



# Coronavirus Disease (Covid-19) Outbreak- A Concern for Occupational Safety and Health

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## Review Article

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## Abstract

Corona virus (COVID-19) disease outbreak is epidemic leading to pandemic and continues to intensify worldwide. The exposure to corona virus and its outbreak exposure to occupational diseases and other common diseases/injuries are of grave concern and challenge to medical professional. How medical experts and paramedical staff/administration applying logistic knowledge for treatment of such patient to recover from "Corona virus diseases?. WHO is closely working with global experts/government and partners to rapidly expand scientific knowledge.

"Corona virus- epidemic "and to provide timely advice on measures, antidotes, to protect human health and to prevent corona virus outbreak as pandemic.

**Keywords:** Corona virus; Respiratory Disease; Diabetes

## Introduction

Corona virus (COVID-19) has been identified in humans emerged in Wuhan, China in December 2019, which infects both animals and humans. Corona viruses are a group of viruses belonging to the family of *Coronaviridae*. Corona virus (COVID-19) causes respiratory disease lead to the Severe Acute Respiratory Syndrome (SARS) - CoV-2 Virus. Human corona viruses can cause mild disease similar to a common cold, while others cause more severe disease (such as MERS - Middle East Respiratory Syndrome and SARS - Severe Acute Respiratory Syndrome). The respiratory disease sign and symptoms include fever; cough and shortness of breath, in severe condition infection can lead to pneumonia, severe acute respiratory syndrome and sometimes death.

COVID-19 outbreak when exposed to the person suffering

from occupational diseases such as Pneumoconiosis, silicosis, asbestosis, bagassosis, byssinosis etc the risk of infection with an outbreak pathogen ( COVID-19) could lead to severe acute respiratory syndrome. Occupational hazard includes pathogen exposure, long working hours, psychological distress, fatigue, occupational burnout, stigma, and physical and psychological violence.

WHO is working closely with global experts, governments and partners to rapidly expand scientific knowledge on this new virus and to provide timely advice on measures to protect human health and prevent the spread of this outbreak?

This paper emphasis on COVID-19 and exposure to occupational disease personnel, the rights and responsibilities of occupational health workers, including specific measures needed to protect occupational safety and

health.

### Workers' Rights and Challenges Related to COVID-19 Outbreak

The corona virus disease (COVID-19) is epidemic leading to pandemic and continues to intensify worldwide. Employers obligates as per relevant legislation to provide and maintain a workplace that is safe and without hazards/risks to health'. The Hazardous Biological Agents Regulations further stipulate that in workplaces where employees are likely to be exposed to hazardous biological agents (HBA), employers are required, among other things, to provide information and training, conduct a risk assessment, monitor exposure, conduct medical surveillance and control exposure to HBA. World Health Organization recommends that employees need to self isolate and prohibits employers from deducting time absent from work as a result of an occupational disease from workers' ordinary sick leave allocation.

### Modes of Transmission of COVID-19 Virus

#### The Primary Transmission

"Between people through respiratory droplets and contact routes".

- Droplet transmission occurs when a person is in close contact (within 1 m) with someone who has respiratory symptoms (e.g. coughing/sneezing).
- Risk of having his/her mucosae (mouth or nose).
- Conjunctiva exposed to potentially infective respiratory droplets.

#### Transmission through Infected Person

- Direct contact with infected people
- Indirect contact with surfaces in the immediate environment
- With objects used on the infected person (e.g. stethoscope, thermometer)

#### Transmission through Airborne Aerosols

- Endotracheal incubation
- Open suctioning
- Manual ventilation before intubation
- Non-invasive positive pressure ventilation
- Tracheotomy
- Cardiopulmonary resuscitation.

### International Labour Organization-Occupational Accidents/Diseases

"ILO also estimated that 160 million cases of non-fatal

work-related diseases occur annually. These estimates imply that that every day approximately 6,400 people die from occupational accidents or diseases and that 860,000 people are injured on the job. Furthermore, as estimates show, work-related diseases represent the main cause of death at work, killing almost six times more workers than occupational accidents. This should highlight the need for a new paradigm of prevention: one that also focuses on work-related diseases, not only on occupational injuries [1-4]."

### Occupational Safety and Health Administration-Guidelines

- To reduce the impact of COVID-19 outbreak conditions on businesses, workers, customers, and the public, it is important for all employers to plan now for COVID-19.
- For employers who have already planned for influenza pandemics, planning for COVID-19 may involve updating plans to address the specific exposure risks, sources of exposure, routes of transmission, and other unique characteristics of SARS-CoV-2 (i.e., compared to pandemic influenza viruses).
- Employers who have not prepared for pandemic events should prepare themselves and their workers as far in advance as possible of potentially worsening outbreak conditions.
- Lack of continuity planning can result in a cascade of failures as employers attempt to address challenges of COVID-19 with insufficient resources and workers who might not be adequately trained for jobs they may have to perform under pandemic conditions.
- The Occupational Safety and Health Administration (OSHA) developed this COVID-19 planning guidance based on traditional infection prevention and industrial hygiene practices.

### Corona Virus (COVID-19) Outbreak Risk to Other Diseases & Challenges

Corona virus (Covid-19) Outbreak is more prone to the patient suffering from

- Hypertension
  - Diabetes
  - Cancer
  - Tuberculosis
  - Respiratory related diseases
- a. How long will it take to develop a vaccine for COVID-19?
  - b. Is a therapy rather than a vaccine the solution to coronavirus.
  - c. COVID-19 infection in cancer patient
  - d. COVID-19 cardiovascular diseases
  - e. COVID-19 infection in diabetic patient
  - f. COVID-19 infection in respiratory related diseases

- g. COVID-19 infection in industrial workers occupational injury and diseases.

### Conclusion

Therefore the exposure of COVID-19 and its outbreak to the person suffering from such diseases and occupational diseases including health worker need to be taken care utmost with due history of their record for the treatment of COVID -19 exposure. Considering the occupational diseases a new prevalent among the industrial worker, the exposure of the COVID-19, the preventive measure and treatment should be taken care of, with due health and hygiene practices.

Standard recommendations to prevent the spread of COVID-19 include frequent cleaning of hands using alcohol-based hand rub or soap and water; covering the nose and mouth with a flexed elbow or disposable tissue when coughing and sneezing; and avoiding close contact with anyone that has a fever and cough.

The Corona virus outbreak from epidemic to pandemic spread from china to many other countries around the world is threat to human being and challenges to invent antidotes. The preventive measure and adopting better health and hygiene practices are essential for living in better environment and caring the animal and living kingdom on the earth.

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