

[High Priority] - H0618 : [COVID-19] Systems for Disinfecting the General Public Are Ineffective and Hazardous [ECRI Exclusive Hazard Report] Medical Device Hazard Report

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UMDNS Terms:

- Germicides [18159]

Geographic Regions: Worldwide

Suggested Distribution: Emergency/Outpatient Services, Infection Control, Pulmonology/Respiratory Therapy, Risk Management/Continuous Quality Improvement, Staff Education, EMS/Transport, Materials Management

Problem:

1. In some areas of the world, the COVID-19 pandemic has prompted an ineffective and hazardous practice of spraying disinfectants on people who are not wearing appropriate personal protective equipment (PPE).
2. People wearing a facemask or cloth face covering may enter a disinfection tunnel, chamber, or cabinet.
 1. Facemasks or cloth face coverings will not protect them from chemical exposure.
 2. People may experience unanticipated health effects related to chemical exposure (1).
3. Potential consequences of the problem include:
 1. Temporary irritation or damage to the skin, eyes, and respiratory system.
 2. Nausea and vomiting.
 3. Other temporary or permanent health effects, depending on the chemical used.

ECRI Recommendations:

Governments and Businesses:

1. Do not use disinfection tunnels, disinfection chambers, disinfection cabinets, or any other modality that sprays disinfectants on people who are not wearing appropriate PPE (i.e., respiratory protection, eye and face protection, skin protection).

General Public:

1. Do not use disinfectant showers or sprayers, including disinfection tunnels, chambers, and cabinets.

Background:

1. ECRI members outside the U.S. have inquired about use of disinfection tunnels/chambers/cabinets to reduce the spread of the SARS-CoV-2 virus.
 1. ECRI does not know which disinfectants are used in these apparatuses.
2. WHO and CDC report that the SARS-CoV-2 virus is primarily transmitted between people through respiratory droplets.
 1. Droplet transmission occurs when a person is in close contact with someone who has respiratory symptoms (e.g., coughing, sneezing) (2).
 2. Droplets can land in the mouths, noses, or eyes of people who are nearby or possibly be inhaled into the lungs of those within close proximity (3).
3. Contact transmission may occur through contact with contaminated surfaces followed by self-delivery to the eyes, nose, or mouth (3).
4. CDC recommends several methods for reducing droplet and contact transmission of the SARS-CoV-2 virus, including staying at least six feet from other people and avoiding touch of eyes, nose, and mouth with unclean hands (4).
5. WHO guidance states: "Spraying individuals with disinfectants (such as in a tunnel, cabinet, or chamber) is not recommended under any circumstances. This could be physically and psychologically harmful and would not reduce an infected person's ability to spread the virus through droplets or contact. Moreover, spraying individuals with chlorine and other toxic chemicals could result in eye and skin irritation, bronchospasm due to inhalation, and gastrointestinal effects such as nausea and vomiting" (5).
6. CDC does not recommend the use of disinfection tunnels. There is no evidence that they are effective in reducing the spread of COVID-19. Chemicals used in disinfection tunnels could cause skin, eye, or respiratory irritation or damage (6).

References & Source Documents:

1. Agency for Toxic Substances and Disease Registry, U.S. Health Effects of Chemical Exposure [online]. [cited 2020 May 29]. Available [here](#) .
2. World Health Organization. Modes of transmission of virus causing COVID-19: implications for IPC precaution recommendations

[online]. 2020 Mar 29 [cited 2020 May 29]. Available [here](#) .

3. Centers for Disease Control and Prevention, U.S. Interim Infection Prevention and Control Recommendations for Patients with Suspected or Confirmed Coronavirus Disease 2019 (COVID-19) in Healthcare Settings [online]. 2020 May 18 [cited 2020 May 29]. Available [here](#) .
4. Centers for Disease Control and Prevention, U.S. How to Protect Yourself & Others [online]. 2020 Apr 24 [cited 2020 May 29]. Available [here](#) .
5. World Health Organization. Cleaning and disinfection of environmental surfaces in the context of COVID-19 [online]. 2020 May 16 [cited May 29]. Available [here](#) .
6. Centers for Disease Control and Prevention, U.S. Cleaning and Disinfecting Your Facility [online]. 2020 Apr 14 [cited 2020 May 29]. Available [here](#) .

Comments:

- This alert is a living document and may be updated when ECRI receives additional information.

Source(s):

- 2020 Jun 2. ECRI researched report