

Laboratory Testing and Cohorting Recommendations for Respiratory Outbreaks for 2021-2022 Influenza Season

Does the facility have an outbreak of COVID-19 or other respiratory illness?

No/Unknown

Yes – non-COVID-19 respiratory illness

Yes – COVID-19

Testing Recommendations

- All individuals with signs/symptoms compatible with COVID-19* or influenza should be tested for COVID-19 AND influenza.†
- Individuals with pneumonia, in addition to influenza and COVID-19 testing, should have sputum collected for routine bacterial and *Legionella* cultures, and be tested for *Legionella* and *Strep pneumoniae* by urinary antigen test.

Response (all that apply)

- **If any COVID-19 testing is positive:** follow relevant MDH orders and CDC guidance
- **If influenza or other testing is positive:** determine if the situation meets an outbreak definition
 - If it meets an outbreak definition, follow the appropriate MDH outbreak guidance
 - If it does not meet an outbreak definition, follow MDH case management guidance for each ill individual
- **If all testing is negative:** continue heightened surveillance for cases and other COVID-19 preventive measures

Testing Recommendations

- All individuals with signs/symptoms compatible with COVID-19 or influenza should be tested for COVID-19 AND influenza.†
- Individuals with pneumonia, in addition to influenza and COVID-19 testing, should have sputum collected for routine bacterial and *Legionella* cultures, and be tested for *Legionella* and *Strep pneumoniae* by urinary antigen test.

Response (all that apply)

- **If any COVID-19 testing is positive:** follow relevant MDH orders and CDC guidance
- **If influenza testing is positive:** follow MDH respiratory outbreak guidance, including influenza vaccination and antiviral prophylaxis/treatment recommendations
- **If other testing is positive:** follow the appropriate MDH outbreak guidance
- **If all testing is negative:** 3-5 symptomatic individuals should be tested by respiratory viral panel (if not done as part of initial influenza testing); follow MDH outbreak guidance until outbreak is closed; continue COVID-19 preventive measures

Testing Recommendations

- Test residents and staff (regardless of symptoms) for COVID-19, as directed by the local health department.
- Regardless of universal testing, if a staff or resident develops symptoms, test for COVID-19 AND influenza.†
- Individuals with pneumonia, in addition to influenza and COVID-19 testing, should have sputum collected for routine bacterial and *Legionella* cultures, and be tested for *Legionella* and *Strep pneumoniae* by urinary antigen test.

Response (all that apply)

- **If influenza is found to be co-circulating with COVID-19:** follow MDH respiratory outbreak guidance (in addition to MDH orders and CDC guidance re COVID-19), including influenza vaccination and antiviral prophylaxis/treatment recommendations
- **If other testing is positive:** follow the appropriate MDH outbreak guidance (in addition to MDH orders and CDC guidance re COVID-19)
- **If all other testing is negative:** continue to in addition to MDH orders and CDC guidance re COVID-19 until outbreak is closed

Outbreak Definitions for Congregate Living Settings:

- **COVID-19:** One laboratory-confirmed case
- **Influenza-like illness (ILI):** Three or more cases of ILI within 7 days
- **Influenza:** Two or more cases of ILI within 3 days, with at least one person with laboratory-confirmed influenza
- **Pneumonia:** Two or more cases of pneumonia in a unit within 7 days

Resources:

- **Outbreak Guidance Documents:** <https://phpa.health.maryland.gov/Pages/guidelines.aspx>
- **MDH COVID-19 Website:** <https://coronavirus.maryland.gov/>
- **MDH Lab:** <https://health.maryland.gov/laboratories/Pages/home.aspx>

* Individuals with influenza or COVID-19 can have atypical clinical presentations; clinical judgment and local epidemiology should be used to inform testing decisions

† The use of molecular assays such as RT-PCR tests and respiratory panels is encouraged during outbreaks. Antigen tests can be less accurate than molecular tests, particularly when the prevalence of disease is low. Per CDC guidance, if an individual has symptoms consistent with COVID-19 and tests negative by COVID-19 antigen test, the negative should be confirmed by PCR within 48 hours. The symptomatic person should remain in isolation or be excluded from work while the PCR test is pending.



Tests to order	What to collect	Where testing can be done	Comment
For all respiratory outbreaks			
Rapid influenza diagnostic test (RIDT or antigen test)	Follow directions for the test kit (usually nasopharyngeal or nasal swab)	Healthcare provider's office, emergency department or urgent care, hospital or private labs	
Influenza PCR test	Follow directions for the test kit (usually nasopharyngeal or nasal swab)	Many hospital and private labs	Testing can be done at MDH lab* in certain outbreak situations (consult outbreak epidemiologist prior to submitting specimens)
COVID-19 antigen test	Follow directions for the test kit (usually nasopharyngeal or nasal swab)	Some nursing homes, healthcare provider's office, emergency department or urgent care, hospital or private labs	COVID-19 PCR tests are recommended in outbreak situations. COVID-19 antigen testing is not offered at the MDH lab at this time.
COVID-19 PCR test	Follow directions for the test kit (usually nasopharyngeal or nasal swab)	Many hospital and private labs	Testing can be done at MDH lab in certain outbreak situations (consult outbreak epidemiologist prior to submitting specimens)
Respiratory PCR panel	Follow directions for the test kit (usually nasopharyngeal or nasal swab)	Many hospital and private labs	A respiratory panel that includes influenza can be done in place of a single agent influenza PCR; testing can be done at MDH lab in certain outbreak situations (consult outbreak epidemiologist prior to submitting specimens)
For patients with pneumonia			
X-ray or CT	Chest radiography	Nursing home, healthcare provider's office, radiology center, urgent care, or hospital	
Sputum Gram stain, routine bacterial culture, <i>Legionella</i> culture [†] , <i>Legionella</i> PCR	Sputum	Gram stains and cultures can be done at most hospital and private labs; <i>Legionella</i> PCR can be done at some hospital and private labs	Testing can be done at MDH lab in certain outbreak situations (consult outbreak epidemiologist prior to submitting specimens)
<i>Legionella</i> urinary antigen test (UAT), <i>Streptococcus pneumoniae</i> UAT	Urine	UATs can be done at most hospital and private labs	Testing can be done at MDH lab in certain outbreak situations (consult outbreak epidemiologist prior to submitting specimens)

*All specimens submitted to the MDH lab must have a properly-completed laboratory requisition slip; specimens must be collected, stored, and shipped following [MDH lab requirements](#); always ensure that all specimens are collected in the appropriate media, the media is not expired, and lids/containers are securely fastened/closed

[†]*Legionella* bacteria are not detected by routine respiratory cultures; a separate, specific culture must be ordered

Summary of Isolation/Cohorting Recommendations*

Scenario	Recommendations
Resident(s) with undiagnosed respiratory illness	<ul style="list-style-type: none"> • If a resident is identified with signs and/or symptoms of an undiagnosed respiratory illness, the resident must be immediately isolated on contact and droplet precautions to a private room while awaiting test results. Options for isolation include, moving a roommate to a private room and keeping the symptomatic resident isolated in place, moving the symptomatic resident to a private room on their current unit, or moving the symptomatic resident to an area dedicated to the care of residents awaiting test results. • As a precautionary measure, roommates of symptomatic residents should also be placed on contact and droplet precautions in a private room while awaiting the symptomatic resident's test results. • If the resident is diagnosed with COVID-19, refer to CDC Interim Infection Prevention and Control Recommendations to Prevent SARS-CoV-2 Spread in Nursing Homes section on managing residents with close contact to determine quarantine needed for roommates.
Resident(s) with laboratory-confirmed influenza and/or COVID-19	<ul style="list-style-type: none"> • Ideally, and when able, residents with undiagnosed respiratory illness, COVID-19, or influenza will be isolated in a single-person room. Residents with laboratory confirmed COVID-19, regardless of influenza test results, must be housed in a designated location with dedicated staff. • Residents with laboratory-confirmed COVID-19 and influenza should be housed in a designated location for the care of residents with COVID-19 in a private room or in a room with another resident with laboratory-confirmed COVID-19 and influenza. If using CDC crisis capacity strategies for the optimization of PPE, staff should only extend gown use for residents on the COVID unit who have the same infection(s). Generally, facilities should seek to discontinue extended use and reuse of gowns as soon as supplies allow. • Residents with influenza, who do not concurrently have COVID-19, should be isolated on droplet precautions in a private room and should NOT be housed in the same location as residents with COVID-19.

* For the complete list of infection prevention and other control measures, please review the MDH outbreak guidance documents found here: <https://phpa.health.maryland.gov/Pages/guidelines.aspx>