Dear Colleagues,

The Mississippi State Department of Health (MSDH) Office of Epidemiology has received multiple inquiries in the determination of potential re-infections with COVID-19. An increasing number of potential re-infections have been documented in the literature, but the extent, frequency and circumstances of potential re-infections remains undetermined.

To develop a more systematic approach to investigate potential COVID-19 re-infections, the Centers for Disease Control and Prevention (CDC) has developed an investigation strategy and criteria for determining candidates for further investigation.

The determination of re-infection is primarily based on genomic sequencing of paired respiratory specimens from each infection event, with the identification of differing clades between the first and second infections as the best evidence of re-infection. At this time, only paired specimens are being tested to determine reinfection, as protocols for determining reinfection from a single specimen do not yet exist.

CDC has identified two categories of individuals that warrant additional investigation. In both categories, paired respiratory samples (one from each infection episode) must be available for further evaluation. If paired respiratory samples from both events are not available, further investigation cannot proceed.

Investigate cases in individuals with a positive test for acute infection when paired specimens are available and when the following criteria are met:

1. For persons with detection of SARS-CoV-2 RNA ≥90 days since first SARS-CoV-2 infection
   a. Persons with detection of SARS-CoV-2 RNA* ≥90 days after the first detection of SARS-CoV-2 RNA, whether or not symptoms were present
   AND
   b. Paired respiratory specimens (one from each infection episode) are available
   *If detected by RT-PCR, only include if Ct value <33 or if Ct value unavailable
2. **For persons with COVID-19–like symptoms and detection of SARS-CoV-2 RNA 45–89 days since first SARS-CoV-2 infection**
   a. Persons with detection of SARS-CoV-2 RNA \( \geq 45 \) days after the first detection of SARS-CoV-2 RNA
      AND
   b. With a symptomatic second episode and no obvious alternate etiology for COVID-19–like symptoms OR close contact with a person known to have laboratory-confirmed COVID-19
      AND
   c. Paired respiratory specimens (one from each infection episode) are available*If detected by RT-PCR, only include if Ct value <33 or if Ct value unavailable.

As a reminder, individuals who have been diagnosed with COVID-19 infection by a viral test (PCR; antigen) within the last 3 months do not need to quarantine after exposure or get tested again for up to 3 months as long as they do not develop symptoms again. If an individual does become symptomatic within the 3-month period and the provider is considering COVID-19, then they should be re-tested and isolated appropriately. Also, once 3 months have elapsed from their original COVID-19 diagnosis, they should quarantine if exposed, and receive testing for COVID-19 if symptomatic.


Please contact the MSDH Office of Epidemiology with questions or concerns at 601-576-7725.

 Regards,

Paul Byers, MD
State Epidemiologist
**Alerting Message Specification Settings**

<table>
<thead>
<tr>
<th>Field</th>
<th>Value</th>
</tr>
</thead>
<tbody>
<tr>
<td>Originating Agency</td>
<td>Mississippi State Department of Health</td>
</tr>
<tr>
<td>Alerting Program</td>
<td>MS Health Alert Network (MS HAN)</td>
</tr>
<tr>
<td>Message Identifier</td>
<td>MSHAN-20201105-00473-ALT</td>
</tr>
<tr>
<td>Program (HAN) Type</td>
<td>Health Alert</td>
</tr>
<tr>
<td>Status (Type)</td>
<td>Actual ()</td>
</tr>
<tr>
<td>Message Type</td>
<td>Alert</td>
</tr>
<tr>
<td>Reference</td>
<td>MSHAN-00473</td>
</tr>
<tr>
<td>Severity</td>
<td>Unknown</td>
</tr>
<tr>
<td>Acknowledgement</td>
<td>No</td>
</tr>
<tr>
<td>Sensitive</td>
<td>Not Sensitive</td>
</tr>
<tr>
<td>Message Expiration</td>
<td>Undetermined</td>
</tr>
<tr>
<td>Urgency</td>
<td>Undetermined</td>
</tr>
<tr>
<td>Delivery Time</td>
<td>600 minutes</td>
</tr>
</tbody>
</table>

**Definition of Alerting Vocabulary and Message Specification Settings**

<table>
<thead>
<tr>
<th>Field</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>Originating Agency</td>
<td>A unique identifier for the agency originating the alert.</td>
</tr>
<tr>
<td>Alerting Program</td>
<td>The program sending the alert or engaging in alerts and communications using PHIN Communication and Alerting (PCA) as a vehicle for their delivery.</td>
</tr>
<tr>
<td>Message Identifier</td>
<td>A unique alert identifier that is generated upon alert activation (MSHAN-yyymmd-dd-hhmm-TTT (ALT=Health Alert, ADV=Health Advisory, UPD=Health Update, MSG/INFO=Message/Info Service)).</td>
</tr>
<tr>
<td>Program (HAN) Type</td>
<td>Categories of Health Alert Messages.</td>
</tr>
<tr>
<td>Health Alert</td>
<td>Conveys the highest level of importance; warrants immediate action or attention.</td>
</tr>
<tr>
<td>Health Advisory</td>
<td>Provides important information for a specific incident or situation; may not require immediate action.</td>
</tr>
<tr>
<td>Health Update</td>
<td>Provides updated information regarding an incident or situation; unlikely to require immediate action.</td>
</tr>
<tr>
<td>Health Info Service</td>
<td>Provides Message / Notification of general public health information; unlikely to require immediate action.</td>
</tr>
<tr>
<td>Status (Type)</td>
<td>Actual: Communication or alert refers to a live event</td>
</tr>
<tr>
<td></td>
<td>Exercise: Designated recipients must respond to the communication or alert</td>
</tr>
<tr>
<td></td>
<td>Test: Communication or alert is related to a technical, system test and should be disregarded</td>
</tr>
</tbody>
</table>

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Message Type:
Alert: Indicates an original Alert
Update: Indicates prior alert has been Updated and/or superseded
Cancel: Indicates prior alert has been cancelled
Error: Indicates prior alert has been retracted

Reference: For a communication or alert with a Message Type of “Update” or “Cancel”, this attribute contains the unique Message Identifier of the original communication or alert being updated or cancelled. “n/a” = Not Applicable.

Severity:
Extreme: Extraordinary threat to life or property
Severe: Significant threat to life or property
Moderate: Possible threat to life or property
Minor: Minimal threat to life or property
Unknown: Unknown threat to life or property

Acknowledgement: Indicates whether an acknowledgement on the part of the recipient is required to confirm that the alert was received, and the timeframe in which a response is required (Yes or No).

Sensitive:
Sensitive: Indicates the alert contains sensitive content
Not Sensitive: Indicates non-sensitive content

Message Expiration: Undetermined.

Urgency: Undetermined. Responsive action should be taken immediately.

Delivery Time: Indicates the timeframe for delivery of the alert (15, 60, 1440, 4320 minutes (.25, 1, 24, 72 hours)).