Novel Corona Virus (COVID-19): Info for Employers

This summary was compiled by the University of Utah's Rocky Mountain Center for Occupational and Environmental Health using multiple sources and expert opinion. It will be updated as the epidemic progresses/recedes and information becomes better known.

The Corona Virus is making worldwide headlines, with cases of infection popping up somewhere new every day. Recent developments suggest there will not be a way to avoid an epidemic and pandemic using quarantines[1] due to asymptomatic patients spreading the virus, cases of mild disease, and increasing numbers of cases without a known contact.

While mild cases lower the fatality rate for any given case, it's also far easier to spread the virus to others who then are at risk for a severe case. For now, the scope and severity of an epidemic/pandemic remain unclear and companies need to be prepared with a contingency plan.

What is the Corona virus/COVID-19?

Corona virus (aka, 2019 Novel Coronavirus, now named COVID-19 for its discovery in 2019) is a new strain of an existing virus. Because it is new, much less is currently known about it. Corona virus outbreaks have previously occurred, such as "SARS" in 2003-04 and "MERS" in 2013-15. When a virus mutates or changes, studies need to be performed to measure the new strain's virulence, or its ability to infect humans. Based on prior research and experiences with past corona virus infections, the origin of this epidemic is expected to be bats in China. This new corona virus, COVID-19, is now found in humans both around the world[2] and in the USA.[3]

What are the symptoms?

Symptoms vary, but are typical of respiratory infections, such as fever and cough.[4] More severe cases can involve more serious symptoms such as shortness of breath. However, the disease is reported to begin with mild symptoms for a couple days, which may readily facilitate its spread to other individuals, prior to a minority of patients developing more severe symptoms and/or need of ICU care.[5] As the symptoms are typical of respiratory tract infections, they can be difficult to distinguish from other infections. This virus also may cause no symptoms, yet the person may pass the virus to others who may develop symptoms.[6][7] Singapore is reporting children tend to have milder and/or asymptomatic cases; if confirmed, this suggests a mechanism to facilitate spreading the disease more readily.[8]

How contagious is it?

Contagiousness and virulence appear to be high. The degree of these factors will only become known with time, because investigations have to be completed to quantify things like how many people become infected when they are close to someone with the infection; how many asymptomatic cases occur; how many clinical infections occur; how many fatalities occur, etc.

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[1] https://apnews.com/783c7a396adf5f99b8cff399f9478e36
[2] https://www.cdc.gov/coronavirus/2019-ncov/locations-confirmed-cases.html
[3] https://www.cdc.gov/coronavirus/2019-ncov/cases-in-us.html
[4] https://www.cdc.gov/coronavirus/2019-ncov/about/symptoms.html
[5] https://jamanetwork.com/journals/jama/fullarticle/2761890
[6] https://www.nature.com/articles/d41586-020-00154-w
[7] https://www.thesun.co.uk/news/uknews/10950656/first-coronavirus-case-confirmed-in-london-as-officials-worst-fears-come-true/
[8] https://jamanetwork.com/journals/jama/fullarticle/2761890

How serious is it?
Cases range from mild to severe. The fatality rate is now being estimated at ~2% which is considered high. The fatality rate for typical annual influenza (aka, "flu cases") is ~0.1%. Past outbreaks of corona virus infections had *considerably higher* fatality rates with MERS (34%) while SARS had a rate of 10%. Fatality rate is not the only consideration regarding seriousness, as a high rate of infectivity and/or easy transmissibility could result in more total fatalities despite a lower-case fatality rate. COVID-19 appears much more contagious than the prior corona viruses. There are unproven concerns it may not be just a virus spread by the respiratory route, but may be spread by the fecal-oral route.

What is its incubation?
The incubation is the amount of time it takes between exposure and onset of symptoms. This is not currently known, but based on prior corona virus outbreaks, it is thought to be 2 to 7 days with rare cases of up to 14 days.[9]

What to do with employees returning from China, Italy, Japan, South Korea, or another area known to have infections?
Currently, the safest course is to have the worker work from home for a minimum of 2 weeks and be without direct contact with other workers. Should that worker become ill, they should promptly call their healthcare provider before appearing in their clinic or hospital (e.g., to arrange which entrance to use, to be given an appropriate type of mask before entering the building, etc.). The person should also avoid all contact with other people, and if essential, ideally use an "N95 Respirator" or at least a face mask when going out of the home. If there are any questions about potential COVID-19 infection, the local health department should be involved as they have the experience to investigate outbreaks and contacts.

What if an employee has been in contact with someone exposed?
Use the same advice above as if the person was returning from China, Italy, Japan, South Korea, or another area with infections.

What if someone has been in contact with someone thought to be infected?
Handle this person as if s/he was infected for a minimum period of 2 weeks and be sure the local health department is involved.

How is Coronavirus treated?
There is no known effective treatment or vaccine.[10] Studies are now underway for potential treatments and vaccine development has also begun, although vaccine development typically takes many months. If someone develops more severe symptoms, the complications such as respiratory failure may be treated by mechanical ventilation. There are existing drugs with some preliminary "test-tube" evidence of some activity against COVID-19 that are being further investigated (Chloroquine, Remdisivir, Lopinavir, Ritonavir).

What if this grows into an epidemic in the US? How to keep business going?

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[9] https://www.cdc.gov/coronavirus/2019-ncov/about/symptoms.html
[10] https://www.cdc.gov/coronavirus/2019-ncov/about/prevention-treatment.html

What can an employer do to reduce risk of infection? Are there preparations to do now?

- Eliminate all close contact with anyone with infectious symptoms[11]. If there is believed to be COVID-19 being transmitted in your area or someone has traveling to a region with potential infection, then anyone with even mild respiratory tract infection symptoms (e.g., cough, fever, fatigue) should stay home to be sure it doesn't progress to a clear, readily transmissible, and potentially severe COVID-19 infection.[12]
- Stop non-essential travel to China, Italy, Singapore, Japan, Singapore, South Korea or other cities/countries with a potential epidemic and/or between person spread in progress (see map to help with other risk considerations: https://gisanddata.maps.arcgis.com/apps/opsdashboard/index.html#/bda7594740fd40299423467b48e9ecf6)[13] A company should assess their risk tolerance regarding cessation of non-essential overseas travel especially either to, or through, any country reporting cases.
    - Consider having workers work from home who could be in the incubation stage due to potential exposure(s) including those who have traveled to regions with potentially infections (i.e., for 2 weeks after a possible exposure, particularly including into areas with an epidemic in progress). Ensure health department involvement.
- Ensure affected workers have sufficient paid leave to assure they observe a quarantine and/or are able to not come to work when they should not.
- Train staff who clean workplaces and provide them personal protective equipment (PPE).
- Clean commonly touched worksite surfaces frequently (e.g., hourly). These include machine controls, door handles, bathroom doors, faucet handles, lunch tabletops, etc. Consider propping open doors to reduce handling. Avoid shared equipment when possible (e.g., keyboards), and clean common surfaces between shifts or between worker usage. Clean surfaces with an agent that kills viruses.
- Encourage frequent handwashing.
- Teach workers to not touch their eyes, nose, and/or mouth with unwashed hands.
- Teach workers to use tissues to catch a cough or sneeze, then throw that tissue away and wash their hands.
- Encourage social distancing in group settings, ideally a distance of at least 3-6 feet.
- Encourage early reporting of any symptoms.
- Have those who develop symptoms stay away from the workplace until clinically evaluated.
- Consider having workers work from home who could be in the incubation stage (i.e., for 2 weeks after a possible exposure).
- Report any suspected case to the local health department.
- If there is a confirmed case in your workplace, determine the most common contacts with that person and either: 1) encourage them to work from home and/or 2) preclude the close contacts from entering the workplace.

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[11] https://www.cdc.gov/coronavirus/2019-ncov/about/prevention-treatment.html

[12] https://jamanetwork.com/journals/jama/fullarticle/2761890

[13] https://gisanddata.maps.arcgis.com/apps/opsdashboard/index.html#/bda7594740fd40299423467b48e9ecf6

More details are available from CDC regarding businesses.[14]

[14] https://www.cdc.gov/coronavirus/2019-ncov/guidance-business-response.html