.

Respiratory pathogen panel (RPP) and influenza testing are less important and no longer **required** as part of the algorithm for COVID-19 workup and testing. However, in situations where testing capacity is limited, using RPP as a triage test and performing COVID-19 testing only if negative remains a useful strategy to preserve testing capacity. Clinicians in consultation with their laboratories should use their best clinical judgement in ordering both influenza and RPP tests. Influenza has not entirely disappeared, and the pathogens detected on the RPP continue at their endemic rate. Co-infection with COVID-19 and other pathogens has been reported uncommonly but its true extent is unknown.
We are currently attempting to maximize COVID-19 laboratory testing in individuals suspected of COVID-19 infection based on symptoms and epidemiologic risk factors. COVID-19 testing serves two equally important purposes. Differentiating infected from uninfected patients:

- enables isolation and contract tracing of the infected, along with informing decisions about movement to a higher level of care if symptoms progress
- enables those testing negative for COVID-19 the freedom to resume a more normal lifestyle (while observing the non-pharmaceutical interventions)

While there may be asymptomatic infection in the general population, the likelihood of a positive COVID-19 test is low: testing in such patients is discouraged, unless clinical and epidemiologic factors argue for a test.

Patients with a clear source of exposure (e.g., household member of a known lab-confirmed case) and a clinical presentation consistent with COVID-19 can be clinically diagnosed and managed with self-isolation without a confirmatory test.

THE SPECTRUM OF COVID-19 CLINICAL ILLNESS IS NOT COMPLETELY DEFINED:

For hospitalized patients, look for fever, shortness of breath, cough, abnormal chest x-ray, and hypoxia. Patients fitting this profile are the highest priority for COVID-19 testing, and should receive expedited testing at their local lab or at NPHL.

For outpatients, the clinical profile ranges from asymptomatic to isolated fever or cough or shortness of breath or sore throat or severe fatigue or diarrhea. Combinations of these symptoms may evolve over the course of the infection. In the absence of a known diagnosis, patients with these symptoms are candidates for COVID-19 testing, especially when multiple symptoms are present and clinically the patient appears more severely ill. Clinicians should use this information and their best clinical judgment to decide when to order a COVID-19 test.

All providers are asked to prioritize testing of:

- Inpatients with a clinical presentation consistent with COVID-19
- Outpatients who are in high risk or vulnerable populations
  - Residents and staff at nursing homes, group homes, homeless shelters, and other residential facilities
  - Health care workers
  - Public safety workers and first responders
  - Individuals > 65 years old and anyone with underlying conditions where a COVID-19 infection could result in increased morbidity/mortality