Coronavirus Disease 19: What Employers Need to Know

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Goal: To increase health and safety awareness for employers and workers with potential exposure to COVID-19

Learning Objectives: After attending, participants will be able to:

1. Explain the current status of the public health response to COVID-19

2. Identify signs and symptoms of COVID-19 and known disease transmission

3. Define key steps in worker protection and infection control

4. Identify methods to prevent and respond to COVID-19 exposure in the workplace
This presentation by itself is not sufficient training for personnel who have potential for occupational exposure to the SARS-CoV-2 virus.

Personnel must be trained to their employer’s site-specific policies and procedures. Training must include practice in putting on and taking off PPE and respirators and performing decontamination procedures until competency and confidence can be demonstrated.
Information on COVID-19 is rapidly changing, sometimes daily. Refer to reliable sources such as the CDC, OSHA, NIOSH, State Health Departments and peer reviewed science publications.
Origin

- Outbreak began in December 2019 in Wuhan China
- Zoonotic origin possibly related to a horseshoe bat
- The novel coronavirus is the source of the COVID-19
What is SARS-CoV-2?

SARS-CoV-2 is the virus that causes coronavirus disease 2019 (COVID-19)

SARS = severe acute respiratory distress syndrome

Spreads easily person-to-person particularly when someone sneezes

Little if any immunity in humans

Coronavirus

• This is the seventh coronavirus infection
• Four cause URI (common cold)
  • HCoV-229E
  • HCoV-OC43
  • HCoV-NL63
  • HCoV-HKU1
• SARS-CoV
• MERS-CoV
• SARS-CoV2
Comparison

<table>
<thead>
<tr>
<th></th>
<th>SARS</th>
<th>MERS</th>
<th>COVID-19</th>
</tr>
</thead>
<tbody>
<tr>
<td>Number of Countries</td>
<td>29 - 37</td>
<td>27</td>
<td>At least 185</td>
</tr>
<tr>
<td>Number of Infections</td>
<td>8,098</td>
<td>2,494</td>
<td>3,061,521</td>
</tr>
<tr>
<td>Number of Deaths</td>
<td>774</td>
<td>858</td>
<td>212,083</td>
</tr>
<tr>
<td>Status</td>
<td>None since 2003</td>
<td>Intermittent Outbreaks</td>
<td>Ongoing</td>
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Virology

- 96% identical to other bat coronavirus samples
- Virus is adaptable in environments and hosts
- Transmission from animals to humans possible but unlikely
- Single strand positive sense RNA
  - This gives it the ability to mutate quickly
- Binds ACE-2 receptors
  - These are present in lungs, myocardium (heart) and kidneys
Transmission

• Transmission is primarily via respiratory droplets when in close contact
• Found on surfaces
  • Air- 3 hours
  • Copper (Penny)– 4 hours
  • Cardboard- 24 hours
  • Stainless steel (pots and pans)-2-3 days
  • Polypropylene plastic (Tupperware)- 3 days
Transmission-CDC updates

- The virus spreads easily between people
  - The virus that causes COVID-19 is spreading very easily and sustainably between people
- The virus does not spread easily in other ways
  - From touching surfaces or objects
  - From animals to people
  - From people to animals
Symptoms

- At least four distinct types or clinical presentations
  - Asymptomatic or nonspecific infection
  - Upper respiratory tract infection (URI), which also may include gastrointestinal symptoms
  - Lower respiratory tract infection, including pneumonia
  - Acute respiratory distress syndrome (ARDS)
Symptoms

- The disease commonly begins with mild symptoms for several days, which may readily facilitate its spread to other individuals.
- The virus infection may also cause no symptoms, may still pass the virus to others, who may then develop symptoms.
- A minority of patients develop more severe symptoms and may require ICU care.
  - Pneumonia
  - Shortness of Breath
  - May further progress to severe dyspnea, require oxygen supplementation, and develop into acute respiratory distress syndrome (ARDS).
COVID-19

- Rapid increase of cases in China through January 2020
- The first reported case in the US was January 20, 2020
  - First Death in US on February 29, 2020
- World Health Organization (WHO) declared a health emergency of January 30, 2020
  - WHO declared pandemic on March 11, 2020
COVID-19

- January 11, 2020- First Death reported in China
- January 20, 2020- First case on US soil in 35 year old Washington resident
- January 30, 2020- WHO declares global public health emergency
- January 31, 2020- President Trump bans foreign nationals from entering US if they had been to China in prior two weeks
- February 11, 2020- WHO announces “COVID-19” name
- February 29, 2020- First reported death on US soil from COVID-19
COVID-19

- March 11, 2020 - WHO declares COVID-19 pandemic status
- March 11, 2020 - President Trump bans all travel from 26 European countries
- March 13, 2020 - COVID-19 declared national emergency in US.
- March 23, 2020 - NYC confirms 21,000 cases, making it largest epicenter in US
- March 31, 2020 - More than 1/3 of humanity is under some form of lockdown
- April 1, 2020 - Almost one million cases confirmed globally
US distribution map – click for current info

Click on the map to go to CDC website: https://www.cdc.gov/coronavirus/2019-ncov/cases-in-us.html#2019coronavirus-summary

The map is about halfway down the site.

An additional source of dates is the Johns Hopkins map: https://coronavirus.jhu.edu/map.html
Increased risk factors

Those with elevated risk of exposure include:

• Close contacts of persons with COVID-19.
• Healthcare workers caring for patients with COVID-19.
• Workers providing critical services and operations.
What can all essential workers do to protect themselves?

• Be informed and prepared
• Practice social distancing (at least 6 feet)
• Wash your hands frequently
• Use alcohol-based hand sanitizer
• Avoid touching your eyes, nose, and mouth with unwashed hands
• Stay home when you are sick
• Cough or sneeze into a tissue or your elbow
• Clean and disinfect frequently touched objects and surfaces such as cell phones
• Be prepared if your child’s school, daycare facility, or your worksite is temporarily closed
Which is better: soap and water or hand sanitizer?

- Soap and water are more effective!
- Make sure sanitizer has at least 60% alcohol
General principles – worker protection

- Increase physical distancing between people to six feet
- Everyone should wear masks
- Flexibility in where and when to work
- Wash hands frequently
- Do not share equipment
- Practice good housekeeping
- Increase cleaning and disinfecting generally and thoroughly after a confirmed COVID-19 exposure
Five steps to proper handwashing

• **Wet** your hands with clean, running water (warm or cold), turn off the tap, and apply soap

• **Lather** your hands by rubbing them together with the soap. Lather the backs of your hands, between your fingers, and under your nails

• **Scrub** your hands for at least 20 seconds. Need a timer? Hum the “Happy Birthday” song from beginning to end twice

• **Rinse** your hands well under clean, running water

• **Dry** your hands using a clean towel or air dry them
Key exposure factors in the workplace

• Does the work setting require close contact with people potentially infected with the COVID-19 virus?

• Do specific job duties require close, repeated or extended contact with people with known or suspected COVID-19?

• Has the community spread of the virus included cases in the workplace?
High potential for exposure

High exposure risk occupations are those working with people with known or suspected COVID-19, especially while performing aerosol generating procedures.

**Examples of work settings**
- Healthcare
- Laboratories
- Emergency medical services

**Examples of job activities**
- Care for COVID-19 patients
- Bronchoscopy and sputum induction
- Working with specimens in laboratories
- Transport to hospitals
- Some autopsy procedures
More high potential for exposure

Examples of work settings
- Other types of health care facilities, nursing homes, institutions
- Medical transport
- Correctional facilities
- Drug treatment centers
- Homeless shelters
- Home health care
- Environmental clean-up of SARS CoV-2

Examples of occupations
- Healthcare worker
- Paramedic, EMT
- Laboratorian
- Law enforcement
- Institutional workers
Medium Potential for exposure

Examples of work settings
- Retail stores
- Public transportation
- Home visiting occupations
- Postal and warehouse workers
- Public services

Examples of job activities
- Stocking shelves
- Checking out customers
- Emergency home repairs
- Handling mail and goods
- Processing public benefits
Low potential for exposure occupations are those that do not require contact with people known to be infected nor frequent contact with the public.
Key steps for preparing for and managing epidemics in the workplace

• Preparing for the threat
• Implementing preventive measures
• Implementing the continuity of operations plan
• Managing business recovery post-epidemic
What are the steps in assessing risk?

Risk assessment is an employer responsibility that should involve frontline workers, union reps, and supervisors.

1st Step: Do you have a process in place already?
- Safety and Health or Labor/Management Committee
- Task Force or Sub-Committee

2nd Step: What method will you employ?
- Inspection, job hazard analysis, brainstorming (who, what when, how), other

3rd Step: How will you document the assessment?
Key elements: COVID-19 workplace plan

- Management leadership and employee participation
- Hazard identification and assessment
- Hazard prevention and control
- Risk communication, education, and training
- System evaluation and improvement
- Family preparedness
- Emergency operations procedures
- Post pandemic recovery
Resuming work after a closure or slowdown

Employers should:

• Update their risk assessment.

• Carry out adaptations to the layout of the workplace and the organization of work that will reduce exposure to COVID-19.

• Consider resuming work in stages to allow adaptations to be carried out.

• Inform workers about changes, new procedures, and provide training before they resume work.

Pay special attention to workers who are at high risk and be prepared to protect the most vulnerable.
Protecting Workers: Start with the most effective method to protect workers

Hierarchy of Controls:
- **Elimination**: Physically remove the hazard
- **Substitution**: Replace the hazard
- **Engineering Controls**: Isolate people from the hazard
- **Administrative Controls**: Change the way people work
- **PPE**: Protect the worker with Personal Protective Equipment
Selection and implementation of safeguards

Using the results of the hazard analysis, determine if the exposure potential is high, medium, or low. Then select control measures using the hierarchy of controls. Be sure to evaluate the controls and make adjustments as needed.
Basic hygiene and social distancing

- Stay home when sick
- Wash hands or use sanitizer frequently and after coughing, sneezing, blowing nose, and using the restroom
- Avoid touching your nose, mouth, and eyes
- Cover coughs and sneezes with tissues or do it in your sleeve
- Dispose of tissues in no-touch bins
- Avoid close contact with coworkers and customers (6 feet)
- Avoid shaking hands/wash hands after physical contact with others
STOP shaking hands!
Hazard elimination methods

- Disinfectant and cleaning supplies are available to all employees
- Disinfecting all payment portals, pens, and styluses after each use
- Disinfecting all high-contact surfaces frequently
- Hand sanitizer with at least 60% alcohol is available to all employees
- Break rooms, bathrooms, and other common areas are disinfected on a schedule
- Temperature and symptom checks
Engineering controls

- Ventilation
- Drive-thru service
- Plastic shields and other barriers
- Sneeze guards
Engineering controls for high exposure potential jobs in health care and laboratories

Examples include:

• Negative pressure isolation rooms
• Biological safety cabinets/HEPA filtration
• UV irradiation systems
What are examples of engineering controls for COVID-19?

- Desks or workstations are at least 6 feet apart
- Barriers are in place to achieve social distancing
- Increased general ventilation
- Electronic pre-payment of goods and services
Administrative controls to reduce exposure

- Written exposure control program.
- The number of customers allowed entrance is limited.
- Change hours of operation.
- Switch to take out/delivery only.
- Discontinue non-essential travel.
- Limiting the number of staff present for high potential exposure tasks.
- Training
Additional administrative controls

Soft barriers include use of tables, ropes, signs, and floor markings to maintain social distancing.
Adjust policies to reduce exposures

Policies that can help to reduce exposure to COVID-19 include:

• Encouraging workers who are ill to stay home without fear of reprisals or loss of pay or benefits
• Using email, phone, teleconferences instead of face-to-face contact
In construction, identify choke points

Identify choke points where workers are forced to stand together, such as hallways, hoists and elevators, break areas, and buses, and control them so social distancing is maintained.
Communicate the safety plan

Conduct Safety Stand-Down/toolbox talk/tailgate training on job sites to explain the protective measures in place for all workers.
Employers should review CDC recommendations and adjust sick leave policies as needed

- Ensure policies are flexible, consistent with public health guidance
- Notify all employees
- Permit employees to stay home to care for a sick family member or care for children
- Give advances on future sick leave and allow employees to donate sick leave to each other
CDC recommended sick leave continued…

• Employers who do not offer sick leave to employees should draft non-punitive “emergency sick leave” policies

• Employers **should not** require a positive COVID-19 test result or a health care provider’s note for employees who are sick/quarantined

• Tell workers who are ill to stay home without fear of reprisals or loss of pay or benefits
Where applicable, the OSHA PPE standard requires employers to:

- Conduct an assessment for PPE
- Provide PPE at no cost, appropriate to the hazard
- Train employees on how to don (put on) and doff (take off) PPE
- Train workers to maintain, store, and replace PPE
- Provide medical evaluation and fit testing

Decontamination

• Employers should develop site specific decontamination procedures

• Depending on the workplace, decontamination may require consultation with the health department or use of a consultant specializing in environmental cleanup

• Use of an EPA registered disinfectant effective is recommended

• Worker and building occupant protection is essential to protect against the virus and adverse effects of the disinfectant

EPA List: https://www.epa.gov/pesticide-registration/list-n-disinfectants-useagainst-sars-cov-2
Respirators

Respirators are needed when there is a potential for aerosol transmission.

An N95 respirator is the minimum level of protection to prevent inhaling coronavirus.
Respirators (continued)

Advantages of reusable respirators:
• Durability
• Stand up to repeated cleaning & disinfection
• Maintain fit over time
• Cost savings
• Powered air-purifying respirator (PAPR)
• Half or full-face elastomeric respirators
Respirators (continued)

Surgical masks are not respirators!

Surgical masks **do not**:

- Fit tightly against the skin to form a seal
- Filter tiny particles, such as viruses or bacteria that are in the air
Respiratory protection standard

Respiratory programs must comply with all elements of OSHA Standard 29 CFR 1910.134

- Written program
- Selection according to hazard
- Medically fit to wear
- Fit testing
- Ensure proper use of respirators
- Respirator maintenance
- Labeling/color coding filters
- Employee training
- Program evaluation
- Recordkeeping
Health care facility identification and isolation

The most important steps to prevent spread of COVID-19

• Procedures for rapid identification and isolation of suspect COVID-19 cases

• Community and hospital procedures to ensure symptomatic people are not in public places, waiting rooms, reception areas, emergency departments, or other common areas

• Collect a travel history for patients presenting with fever, cough, or shortness of breath

• Immediately isolate – using standard, contact, and droplet precautions for suspect or confirmed cases.
What about exposures at work?

CDC recommends that exposed workers without symptoms may continue working:

- Employers should perform temperature and symptom checks, disinfect and clean affected surfaces and equipment, trace contacts of the exposed worker, and send a sick worker home for home isolation.
- Workers should wear masks, keep social distance, report symptoms, and stay home if they get sick.
- There is concern that this approach does not address the potential for asymptomatic carriers to infect co-workers and the public.
Alternative: apply CDC’s general home isolation guidelines to worker exposures

• 14 days of home-isolation for exposed workers
• Employer to isolate surfaces and equipment until thorough cleaning and disinfection are performed
• Work with public health department to trace contacts
• Evaluate effectiveness of preventive measures
Prevention in all work settings

• Wash hands after removing gloves or when soiled
• Keep common surfaces such as telephones, keyboards clean
• Avoid sharing equipment if possible
• Minimize group meetings by using phone, email, and avoid close contact when meetings are necessary
• Consider telework
• Limit unnecessary visitors to the workplace
• Maintain your physical and emotional health with rest, diet, exercise, and relaxation
Mental health and stress

As the number of cases of COVID-19 increase, so does the associated anxiety and stress. Consider the following steps:

• **Use your smart phone** to stay connected to family and friends. Shift from texting to voice or video calling to feel more connected

• **Keep comfortable.** Do more of the things you enjoy doing at home

• **Practice stress relief** whenever you feel anxiety building – do some deep breathing, exercise, read, dig in the garden, whatever works for you

• **Avoid unhealthy behavior** such as excess drinking – that will just increase your anxiety afterwards

• **Keep looking forward.** Think about plans you’d like to make down the road.
Questions

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References

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