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OCCUPATIONAL MEDICINE SURVEILLANCE PROGRAMS – PRACTICAL APPLICATION

THE PANDEMIC ENVIRONMENT

Today, businesses find themselves in unforeseen circumstances and burdened with unusually high risk. They must manage two opposing yet critical needs: opening or remaining open as a viable commercial entity while protecting staff from the hazard of COVID-19 disease when at the workplace.

We rely upon our health service agencies for guidance. In its publication “**SARS-CoV-2 Testing Strategy: Considerations for Non-Healthcare Workplaces**”, the CDC discusses testing in the workplace and highlights five scenarios: (1) testing individuals with COVID-19-related symptoms; (2) testing asymptomatic individuals with a recent known or suspected exposure in order to control transmission; (3) testing asymptomatic individuals without a recent known or suspected exposure for early identification in special settings; (4) testing to determine when an individual may discontinue home isolation; and (5) testing for public health surveillance (<https://www.cdc.gov/coronavirus/2019-ncov/community/organizations/testing-non-healthcare-workplaces.html>). Every business faces different challenges and opportunities. Every business has a different tolerance for risk.

ABOUT OUR TESTS

QPS, LLC has SARS-CoV-2 testing services available to help implement a testing plan that you develop. The intent is to support staff health and identify and limit contagious outbreaks. *We do this by collecting samples at your site and reporting results back to you within two business days.*

The molecular diagnostic test. We are authorized users of the Thermo Fisher TaqPath COVID-19 Combo Kit for the qualitative detection of nucleic acid from SARS-CoV-2 in nasopharyngeal swab, nasopharyngeal aspirate, and bronchoalveolar lavage (BAL) specimens from individuals suspected of COVID-19 by their healthcare provider, pursuant to Section 564 of the Federal Food, Drug, and Cosmetic Act (the Act) (21 U.S.C. §360bbb-3). The TaqPath COVID-19 Combo Kit has not been FDA cleared or approved. It is for use only under EUA in the United States (U.S.) in laboratories certified under the Clinical Laboratory Improvement Amendments of 1988 (CLIA), 42 U.S.C. §263a, to perform high complexity tests, unless the authorization is terminated or revoked.

The serum antibody test. We have built and tested a proprietary qualitative ELISA for circulating antibodies of IgG subtype in human serum against the RBD region of the SARS-CoV-2 spike protein. This test has been validated and developed by QPS, LLC. It is submitted for EUA approval. This test has not been reviewed nor approved by the FDA. A negative result does not rule out SARS-CoV-2 infection. Follow-up testing with a molecular diagnostic test should be considered to rule out infection. This antibody test result should not be used as the sole basis to diagnose or exclude SARS-CoV-2 infection or to inform infection status. Positive result may be due to past or present infection with non-SARS-CoV-2 coronavirus strains, such as coronavirus HKU1, NL63, OC43, or 229E.



GENERAL COVID-19 PREPAREDNESS, RESPONSE, AND CONTROL PLAN FROM THE CDC

INSTALL PANDEMIC BEST PRACTICES APPROPRIATE TO YOUR INDUSTRY, WHICH MAY INCLUDE:

- Modify the workplace to easily support social distancing
- Reduce onsite staff numbers by providing remote working options
- Shutter Conference rooms – meet via teleconference even when on site
- Shutter seating areas in kitchens and break rooms
- Install self-service facilities for staff and guests to log-in with health/temp check and exposure assessment (Consider: *Lamasatech Interactive Body Temperature Kiosk*)
- Mandate fulltime mask wearing
- Publish hand washing reminders
- Install multiple disinfection stations with reminders
- Additional resources:
 - OSHA: *Guidance on Preparing Workplaces for COVID-19*
COVID-19 Employer Information for Office Buildings
General Business FAQs
 - CDC: *Interim Guidance for Businesses and Employers Responding to Coronavirus Disease 2019*

TESTING PLAN SCENARIOS FROM THE CDC

Please note that the chart below is a summary of information provided by CDC that does not comprehensively present the recommendations or available information. As CDC notes, its recommendations are intended to supplement, but not replace, federal, state, local, territorial, or tribal health and safety laws, rules, and regulations. Please use the following link, or visit the CDC's website, for further information and to check for any updates the CDC may have made: <https://www.cdc.gov/coronavirus/2019-ncov/community/organizations/testing-non-healthcare-workplaces.html#ftnt-1>.



<p>1. TESTING INDIVIDUALS WITH SIGNS OR SYMPTOMS CONSISTENT WITH COVID-19</p> <p>a) Workers with symptoms should be immediately separated from other employees, customers, and visitors, and sent home or to a healthcare facility, depending on how severe their symptoms are. They should follow-up with a healthcare provider for evaluation and potential testing. It is preferred to keep potentially infected workers out of the workplace while waiting for test results.</p> <p>b) A worker may return to work if either of the following is true:</p> <ul style="list-style-type: none">i) At least 10 days have passed since symptoms first appeared and least 24 hours have passed since resolution of fever without the use of fever-reducing medications and other symptoms have improved.ii) Two successive negative results of an FDA Emergency Use Authorized COVID-19 molecular assay for detection of SARS-CoV-2 RNA from at least two consecutive respiratory specimens collected ≥ 24 hours apart. <p>c) Note: this may represent an exposure of asymptomatic individuals to SARS-CoV-2. Please see the next section.</p>	<p>https://www.cdc.gov/coronavirus/2019-ncov/symptoms-testing/symptoms.html</p> <p>https://www.cdc.gov/coronavirus/2019-ncov/hcp/disposition-in-home-patients.html</p>
<p>2. TESTING ASYMPTOMATIC INDIVIDUALS WITH A RECENT KNOWN OR SUSPECTED EXPOSURE IN ORDER TO CONTROL TRANSMISSION</p> <p>a) Case investigation (Contact Tracing) is typically initiated when a health department receives a report from a laboratory of a positive SARS-CoV-2 viral test result or a report from a healthcare provider of a patient with a confirmed or probable diagnosis of COVID-19</p> <p>b) Viral testing is recommended for all close contacts of persons with COVID-19. Persons with asymptomatic or pre-symptomatic SARS-CoV-2 should be quickly identified and quarantined.</p> <p>c) Close contact is defined as: Someone who was within 6 feet of an infected person for at least 15 minutes starting from 2 days before illness onset (or, for asymptomatic patients, 2 days prior to specimen collection) until the time the patient is isolated.</p> <p>d) Because there may be a delay between the time a person is exposed to the virus and the time that virus can be detected by testing, early testing after exposure at a single time point may miss many infections. Testing that is repeated at different points in time, also referred to as serial testing, may be more likely to detect infection among close contacts of a COVID-19 case than testing done at a single point in time. The cited study shows that the lowest chance of getting a false negative result is day eight following exposure.</p> <p>e) Without testing, anyone who has close contact with someone with COVID-19 should stay home for 14 days after exposure.</p>	<p>https://www.cdc.gov/coronavirus/2019-ncov/php/contact-tracing/contact-tracing-plan/investigating-covid-19-case.html</p> <p>https://www.cdc.gov/coronavirus/2019-ncov/downloads/case-investigation-contact-tracing.pdf</p> <p>https://www.acpjournals.org/doi/full/10.7326/M20-1495</p> <p>https://www.cdc.gov/coronavirus/2019-ncov/if-you-are-sick/end-home-isolation.html</p>



<p>3. TESTING ASYMPTOMATIC INDIVIDUALS WITHOUT KNOWN OR SUSPECTED EXPOSURE TO SARS-COV-2 FOR EARLY IDENTIFICATION IN SPECIAL SETTINGS</p> <p>a) Special settings are those that might experience moderate to substantial transmissions, including:</p> <ul style="list-style-type: none">i) Workplaces where physical distancing is difficult and workers are in close contact (within 6 feet for 15 minutes or more) with co-workers or the publicii) Workplaces in remote settings where medical evaluation or treatment may be delayediii) Workplaces where continuity of operations is a high priority (e.g., critical infrastructure sectors)iv) Workplaces providing congregate housing for employees (e.g. fishing vessels, offshore oil platforms, farmworker housing or wildland firefighter camps) <p>b) Information on Critical infrastructure sectors can be found here...</p> <p>c) Approaches for viral testing in Special Settings may include initial testing of all workers before entering a workplace, periodic testing of workers at regular intervals, and/or targeted testing of new workers or those returning from a prolonged absence.</p>	<p>https://www.cisa.gov/identifying-critical-infrastructure-during-covid-19</p>
<p>4A. TESTING TO DETERMINE RESOLUTION OF INFECTION IN PERSONS WITH COVID-19 SYMPTOMS INFECTION</p> <p>As in (1) b, above, a worker may return to work if either of the following is true:</p> <ul style="list-style-type: none">i) At least 10 days have passed since symptoms first appeared and least 24 hours have passed since resolution of fever without the use of fever-reducing medications and other symptoms have improved.ii) Two successive negative results of an FDA Emergency Use Authorized COVID-19 molecular assay for detection of SARS-CoV-2 RNA from at least two consecutive respiratory specimens collected ≥ 24 hours apart.	<p>https://www.cdc.gov/coronavirus/2019-ncov/hcp/disposition-in-home-patients.html</p>
<p>4B. TESTING TO DETERMINE RESOLUTION OF INFECTION IN ASYMPTOMATIC PERSONS (E.G. WITH A POSITIVE COVID-19 DIAGNOSTIC TEST BUT WITHOUT SYMPTOMS)</p> <p>An asymptomatic worker – who remains asymptomatic for the duration of the specified timeframe – may return to work if either i) or ii), below, are true. If the worker becomes symptomatic, please transfer to (4) a).</p> <ul style="list-style-type: none">i) At least 10 days have passed since their first positive COVID-19 diagnostic test.ii) Negative results of an FDA Emergency Use Authorized COVID-19 molecular assay for detection of SARS-CoV-2 RNA from at least two consecutive respiratory specimens collected ≥ 24 hours.	<p>https://www.cdc.gov/coronavirus/2019-ncov/hcp/disposition-in-home-patients.html</p> <p>https://www.cdc.gov/coronavirus/2019-ncov/if-you-are-sick/end-home-isolation.html</p>



<p>4C. PERSONS WITH A WEAKENED IMMUNE SYSTEM (IMMUNOCOMPROMISED) DUE TO A HEALTH CONDITION OR MEDICATION</p> <p>Please talk to your healthcare provider for more information. In general:</p> <ul style="list-style-type: none">i) Negative results of an FDA Emergency Use Authorized COVID-19 molecular assay for detection of SARS-CoV-2 RNA from at least two consecutive respiratory specimens collected ≥ 24 hours make it possible to be around others.ii) Without testing, you may need to stay home longer than ten days.	<p>https://www.cdc.gov/coronavirus/2019-ncov/hcp/disposition-in-home-patients.html</p> <p>https://www.cdc.gov/coronavirus/2019-ncov/if-you-are-sick/end-home-isolation.html</p>
<p>5. PUBLIC HEALTH SURVEILLANCE FOR SARS-COV-2</p> <ul style="list-style-type: none">a) Testing is considered to be surveillance when conducted to detect transmission hot spots, or to better understand disease trends in a workplace.b) These goals are consistent with employer-based occupational medicine surveillance programs.c) Occupational medicine surveillance programs may use testing to assess the burden of SARS-CoV-2 in the workforce, assess factors that place employees at risk for workplace acquisition of SARS-CoV-2, or evaluate the effectiveness of workplace infection control programs.d) Surveillance should only be undertaken if the results have a reasonable likelihood of benefiting workers.	