COVID-19: Testing Update

Featuring DHHS Leaders:
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RCC (Relay Conference Captioning)
Participants can access real-time captioning for this webinar here: https://www.captionedtext.com/client/event.aspx?EventID=4446001&CustomerID=324
Logistics for today’s COVID-19 Forum

Question during the live webinar

questionsCOVID19webinar@gmail.com

Technical assistance

technicalassistanceCOVID19@gmail.com
Status of COVID-19 Response

• NC has made progress in flattening the curve and slowing the spread of COVID-19

• May 22: State will move to Phase 2 of slowly easing certain COVID-19 restrictions.

• Focus will be on increased testing and expanded contact tracing as we look to further ease restrictions.

• We will continue to follow our key metrics and assess community and individual level control measures.
Updated COVID-19 Testing Guidance

• As we increase testing capacity, NCDHHS issued updated guidance on those recommended for testing (May 15th).

• Clinicians should conduct or arrange for diagnostic testing for any patient in whom COVID-19 is suspected.

• Providers should consider sample collection strategies that preserve PPE if possible, such as having a dedicated team, practice site, or testing center that performs sample collections.
Updated COVID-19 Testing Guidance

• As new test collection sites and modalities are established, need to ensure testing for:
  o Anyone with symptoms suggestive of COVID-19
  o Close contacts of known positive cases, regardless of symptoms
Guidance for Testing Those at Higher Risk

• Regardless of symptoms, anyone at higher risk of exposure or at a higher risk for severe disease including:
  o Persons who live in/have regular contact with high-risk settings (e.g., LTC facility, homeless shelter, correctional facility, migrant farmworker camp)
  o Persons who are at high risk of severe illness (e.g., people over 65 years of age, people of any age with underlying health conditions)
  o Persons who come from historically marginalized populations
  o Healthcare workers or first responders (e.g. EMS, law enforcement, fire department, military)
  o Front-line and essential workers (grocery store clerks, gas station attendants, etc.)
COVID-19: Testing Modalities

May 21, 2020
Types of Tests

- Shows active infection
- Two types of diagnostic tests
  - **molecular (RT-PCR)** tests that detect the virus’s genetic material
  - **antigen** tests that detect specific proteins on the surface of the virus

- Looks for antibodies made during immune response
- Antibodies can take several days or weeks to develop after infection
- Antibody tests should not be used to diagnose an active coronavirus infection
- Unknown how antibodies correlate to immunity
## Types of Tests

<table>
<thead>
<tr>
<th>Test Type</th>
<th>Molecular Test</th>
<th>Antigen Test</th>
<th>Antibody Test</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Also known as...</strong></td>
<td>Diagnostic test, viral test, molecular test, nucleic acid amplification tests (NAAT), RT-PCR tests</td>
<td>Rapid diagnostic test (Some molecular tests are also rapid tests.)</td>
<td>Serological test, serology, blood test, serology test</td>
</tr>
<tr>
<td><strong>How the sample is taken...</strong></td>
<td>Nasal or throat swab (most tests) Saliva (a few tests)</td>
<td>Nasal or throat swab</td>
<td>Finger stick or blood draw</td>
</tr>
<tr>
<td><strong>How long it takes to get results...</strong></td>
<td>Same day (some locations) or up to a week</td>
<td>One hour or less</td>
<td>Same day (many locations) or 1-3 days</td>
</tr>
<tr>
<td><strong>Is another test needed...</strong></td>
<td>This test is typically highly accurate and usually does not need to be repeated.</td>
<td>Positive results are usually highly accurate but negative results may need to be confirmed with a molecular test.</td>
<td>Sometimes a second antibody test is needed for accurate results.</td>
</tr>
<tr>
<td><strong>What it shows...</strong></td>
<td>Diagnoses active coronavirus infection</td>
<td>Diagnoses active coronavirus infection</td>
<td>Shows if you’ve been infected by coronavirus in the past</td>
</tr>
<tr>
<td><strong>What it can’t do...</strong></td>
<td>Show if you ever had COVID-19 or were infected with the coronavirus in the past</td>
<td>Definitively rule out active coronavirus infection. Antigen tests are more likely to miss an active coronavirus infection compared to molecular tests. Your health care provider may order a molecular test if your antigen test shows a negative result but you have symptoms of COVID-19.</td>
<td>Diagnose active coronavirus infection at the time of the test or show that you do not have COVID-19</td>
</tr>
</tbody>
</table>

[https://www.fda.gov/consumers/consumer-updates/coronavirus-testing-basics](https://www.fda.gov/consumers/consumer-updates/coronavirus-testing-basics)
Swab Types & Sample Location

**Nasopharyngeal**
- Ideal sample
- Most sensitive
- Special flocked swab
- Very limited supply
- Collected by provider
- Requires most PPE

**Oropharyngeal**
- Special flocked swab
- Limited supply
- Collected by provider
- Requires PPE like NP

**Mid-turbinate**
- Special flocked swab
- Limited supply
- Collected by self or provider
- Less PPE

**Nasal**
- Foam, flocked, poly swab
- Strong supply
- Collected by self or provider
- Less PPE

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**Requesting Collection Supplies - Updated 05/18/2020**

- Facilities can now request bulk specimen collection materials through a new online system managed by NCDHHS. Please see the NCDHHS website for details.
  - [Request Portal](#)
- Local Health Departments may request bulk supplies and NCSLPH Specimen Collection Kits through their Emergency Management. Kits come with the following Kit Instructions (PDF, 705 KB; updated 04/29/2020), and must be returned to the State Lab for testing.
Diagnostic Tests

**Laboratory**
- **Sample Collection**
- **Gene Amplification Genetic Analysis**
- **Result Check**
- Sensitive ► Specific ► Several hours ► High throughput

**POC/Near-Patient**
- Less Sensitive
- Specific
- <1 hour
- Low throughput

**Antigen**
- **Sample Collection**
- **Rapid Diagnostic Test (RDT)**
- **Result Check**
- Less Sensitive ► Specific ► Minutes ► Low throughput
Antibody Tests

POC/Near-Patient

1. Less Sensitive
2. Less Specific
3. Minutes to Results
4. Low throughput
5. Regulatory concerns

Laboratory

1. Sensitive
2. More Specific
3. Hours to Results
4. High throughput

# Interpreting COVID-19 Test Results

<table>
<thead>
<tr>
<th>RESULT</th>
<th>INTERPRETATION</th>
<th>RECOMMENDED ACTION</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>VIRAL TESTING:</strong> (testing for current infection)</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Positive</td>
<td><em>Most likely</em> you <strong>DO currently</strong> have an active COVID-19 infection and can give the virus to others.</td>
<td><strong>Stay home</strong> <em>and follow CDC guidance</em> on steps to take if you are sick. <em>If you are a healthcare or critical infrastructure worker, notify your work of your test result.</em></td>
</tr>
<tr>
<td><strong>ANTIBODY TESTING:</strong> (testing for past infection with the virus)</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Positive</td>
<td><em>You likely</em> have <strong>HAD</strong> a COVID-19 infection.</td>
<td><em>You may be protected from re-infection (have immunity), but this cannot be said with certainty.</em> Scientists are conducting studies now to provide more information. <strong>Take steps to protect yourself and others.</strong></td>
</tr>
<tr>
<td>Negative</td>
<td><em>You likely</em> NEVER HAD (or have not yet developed antibodies to) COVID-19 infection.</td>
<td>You could still get COVID-19. <strong>Take steps to protect yourself and others.</strong></td>
</tr>
<tr>
<td><strong>BOTH</strong> (antibody and viral testing)</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Viral Positive, Antibody Positive</td>
<td><em>Most likely</em> you <strong>DO currently</strong> have an active COVID-19 infection and can give the virus to others.</td>
<td><strong>Stay home</strong> <em>and follow CDC guidance</em> on steps to take if you are sick. <em>If you are a healthcare or critical infrastructure worker, notify your work of your test result.</em></td>
</tr>
<tr>
<td>Viral Positive, Antibody Negative</td>
<td><em>Most likely</em> you <strong>DO currently</strong> have an active COVID-19 infection and can give the virus to others.</td>
<td><strong>Stay home</strong> <em>and follow CDC guidance</em> on steps to take if you are sick. <em>If you are a healthcare or critical infrastructure worker, notify your work of your test result.</em></td>
</tr>
<tr>
<td>Viral Negative, Antibody Positive</td>
<td><em>You likely</em> have HAD and <strong>RECOVERED FROM</strong> a COVID-19 infection.</td>
<td><em>You may be protected from re-infection (have immunity), but this cannot be said with certainty.</em> Scientists are conducting studies now to provide more information. You should get tested again only if your medical provider and/or workplace tells you to. <strong>Take steps to protect yourself and others.</strong></td>
</tr>
<tr>
<td>Viral Negative, Antibody Negative</td>
<td><em>You likely</em> have NEVER HAD a COVID-19 infection.</td>
<td>You could still get COVID-19. You should get tested again only if your medical provider and/or workplace tells you to. <strong>Take steps to protect yourself and others.</strong></td>
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COVID-19: Priority Populations

May 21, 2020
The history books will tell the stories of the states who use this crisis as a springboard to advance health equity light years ahead. NC plans to be one of them.

Priority Populations in COVID-9
Fundamental Principles for Historically Marginalized Populations in COVID-19:
- Interventions must be provided with cultural competency and ideally with people of similar backgrounds
- Interventions must create a linkage to identify and address unmet healthcare needs
- Interventions must be provided in geographically accessible and trusted locations with trusted partners
Combined Social and Access Inequity

Combined Total Inequity Score

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Contact: Dr. Saif S. Khairat at UNC at Chapel Hill (Saif@unc.edu)
Best Practices: Testing Outreach for Historically Marginalized Populations

- Go into low income communities and offering testing
- Welcome all to a trusted location for testing
- Provide culturally competent education on site
- Host site with a diverse workforce
- Make tests available without a lab order (i.e. provider on site)
- Linkage to a medical home where tests are provided
- Follow up of positive and negative results
- Partner with faith communities and other trusted community partners to sponsor testing event
Toolkit and Resources

Consider taking advantage of community resources! Create new partnerships to staff your event:

- LHDs
- FQHCs
- Emergency Management
- Residency Programs
- Medical Students
- Community Mobile Clinics
- Health Systems
Long-Term Care Facilities

NCDHHS Toolkit for Long Term Care Facilities

- COVID-19 Outbreak Toolkit for Long-Term Care Settings
- Long-Term Care Infection Prevention Assessment Tool
- Infection Prevention Education Resources for Long-Term Care Facilities
- Strategies to Optimize Personal Protective Equipment - Facemask
- Strategies to Optimize Personal Protective Equipment - Gowns
- IP Staffing Worksheet for Long-Term Care Facilities During COVID-19
- What to Expect: Response to New COVID-19 Cases or Outbreaks in Long-Term Care Settings (April 17, 2020)
Trainings for Long-Term Care Staff

• Trainings for long-term care facility staff available through our website.
  – Best Practices for Congregate Settings: Assisted Living/Adult Care Homes
  – Best Practices for Congregate Settings: Nursing Facilities & Smaller Congregate Community Care Setting
  – Best Practices in Congregate Settings – Trainings Supplement
CDC Guidance on Testing in Nursing Homes

- New CDC Testing Guidance on Nursing Homes
- New Performing Facility-wide SARs-CoV-2 Testing
1. **Criteria for discontinuation of isolation for patients being discharged to long term care facility:** Resolution of fever without the use of fever-reducing medications and Improvement in respiratory symptoms (e.g., cough, shortness of breath), and Negative results from at least two consecutive nasopharyngeal swab specimens collected ≥24 hours apart.

2. CMS states testing can be considered if available. Testing should be considered in non-surge scenarios. Since the ability to detect transmission is limited during the incubation phase, a negative test does not rule out COVID-19 and patients should still be placed on 14-day transmission precautions when transferred to long-term care. Long-term care facilities should NOT require two tests – two tests are only indicated to document resolution of symptoms after known COVID-19 diagnosis.

3. Check with facility to determine if patients requiring aerosolizing procedures, e.g. nebulizer treatment, are appropriate for transfer.
Testing Individuals Experiencing Homelessness

• Regardless of symptoms, anyone at higher risk of exposure or at a higher risk for severe disease including **individuals living in homeless shelters or unsheltered camps.**
  − Transportation is a barrier for individuals experiencing homelessness
  − On-site rapid testing

• Plan to connect individuals experiencing homelessness to services, including non-congregate sheltering
Non-Congregate Sheltering (NCS)

• NC approved for NCS in hotels, motels, or dorms for people with no other safe place to quarantine or isolate in response to COVID-19 or are at high-risk for severe illness from COVID-19.
  – This resource can be used for essential workers and vulnerable populations, including individuals experiencing homelessness

• Lodging costs + wrap around services (e.g., food, transportation, laundry, security, etc.) reimbursable: 75% FEMA, 25% State

• Counties should make plans to identify and operationalize non-congregate sheltering options or work with eligible non-profits or regional providers to stand up regional NCS options.

• Individuals in need of NCS: Call 2-1-1 to learn of NCS in their county

Breaking Down Barriers: PPE and Testing Supplies

HTTPS://COVID19.NCDHHS.GOV/INFORMATION/HEALTH-CARE/REQUESTING-PPE

HTTPS://COVID19.NCDHHS.GOV/INFORMATION/HEALTH-CARE/REQUESTING-SPECIMENTESTING-SUPPLIES
Call to Action

- Pandemic has shown spotlight on disparities, need to intentionally address

- Be aware of and share Provider Guidance
  - Test symptomatic people, close contacts of a known positive (symptomatic and asymptomatic)
  - Intentionality of providing access to high priority populations, potential lower threshold for known exposure

- Coordinate and communicate with LHD and help to facilitate testing for high priority populations

- Know the commercial labs capabilities and contacts and order supplies

- Know of the testing sites in your area, add or modify them

- Can request PPE

- Can request sample collections supplies