

Safely Returning America to Work

Part I: General Guidance for Employers

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Businesses are struggling to re-open as the world continues to deal with the coronavirus 2019 (COVID-19) pandemic. The reopening of businesses will require employers to implement safe return-to-work strategies through evaluation, testing, work modifications, and development of appropriate workplace policies. There will be unique challenges along the way as no one approach will be ideal for all workplaces and industries. This document is intended to provide return-to-work guidance for both employers and the occupational and environmental medicine physicians who will be supporting businesses in implementing safe return-to-work strategies.

As the world continues to deal with the coronavirus 2019 (COVID-19) pandemic, many businesses struggle to re-open. This pandemic has resulted in an increased awareness of employee health as a core strategy in organizations. And, the when and how businesses can reopen will depend on a variety of factors including federal, state, or local policies. Guidance regarding return-to-work decision-making from a worker-safety and medical perspective incorporating the principles of risk, capacity, and tolerance is critical. The occupational and environmental medicine (OEM) physician, along with other

occupational health professionals, can provide expertise in these domains.

This document is intended to provide return-to-work guidance for both employers and the OEM physicians who will be supporting businesses to implement safe return-to-work strategies. Physicians are also encouraged to refer to the American College of Occupational and Environmental Medicine's *Practice Guideline* on COVID-19 for the most up-to-date information on diagnostic and treatment recommendations for the disease,¹ and the *AMA Guides to the Evaluation of Work Ability and Return to Work*, which addresses the risk-capacity-tolerance paradigm.²

THE CONTEXT OF RETURNING TO BUSINESS

In order to reopen safely, employers will need the support provided by OEM physicians in facilitating employees returning to work. As America reopens, OEM physicians with their specialized training and expertise in return-to-work practices, including the issues that pertain to epidemiology and testing protocols needed for communicable diseases, will need to play a major role if workers are to be kept safe.

OEM physicians practice in various settings and industries, including hospitals, corporations, private practice, military, government, and academia. They serve diverse sectors, including health care, transportation, construction, food industry, hospitality industry, utility, and manufacturing, to name a few. These physicians and all other occupational health professionals will be vital in ensuring that preventive measures are in place in workplaces, where people need to return.

It is also important to consider that analysis of issues to anticipate and decisions to be made must be based on knowledge of organizational behavior, human behavior, and management science. OEM physicians have experience in organizational behavior and can additionally address behavioral issues, interpersonal conflicts, and perform fitness-for-duty determinations collaborating with other professionals as needed. It is also possible that with the gradual resumption of work activities following a sufficient

reduction in transmission rates, there could be an increase in infections requiring re-introduction of restrictive measures in some cases. Employers need to look to expert professionals, including OEM physicians, for guidance.³

Now and in the Future: Expected Phases of Reopening Business

While many businesses closed, some never did, including organizations in food production, retail, manufacturing, and warehouses that provide essential public services. In addition, utilities, health care, and various government services had to continue operations amidst the pandemic.

Whether a business is continuing its functions (remained open) or is reopening (transitioning), employers must create and communicate clear policies, engaging employees regarding health and absence while consulting OEM physicians to provide advice and clear routes to address challenges. These challenges include, but are not limited to, COVID-19 screenings, exposure assessments, and return-to-work clearances.

Certain employees in physically demanding jobs may require fitness-for-duty assessments post-COVID-19, especially if they have some residual loss of function from pulmonary or cardiac involvement. Employers must ensure that operating workplaces from manufacturing plants to construction sites are kept as clean and as safe as possible.

THE TRANSITION—PHASES

For those businesses that did close, transitional phases for reopening must be considered. These transitioning phases are needed to ensure that critical process and procedures are in place and are adequately assessed to maximize public safety. Following four phases have been proposed to facilitate the safest progression through the pandemic:

- **Phase I** involves slowing the spread of the virus, increasing testing capacity, and ensuring that health care systems have the ability to treat COVID-19 patients, as well as, other patients.⁴

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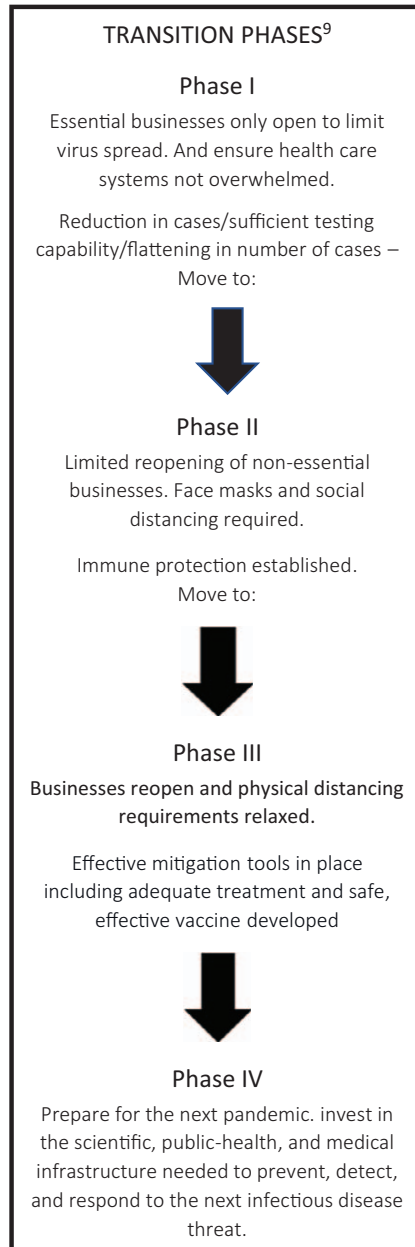
The trigger to move to Phase II is when a state reports sustained reduction in cases at least one incubation period or 14 days, hospitals can treat without resorting to crisis standards of care and sufficient capacity exists to test people with COVID-19 symptoms.⁴

- **Phase II** is when individual states can safely diagnose, treat, and isolate COVID-19 cases and their contacts, businesses and schools can reopen. However, physical distancing and limitations on gatherings will still need to be in place.⁴ People may be asked to wear face masks in the community to reduce the risk of asymptomatic spread; those who are sick will be asked to stay home; and high-risk individuals including the immunosuppressed, pregnant women, and those with chronic health conditions such as hypertension, heart disease, pulmonary conditions, and obesity should continue to follow stay-at-home recommendations.⁴ Testing for active infection should become more widespread with routinization of point-of-care diagnostics and the capacity to test for active infection should include hospitalized patients, health care workers, and workers in essential roles such as community-facing roles in health and public safety.⁴ Similarly, close contacts of confirmed cases and outpatients with symptoms should be tested.⁴ Contact tracing will be performed by public health departments on a larger scale especially with the development of newer methods of tracking with media Apple and Google and the use of professional organizations.⁵
- **Phase III** will see the establishment of immune protection and the lifting of physical distancing when effective tools for mitigation are in place including adequate treatment, and a safe and effective vaccine.⁴
- **Phase IV** involves being ready to implement the previous phases towards containing a resurgence of the current virus or a future pathogen.⁴ The move towards less restrictive physical distancing could precipitate an acceleration in cases and surveillance will be important.⁴

Because many states or cities are not following the suggested phases, it becomes difficult for companies to determine what measures they should have in place.

CLINICAL MANIFESTATIONS OF COVID-19

A variety of evidence-based resources are available that address the evaluation and



treatment of COVID-19 infected worker-patients. These resources include the ACOEM Practice Guideline on Coronavirus (COVID-19) available free of charge through *MDGuidelines* at <https://info.mdguidelines.com/covid-19>. The COVID-19 guideline provides recommendations for employer considerations, a discussion of disability considerations, and diagnostic approach, as well as treatment recommendations. However, ACOEM cautions that quality literature is quite limited for treatment of COVID-19, and therefore aspects of this guideline (and all guidance) can rapidly become out of date. This guideline has undergone, and will continue to undergo, updating as the science evolves.¹

Symptoms and Signs of COVID-19 Illness

Clinical signs usually begin within a week in symptomatic individuals and include fever, cough, shortness of breath, fatigue, and muscle pain.¹ Sore throat, sputum production, headaches, and diarrhea occur in smaller percentages.¹ For months, the U.S. Centers for Disease Control and Prevention (CDC) accepted fever, cough, and shortness of breath as early indications that someone might have the disease caused by the coronavirus. However, additional symptoms that may be indicative of the disease have emerged: chills, repeated shaking with chills, muscle pain, headache, sore throat, and new hypogeusia or ageusia as well as anosmia.^{6,7} Loss of taste and smell have been found in many coronavirus patients.⁶

Potential Complications: Organ System Effects

Mild disease, with no or minimal pneumonia, has been reported in approximately 80% of patients, while asymptomatic infection of unknown frequency is known to occur.¹ Pneumonia may develop during the second to third week of symptomatic infection, being severe in about 15% of patients and critical in another 5%.¹ Common complications include acute respiratory distress syndrome (ARDS), followed by anemia, acute heart injury, and secondary infections.^{1,8–11} Other complications include embolic events leading to strokes and other neurologic sequelae, as well as, multi-organ failure.¹¹

Post-infection recovery is estimated at 2 to 3 weeks among non hospitalized individuals.¹ In patients with mild to moderate pneumonia treated with oxygen supplementation, recovery is estimated at 4 to 8 weeks after hospitalization.¹ Severe pneumonia and ARDS have worse prognoses and are associated with a significant reduction in lung function requiring as much as 6 months for recovery.¹

Recovery and Rehabilitation—Course, Treatments, Impact on Work Function

Recovery may be delayed in some workers who might need rehabilitation in order to return to work. Multiple complications of COVID-19 illness are being identified and currently include cardiac, pulmonary, neurological, renal, cognitive, and psychological issues.¹ Problems with memory and concentration are being described and poorer problem-solving skills, especially in those who have been in the intensive care unit.³ Workers may be deconditioned following their illness and need time to re-acclimate. Recovering workers might experience sleep disruption as circadian rhythms may be out of synch; additional time may be needed to restore

sleep–wake cycles and get back on a work schedule. It is best if employers work with OEM physicians and health services to advise on the care of workers who have been ill and specify the need for any work accommodations.³

Psychological Sequelae and Management

The literature indicates a negative impact of COVID-19 on mental health. Stressors include perception of safety, threat, and risk of contagion. Information overload, quarantine, social exclusion, financial loss, and job insecurity are other stressors.¹² Employees may not trust management and COVID-related layoffs have led to increased stress and decreased morale.¹³ The psychological impacts of the COVID-19 pandemic in those returning to work include post-traumatic stress disorder (PTSD), anxiety, and depression.^{14,15} While the prevalence of psychological symptoms is likely to vary by workforce, the possibility of psychological impacts in the workplace should be recognized and appropriate workplace strategies considered including employee assistance program (EAP) services and other mental health resources.¹⁶ These include communicating plans to employees and recognizing and addressing stress. (Additional resources can be found at <https://www2.deloitte.com/global/en/pages/about-deloitte/articles/practical-workforce-strategies-that-put-your-people-first.html?nc=1>).¹⁷

DEVELOPING A SUCCESSFUL RETURN-TO-WORK POLICY

Employers will need to develop and institute policies to protect returning employees. Delineating leadership and COVID team responsibilities is an important part of any policy development. OEM physicians are leaders in their organization and have various collaborative roles with other health and safety team members including human resources (HR), safety, industrial hygiene, infection control, and management. Members of the team will have various responsibilities and be asked to advise in various return-to-work considerations. CDC and the Occupational Safety and Health Administration (OSHA) have both made recommendations for employers regarding workplace considerations.¹⁸ Different policies will need to be developed for different worksites and jobs. The information below summarizes those policies which are recommended by CDC and medical experts and in some cases have already been shown to be successful.

Policies for Dealing with Infected and Exposed Employees in the Workplace

One goal is to keep those with known high-viral shedding at home in isolation

during peak viral shedding.¹ Viral shedding may begin as early as 2 to 3 days before symptom onset, and is greatest during the first several days.¹ For essential service workers, CDC recommends return to work 10 or more days after onset of symptoms, with the absence of fever for 72 hours after being off any fever-reducing medications, respiratory symptoms being markedly improved and any diarrhea resolved.^{1,19} Employees should be kept off work if they spike additional fevers or if they have persistent shortness of breath or fatigue; it is recommended that interviews with workers be repeated every 2 days by OEM professionals.¹

Those exposed to a positive or presumed case (eg, negative COVID-19 test but suggestive symptom pattern given testing sensitivity of only 70% to 75%), should have the choice of quarantine for 14 days or work with a mask for 14 days with temperature checks twice daily and discontinuation of work if any symptoms develop.¹ Guidance for return to work is expected to evolve depending on the workforce and external circumstances. For example, at the height of the pandemic, when health care workers were on the frontline and facing staffing challenges in health care facilities, the CDC issued guidance regarding returning health care workers after COVID-19 illness.¹⁹ These required modifications of face mask for source control at all times and avoidance of immunosuppressed patients until 14 days after illness onset.^{19,20} Facility masking policies evolved as the pandemic progressed.

Policy for Addressing the Asymptomatic Worker—Asymptomatic workers who perform services, such as food preparation and who are at risk of transmitting the disease, need special considerations regarding viral shedding and perhaps should avoid certain activities. Thus, an option is to consider having employees who could be in the incubation stage work from home where feasible for at least 2 weeks after a possible exposure.¹

Surveillance/Screening Policies—It is recommended that employers implement a surveillance system to include the education of workers as well as screening to prevent employees with COVID-19 symptoms from entering the workplace.¹ Sick employees (including those with minimal symptoms) should stay home from work as it is important to eliminate all contact between the healthy workers and potentially infectious ones.^{1,21}

Temperature Screening/Symptom Questionnaires—These are currently in use upon entry as reasonable strategies to limit exposure to sick persons, supplemented by confidential evaluation if concerns of illness or exposure arise as well as contact tracing as recommended by federal and local authorities. Anyone with a cough or other symptoms, should be asked to stay

at home. Employees who become sick should be instructed to call a provider or health care organization in advance, discuss the symptoms, and seek testing if available.¹ Employers should maintain confidentiality regarding an ill employee's identity.¹ Further questions about potential COVID-19 infections can be directed to local health departments, which have the expertise and personnel to investigate outbreaks and perform contact tracings.¹

OEM professionals can best facilitate employer efforts to keep employees out of the workplace who might be infected and potentially spread the virus while maintaining appropriate privacy, open reporting, and avoidance of non-reporting for fear of retribution.

Risk Assessment Policies—Risk assessment includes whether the employee was in close contact with someone exposed to the virus, the duration of that contact, whether they were using any personal protective equipment (PPE) and the type of PPE used.^{1,22} OEM professionals can help to facilitate contact tracings as well as the return-to-work process while ensuring confidentiality. Employer representatives may need to determine if a doctor's note, lab tests, or medical records are required to allow them to re-enter the workplace. Procedures and policies should be re-evaluated, where sick leave benefits, worker education, and work-at-home options should be adequate and flexible to ensure that employees will not come to work sick, or soon after exposure to an infected person.

Risk Analysis Pyramid and Approach—Commuting, On- and Off-Site Work, List of High/Low Risk

OSHA has divided job tasks into four risk exposure levels: very high, high, medium, and lower risk.²³ These exposure levels represent the probable distribution of risk. Classification of worker exposure to SARS-CoV-2 (see OSHA's Occupational Risk Pyramid at https://www.osha.gov/SLTC/covid-19/hazardrecognition.html#-risk_classification) can help employer representatives determine and implement control measures). OSHA classified worker risk of occupational exposure to SARS-CoV-2, the level of risk depends on industry type, the need for contact within six feet of individuals who are suspected of being infected or are infected with the virus, or the need for repeated or extended contact with such individuals.

Very high-exposure risks jobs are those with elevated potential for exposure to known or suspected sources of COVID-19 due to medical, laboratory, or post-mortem procedures. **High-exposure risk** jobs

include health care delivery workers and support staff, medical transport workers, and mortuary workers.²³ **Medium-exposure risk** refers to those jobs that require frequent or close contact—within six feet of those who are suspected to be infected with the virus, but not known to be infected.²³ This category includes workers who have frequent contact with travelers. **Lower exposure risk** refers to jobs that do not require contact with those infected with the virus or who are suspected to be so—these jobs have minimal occupational contact with the public and other co-workers.²³ Examples include remote workers; office workers, and manufacturing/industrial workers who do not have frequent close contact with coworkers, customers, or the public. This category would also include **health care workers providing only telemedicine services** (see box).^{24–30}

Most American workers will likely fall in the lower exposure risk (caution) or medium exposure risk levels.

in phases, closing common areas to prevent congregating, and minimizing non-essential travel.³¹ Other options for transitioning workers to worksites while reducing potential exposures include varying hours of operations (eg, an early and late shift, rotation of workers at home and in the office, and redesigning the workplace to increase physical distancing).³¹ Commonly touched worksite surfaces should be cleaned frequently, including machine controls, door handles, bathroom doors, faucet handles, and lunch tabletops.¹ Sharing equipment should be avoided when possible (eg, keyboards and workstations), and shared surfaces should be cleaned between shifts or between worker usage.¹

Until population immunity is well established by vaccination, engineering controls, physical distancing, and minimizing viral spread, it will be necessary to exclude sick persons from the workplace to prevent virus transmission. Strategies will need to be established to maximize

infection must be established. Further, procedures necessary to keep surfaces from being contaminated, keeping them clean, and to minimize multiple people touching the same surface will be necessary. Considerations should be given to whether hand sanitizer, extra wash areas, and other protective equipment should be supplied as well. Employees must be educated regarding the proper use and storage of protective equipment and cleaning agents. Procedures should be put in place regarding the handling of mail, incoming products, as well as distribution. Additional break spaces may need to be created, break and lunch periods staggered, limiting the number of individuals in break areas, and enforcement of social distancing at outside eating and smoking areas.³² Employees will most likely need training, signage, and supervision to ensure maximum compliance with safety protocols being implemented. Further, a ramp-up period will most likely be necessary to ease the transition, reduce stress, avoid injuries, and minimize workplace conflict by allowing a period of re-engagement with the organization's mission at the individual and workgroup levels.

Further, strategies have been identified that will minimize at-risk contact, for example, curbside pickup, extended hours for seniors, limiting the number of people inside the store at one time, enforcing separation of customers, transportation issues, and the use of face coverings.³³ Employees should be instructed about hand-shaking and safe use of electronic devices with touch screens, for example.

a. Masking

It is most likely that face coverings will be continued to be required by everyone at work. Current federal, state, and local regulations and recommendations need to be reviewed. Should the employer supply and maintain face coverings if homemade masks are not permitted? If workers bring face coverings from home, will there be facilities to store and maintain them at the workplace? Training and supplies will be needed to maintain the proper use of face coverings.³⁴ Masking decreases interpersonal transmission of the virus.³⁴ Fit testing may be required in accordance with the OSHA Respirator Standard, for example, for tight-fitting masks such as N95 masks.³⁵ Fit testing for health care personnel is required with the same model, style, and size respirator that the worker will be required to wear for protection against COVID-19. Initial fit testing is essential to determine if the respirator properly fits the worker and is capable of providing the expected level of protection.

Return to Work and the Importance of Telehealth

Despite being available for years, telehealth has been underutilized by employers and OEM providers. Since COVID-19, there has been an explosion in its usage with a reported 2000% rise in telemedicine visits.²⁴ The rapid increase in its use is due to physical distancing guidelines, a relaxation of Centers for Medicare & Medicaid Services rules,²⁵ and changes in state regulations. Employers, OEM providers, and workers' compensation insurers are adopting telehealth as a matter of necessity.²⁶

In the workplace, telehealth has a variety of applications including health and wellness evaluations, return-to-work evaluations, initial injury, and follow-up visits and illness care (including assessment of COVID-19 and bloodborne pathogen exposures).²⁷ The advantages of telehealth are particularly pronounced among workers in remote locations.²⁸ Before COVID-19, telehealth was viewed by employers as an important method to control health care delivery costs. Telehealth has the potential to save on costs as well as lost work time.²⁹

Even as telehealth regulations are anticipated to revert to the previous state after the emergency is over, the use of telemedicine will likely continue.³⁰ Telehealth has an important role in contributing to a healthy workforce as physical distancing guidelines are gradually lifted. Workers may be cleared to return to work through a telemedicine visit, and employers can be provided some confidence about the health of their workforce as they reopen. Encouraging appropriate use of telehealth services will benefit employers, workers, and society at large. Telehealth services can be accessed via smartphone, tablet, laptop, etc., providing immediate contact while avoiding unnecessary visits for screening and clearances, and providing employees and employers with an immediate status report. COVID-19 testing results can be provided online via the Health Insurance Portability and Accountability Act of 1996 (HIPAA) compliant portals.

PRE-/RE-OPENING ACTIONS: IMPLEMENTING HIERARCHY OF CONTROLS AND EMPHASIS ON PHYSICAL DISTANCING, ENVIRONMENTAL ADAPTATION, AND EDUCATION STRATEGIES

Practical Return-to-Work Considerations with Specific Examples

According to emerging federal guidelines, symptomatic individuals must be cleared by a medical provider before returning to work.³¹ Employers are instructed to develop and implement policies and procedures for workforce contact tracing following a positive COVID test.³¹ Other recommendations include the use of telework where possible, returning to work

social distancing, such as enabling work at home when possible, separate entrances and exits, staggering shifts, barriers between workers, avoiding queues at entrances and restrooms, modifying or closing cafeterias, designating alternative places and specific arrangements for breaks and lunches, unidirectional hallways, and restricting in-person meetings. Separation from customers and others who enter the workplace should be maintained. As physical distancing may be a pivotal strategy to prevent viral transmission at work, other opportunities to keep workers physically apart must be considered.

Before reopening, all worksites should be thoroughly cleaned and disinfected. After opening, the frequency, cleaning products, and type of site cleaning required to minimize the spread of

Employers in non-health care industries may be called upon to make decisions regarding whether employees will be permitted to wear homemade masks or medical masks and whether the employer will provide masks. In addition to masking policies, other critical policies in the return-to-work process include those related to illness, work meetings and travel, cleaning, and disinfecting.²¹ Return-to-work policies help with transitioning employees back to work, and such policies must be clear, concise, well communicated throughout the organization, and consistent with federal and state guidance.

b. Maintaining Employee Mental Health

Employers should anticipate anxiety, distrust, and conflict due to concerns about safety as well as other stressors. Extra mental health support is critical via EAPs or other mental health resources as well as coaching for managers. Employees may also need more logistical support than before, such as childcare, eldercare, or respite care as examples.

c. Travel, Off-Site Activity, Interaction with Customers

How employees get to work is also important, with consideration being given to their risks of contracting the virus using personal or public transportation. The acceptable level of risk due to this activity should be considered, especially if public transportation is involved. Consideration should also be given to how well current measures (eg, face coverings and hand hygiene) prevent transmission in these settings, and how the risks can be minimized. Employers should weigh the risk of potential illness as well as the need for 14-day quarantine if travel is to endemic areas.¹ Web-based meetings can be substituted for travel and in-person meetings whenever possible to reduce exposures.

d. Community Considerations—Vulnerable Populations

Employers should strongly consider special accommodations for vulnerable individuals.³¹ Work restrictions will be needed to facilitate the return-to-work transition in a safe manner. Those who interact with nursing home residents and patients must adhere to strict hygienic protocols.³¹ Restrictions include telework, masking, social distancing, reducing the presence of immunocompromised or other vulnerable individuals in the workplace. Further, hand hygiene, respiratory etiquette, and disinfection of surfaces will continue to be crucial.³⁶ Staff should be trained on how to properly clean workplaces and be provided with PPE.¹ Privacy laws

require confidentiality to avoid the perception of discrimination against vulnerable workers.³⁷

e. Preventing Infected People from Coming to Work—Screening; OEM Role in Evaluating Results; Limitations of Testing; Risk Assessment of Exposed Workers; Quarantine Testing

Expert advice will be needed to progress from the current approach of simply conducting a temperature check and asking about symptoms as a screen, to testing and interpretation. Tests that might be able to detect early or asymptomatic coronavirus infections that are reliable and could easily be employed on-site in workplaces should be considered to protect patients and the public. Current tests that can help facilitate return to work include the **nasopharyngeal or oropharyngeal swab test** relying on molecular and antigen testing methods that detect the presence of the virus in specimens collected from the respiratory tract.³⁸ These types of tests are acceptable for the purpose of case detection, public health action, clinical evaluation of individual patients, and informing infection prevention practices.³⁸

Many tests have received emergency use authorization (EUA) from the U.S. Food and Drug Administration (FDA) most of which are designed to be performed in a laboratory setting, but a small number, such as **point of care (POC) tests**, are designed to be performed in patient settings such as urgent care centers, physician's offices, and emergency departments.³⁹ A list of such tests can be found at: <https://www.fda.gov/medical-devices/emergency-situations-medical-devices/emergency-use-authorizations#coronavirus>. **Validated polymerase chain reaction (PCR) testing** for the virus is recommended in clinical settings.^{39,40} PCR testing may persist as positive due to remaining viral fragments, that is, PCR is positive, but the host has stopped shedding viral particles.⁴⁰

CDC guidance included both test-based and symptom-based strategies to facilitate return to work. Testing is contingent on the reliability of the test, availability of ample testing supplies, laboratory capacity, and convenient access to testing.¹⁹ The test-based strategy requires resolution of fever without the use of fever-reducing medications, improvement in respiratory symptoms and negative results of a molecular assay for COVID-19 from at least two consecutive nasopharyngeal swab specimens collected 24 hours apart.¹⁹ The symptom-based strategy requires that at least

72 hours have passed since the resolution of fever without the use of fever-reducing medications and improvement in respiratory symptoms, and at least 7 days have passed since symptoms first appeared.¹⁹

Serologic tests for SARS-CoV-2 IgG help identify individuals with a prior infection, which may be useful in epidemiologic research, for example, seroprevalence studies.³⁸ However, further studies are needed to determine whether a positive IgG test for SARS-CoV-2 is indicative of the presence of neutralizing antibodies.⁴¹ At this point, no assumptions can be made about the protectiveness and duration of any immunity that may be present, or determine whether a particular quantitative antibody level is desirable.³⁸ Antibody testing is currently recommended for epidemiological purposes; for example, for determining the prevalence of COVID-19 in a population, research purposes such as vaccine development, or to identify individual patients who may be candidates to donate plasma for therapeutic purposes.^{38,40}

There is currently a lack of evidence that detection of the SARS-CoV-2 antibody on any serologic test is indicative of durable immunity, and false positives can occur with any of these serologic tests, which should not be used to establish immunity at this time.³⁸ Further, serologic tests do not have a role in diagnosing acute infection in symptomatic individuals since antibody responses to infection may take days to weeks to become detectable.³⁸ A negative serologic test does not rule out active infection, and a positive serologic test may reflect prior infection with a human coronavirus other than SARS-CoV-2.³⁸ A positive test is not indicative of immunity and should not be used for return-to-work decisions.³⁸ Because serologic tests cannot identify protective immunity, they should not be used to make return to work or personal protective equipment (PPE) decisions, or staff assignment decisions.⁴¹ Having a less-than-accurate test would be counterproductive. It is important to have professionals who understand the limitations of different testing and how to accurately interpret the tests being developed, including their sensitivity, specificity, as well as, negative and positive predictive values. Further, with the rapidly changing information, physicians with strong epidemiologic and industrial hygiene background will be needed to interpret the newest information and adopt those findings to specific industry needs.

Public health guidance documents suggest the importance of a risk assessment and a thoughtful approach to multiple dimensions of workplace safety. Employers need to start thinking about how to prepare their worksites and workforce. The pathway to reopening American businesses will be different for each industry, region of the country, and workforce, but useful and relevant general information is becoming available. Employers must contact their occupational health services and safety professionals and discuss plans with them.³

AFTER OPENING: GRADUAL REOPENING STRATEGY; EVALUATION OF SUCCESS; ONGOING STRATEGIES; READJUSTMENT WHEN PROBLEMS OCCUR

Communication

Some workers may be afraid, distrustful, or grieving; workers, unions, and regulatory authorities may want to know employers' COVID-19 protection plans. Employers may come under scrutiny. Communication is crucial during the challenges that lie ahead and employers must garner trust among employees as well as other stakeholders. The credibility, consistency, and timeliness of company policies, as well as strategy and actions, must be communicated effectively. It is critical that messaging is established to inform employees of ongoing safety and monitoring practices, key staff should be identified and involved in message development, including drafting, validating, updating, and periodically presenting this information to the workforce.⁴² Company leadership should serve as a role model for the desired behavior and new responsibilities should be delegated and laid out regarding the obligations of specific individuals or teams, such as establishing points of contact for concerned employees, for supervisors who need support, for customers who have concerns or questions. Employers should also remember to lighten employees' loads of usual responsibilities. Teleworkers may feel isolated and under pressure and should be included in regular effective communications.

Employees should be informed in advance of what will be done to keep everyone safe if a worker develops the virus or tests positive. Educational materials on reducing spread and exposure outside of the workplace (eg, at home and in the general community) should be distributed. Further, this information should be communicated to contractors, customers, and the public. Employee concerns should be reported to HR and management. Oversight and continuous quality improvement conducted by OEM professionals is needed to identify

potential hazards and to mitigate and prevent new illness while maintaining employee confidentiality as much as possible.

Specific Challenges with Reopening

The start date of any re-opening is likely to be driven by a combination of governmental decisions and private company leadership response to market behavior and other economic concerns. Today's technological and economic interconnections around the globe diminish the effectiveness of previous strategies that were effective when isolation was possible. Most likely, there will be a rolling return to normal with possible retrenchments if infection rates rise to unacceptable levels. There are various sectors of the economy outside of health care that have been closed and are now reopening, and guidance will need to be specific to the various industries. The sequence of businesses gradually restarting while minimizing exposure in the process of maintaining business viability and key functioning is ideal. Requirements are likely to differ significantly by business sector and type of operation, so an individualized approach is necessary. Now more than ever, companies need OEM professionals to help protect the workforce and contribute to operational planning. The companies keeping this core competency will emerge more robust, and there will be opportunities for smaller businesses to consult with local OEM professionals.

Implementation of safe work practices to limit COVID-19 exposure at work requires assessing risk and implementing a hierarchy of controls, that is, putting controls in place to ideally eliminate the risk or minimize worker exposure.³ Thinking in terms of the hierarchy of controls, elimination could be considered as continued work from home where possible, ensuring that only essential workers are on the job or postponing certain work.⁴³ Substitution could be thought of as permitting work alone in a spare room or facilitating workers' use of individual cars rather than collective transportation. Engineering controls could refer to optimizing the effectiveness of building ventilation and filtration to ensure plenty of fresh air; indoor air quality will be important and monitoring with the potential for corrective actions key.³ Administration refers to de-densifying the workplace (eg, staggered shifts). PPE includes the use of masks, and will continue to be necessary.

The process of returning employees may vary by function (eg, key workers first, certain products, services, or processes first, etc.), shift or location, ability to social distance in the workspace, and availability

of public transportation and childcare. Further, employees should be cross-trained to perform essential functions so that the workplace can operate even if crucial employees are absent.³ It is important to provide additional training where necessary with special considerations if one's operation is relying on interim staff.³ Also, work from home should be as ergonomically safe as possible, which may mean taking work equipment home temporarily such as a computer, monitor, keyboard, and chair.³ Teleworkers should be provided with guidance on setting up a workstation that applies to proper ergonomics such as good posture and frequent movement.³ Teleworkers will also need information technology (IT) support in terms of hardware and software.³

Some countries are months ahead of the U.S. in terms of decreasing number of cases and reopening their economies; their experiences can give us a glimpse of how this might proceed.⁴⁴ Scientific studies continue to inform strategies to limit viral spread after people return to work with information emerging about virus transmission, the effectiveness of facial coverings, and tests for virus infection and immunity.^{45,46} As all of this knowledge evolves, governmental leaders are developing and refining policies for reopening workplaces.

RTW AFTER COVID/PRESUMED COVID INFECTION: TESTING AND INTERPRETATION; RESTRICTIONS; ACCOMMODATIONS; WORK-RELATEDNESS OF COVID INFECTION

Testing results will impact when employees may return to work and due to viral shedding, for which clients they might be permitted to provide care, the need for a safe distance from coworkers, and the importance of proper masking procedures.¹⁹

Employees with high physical fitness needs pose certain challenges. Addressing the need for respirator use especially for those returning after coronavirus who may experience a change in lung function pose unique challenges as would jobs where being close would be difficult to avoid and where there may be resistance to using masks.¹ An employer may prefer to rely on physical distancing only without masks in a non-high-risk employment situation, if appropriate and depending on federal, state and local rules. The dispersion in places where workers are physically working hard can be high given the likelihood that a larger amount of aerosols are projected.¹

Employers should avoid requiring a positive COVID-19 test result or a health care provider's note from sick employees to validate their illness, qualify for sick leave, or return to work. OEM professionals can help facilitate return to work in such instances. Caution is given to relying on employee self-reporting, which can be problematic without validation.

Confidentiality is crucial due to privacy laws and to avoid the perception of discrimination against vulnerable workers and those who are of disadvantaged socioeconomic status.³⁷ Nondiscriminatory policies may also be needed for persons with pregnancy, immunosuppression, those undergoing cancer treatment, or those with chronic disease. High-risk employees should be given special accommodations, should minimize face-to-face contact, maintain physical distance from others, and do telework when possible. While the emphasis should be on separating those with expected viral shedding from others, it is important to keep in mind that asymptomatic individuals may still pass the virus to others who may then develop symptoms.

Policies for return to work after recovering from COVID-19 infection or exposure to an infected person must be established. Employers must put procedures in place to follow if an employee develops COVID-19 infection or tests positive for the virus, which should include working with their OEM professional. Important considerations include quarantine and contact tracings. OEM professionals can further provide support in instances where workers say someone else is not social distancing, a healthy employee says someone else is symptomatic at work, someone calls out sick, or an employee says they have COVID-19 if someone is hospitalized or dies.

Employers should be prepared to address challenges such as what to do if the absenteeism rate rises above a threshold percent or if understaffing becomes an issue. Another challenge could occur if the union or employee organization expresses disagreement with an employer's plan or the local health department has issues with the operation.

Work-Relatedness

Traditionally under workers' compensation, work-relatedness is established with a diagnosis by a treating physician, documented exposure, and evidence that the disease is related to the exposure. Because COVID-19 is a community-acquired illness, this is an evolving area and policies are likely to vary by state. To establish work-relatedness of COVID-19, the following are likely to be required: the disease can be established as a confirmed

case of symptomatic COVID-19 (either a positive test result or a physician diagnosis of presumptive COVID-19) as a result of a COVID-19 patient exposure, and the case involves medical treatment as well as days away from work. States will vary on how this is applied during the COVID-19 pandemic. It may not always be possible for first responders, police, or health care workers to identify the source patient they had contact with who had COVID-19. Some states may pass laws that there is a presumption of causation for certain workers, or judges may take into consideration specific workplace factors when deciding about work-relatedness. When the traditional workers' compensation criteria are not met in a case, referral to an OEM physician for discussion of the work-relatedness is recommended.

INDUSTRY-SPECIFIC GUIDANCE

Different industries have different challenges in returning employees to work which are unique to them and OEM physicians understand how to interpret and apply guidance from federal and state authorities in these different settings.

Criticality of Industry Functions

It has been proposed that in order to explore return-to-work challenges, industries be broken out in various ways, including by criticality of function. There are likely types of employment within varied industries that have similar risks and can be covered by similar/basic protocols. However, other job positions within unique or high-risk industries will require more specific protocols. All these protocols will vary over time as dependable tests and new information regarding the virus is revealed. Examples of other considerations include grouping industries by those that are remote such as maritime and oil fields, or those with open versus indoor work such as construction versus manufacturing. Employee populations for special consideration include those on oil drilling platforms, commercial maritime, cruise lines, airlines, and assembly lines with workforces working closely together.¹ The World Health Organization (WHO) acknowledged specific return-to-work challenges for workers in retail, offices, and warehouses.⁴⁰ Onsite COVID-19 services might include rapid, as well as, laboratory testing in addition to symptom or temperature screening.

In critical industries such as health care, the return-to-work procedures are consistent with CDC recommendations and help to mitigate staffing shortages. Some workers may return to work while still symptomatic within strict guidelines, for example, as it pertains to masking, while

in certain industries, they may not. An employee with persistent respiratory issues following illness may be able to telework or return to a desk job if he or she is no longer infectious, while an employee in a heavy-duty job such as firefighting may need more recovery time.

Industry-Specific Guidance

Some changes impacting the workforce may be permanent. More employees working at home and less office space, decreased sales in certain industries and increase in others, increased reliance on delivery services, telehealth, and physical contact becoming less acceptable in the workplace to name a few.

As the pandemic further evolves, additional important considerations include indicators that will be monitored to know how well current procedures are working, or if temporary changes are needed, as well as the threshold or indicator needed to relax social distancing at work. Part 2 of this document will delve into industry-specific guidance in more detail. Apart from health care, specific industries to be highlighted include those at considerable risk of contracting COVID-19, such as residential and home care, workers involved in the food supply, utilities and waste management, public safety, transportation, and maintenance workers. Other important considerations include education, hair care, prisons, funeral homes, animal handlers, manufacturing, mining, construction, maritime, energy, retail, warehouses, and offices.

Specific tools are emerging to assist companies in developing return-to-work plans. These tools include:

- *How to Help Your Company Develop a Complete COVID-19 Return-to-Work Plan.* Available at: <https://www.allthings-admin.com/covid-19-return-to-work-plan/>.⁴⁷
- *Navigating the Future of the Workplace.* A resource for shaping workplaces in the future available at: https://www.work.com/info/navigating-the-future-of-the-workplace?campaign_sfid=70121000011hyVBQAY.⁴⁸
- *Toolkit for Reopening the Office and Getting Back to Work.* Industry-specific guidance advising employers on getting started, who should come back to work first, the importance of implementing flexible work schedules, preparing the workplace and the workforce. Available at: <https://www.backtoworktoolkit.com/>.⁴⁹
- *COVID-19: Back to the Workplace – Adapting Workplaces and Protecting Workers.* Industry-specific guidance from the European Agency for Safety and Health at Work's (EU-OSHA).

Available at: (<https://osha.europa.eu/en/publications/covid-19-back-workplace-adapting-workplaces-and-protecting-workers/view>).³

Health care workers are critical and on the frontlines, and CDC provided ongoing guidance regarding return to work following COVID-19 illness.¹⁹ Providers may find state-by-state specific regulations regarding masks and screening at <https://www.littler.com/publication-press/publication/facing-your-face-mask-duties-list-statewide-orders> and <https://www.littler.com/publication-press/publication/wont-hurt-bit-employee-temperature-and-health-screenings-list>.

It is envisioned that many changes related to policies, workplace design, and employee relations made in the wake of this COVID-19 pandemic may be here to stay. Future workplaces will evolve to become more people-friendly out of this experience, and OEM professionals will have a crucial role in shaping the future of the workplace. Due to their unique skillset, OEM physicians understand the challenges in different industries, organizational behavior as well as the challenges imposed by communicable diseases and are poised to facilitate return-to-work procedures and should be sought out by employers to facilitate the safe return of employees through evaluation, testing, work modifications and implementation of appropriate policies. Ongoing discussions, review of additional general and industry-specific resources, and consultation with OEM professionals will help employers navigate the return to work challenges that lay ahead.

CONCLUSION

As the reopening of businesses is underway, employers will need to facilitate the safe return of employees through evaluation, testing, work modifications, and development of appropriate workplace policies. There will be unique challenges along the way as no one approach will be ideal for all workplaces and industries. OEM physicians have the skills needed to help employers determine which specific strategies will make their workplaces safer going forward.

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