

Approved By:

STATE OF MAINE DEPARTMENT OF PUBLIC SAFETY MAINE EMERGENCY MEDICAL SERVICES **152 STATE HOUSE STATION** AUGUSTA, MAINE 04333



MICHAEL SAUSCHUCK COMMISSIONER

> J. SAM HURLEY DIRECTOR

OPERATIONAL BULLETIN						
Bulletin #		Title	Date Issued			
#2021-01-21-01		ension of Traditional BinaxNOW Use Maine EMS Playbook Revision 3.0	January 21, 2021			
Superseded	Released By:	Source:	Page(s)			
N/A	Maine EMS	Maine EMS	4 and Attachments			

J. Sam Hurley, MPH, EMPS, NRP (Maine EMS Director)

All tests performed in medicine have unique performance characteristics, including sensitivity, specificity, positive predictive value (PPV) and negative predictive value (NPV). Both the NPV and the PPV are influenced by the prevalence of disease in the community.

When Maine EMS first operationalized the BinaxNOW tests, the prevalence of COVID-19 in the state was approximately 0.5%. Based on this prevalence of disease, the test performed well to rule out coronavirus in symptomatic patients (i.e., a negative test meant that the person in question did not have COVID-19). As the prevalence of COVID-19 has increased ten-fold to over 5% as of January 8, 2021, the BinaxNOW tests' performance has changed. Currently, the high prevalence of disease throughout Maine means that negative test results from the BinaxNOW cards are less reliable for ruling out COVID-19. It is important to note that while this change is small and may not impact their suitability for the general public, the general risk that a false negative (or someone who is positive but the test provides a negative result) within the EMS community exceeds the level of risk that Maine EMS feels is acceptable for public safety professionals. Based on this, Maine EMS is recommending agencies move directly to PCR testing rather than conducting the BinaxNOW test at this time, except in the special consideration listed below. If agencies continue to use the BinaxNOW tests in any other circumstance outside of special consideration described below, they *must* perform confirmatory PCR testing on both negative and positive results. Maine EMS requires that positive results be confirmed contrary to public guidance because there is a higher incidence of false positives. This could inadvertently remove a public safety professional from work when they are not actually positive for COVID-19.

This is a foreseen event that Maine EMS has been following closely. Please know that as the prevalence of disease decreases in Maine these recommendations will change and likely revert to previous guidance. Maine EMS will closely follow the prevalence of COVID-19 and consider when to re-initiate the BinaxNOW testing process.

Excellence Collaboration Integrity Support

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Special Consideration: Symptoms Following Vaccination

The COVID-19 vaccine products currently on the market carry with them the risk of side effects that are consistent with the body mounting an immunological response. These same symptoms are also seen as a result of COVID-19 infection. In an effort to mitigate persons from being unnecessarily quarantined or removed from work following vaccination, Maine EMS is instituting this special use case for the BinaxNOW tests. This strategy can only be used for persons who have received the vaccination within the past three days. It is important to note that there is different guidance for testing following the first dose (primer dose) versus the second dose (booster dose) as scientists believe that the first dose does confer *some* immunity after several weeks and so, the likelihood of COVID-19 infection immediately following the second dose is less than the first dose.

Symptoms Develop Following the First Dose (Primer Dose) of COVID-19 Vaccine:

If a vaccine recipient develops symptoms consistent with the known reactions to the vaccine including fatigue, headache, chills, muscle aches, and joint aches within three (3) days of receiving the first dose of vaccine and they resolve within 24 hours, EMS services may implement a testing strategy using the BinaxNOW antigen tests. This does not include symptoms more likely to be related to COVID-19 infection, including cough, shortness of breath, runny nose, sore throat or loss of taste or smell, diarrhea, and fever (greater than or equal to 100°F). Individuals with any of these symptoms require PCR testing and must not be allowed to work pending those results. If their symptoms resolve within 24 hours of onset, they may utilize the following strategy; otherwise, they must undergo PCR testing. This strategy requires that the individual who received their first dose be tested with the BinaxNOW test every day that they are on shift within the three (3) day period following vaccination (i.e., serial testing for three (3) days).

- 1. Individuals with symptoms consistent with post-vaccine reactions should be tested immediately. If the test is *negative*, they may continue to work under the following conditions (See Appendix A from the Playbook):
 - a. The individual in question is masked at all times when in the presence of any other person including inside the station or base station. AND
 - b. The individual in question performs active surveillance for additional symptoms, including fever, cough, shortness of breath, runny nose, sore throat or loss of taste or smell. Development of any of these symptoms prompts immediate quarantine and PCR testing. AND
 - c. The individual in question NEVER removes their mask around any other members of the EMS agency. This includes eating meals separately from other members of the organization.
- 2. Serial testing must be performed on every shift the individual works for three (3) days after receiving the *first dose of vaccine*. If all tests performed during this time are

- negative AND the individual's symptoms resolve within 24 hours of onset, they do not need to seek additional testing.
- 3. If the individual continues to have symptoms beyond 24 hours after onset, then confirmatory PCR testing *must* be performed.

Symptoms Develop Following the Second Dose (Booster Dose) of the COVID-19 Vaccine:

If a vaccine recipient develops symptoms consistent with the known reactions to the vaccine including fatigue, headache, chills, muscle aches, and joint aches within three (3) days of receiving the second dose of vaccine, EMS services may implement a testing strategy using the BinaxNOW antigen tests. This does not include symptoms more likely to be related to COVID-19 infection, including cough, shortness of breath, runny nose, sore throat or loss of taste or smell, and diarrhea. Individuals with any of these symptoms require PCR testing. Any persons presenting with fever (greater than or equal to $100^{\circ}F$) must not be allowed to work. If their fever resolves within 24 hours of onset, they may utilize the following strategy; otherwise, they must undergo PCR testing. This strategy requires that the individual who received their second dose be tested with the BinaxNOW test every day that they are on shift within the three (3) day period following vaccination (i.e., serial testing for three (3) days).

- 4. Individuals with symptoms consistent with post-vaccine reactions should be tested immediately. If the test is *negative*, they may continue to work under the following conditions (See Appendix A from the Playbook):
 - a. The individual in question is masked at all times when in the presence of any other person including inside the station or base station. AND
 - b. The individual in question performs active surveillance for additional symptoms, including fever, cough, shortness of breath, runny nose, sore throat or loss of taste or smell. Development of any of these symptoms prompts immediate quarantine and PCR testing. AND
 - c. The individual in question NEVER removes their mask around any other members of the EMS agency. This includes eating meals separately from other members of the organization.
- 5. Serial testing must be performed on every shift the individual works for three (3) days after receiving the *second dose of vaccine*. If all tests performed during this time are negative AND the individual's symptoms resolve within three (3) days from vaccine receipt, they do not need to seek additional testing.
- 6. If the individual continues to have symptoms beyond three (3) days after receiving the vaccine, confirmatory PCR testing *must* be performed.

^{**} This guidance also applies to future vaccines that may only require a single dose.

¹ Please note the difference between the first and second dose regarding the incidence of fever. If fever is present following the first dose it requires PCR testing as an initial response; however, after the second dose if it resolves in 24 hours the serial testing strategy can be used.

Maximum protection from the vaccine is only achieved after receiving the second dose of vaccine. Therefore, persons developing symptoms after the first dose of vaccine must follow the guidance regarding the 24-hour window to avoid inadvertently spreading the disease.

Most reactions to the mRNA vaccines occur within three (3) days of receiving the vaccine. If an individual develops symptoms outside three (3) days from receiving the second dose of vaccine, they are not candidates for antigen (i.e. BinaxNOW) testing and should have PCR testing instead.

Please refer to the *Maine EMS Early Response to COVID-19 Outbreaks within Fire and EMS Agencies Playbook* to find most up-to-date information regarding the response to a service-level outbreak. A copy of the updated version, Version 3.0, reflecting the BinaxNOW changes is attached to this bulletin. At this time, the most appropriate and accurate testing pathways are through PCR-based tests.

Thank you for your time and consideration, as well as all you have done to address the COVID-19 pandemic in the State of Maine.

Definitions:

Sensitivity: the ability of a test to correctly identify patients with a disease.

Specificity: the ability of a test to correctly identify people without the disease.

Prevalence: the percentage of people in a population who have the condition of interest.

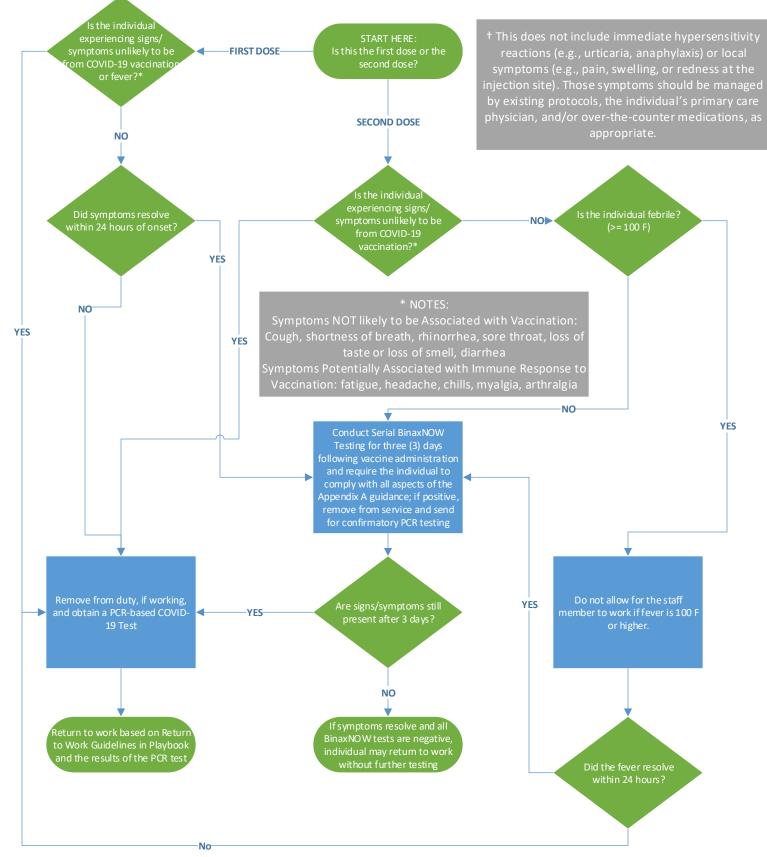
Positive Predictive Value: the probability that subjects with a positive screening test truly have the disease

Negative Predictive Value: the probability that subjects with a negative screening test truly do not have the disease

Attachments:

Public Safety Professional Experiencing Signs/Symptoms Following Vaccination Flowchart (Jan. 20, 2021)

Early Response to COVID-19 Outbreaks within Fire and EMS Agencies Playbook. (Version 3.0). Published on January 21, 2021.





Early Response to COVID-19 Outbreaks within Fire and EMS Agencies Playbook

Government of the State of Maine

Version 3.0
January 21, 2021



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Change Log

This table lists all changes made in the most recent revision of this document since the November 4, 2020 publication of Version 2.0. The previous change document from Version 1.0 to 2.0 is found in Appendix F. Please note that page numbers are not updated in that table.

1 1 Inserted version information and release date 2 3 Updated change log 3 5 Updated Table of Contents 4 14 Added emphasis to EMS clinicians not working while sick 5 16 Modified language from "actively encourage" to "require" sick employees to stay home 6 17 (Bullet continued from pg. 16) Removed "a negative BinaxNOW COVID-19 Antigen test or" and removed "PCR COVID-19 testing" and replaced it with "medical attention" 7 18 Removed "Conduct a BinaxNOW COVID-19 Antigen Card Point of Care test (see BinaxNOW), if available" and reference to BinaxNOW test result for all scenarios. 8 19 Added guidance regarding onset of symptoms following first dose of COVID-19 vaccine Added guidance regarding onset of symptoms following second dose of the COVID-19 vaccine 9 21 Added notice within BinaxNOW section regarding the temporary suspension of their routine use during the period of high COVID-19 prevalence 10 26 Added Serial Testing using BinaxNOW guidance for persons experiencing symptoms following vaccination 11 28 Modified guidance regarding symptomatic persons with negative test results by removing, "BinaxNOW COVID-19 antigen test or" and changing the final sentence to direct persons with worsening symptoms or symptoms lasting longer than 3-4 days to seek medical attention.	Change Number	Page Number	Change	
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Letter from the Directors of Maine EMS and Maine CDC

October 8, 2020

On behalf of Maine Emergency Medical Services (Maine EMS) and Maine Center for Disease Control and Prevention (Maine CDC), we would like to extend our sincere thanks to all the countless frontline healthcare professionals and first responders who continue to work tirelessly as part of the ongoing response to this ongoing pandemic. While the pandemic continues to function as a sea of uncertainty, we are confident that by working together we are stronger.

The hard work of EMS clinicians, dispatchers, fire fighters, police officers, and other first responders throughout the state is clearly evident and our number of cases continues to reflect the efficacy of our system. Maine EMS has worked closely with the Maine CDC since the earliest stages of this pandemic in February and we anticipate continuing this partnership into the future past this pandemic.

Maine EMS and Maine CDC decided to assemble this COVID-19 playbook shortly after the events that occurred in York County related to multiple EMS agencies that had individuals who were positive with COVID-19. Prior to this point in time, Maine EMS and Maine CDC had been working individually with each organization; however, it made sense to write down some more concrete guidance on how to move forward.



J. Sam Hurley
Director of Maine EMS



Dr. Nirav Shah Director of Maine CDC

It is our pleasure to present to you the guidance document that we have developed. It must be noted that this is a working document and there will invariably be changes and exceptions as we certainly cannot think through every variable. We strongly encourage you to consider any questions or concerns you may have and address them to Maine EMS so we can provide as much information as possible to enable you to handle a positive case or an outbreak should your agency be confronted with this.

As always, please reach out to Maine EMS (<u>maine.ems@maine.gov</u> or (207) 626-3860) if you have any additional questions, comments, or concerns.

Thank you,

J. Sam Hurley, MPH, EMPS, NRP Director, Maine EMS

Nirav Shah, MD, JD Director, Maine CDC

Purpose of the Playbook

The goal of the Playbook for Early Response to COVID-19 Outbreaks within Fire and EMS Agencies (Playbook) is to assist fire and EMS agency leadership in coordinating the initial local response to a case and/or outbreak of COVID-19 cases at their agency. It is intended to highlight key steps that should be taken initially and moving forward to ensure that the impact of the virus is minimized as much as possible. This document is not designed to supersede Maine EMS, Maine CDC, or United States Centers for Disease Control and Prevention (U.S. CDC) guidance but is designed to offer EMS and fire leadership insight into the most likely initial steps in a response to an outbreak at their department. The playbook is broken into several sections: Understanding COVID-19 and Outbreak Prevention, Initial Response – Day One, and Continued Response – Moving Forward, Contingencies, Glossary, and finally an Appendix.

Information Disclaimer

It is important to note that this playbook is not static, but instead is subject to change as more information is discovered regarding the epidemiology of the virus, testing opportunities, and vaccinations. Individuals utilizing this playbook should be sure to monitor the Maine EMS website (www.maine.gov/ems) to ensure that they have the most up-to-date version of the playbook as information within this document is subject to change. Maine EMS and the Maine CDC commit to keeping this document as up to date as timely as possible; however, there may be times where there are delays in producing a new version. In addition, Maine EMS hosts biweekly COVID-19 Update Briefings via Zoom. The schedule for these meetings can be found on calendar tool of the Maine EMS website.

Understanding COVID-19 and Outbreak Prevention

This section will go into some detail regarding the epidemiology surrounding COVID-19 based on currently available information provided by the U.S. CDC on their website.

Studying the Disease¹

U.S. CDC and other agencies and institutions around the world are conducting thousands of epidemiological studies to learn more about COVID-19 and the virus that causes it. These studies help us understand:

¹ U.S. CDC. Studying the Disease. (July 1, 2020) Accessed on August 31, 2020 from https://www.cdc.gov/coronavirus/2019-ncov/cases-updates/about-epidemiology/studying-the-diesease.html

- The time between when someone is exposed to the virus and when they have symptoms (incubation period). We now know that someone can be infected with the virus for 2–14 days before they feel sick, and that some people never feel sick.
- How long a person who is infected can shed (release from their body) the virus. To avoid spreading infection, we recommend that people infected with the virus avoid being around others. Individuals with symptoms should remain isolated until they have gone 24 hours without fever and a fever-reducing medication, their symptoms have improved, and 10 days have passed since their symptoms started. Individuals who do not have symptoms should remain isolated until 10 days after the positive specimen was collected.
- The range of signs, symptoms, and severity of the disease (spectrum of disease).
 Knowing this information helps people be on the lookout for early symptoms and helps healthcare professionals diagnose and treat the disease.
- The risk factors associated with severe disease. We now know that people who are
 older or who have <u>serious chronic health conditions</u> (e.g., cancer, chronic kidney
 disease, COPD, immunocompromised state, obesity, heart conditions, sickle cell disease,
 type two diabetes mellitus, etc.) are at higher risk for becoming very sick from COVID19.
- How often the disease causes illness and death in a population (morbidity and mortality rate). This information helps epidemiologists understand the impact of COVID-19 on public health.

Cohort Studies

A cohort study is one that keeps track of a group of people (cohort) over time. If the information has already been collected for other purposes, it is a retrospective cohort study.

For example, U.S. CDC scientists who studied demographic characteristics of people in Georgia who were hospitalized with COVID-19 found that the percentage of hospitalized patients who were black was higher than the percentage of hospitalized patients in the overall population. These results help public health professionals prioritize COVID-19 prevention strategies for people who might be at increased risk for severe disease by prioritizing funds, tests and additional research in those communities and developing specific clinical guidelines based on differences in resources to slow the spread in these communities.

In a prospective cohort study, the data collection begins when a cohort is formed, and the data are collected from that group going forward. Current COVID-19 prospective studies are looking at:

- severity of illness and risk factors for severe disease,
- knowledge, attitudes, and practices of a specific population (such as pregnant people or people with underlying medical conditions),
- · use of certain medicines, and
- infection prevention and control practices.

Serology Surveys

People who have been infected with a virus might develop antibodies (which are proteins in blood that fight the virus) even if they don't know they are infected. Serologic tests may be used to detect the antibodies. By counting the number of people with antibodies to COVID-19, scientists may learn how much the disease has spread in a population. Antibody tests may be useful because they may include infections that might have been missed because people had no symptoms (were asymptomatic) or mild symptoms and therefore did not get tested or receive medical care. It is important to note the following regarding serologic tests:

- They are not a marker of current infection (i.e., someone may present with a positive serological result but a negative PCR test result because they no longer are shedding the virus but have built antibodies against the virus itself which are detected by the serologic testing);
- Due to concerns regarding sensitivity with tests on the market, it may or may not actually reflect whether individuals have had SARS-CoV-2; and
- Data from antibody/serological testing is novel and interpretation is difficult, if not impossible, at this time.

Antibody tests are used by public health specialists to potentially help answer other important questions about how COVID-19 infections are progressing through populations over time and help estimate how much of the population has not yet been infected, helping public health officials plan for healthcare needs.

U.S. CDC's COVID-19 seroprevalence surveys include large-scale geographic surveys, community-level surveys, and surveys focusing on specific populations.

Identifying the Outbreak Source²

The novel (new) coronavirus that first appeared in China had never been seen before, so it quickly gained the attention of scientists around the world.

² U.S. CDC. Identifying the Outbreak Source. (July 1, 2020) Accessed on August 31, 2020 from https://www.cdc.gov/coronavirus/2019-ncov/cases-updates/about-epidemiology/identifying-source-outbreak.html

Epidemiologists did field investigations to find out how the new virus started. They conducted surveys in the community and in health facilities and collected nose and throat specimens for lab analyses. These investigations showed them who was infected, when they became sick, and where they had been just before they got sick.

Using this information, epidemiologists determined that the virus possibly came from an animal sold at a market. The new virus was found to be a coronavirus, and coronaviruses cause a severe acute respiratory syndrome. This new coronavirus is similar to SARS-CoV, so it was named SARS-CoV-2. The disease caused by the SARS-CoV-2 virus was named COVID-19 (COronVIrusDisease-2019) to show that it was discovered in 2019.

An outbreak is called an epidemic when there is a sudden increase in cases. As COVID-19 began spreading in Wuhan, China, it became an epidemic. Because the disease then spread across several countries and affected a large number of people, it was classified as a pandemic.

Monitoring the Disease³

Defining Cases

As the virus that causes COVID-19 began to spread from person to person in communities (community transmission), scientists needed to track the disease and try to slow its spread. To do so, they needed a common definition for a case of COVID-19. Having a case definition helps to make sure cases are counted the same way everywhere. In the United States, a confirmed case of COVID-19 is defined as a person who tests positive for the virus that causes COVID-19.

COVID-19 became a nationally notifiable disease, meaning that health departments are required to report cases of COVID-19. Systems like the National Notifiable Diseases Surveillance System (NNDSS) collect and send data on cases of COVID-19 to U.S. CDC. This helps the agency monitor trends in cases within states and across the country.

Collecting Information About Cases

As cases of COVID-19 are being reported, epidemiologists are conducting public health surveillance, which is the systematic collection, analysis, and interpretation of health data. Surveillance allows epidemiologists to calculate:

- Incidence (number of new cases reported over a specific period of time).
- Prevalence (number of cases at one specific point in time).
- Hospitalizations (number of cases resulting in hospitalization).
- Deaths (number of cases resulting in death).

³ U.S. CDC. Monitoring the Disease. (July 1, 2020) Accessed on August 31, 2020 from https://www.cdc.gov/coronavirus/2019-ncov/cases-updates/about-epidemiology/monitoring-and-tracking.html

But surveillance isn't just about counting cases. All kinds of information can be collected to learn more about the disease.

Collecting data from medical records (chart abstractions) can tell us more about patients infected with COVID-19 and the course of their disease. These data might include demographic information (age, race/ethnicity, sex), as well as symptoms, treatments, and health outcomes. Scientists can use chart abstractions to learn who is more likely to become severely ill, what medical care patients have received, and if patients have recovered.

Reporting Cases

Once scientists collect and analyze the data, experts in data visualization help to create pictures, charts, and graphics to make the information easier to understand and use. This information is not only helpful for scientists working to understand the information but also for the public.

Displays of epidemiological data often include an epidemic (epi) curve. An epi curve is a graph that shows the number of cases, hospitalizations, or deaths (y-axis), over time (x-axis). Epi curves for COVID-19 are updated constantly as new data become available.

Because there is a delay between when someone gets sick and when that person's case is reported, it can be hard to determine when the number of cases actually start to decline. An epi curve for the most recent few weeks might look like an outbreak is ending even when it is still active. The full shape of the curve is only clear after the outbreak is over.

Tracing Contacts

CONTACT TRACING WORKFLOW (COVID-19)

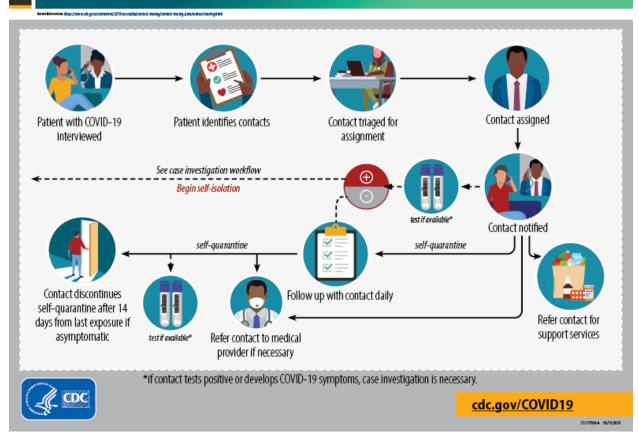


Figure 1 COVID-19 Contact Tracing Workflow (Source: U.S. CDC)

Scientists and public health workers are also working to stop the spread of COVID-19 through contact tracing. In this strategy, public health workers talk to people with COVID-19 to learn about all the people they were physically close to while they were potentially able to spread the disease. Those people are their contacts. Maine CDC is particularly focused on identifying individuals who would be defined as close contacts or persons who were within six (6) feet of an infected person for a cumulative total of 15 minutes or more over a 24-hour period starting from 2 days before illness onset (or, for asymptomatic patients, 2 days prior to test specimen collection) until the time the patient is isolated. With this information, scientists can follow the

⁴ Individual exposures added together over a 24-hour period (e.g., three 5-minute exposures for a total of 15 minutes). Data are limited, making it difficult to precisely define "close contact;" however, 15 cumulative minutes of exposure at a distance of 6 feet or less can be used as an operational definition for contact investigation. Factor

of exposure at a distance of 6 feet or less can be used as an operational definition for contact investigation. Factors to consider when defining close contact include proximity (closer distance likely increases exposure risk), the duration of exposure (longer exposure time likely increases exposure risk), whether the infected individual has symptoms (the period around onset of symptoms is associated with the highest levels of viral shedding), if the infected person was likely to generate respiratory aerosols (e.g., was coughing, singing, shouting), and other

chain of infection to understand how the disease might have spread from person to person. Contact tracing is used to prevent and control many other infectious diseases, such as tuberculosis and HIV.

Using the information learned through contact tracing, epidemiologists develop tables, called line lists, summarizing the data about the contacts. The connection between each person is called an epidemiological (epi) link.

Contacts of people with COVID-19 are at risk for developing the disease and spreading it to others.

Public health workers reach out to these people at risk to tell them they have had contact with someone with COVID-19 and because of this exposure, they might get sick. They recommend prevention measures that contacts should follow, including self-quarantine (staying away from others while monitoring themselves for signs of illness), handwashing, and the use of cloth face coverings.

Contact tracing has helped slow the spread of other epidemics, including Ebola and SARS, and is crucial in slowing the spread of COVID-19.

Impact of Disease

A key role of epidemiologists during the COVID-19 pandemic is to estimate the burden of disease: the impact of a disease or other health outcome on a population. As scientists collect data from the COVID-19 studies, they are analyzing these data to estimate key outcomes, such as the number of infections, illnesses, medical visits, hospitalizations, and deaths.

Outbreak Prevention⁵

The following steps are broken out based on steps that EMS clinicians and other staff can take as well as steps that agency leadership can take to mitigate outbreaks within the department or agency.

Action Items for EMS clinicians, Firefighters and Other First Responders

• EMS clinicians, firefighters and other first responders *must not work if they are sick*. If they develop a fever or symptoms, such as cough or shortness of breath, have them call their healthcare provider for medical advice and guidance before visiting their office.

⁴ Continued: environmental factors (crowding, adequacy of ventilation, whether exposure was indoors or outdoors). Because the general public has not received training on proper selection and use of respiratory PPE, such as an N95, the determination of close contact should generally be made irrespective of whether the contact was wearing respiratory PPE. At this time, differential determination of close contact for those using fabric face coverings is not recommended.

⁵ U.S. CDC. Firefighters & EMS Providers. (April 17, 2020). Accessed on August 31, 2020 from https://www.cdc.gov/coronavirus/2019-ncov/community/organizations/firefighter-EMS.html

They must follow Maine EMS's return-to-work guidance after recovering from the illness.

- Advise them to contact their supervisor and occupational health program immediately if
 they are exposed to a patient with suspected or confirmed COVID-19 when they were
 not wearing recommended personal protective equipment (PPE). They should also
 complete any occupational exposure report forms required by their organization.
- If they are permitted to continue working because they are asymptomatic and have a negative test result, they must take additional precautions, including, but not limited to, wearing a facemask at all times and monitoring for symptoms and fever for 14 days after they were exposed to the patient (see Appendix A).
- They must wear at least a surgical mask, gloves, and eye protection⁶ for all calls; however, during patient interactions where COVID-19 is suspected or confirmed, and an aerosol-generating procedure is performed, the patient is in cardiac arrest, or the patient is non-compliant with universal masking, they must wear the following PPE:
 - Fit tested NIOSH-approved N95 or higher-level respirator. If using an N95 device that has an exhalation port, additional actions must be taken to provide source control (preventing infection spread of infection to others) consistent with current state and federal guidelines (e.g., covering the exhalation port with a surgical mask or another filter)
 - If a respirator is used, they must ensure that they can maintain an adequate seal. This may require them to be clean-shaven because facial hair can cause respirators to leak around the face seal.
 - A single pair of disposable examination gloves
 - Eye protection, such as face shield or goggles, unless they are wearing a full-face respirator⁷
 - Gown or coveralls
 - If their PPE becomes grossly contaminated or compromised (e.g., torn), discard and replace their PPE in accordance with the policies and procedures of the organization.
 - o Follow CDC guidance if they are reusing, reprocessing, and storing PPE.
- Have patients wear facemasks or cloth face coverings for source control, if they can tolerate it.
- Limit the number of individuals in the patient compartment to minimize possible exposures.

⁶ Goggles or a face shield that covers the front and sides of the face. Protective eyewear (e.g., safety glasses, trauma glasses) with gaps between glasses and the face likely do not protect eyes from all splashes and sprays. ⁷ Protective eyewear (e.g., safety glasses, trauma glasses) with gaps between glasses and the face likely do not protect eyes from all splashes and sprays.

- Use EPA-registered hospital-grade disinfectants to disinfect non-porous surfaces of ambulances, gurneys, clipboards, radios, and other frequently touched surfaces or equipment according to the manufacturer's recommendations. Non-porous surfaces of PPE such as powered air-purifying respirators (PAPRs) should be cleaned and disinfected in accordance with the manufacturer's recommendation.
- Launder reusable personal protective clothing (e.g., uniforms) or other porous materials according to the manufacturer's recommendations if they become contaminated.
- Use alcohol-based hand sanitizers with greater than 60% ethanol or 70% isopropanol, or wash hands with soap and water for at least 20 seconds when soap and water are available. Strongly encourage them to avoid touching their eyes, nose, and mouth.
- Remain diligent in maintaining physical distance between colleagues and patients, where possible.
- Remain diligent with regular hand washing and maintaining good respiratory hygiene.
- Always wear surgical mask or face covering when not in private quarters while at work.
 If requested by agency/department leadership, staff should also wear eye protection.
 This will help to mitigate the risk of removing multiple EMS clinicians, firefighters and other first responders from service should an individual contract COVID-19.
- Utilize the confidential Maine FrontLine WarmLine by calling (207) 221-8196 or texting
 "Frontline" to 898-211, the regional CISM teams, or the Maine EMS <u>"Stay Healthy in EMS" webpage</u> as resources to increase overall health, maintain resiliency, and manage stress.

Action Items for Agency/Department Leadership

- Develop and share a COVID-19 health and safety plan to protect EMS clinicians, firefighters and other first responders.
- Continue conducting daily symptom checks with all employees to more rapidly identify those with signs and/or symptoms consistent with the disease.
- Encourage physical distancing when possible between members of the agency/department.
- Educate and encourage employees to maintain good hand and respiratory hygiene practices to help prevent the spread of the virus.
- Deliver up-to-date safety messaging on the current status of resources and protocols.
- Use National Incident Management System (NIMS) forms to document protective actions.
- Require sick employees to stay home. Employees (EMS clinicians, firefighters and other
 first responders) must not return to work after receiving a positive COVID-19 test result
 until the criteria to discontinue home isolation are met, in consultation with healthcare
 workers, Maine EMS, and Maine CDC, as necessary (Appendix B). Individuals who are

symptomatic but have a negative COVID-19 PCR test should remain at home until at least 24 hours following resolution of symptoms without the use of medications aimed at addressing the symptoms (e.g., no fever without fever reducing medications). If symptoms worsen or do not resolve within three to four (3-4) days, the individual should seek medical attention. Sick leave policies should be flexible and non-punitive.

- Fit test personnel for appropriate respirators. Train them on proper donning, doffing, and maintenance of all PPE. All PPE should be accessible to responders when needed and available.
- Work collaboratively with local and county Emergency Management Agencies in the event additional PPE is needed and cannot be sourced through traditional supply chain channels.
- During pre-hospital care, take steps for universal source control for anyone (e.g., EMS clinicians, patients, family members), regardless of whether they have symptoms:
 - o Cloth face coverings are not considered PPE but can be used for source control.
 - N95 respirators should be reserved for EMS clinicians, firefighters and other first responders.
- Follow Maine EMS and Maine CDC guidance for when employees can return to work:
 - o Following potential exposure to patients with COVID-19 (Appendix A)
 - o After being diagnosed with confirmed or suspected COVID-19 (Appendix B)
- Designate a person to be responsible for addressing employees COVID-19 concerns.
- Ensure all staff are aware of the confidential Maine FrontLine Warmline [(207) 221-8196], regional CISM teams, and the Maine EMS "Stay Healthy in EMS" webpage as resources to help improve resiliency and to manage stress.
- Develop policy requiring staff to always wear a surgical mask or face covering when not in private quarters while at work. Some services operating in areas with significant community spread may also add eye protection to help mitigate the spread within the department. This will reduce the risk of removing multiple EMS clinicians, firefighters and other first responders from service should an individual contract COVID-19.

Initial Response

The following guidance is designed to provide a strategy for how to manage the initial response to a COVID-19 case or suspected case at your EMS agency or fire department.

Identification of a Suspected or Positive COVID-19 Case(s)

Services leaders may become aware of positive cases through a variety of routes. It is important to understand the first steps that the service leader should take in each situation.

All healthcare workers, including non-EMS licensed first responders, should be remain diligent about self-monitoring for signs and symptoms consistent with COVID-19. It is recommended that all EMS clinicians, firefighters and other first responders monitor themselves at least once daily for the onset of signs and/or symptoms. EMS clinicians, firefighters and other first responders should keep themselves informed with the U.S. CDC's most current list of possible signs and symptoms.

Individual Reports Symptoms to Supervisor Prior to Reporting to Work

Do not allow the symptomatic individual to report to work or respond on any incidents.
 Send them to their primary care provider, local clinic, occupational health service, or available COVID-19 swabbing site to receive a PCR-based test as soon as possible.

Continue to "In All Cases" section below.

Individual Reports Symptoms to Supervisor While at Work

 Immediately remove the symptomatic individual from service. Send them home immediately but direct them to report to their primary care provider, local clinic, occupational health service, or available COVID-19 swabbing site receive a PCR-based test as soon as possible.

Continue to "In All Cases" section below.

Individual Is Tested Independently and Reports a Positive Result

- Some EMS clinicians, firefighters and other first responders may choose to seek testing independently or through some administrative means (e.g., elective surgical procedure or returning from out-of-state travel).
- Immediately remove the symptomatic individual from service, if on shift. If not on shift, do not allow the symptomatic individual to report to work or respond on any incidents.
- Identify the date in which the individual was tested for COVID-19, where they were tested, the method by which they were tested (e.g., antibody, antigen, or viral PCR testing). If any test aside from a PCR test yielded a positive result, direct them to receive a PCR test from their local primary care provider, clinic, operational health, or swabbing site.

Continue to "In All Cases" section below.

Individual is Symptomatic following the First Dose of COVID-19 Vaccine

• If the individual is experiencing cough, shortness of breath, rhinorrhea, sore throat, loss of taste, loss of smell, diarrhea, or fever, then they should not return to work or respond to any incidents. Send them to their primary care provider, local clinic, occupational

- health service, or available COVID-19 swabbing site to receive a PCR-based test as soon as possible.
- If the symptoms resolve within 24 hours following onset, the individual may continue to work and be tested under the serial testing strategy described later in this document for post vaccination side effects including the requirements outlined in Appendix A (a decision aid can be found in Appendix G). If the symptoms last longer than 24 hours, they should not return to work or respond to any incidents. Send them to their primary care provider, local clinic, occupational health service, or available COVID-19 swabbing site to receive a PCR-based test as soon as possible.

Continue to "In All Cases" section below.

Individual is Symptomatic following the Second Dose of COVID-19 Vaccine

- If the individual is experiencing cough, shortness of breath, rhinorrhea, sore throat, loss
 of taste, loss of smell, or diarrhea, then they should not return to work or respond to
 any incidents.⁸ Send them to their primary care provider, local clinic, occupational
 health service, or available COVID-19 swabbing site to receive a PCR-based test as soon
 as possible.
- If the individual is febrile, then they should not return to work or respond to any incidents. If the fever resolves within 24 hours following onset, the individual may return to work and be tested under the <u>serial testing strategy</u> described later in this document for post vaccination side effects including the requirements outlined in <u>Appendix A</u> (a decision aid can be found in <u>Appendix G</u>). If the fever lasts longer than 24 hours, they should not return to work or respond to any incidents. Send them to their primary care provider, local clinic, occupational health service, or available COVID-19 swabbing site to receive a PCR-based test as soon as possible.
- If the individual experiences fatigue, headache, chills, myalgia (muscle aches), or arthralgia (joint pain) and the individual feels well enough to work, they may work but only if they comply with the <u>serial testing strategy</u> described later for post-vaccination side effects including the requirements outlined in <u>Appendix A</u> (a decision aid can be found in <u>Appendix G</u>). If these side effects last longer than three (3) consecutive calendar days, they should not return to work or respond to any incidents. Send them to their primary care provider, local clinic, occupational health service, or available COVID-19 swabbing site to receive a PCR-based test as soon as possible.

⁸ Note that there is an exception for fevers following the second dose (booster) dose as long as it resolves within 24 hours but not for the initial first (primer) dose in a two-dose series or in future vaccines that only require one (1) dose (none are currently on the market within the United States of America at the time of this publication)

Continue to "In All Cases" section below if PCR testing is required.

In All Cases

- Individuals who are experiencing signs and/or symptoms consistent with a medical emergency should be treated appropriately by the EMS service and/or referred to the nearest emergency department for further evaluation.
- They must immediately begin isolation at their home or another site where they can safely self-isolate. Their family, whom are presumably close contacts, should also enter quarantine pending results from the swabbing test of the individual who is symptomatic. For those that are asymptomatic but have a positive COVID-19 test result, their families should also enter quarantine and follow Maine CDC recommendations issued by the contact tracer involved with the case.
- Determine the exact date that the individual began experiencing signs and/or symptoms (e.g., they lost some of their taste yesterday but developed a cough today).
- Determine the last time that the individual was on site of the agency/department or interacting with other members of the agency/department's staff or the community.
 - o If the individual has been in close contact⁹ with other co-workers within 48 hours prior to the onset of symptoms and did not wear appropriate PPE, those persons are considered direct contacts/exposures. Universal masking procedures within the agency/department of at least a surgical mask are strongly recommended even when not interacting with patients. Some agencies/departments may choose to also require universal eye protection in areas where there is significant community spread. This will help prevent staff from being removed from service in the event someone becomes symptomatic. The co-workers considered direct contacts/exposures should be removed from service immediately and placed into quarantine until the results of the symptomatic individual come back negative or they complete the 14-day quarantine. If the symptomatic individual(s) is identified as positive, their close contacts should remain in quarantine for 14 days following the last known contact with the positive individual.
 - Compile a list of all the symptomatic individual's known contacts and a working contact number, the Maine CDC Contact Tracing team will reach out to them individually as part of their tracing process.
 - Determine if the individual had been involved in patient care during this time,
 build a list of those patients. Maine EMS has developed a shared report within

⁹ Within 6 feet of an infected person for a cumulative total of 15 minutes or more over a 24-hour period starting from 2 days before illness onset (or, for asymptomatic patients, 2 days prior to test specimen collection) until the time the patient is isolated

the MEFIRS report writer tool that easily exports the necessary information. You can access that report by going to *Report Writer* and searching for "Clinical Contact Tracing." For incident date, you should enter the date 48 hours prior to the first reported signs and/or symptoms (for instance, if symptoms began on Thurs., Sept. 3, 2020, enter 09/01/2020 as the date). The Crew Member ID corresponds to the individuals Maine EMS License Number (License numbers can be looked up on the Maine EMS Public Lookup).

- Determine if the individual has participated in any community events, gatherings, or volunteer activities within the community within the 48-hour window prior to onset of first symptoms. This includes church attendance, school events, and other gatherings where the individual may be in contact with others within six (6) feet.
- Determine if those involved work at other EMS agencies or departments.
- Notify Maine CDC and Maine EMS via the Maine CDC EMS Clinician and Dispatcher
 COVID-19 Reporting Tool (<u>Maine EMS Operational Bulletin No. 2020-04-23-01</u>) within
 24 hours. These reports can be submitted securely through the electronic portal:
 https://gateway.maine.gov/redcap/surveys/?s=PMRK4MKDRC. You will need the
 following information to make the notification:
 - The identity of the EMS service organization or Emergency Medical Dispatch Center (EMDC);
 - License number of the EMS clinician or emergency medical dispatcher (EMD) for the individual involved; and
 - o Date of removal from the EMS or EMD workforce.
- Assess current supplies of PPE and ensure that the agency does not need additional
 equipment. Reach out to your existing supply chain resources initially; however, do not
 hesitate to engage the State's stockpile, if necessary. To do so, reach out to the local
 emergency management agency to initiate a request.
- Connect with local municipal leadership (e.g., Mayor, Select Board) to make sure they are aware of the situation, as needed.
- Engage the agency/municipality/county public information officer to work
 collaboratively with Maine CDC and Maine EMS to address media inquiries regarding
 the potential case. It is important to be able to address this internally and externally
 within the community.
- Consider engaging the confidential Maine FrontLine WarmLine (via the primary line (207) 221-8196 or through Dr. Laurie Cyr-Martel at (207) 240-8913) and/or Regional EMS Offices to arrange for additional support for the overall health of EMS clinicians, firefighters and other first responders including outreach where they can provide strategies to increase resiliency and navigate stress. The goal is to establish

- relationships that facilitate more effective prevention, protection, mitigation, response, and recover when the unexpected occurs.
- If your agency is not authorized to conduct COVID-19 swabbing, reach out to local healthcare partners (e.g., EMS agencies authorized to conduct swabbing, home health nursing staff, local hospital) to check their availability to conduct universal swabbing within your agency. Compile a list and count of all of the individuals working within your agency that you intend on getting swabbed. Do not conduct the swabbing unless the specimen from the individual in question comes back as positive. Maine EMS and Maine CDC can facilitate these conversations and can assist the agency in making these arrangements.
- Write down any questions for Maine CDC and/or Maine EMS. If there are questions, don't hesitate to reach out to Maine EMS directly at 207.626.3860 or the Director's direct line at 207.620.6698. The Maine EMS Director is more than willing to answer any questions, but fire departments without emergency medical services may also reach out to the State Fire Marshal (Joseph Thomas) via email at ioseph.e.thomas@maine.gov. Law enforcement agencies may also reach out to the Maine State Police for assistance by contacting Col. John Cote via email at iohn.e.cote@maine.gov. If you are unable to reach Col Cote or Fire Marshal Thomas via the office phone or email, do not hesitate to call any of the regional communication centers (RCCs), explain the situation, and ask them to assist you in connecting with them, respectively.

BinaxNOW™ COVID-19 Ag Card Point-of-Care Test¹⁰

NOTICE: While agencies should keep their current BinaxNOW supplies on hand, Maine EMS released *Operational Bulletin 2021-01-21-01: Temporary Suspension of Traditional BinaxNOW Use for EMS and Maine EMS Playbook Revision 3.0* that temporarily discontinues the recommended use of BinaxNOW tests while the prevalence of COVID-19 disease in the State of Maine is so elevated. For further information as to why Maine EMS is not recommending the test at this time, please refer to the <u>Operational Bulletin</u>.

The BinaxNOW™ COVID-19 test, authorized under a U.S. FDA Emergency Use Authorization (EUA), is a lateral flow test that detects the presence of protein antigens from SARS-CoV-2 in individuals suspected of COVID-19 within the first seven days of symptom onset. This U.S. FDA-authorized diagnostic test does not require any instrumentation to test the samples and instead determines a COVID-19 negative or positive result using a test card. This test has been authorized only for the detection of the nucleocapsid protein antigen from SARS-CoV-2, not for

¹⁰ U.S. DHHS. *Abbott BinaxNOW COVID-19 Ag Card Point of Care SARS-CoV-2 Diagnostic Test*. (2020) Access on Oct. 26, 2020, from https://www.hhs.gov/sites/default/files/abbott-binaxnow-fact-sheet.pdf

any other viruses or pathogens. EMS clinicians in the State of Maine may perform the BinaxNOW COVID-19 Antigen Test *only* after they have completed the online training for the test available on the <u>Maine EMS Education (MEMSEd) online learning management system</u>. The required training is called, "BinaxNOW COVID-19 Antigen Card Point-of-Care Test Training."

Clinical Laboratory Improvement Amendments of 1988 (CLIA) Implications

Use of this authorized test is limited to laboratories certified under the CLIA, 42 U.S.C. § 263a, that meet the requirements to perform moderate, high or waived complexity tests and POC settings operating under a CLIA Certificate of Waiver, Certificate of Compliance, or Certificate of Accreditation. Agencies/departments wishing to conduct BinaxNOW testing must have a CLIA Certificate of Waiver, Certificate of Compliance, or Certificate of Accreditation. Most organizations in the public safety sector would qualify for a Certificate of Waiver. CLIA requires all entities that perform even one test, including waived test[s] on... materials derived from the human body for the purpose of providing information for the diagnosis, prevention or treatment of any disease or impairment of, or the assessment of the health of, human beings hold a certificate. 11 Maine EMS has published guidance regarding securing a CLIA Waiver. Once the <u>application</u> is completed it will need to be submitted to the Maine CLIA Program Office and then the fee will need to be paid online via the web portal. Organizations who have an existing waiver do not need to take any additional actions to update their existing waivers. 12 Agencies or departments with an active CLIA waiver may be asked by other members of the public safety community (law enforcement, fire departments, dispatchers, and emergency management staff) to assist with performing BinaxNOW tests in situations where they have a symptomatic staff members but do not have trained medical personnel or a CLIA waiver. This should be performed using PPE that provides aerosol protections (gown, gloves, N95 (equivalent or higher), and eye protection).

Indications for Testing using the BinaxNOW

BinaxNOW COVID-19 Antigen testing is approved for use on persons who are actively experiencing signs and/or symptoms consistent with COVID-19. The U.S FDA EUA only authorizes its use in persons who are within the first seven days following symptom onset. Use of these devices on persons prior to symptom onset or when asymptomatic may result in inaccurate results (i.e., false negative – individual is positive for COVID-19, but the test says negative).

¹¹ CMS. How to Apply for a CLIA Certificate, Including International Laboratories. (Oct. 1, 2020). Accessed on October 26, 2020, from https://www.cms.gov/Regulations-and-

Guidance/Legislation/CLIA/How_to_Apply_for_a_CLIA_Certificate_International_Laboratories.

¹² Montejo, William. [Email]. (October 21, 2020)

Interpreting the Results of the BinaxNOW Test

The BinaxNOW's EUA is approved for use with individuals who are actively exhibiting signs and/or symptoms consistent with COVID-19. Based on the current incidence of disease within the State of Maine, the tests can reliably identify persons who do *not* have COVID-19; however, the positive results are not confirmatory and must be confirmed by PCR testing. It is important to note that these assumptions are based on limited research data associated with these tests. If there is ever doubt in the accuracy of the result (e.g., individual is exhibiting classic signs/symptoms and has a known exposure) then they should be referred for PCR-based COVID-19 testing.

Results and Required Actions:

Negative: A negative BinaxNOW result suggests that the symptomatic individual does not have COVID-19 and the symptoms currently being expressed are attributed to another irritant, viral, or bacterial infection. These individuals *MUST* be sent home as they should not work while sick; however, they may return to work *24 hours after becoming symptom-free without medications aimed at addressing the symptoms* (e.g., cough medicine containing antipyretic agent). Individuals whose symptoms progressively worsen or are persistent more than three to four (3-4) days should seek medical care and receive a confirmatory COVID-19 PCR test.

Positive: Due to the relatively low incidence of disease within the State of Maine, there is an increased risk of false positives. However, if someone is swabbed and tested using the BinaxNOW system and the results are positive, they will be treated as though they are currently infectious and will begin isolation for ten (10) days. Therefore, it is important that anyone receiving a positive result seek a PCR COVID-19 test within 24 hours but no later than 48 hours. Positive results from the BinaxNOW COVID-19 Antigen test mean that the individual will now be identified as a probable COVID-19 case until confirmed or proven otherwise by PCR testing. ¹³ If the PCR test collected within 48 hours of the antigen test yields a negative result, the individual may return to work 24 hours following the resolution of symptoms without medications aimed at addressing the symptoms. Due to the risk of false positive results, individuals who receive a positive result on the BinaxNOW Antigen Test must receive a PCR test within 24 hours, but no longer than 48 hours after the initial positive on the BinaxNOW device.

Inconclusive/Invalid Results: Any tests that yield inconclusive or invalid results should be redone. It is important to note that if conducting a retest, the individual conducting the swabbing should wait 15-20 minutes before swabbing again to ensure they obtain enough sample to test.

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¹³ See Glossary of Terms regarding probable COVID-19 case.

Documentation of BinaxNOW Testing

Maine CDC requires that all uses of the BinaxNOW COVID-19 Antigen test be reported through their online reporting system. Services that have CLIA waivers and intend on offering these tests must register with the Maine CDC Reporting Portal (REDCap) prior to conducting any tests. Information has been sent to all service leaders for the organizations that are currently registered with a CLIA waiver; however, those who obtain a waiver after August 26, 2020 should follow the instructions in Appendix E. Results of every test conducted must be reported via the online reporting tool within 24 hours. This includes negative, positive, and inconclusive test results. After services register as reporting organizations, they will be sent a unique link that is tied to their facility and CLIA waiver. Services should not register more than one time. If your service misplaces the link to submit BinaxNOW results, reach out to the Maine EMS office and we will assist with coordinating through the Maine CDC to obtain the unique URL/link.

After you complete the registration form, the "reporter" will be emailed a custom URL link, different from the one found in <u>Appendix E</u>, that is to be used every time when submitting results to Maine CDC. When submitting results to Maine CDC, you will need the following pieces of information from each person that was tested using the BinaxNOW COVID-19 Antigen Test (including positive, negative, and inconclusive test results):

- First name;
- Middle initial;
- Last name;
- Date of birth;
- Sex;
- Ethnicity;
- Race;
- Patient address;
- Patient phone number;

- Specimen collection date (all results must be reported within 24 hours);
- Specimen source (all BinaxNOW tests should use anterior nare swabs);
- Test results; and
- Comments (clinical/laboratory information about the patient).

It is important that after you enter in all the appropriate information that you verify the accuracy in the "Verify Lab Submission" section at the bottom of the form. This section will auto-populate as you enter data into each field. These are official infectious disease records with the Maine CDC and should be treated as such regarding accuracy and completeness. All information submitted via this form is covered by Maine CDC confidentiality rule(s) and law(s) including 22 MRSA Chapter 250.

Distribution of BinaxNOW Supplies

County-level emergency management agencies (EMAs) have agreed to serve as the distributors for BinaxNOW kits throughout the State of Maine. EMS agencies who currently hold a CLIA waiver based on the list obtained from the <u>U.S. CDC CLIA Laboratory Search</u> as of November 1,

2020 will be allocated one (1) box of 40 BinaxNOW test cards. Each service must identify one (1) individual who will be responsible for conducting the tests as there is only one control kit per box (e.g., infection control officer). In the event more test cards are required or more people must be trained, those supplies (test kits or control kits) should be ordered through the local EMAs. It should be noted that there is an extremely limited supply of additional control kits at this time and so services should anticipate that they may not be able to receive additional control kits to train more than the one (1) designee at the agency/department.

Serial BinaxNOW Testing following the Second Dose of COVID-19 Vaccines First Dose

If an individual receives the first dose (or the singular dose in future single dose vaccines) of the COVID-19 vaccine and they develop symptoms potentially associated with an immunological response (fatigue, headache, chills, myalgia, or arthralgia) that fully resolve within 24 hours of onset, they are able to utilize this pathway. If persons feel well enough to work, they can to do so but should receive serial BinaxNOW testing for three (3) days following the vaccine administration. These tests should be conducted prior to the start of their shift. If they receive a positive result at any time, then follow the guidance regarding positive test results and seek PCR confirmatory testing. If they maintain negative tests every day, they may continue to work but must follow the guidelines established in Appendix A of this document for the protection of the other staff in the event that the test resulted in a false negative. If symptoms last longer than 24 hours, then the individual should be removed from work and no longer respond to any calls and seek PCR testing. This process is represented visually in Appendix G.

Second Dose

If an individual receives the second dose (two dose series) of the COVID-19 vaccine and they develop symptoms potentially associated with an immunological response (fatigue, headache, chills, myalgia, or arthralgia) and/or have a fever that fully resolves within 24 hours of onset, they are able to utilize this pathway. If persons feel well enough to work, they can to do so but should receive serial BinaxNOW testing for three (3) days following the vaccine administration. These tests should be conducted prior to the start of their shift. If they receive a positive result at any time, then follow the guidance regarding positive test results and seek PCR confirmatory testing. If they maintain negative tests every day, they may continue to work but must follow the guidelines established in Appendix A of this document for the protection of the other staff in the event that the test resulted in a false negative. If symptoms last longer than three (3) days or 72 hours, then the individual should be removed from work and no longer respond to any calls and seek PCR testing. This process is represented visually in Appendix G.

After Receiving Results from PCR Testing If the results are positive:

- Submit an update to the Maine CDC EMS Clinician and Dispatcher COVID-19 Reporting
 Tool (Maine EMS Operational Bulletin No. 2020-04-23-01) within 24 hours. These
 reports can be submitted securely through the electronic portal:
 https://gateway.maine.gov/redcap/surveys/?s=PMRK4MKDRC. You will need the
 following information to make the notification:
 - The identity of the EMS service organization or Emergency Medical Dispatch Center (EMDC);
 - License number of the EMS clinician or emergency medical dispatcher (EMD) for the individual involved; and
 - Date of removal from the EMS or EMD workforce.
- For fire departments that do not provide EMS, feel free to reach out to the State Fire Marshal for assistance with connecting to other state-wide resources. The State Fire Marshal can be reached via email at joseph.e.thomas@maine.gov or phone at (207) 626-3871. If you are unable to reach him via the office or email, do not hesitate to call any of the regional communication centers (RCCs), explain the situation, and ask them to assist you in connecting with Fire Marshal Thomas.
- Law enforcement agencies can reach out to the Maine State Police for assistance with connecting to other state-wide resources. The Colonel of Maine State Police, Col. John Cote, can be reached via email at john.e.cote@maine.gov or phone at (207) 626-3803. If you are unable to reach him via the office or email, do not hesitate to call any of the regional communication centers (RCCs), explain the situation, and ask them to assist you in connecting with Col. Cote.
- Reach out to your established partners to assist with conducting universal swabbing for your agency. If unable to secure swabbing services or additional assistance is needed, reach out to the Maine EMS office for assistance in coordinating universal swabbing.
 The office can be reached during business hours at 207.626.3860 or after hours at 207.620.6698 (Director's cell phone).
- Contact your organization's leadership and/or the local government to make them aware of the situation.
- Notify all of those previously identified that they have been exposed to a positive COVID-19 patient. It is recommended that all of those who are close contacts¹⁴ be placed on quarantine for 14 days. It should be noted that they will also receive a phone call from the Maine CDC Epidemiological Contact Tracing team.
- Consider the psychological needs of the organization and members by:
 - o Engaging Peer Support teams, if available;

¹⁴ Within 6 feet of an infected person for a cumulative total of 15 minutes or more over a 24-hour period starting from 2 days before illness onset (or, for asymptomatic patients, 2 days prior to test specimen collection) until the time the patient is isolated

- Contacting the regional CISM team via the Regional Maine EMS Offices or through your organization's structure to provide support;
- Calling the primary Maine FrontLine WarmLine (207) 221-8196 or Dr. Laurie Cyr-Martel at (207) 240-8913 to arrange for members of the confidential Maine FrontLine WarmLine who has a designated public safety response team to speak directly to all staff (via a virtual staff meeting) regarding the situation. The goal is to communicate effective strategies to increase resiliency and navigating the associated stress.
- Share statewide Coronavirus Support Resources with individuals who are placed on quarantine and isolation. Individuals can <u>submit a referral request online</u> (https://www.maine.gov/dhhs/coronavirus-resources/support-for-isolation-quarantine) for temporary help with: food; shelter and assistance to stay in the home; income and rent support through existing programs; cultural brokering and interpretation; psychosocial support; personal protective equipment for the home (including face coverings/simple masks and thermometers); transportation services for medical needs; outreach and education services about COVID-19; and other necessities.

If the results are negative 15:

If the individual is symptomatic and has a negative COVID-19 PCR test, it is assumed the current symptoms are the result of another irritant, bacteria, or virus but not SARS-CoV-2. *Symptomatic individuals with negative test results should remain in quarantine until 24 hours after becoming symptom-free without medications aimed at addressing the symptoms (e.g., cough medicine containing antipyretic agent)*. If an individual has symptoms that worsen or persist for longer than three to four (3-4) days, the individual should seek medical attention.

Continued Response – Moving Forward

The ongoing response to a symptomatic and/or a positive COVID-19 co-worker will be traumatic for the entire department and regionalized EMS system. Due to the interconnected nature of EMS and fire departments, there is a strong likelihood that the individual affected does not work for just one organization. It is important to establish a dialogue with Maine EMS as well as the other agencies including those in neighboring states where positive individuals work to mount a comprehensive response to the situation.

¹⁵ U.S. CDC. Return-to-Work Criteria. (August 10, 2020). Accessed on Sept. 4, 2020 from https://www.cdc.gov/coronavirus/2019-ncov/hcp/return-to-work.html

Follow-Up Testing

Once it has been established that the department/agency has at least one (1) case of COVID-19, it will be important to begin organizing follow-up testing. As discussed in the first section, the incubation period for COVID-19 is anywhere from two days up to 14 days. Conducting swabbing immediately after identifying a positive COVID-19 case is not intended to determine if others were immediately infected within your organization, it is to determine if you have any other individuals who are asymptomatic and may be the source or an additional source of infection. There will likely be questions asking if the close contacts who test negative can come back to work. Those who are close contacts cannot, because they must wait the maximum incubation period to know if they contracted the virus.

It is important to established regular follow-up COVID-19 screening in the department/agency to determine if someone was missed as a close contact and was exposed to the virus. More importantly, it is a mechanism to monitor the close contacts to determine if they contracted the virus as well. Maine CDC and Maine EMS recommend that the entire department, including those who are quarantined but without a positive test result, engage in repeat swabbing every seven (7) days. This should be continued until 28 days have passed since the last positive test result.

Maine EMS and Maine CDC can assist in coordinating these swabbing campaigns within the department/agency.

Continuity of Operations Planning

It is important that all agencies/departments consider their continuity of operations plans prior to the incidence of a positive team member. Reestablishing connections with neighboring agencies and departments, as well as making sure that you have up to date contact information for regional contacts. If there are several cases at any single agency/department, this may incapacitate that organization's ability to respond safely. Maine EMS and Maine CDC have defined some contingency plans within this playbook to serve as stop-gap measures; however, it is important that first responder organizations pre-plan regarding backfilling staffing to ensure safe delivery of services to the community. This may require that agencies reach outside of their local area and/or county and connect with other partners throughout the state. There may be a need to circulate staff from unaffected parts of the state to affected parts in the event of a large outbreak. These conversations ideally should be conducted prior to the incidence of an outbreak. Consider both regional (e.g. Maine EMS Regional Coordinators) and statewide resources (e.g. Maine EMS, Maine Fire Chiefs Association, etc.) to assist in the process.

If the situation requires that the agency/department rely on mutual aid agreements to staff the station and provide continued coverage for the jurisdiction, it's imperative that the individuals working wear at least a surgical mask and eye protection at all times. This will minimize their

risk so that when they return home, they will not risk exposing co-workers at their home organization. Additionally, it may be necessary to coordinate through the local emergency management agency to arrange for housing options so that individuals can be brought in from outside areas. Many local emergency management agencies have already established agreement with local hoteliers to provide temporary emergency housing for emergency workers.

Reporting to Maine CDC

As part of the department/agency's continued response to the situation it is important that the organization maintain compliance with the Maine CDC Emergency Rule 10-144 CMR Ch. 124 (Adopted April 22, 2020). Reporting can be accomplished by using the online reporting tool: Maine CDC EMS Clinician and Dispatcher COVID-19 Reporting Tool (Maine EMS Operational Bulletin No. 2020-04-23-01) within 24 hours. These reports can be submitted securely through the electronic portal: https://gateway.maine.gov/redcap/surveys/?s=PMRK4MKDRC. You will need the following information to make the notification:

- The identity of the EMS service organization or Emergency Medical Dispatch Center (EMDC);
- License number of the EMS clinician or emergency medical dispatcher (EMD) for the individual involved; and
- Date of removal from the EMS or EMD workforce.

It is important to maintain consistent and timely reporting because this allows Maine EMS and Maine CDC to have better insight into the number of licensed EMS clinicians and EMD professionals there are who are out of work. As an example, there may be one EMS clinician who works at three agencies. If it is reported that Service A, Service B, and Service C have one (1) clinician quarantined, then it will appear to Maine EMS and Maine CDC that it is three (3) different people; however, in reality it is one (1) person who just so happens to work for all three (3) services. The intention is for all agencies to report if they have an individual who is out of service, as it provides a more complete dataset. Maine EMS and the data coordinator team are able to remove duplicates and create visualizations and reports based on the information that comes out of the system.

Bringing People Back to Work after a Positive COVID-19 Test¹⁶

It is important to work closely with Maine CDC and Maine EMS on bringing staff members back to work. There is extensive guidance published on the U.S. CDC website as well as the Maine EMS website regarding going back to work. All individuals who are close contacts/exposures

¹⁶ U.S. CDC. Return-to-Work Criteria. (Aug. 10, 2020). Accessed on Sept. 7, 2020 from https://www.cdc.gov/coronavirus/2019-ncov/hcp/return-to-work.html#definitions

should remain out of work for 14 days following the last known exposure (Appendix A). That said, there may be specific situations that require that the individual return to work in order to maintain continuity of operations – this will be discussed in the <u>Contingencies</u> section. Individuals who test positive for COVID-19 should work closely with the Maine CDC case investigation team, who will assist in providing guidance on returning to work based on their signs, symptoms, and pre-existing conditions. Refer to the Maine EMS document "EMS Clinician Return-to-Work Guidance After Positive COVID-19 Test" document in the Appendix (Appendix B). The U.S. CDC only recommends the symptom-based strategy for determining when healthcare professionals can return to work as individuals. Repeat testing of individuals with COVID-19 may detect trace remnants of the virus RNA for weeks following recovery, but that does not indicate infectiousness. After 10 days, individuals are unable to spread infectious virus. Repeat testing individuals who are positive is not recommended for 90 days after first positive test.

The following is the text version of the flowchart that is in the Appendix document. This discusses return to work guidance for those individuals who have received a positive COVID-19 test. Definitions of the relevant terms can be found in the Glossary of Terms.

EMS clinicians, Firefighters and Other First Responders who are Asymptomatic

If the EMS clinicians, firefighters or other first responder is not severely immunocompromised and were asymptomatic throughout their infection, they may return to work when at least 10 days have passed since the date of their first positive viral diagnostic test (this excludes any antibody tests).

EMS clinicians, Firefighters and Other First Responders with Mild to Moderate COVID-19 Disease

For those EMS clinicians, firefighters or other first responders who are not severely immunocompromised, they must meet the following requirements before they can return to work:

- At least 10 days have passed since the symptoms first appeared; AND
- At least 24 hours have passed since last fever without the use of fever-reducing medications; AND
- Symptoms (e.g. cough, shortness of breath, etc.) have improved.

EMS clinicians, Firefighters and Other First Responders with Severe to Critical Illness or Those Who Are Severely Immunocompromised

For those EMS clinicians, firefighters or other first responders who were affected by severe to critical illness or are severely immunocompromised, they must meet the following requirements before they can return to work:

- At least 20 days have passed since symptoms first appeared; AND
- At least 24 hours have passed since last fever without the use of fever-reducing medications; AND
- Symptoms (e.g. cough, shortness of breath, etc.) have improved; AND
- Received consultation with infection control experts (i.e. discussion with Maine CDC contact tracing team regarding return to work).

After Returning to Work from a Positive COVID-19 Experience

After returning to work, EMS clinicians, firefighters and other first responders must:

- Wear a facemask at all times, at least, until all symptoms are completely resolved or at baseline. A facemask instead of a cloth face covering should be used by these EMS clinicians, firefighters and other first responders during this time period. After this period, they should revert to the department/agency's policy regarding PPE that is being used during the pandemic. A facemask does NOT replace the need to wear an N95 (equivalent or higher) respirator or other PPE when indicated, including when caring for patients with suspected or confirmed COVID-19.
- Monitor for symptoms and seek re-evaluation if symptoms reoccur or worsen.

Contingencies

It is important to first attempt to address concerns utilizing existing continuity of operations plans and working collaboratively with mutual aid partners throughout your local area, region, and ultimately throughout the state. That said, there may be situations where it requires departments/agencies to use contingency plans developed for specific crisis situations. One key situation that may require a contingency or crisis standard is related to staffing. It is the recommendation of Maine EMS and Maine CDC that organizations make every attempt to avoid these situations including utilizing mutual aid; however, these standards have been utilized as part of the ongoing response in the State of Maine and so it is important to go over their use and indications.

Staffing

If the department or service would no longer be able to continue providing essential 911 services to their constituents due to the number of individuals affected by quarantine, some of those individuals may be eligible to return-to-work only and then must immediately resume quarantine before and after work shifts.

If this situation does occur, it is important to discuss this with Maine EMS when you notify them of the positive case(s) or during a regular status update to Maine EMS. In the event of a staffing shortfall, you may bring back individuals from quarantine if they meet the following criteria (Appendix A):

- No signs or symptoms consistent with COVID-19; AND
- Negative COVID-19 test (optional, but strongly recommended); AND
- The individual agrees to be fully masked at all times during their entire shift for 14 days.
 This means that they will need to wear a surgical mask or face covering when they are in any other space aside from their personal/individual quarters where they are sleeping.
 Additionally, they must not eat with their co-workers as they would not be wearing PPE during this time; AND
- The individual agrees to remain diligent about physical distance as well as hand and respiratory hygiene.

Maine CDC has authorized the off-label use of BinaxNOW COVID-19 Antigen tests for serial testing of individuals who need to be brought back to work using this contingency policy. Persons who must return to work to maintain operations at a public safety organization may be tested every day that they are on shift for up to 14 days after the last known exposure. Each of these tests needs to be reported to Maine CDC. It is very important to note that this is off-label use of the BinaxNOW devices and there is scant evidence that these tests are sensitive enough to identify individuals who are pre-symptomatic or asymptomatic. The gold standard following exposure of any individual is for them to enter a 14-day quarantine; however, this is an additional protective measure that *may* identify an individual early in their disease process if they contract COVID-19. It should also be noted that due to the nature of the test, there will likely be an increased number of false positive tests in this population. Those individuals will need to cease work immediately and receive a PCR-based test prior to returning to work. Organizations are not required to use the BinaxNOW tests in this capacity; however, Maine EMS is committed to making sure these options are available but it important to know the limitations and risks associated with use in this manner.

Services are more than welcome to reach out to Maine EMS if you have any questions regarding the utility or use of the BinaxNOW COVID-19 Antigen test or any other attributes of

this playbook. The office can be reached by emailing maine.ems@maine.gov, calling (207) 626-3860, or calling the Director directly at (207) 620-6698 (work cell phone).

Glossary of Terms ^{17,18,19}

Close Contact: Someone who was within 6 feet of an infected person for a cumulative total of 15 minutes or more over a 24-hour period starting from 2 days before illness onset (or, for asymptomatic patients, 2 days prior to test specimen collection) until the time the patient is isolated.

Critical Illness: Individuals who have respiratory failure, septic shock, and/or multiple organ dysfunction.

Incubation Period: Period of time between exposure to an infection and onset of symptoms

Isolation: Refers to a strategy used to separate people infected with the SARS-CoV-2 virus (those with and without symptoms) from people who are not infected. The term is used here to refer to people who are isolated at home, a community care center (i.e., isolation shelter), or a health facility. In the home, anyone with COVID-19 symptoms or who has been diagnosed with the disease should separate themselves from others in the home to reduce the risk of transmission to others in the household and should stay home until it is safe for them to be around others. This also includes people who have signs and symptoms consistent with COVID-19, for whom test results are not yet or will not be available.

Mild Illness: Individuals who have any of the various signs and symptoms of COVID 19 (e.g., fever, cough, sore throat, malaise, headache, muscle pain) without shortness of breath, dyspnea, or abnormal chest imaging.

Moderate Illness: Individuals who have evidence of lower respiratory disease by clinical assessment or imaging and a saturation of oxygen (SpO2) ≥94% on room air at sea level.

Quarantine: Refers to a strategy used to keep someone who might have been exposed to COVID-19 but does not know if he or she is infected, away from others. Quarantine helps prevent spread of disease that can occur before a person knows that he or she is infected. People in quarantine should stay home, separate themselves from others, monitor their health, and follow directions from their local public health authorities.

Pandemic. (Oct. 23. 2020). Accessed on Oct. 26, 2020, from https://www.cdc.gov/coronavirus/2019-ncov/global-covid-19/operational-considerations-contact-

U.S. CDC. Appendices. (Oct. 21, 2020) Accessed on October 26, 2020, from https://www.cdc.gov/coronavirus/2019-ncov/php/contact-tracing/contact-tracing-plan/appendix.html#contact
 U.S. CDC. Operational Considerations for Adapting a Contact Tracing Program to Respond to the COVID-19
 Pandemic (Oct. 23, 2020) Accessed on Oct. 26, 2020, from https://www.cdc.gov/coronavirus/2019-ncov/global-

tracing.html#:~:text=Close%20contact%20is%20defined%20by,by%20local%20risk%20assessments.

¹⁹ U.S. CDC. Return-to-Work Criteria. (Aug. 10, 2020). Accessed on Sept. 7, 2020 from https://www.cdc.gov/coronavirus/2019-ncov/hcp/return-to-work.html#definitions

Severe Illness: Individuals who have respiratory frequency >30 breaths per minute, SpO2 <94% on room air at sea level (or, for patients with chronic hypoxemia, a decrease from baseline of >3%), ratio of arterial partial pressure of oxygen to fraction of inspired oxygen (PaO2/FiO2) <300 mmHg, or lung infiltrates >50%.

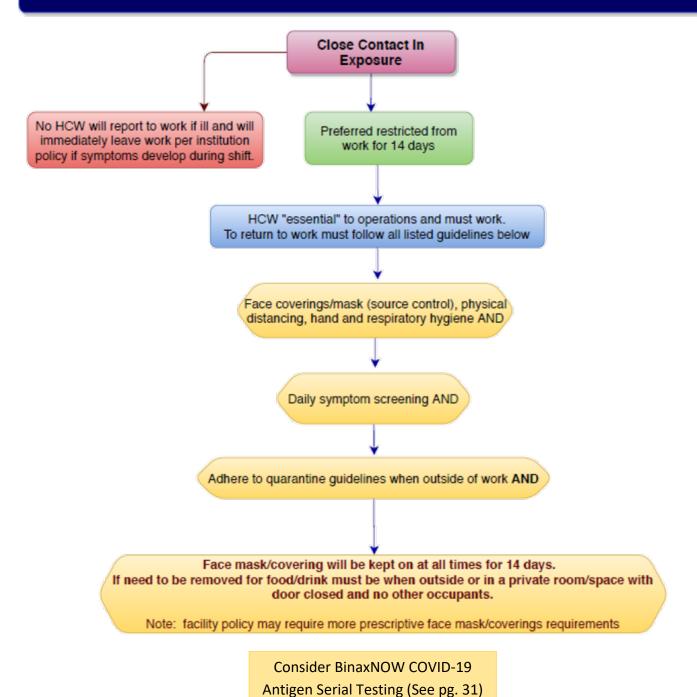
Severely immunocompromised: For the purposes of this guidance, the U.S. CDC definition is used:

- Some conditions, such as being on chemotherapy for cancer, being within one year out from receiving a hematopoietic stem cell or solid organ transplant, untreated HIV infection with CD4 T lymphocyte count < 200, combined primary immunodeficiency disorder, and receipt of prednisone >20mg/day for more than 14 days, may cause a higher degree of immunocompromise and require actions such as lengthening the duration of HCP work restrictions.
- Other factors, such as advanced age, diabetes mellitus, or end-stage renal disease, may
 pose a much lower degree of immunocompromise and not clearly affect occupational
 health actions to prevent disease transmission.
- Ultimately, the degree of immunocompromise for HCP is determined by the treating provider, and preventive actions are tailored to each individual and situation.

Appendices



Work Restriction(s) Decision Tree for Healthcare Workers Who Have Been Exposed to COVID-19



Definitions:

- Close Contact: person not wearing appropriate personal protective equipment who had contact with a positive COVID-19 person within 6 feet for a cumulative time of 15 min or more.
- Physical Distancing: keeping at least 6 feet from other people who are not from your household in both indoor and outdoor spaces.
- Source Control: refers to use of face coverings to cover mouth and nose to prevent the spread of respiratory secretions when talking, sneezing, or coughing.

EMS Clinician Return to Work Guidance After Positive COVID-19 Test (Updated July 29, 2020)

Maine EMS Clinician with a Laboratory-Confirmed COVID-19 Test

> severly immunocompromised Asymptomatic and not

Asymptomatic and severely immunocompromised

Mild to moderate illness who immunocompromised are not severely

Severe to critical illness or immunocompromised and who are severely symptomatic

Exclude from work until ALL

Exclude from work until ALL of the following are met:

of the following are met:

· least 24 hours since

resolution of fever

first positive viral diagnostic

first positive viral diagnostic

test

following the date of their least 10 days have passed

following the date of their least 20 days have passed

May return to work when at

- without the use of fever- At least 24 hours since reducing medications resolution of fever
- Symptoms have improved (e.g. cough, shortness of breath)

Symptoms have improved

reducing medications

(e.g. cough, shortness of

without the use of fever-

passsed since symptoms At least 20 days have first appeared

passsed since symptoms

first appeared

At least 10 days have

breath)

Notes:

severity and immunocompromise can be found on the U.S. CDC EMS clinicians should wear a facemask at all times and attempt to avoid contact with severely immunocompromised patients As of July 17, 2020, the U.S. CDC no longer recommends a testuntil all symptoms completely resolve. Definitions of illness based strategy for returning to work. After returning to work,

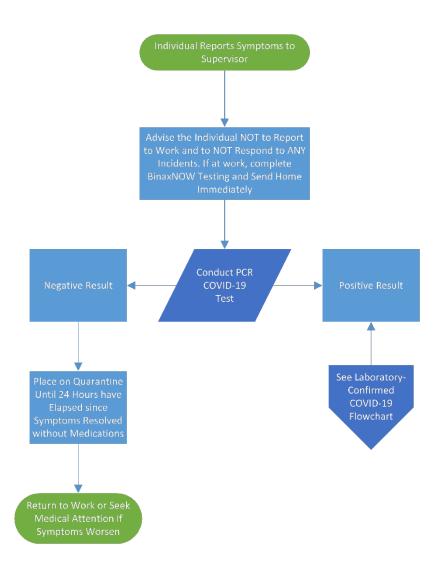
website: https://bit.ly/USCDCRTW (see QR code below) Note: Interim guidance and is subject to For More Information:





May return to work when at

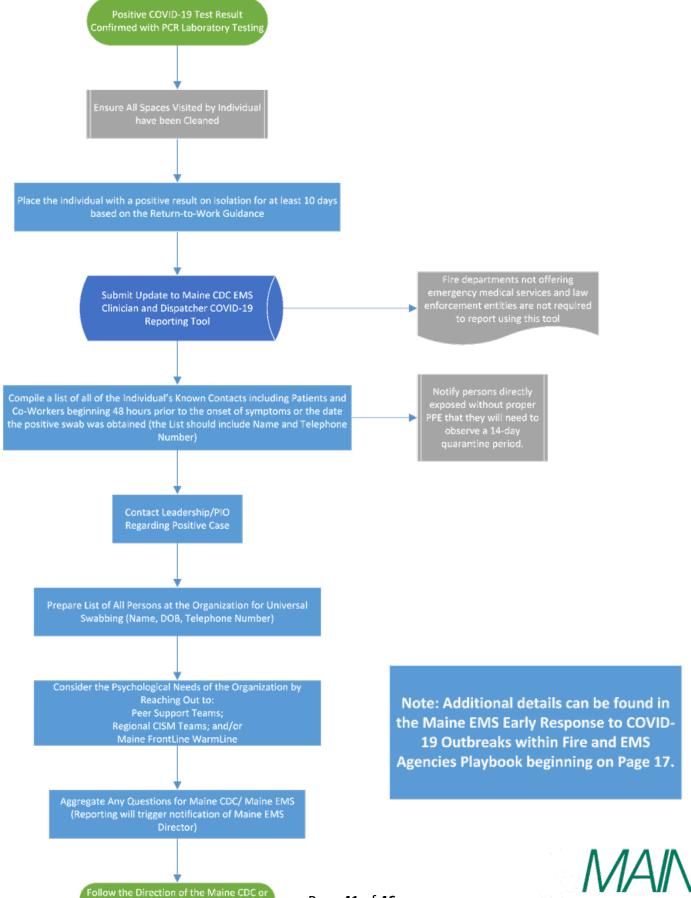
Individuals with COVID-19 Symptoms



Note: Additional details can be found in the Maine EMS Early Response to COVID-19 Outbreaks within Fire and EMS Agencies Playbook beginning on Page 17.



First Responder with COVID-19



Appendix E: COVID Point of Care (POC) Reporting Registration Instructions

In order to use the BinaxNOW COVID-19 Antigen Card tests, each CLIA-waived EMS service will need to register (https://redcap.link/MECDC_POC_Registration) with the Maine CDC for Point-of-Care (POC) Reporting. This will require one (1) individual to be identified as the reporter to Maine CDC (ideally the infection control officer/director/chief). They will need to provide their name, telephone number, and email address. Maine CDC also needs the following information about the EMS service:

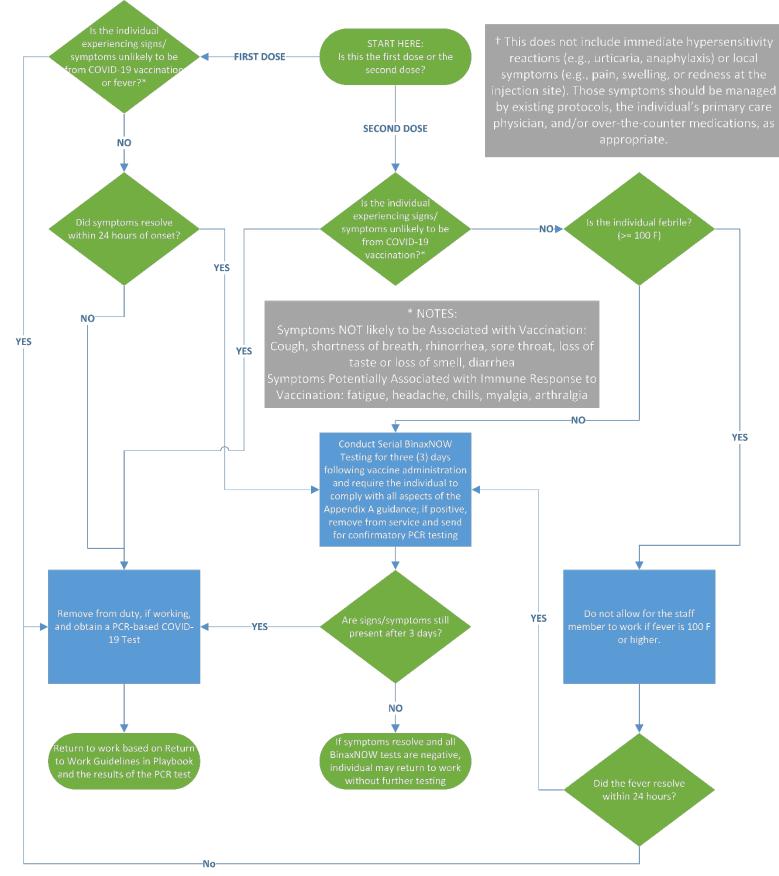
- Agency name
- Provider name (may use agency medical director or enter "Standing Order")
- CLIA Number (it can be looked up using the <u>U.S. CDC CLIA Lookup Tool</u> [https://www.cdc.gov/clia/LabSearch.html#])
- Address (primary base/station listed in eLicensing)
- Phone Number
- Facility Type (please use "EMS")

You will be asked to provide "COVID Testing Information." For the "POC Testing Device Name (Manufacturer)" please indicate "Abbott BinaxNOW." In the next selection menu for POC tests, please only select "COVID-19 Antigen." After you have completed this form and you have verified its accuracy, you can press Submit. This form should only be completed once for each service.

After submitting the registration survey, Maine CDC will review the information and generate a unique URL link that will be used every time to enter findings from all BinaxNOW Antigen tests including positives, negatives, and inconclusive results. Agencies/departments should expect to receive their custom link within two (2) business days. This link will not change and will be specifically tied to your specific agency. When you click on the link, it will automatically populate the Facility Reporting information into the form for reporting of BinaxNOW results.

Appendix F: Change Document from Version 1 (Oct. 8, 2020) to Version 2 (Nov. 4, 2020)

Change	Page	Change
Number	Number	Change
1	1	Inserted version information and release date
2	3	Added change log
3	5	Updated Table of Contents
4	7	Corrected date of the letter to original publication date: Oct. 8, 2020.
5	8	Inserted Information Disclaimer section
6	13	Updated definition of close contact and provided footnote that
		provided an example to assist with understanding
7	15	Added reference to Appendix A and added a footnote regarding eye
		protection
8	16	Clarified language regarding the expectations of first responders to
		wear PPE in between calls. Added a hyperlink to the Stay Healthy in
		EMS webpage.
9	16	Added references to Appendices and created hyperlinks.
10	17	Updated Agency Leadership action items to reflect BinaxNOW Antigen
		testing results. Added references to appendices and created hyperlinks
11	18	Updated the Individual Reports Symptoms to Supervisor Prior to
		Reporting to Work and Individual Reports Symptoms to Supervisor
		While at Work to reflect the addition of the BinaxNOW™ COVID-19
		Antigen Test
12	19	Updated close contact definition and provided further clarification
		regarding the use of eye protection outside of the patient care
		environment.
13	21	Added contact information for fire departments without emergency
		medical services and law enforcement agencies.
14	21	Added BinaxNOW COVID-19 Antigen Point-of-Care Test use guidance.
15	25	Added contact information for fire departments without emergency
1.0	2.5	medical services and law enforcement agencies.
16	26	Added in guidance regarding negative BinaxNOW Antigen test and
4 =	22	COVID-19 PCR test results.
17	30	Relocated illness severity terms to the Glossary of Terms
18	31	Added off-label indication of BinaxNOW for serial testing
19	32	Added Glossary of Terms
20	36	Updated Appendix A to added serial testing option
21	38	Added Appendix C: Individuals with COVID-19 Symptoms Flowchart
22	39	Added Appendix D: First Responder with COVID-19 Flowchart
23	40	Added Appendix E: COVID POC Reporting Registration Instructions





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