



# RiskTopics

## Cleaning and disinfection plans during COVID-19 outbreak

Coronavirus spreads from person to person primarily through droplets in the air when someone coughs or sneezes. But scientists have determined that the virus can spread from a surface to a person<sup>1</sup>. Developing an effective cleaning and disinfection program is a critical component to prevent the spread of the coronavirus in the workplace.

### Introduction

Workers can be infected by contacting contaminated surfaces or objects and then touching their eyes, nose or mouth. Below is a list of surface times for novel coronavirus provided by the New England Journal of Medicine:

- In the air: Up to 3 hours
- On copper: Up to 4 hours
- On cardboard: Up to 24 hours
- On plastic: 2 to 3 days
- On stainless steel: 2 to 3 days<sup>1</sup>

Proper cleaning and disinfection of surfaces can help minimize the spread of the virus. Whether you have in-house janitorial staff or a contract cleaning service, it is important to have a comprehensive cleaning plan to help ensure all parties understand their responsibilities

### Discussion

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 COVID-19.<sup>2</sup> Planning is a critical component to a cleaning and disinfection program.

The plan should address four important components:

- Areas to be cleaned/disinfected
- Frequency of cleaning
- Cleaning/disinfection materials that will be used
- Material-specific cleaning procedures and techniques

Each cleaning/disinfection material has specific procedures to optimize its effectiveness. These materials' specific procedures should be integrated into the routine cleaning and disinfection plan. To ensure it is followed the cleaning and disinfection plan should be clearly documented and communicated to all interested parties.

### Guidance considerations

Areas to be cleaned: Guidance from the U.S. Centers for Disease Control (CDC) indicates that routine cleaning should be appropriate for most areas. Frequently used items such as the ones listed below may need more frequent cleaning, as often as several times each day:<sup>3</sup>

- Door knobs
- Elevator buttons
- Light switches
- Faucet handles
- Publicly used telephones
- Computer monitors, mice and keyboards
- Countertops and conference tables
- Cafeteria tables, coffee pots and vending equipment

**Cleaning frequency:** The use of regular cleaning and disinfection materials should be sufficient in many instances. The cleaning frequency for each area should be covered specifically in the plan and should match the significance of the cleaning and disinfection task. For example, the cleaning plan for a hospital emergency room would be different from that of an office or retail occupancy. For more frequent cleaning, you may also wish to provide disinfecting wipes to employees and have them available in shared spaces such as conference rooms, group workspaces and in the cafeteria.<sup>6</sup>

**Cleaning procedures:** For personal safety, it is important that all janitorial staff or cleaning service providers receive training on proper use of any chemicals, cleaning agents and cleaning equipment. As appropriate, additional training should be provided on the use of appropriate personal protective equipment (PPE) such as gloves, hearing protection and goggles. Training should also include specific processes, requirements for each area cleaned and how to address the increased cleaning needed during an influenza outbreak. The following cleaning guidance is summarized from guidance provided by the Washington State Department of Health:<sup>5</sup>

- Routinely clean and disinfect surfaces to reduce the number of viruses and prevent their spread
- Any commercially available soap or detergent can be used to clean the surfaces, following label directions
- Disinfect using a product registered by the U.S. Environmental Protection Agency (EPA), following label directions

For cleaning of critical areas in regulated facilities such as hospital and food processing facilities, check with industry associations or local health departments about the need for validation of cleaning protocol for effectiveness.

**Cleaning chemicals and disinfectants:** Influenza viruses can be inactivated by many low- or intermediate-level disinfectants. Use of disinfectants registered by the EPA is recommended whenever these are available.

Lists of registered disinfectants can be found at:

<https://archive.epa.gov/pesticides/oppad001/web/html/influenza-disinfectants.html> .

Many, if not all, of these products indicate potency for several target pathogens on the label. The list contains approximately 400 registered disinfectants with human influenza A and/or B listed on the product label. Any of these disinfectants should inactivate influenza and coronaviruses when used according to manufacturer instructions.

**Contracted services:** Service level agreements are important for both the facility and the cleaning service. The agreements help avoid any potential misunderstanding and disputes about responsibilities and expectations for each party. A written service level agreement should include, at a minimum, the four key areas described earlier: areas to be cleaned/disinfected, frequency of cleaning, materials to be used and any material-specific cleaning procedures and techniques. Additional items should be added to the contract to address any specific situations as they apply to your facility. Legal counsel should review the terms and conditions of any service level agreement.

**Other considerations:** Adherence to good personal hygiene, proper hand hygiene, respiratory hygiene, and cough etiquette is especially important for helping prevent the spread of influenza in the workplace and the community. As part of influenza control strategy, schools may consider dismissing classes and businesses may desire to implement a social distancing program. Such a program may include spacing employees out as much as possible while at work (using empty desks or spaces) or where possible allowing employees to work from home rather than in the workplace. Additional cleaning during flu season needs to focus on targeted use of disinfection for surfaces touched frequently by hand:

- Keep housekeeping surfaces and countertops clean of visible soil by cleaning with detergents and water or proprietary cleaners, followed by rinsing with water.
- Follow label instructions carefully when using disinfectants and cleaners, noting any hazard advisories and indications for PPE (such as protective gloves). Do not mix disinfectants and cleaners unless the labels indicate it is safe to do so. Combining certain products (such as chlorine bleach and ammonia cleaners) can be harmful, potentially resulting in serious injury or even death.
- Clean and disinfect all bathroom surfaces on a regular basis using EPA-registered detergent/disinfectants. Alternatively, clean surfaces first with detergent and water and then disinfect with an EPA-registered disinfectant in accordance with manufacturer instructions.
- If EPA-registered disinfectants are not available, the CDC suggests using a dilute solution of household chlorine bleach (sodium hypochlorite) in water to disinfect bathroom surfaces. To prepare this solution, add ¼ cup of bleach to a gallon of clean water, or 1 tablespoon of bleach to a quart of clean water. Apply to a cleaned surface, preferably with a cloth moistened with the bleach solution, and allow the surface to remain wet for 3 to 5 minutes.<sup>4</sup>
- Wipe frequently touched electronic items (e.g., remote controls, handheld gaming devices) with hand sanitizer cloths.

## Conclusion

Cleaning and disinfection plans can be a critical part of minimizing the spread of the influenza virus during an outbreak. The plan should outline areas to be cleaned/disinfected, frequency of cleaning, materials to be used and any material-specific cleaning procedures and techniques. Training should be provided to all staff (employed or contracted) involved. These cleaning procedures/requirements should be clearly documented and understood in any agreements developed. The use of proper materials, techniques and clear cleaning plans can support a facility's influenza outbreak-response efforts. Additional information can be found in the references/resources noted below. 4

### References

1. New England Journal of Medicine study on Covid-19, [New England Journal of Medicine](#)
2. Occupational Health and Safety Administration (OSHA). Guidance on Preparing Workplaces for COVID-19; OSHA 3990-03. (2020).
3. "Influenza (flu)." Centers for Disease Control and Prevention. U.S. CDC. 18 November 2019. <https://www.cdc.gov/flu/about/viruses/types.htm>
4. "How to Clean and Disinfect Schools to Help Slow the Spread of Flu." Centers for Disease Control and Prevention. U.S. CDC. 13 July 2018. <https://www.cdc.gov/flu/school/cleaning.htm>
5. "Workplace Administrators – Flu Prevention at Work." Centers for Disease Control and Prevention. U.S. CDC. 26 August 2019. <https://www.cdc.gov/nonpharmaceutical-interventions/workplace/workplace-administrators.html>
6. "Environmental Management of Pandemic/Swine Influenza Virus." Pandemic Influenza. Washington State Department of Health. 1 July 2009. <http://www.swsd.k12.wa.us/cms/lib/WA01000765/Centricity/Domain/22/EnvirControl.pdf>

## Additional resources

- "Flu Resources for Businesses." Centers for Disease Control and Prevention. U.S. CDC. 16 October 2019. <http://www.cdc.gov/flu/business/>
- "Workplace Administrators." Centers for Disease Control and Prevention. U.S. CDC. 26 August 2019. <https://www.cdc.gov/nonpharmaceutical-interventions/workplace/workplace-administrators.html>
- "Guidance on Preparing Workplaces for an Influenza Pandemic." U.S. Department of Labor/Occupational Safety & Health Administration (OSHA). 1 July 2009. [https://www.osha.gov/Publications/influenza\\_pandemic.html](https://www.osha.gov/Publications/influenza_pandemic.html)
- Ridgely, Lisa. "H1N1 Fact Sheet for Cleaning Professionals." CleanLink. Clean Link8, 8 May 2009. <http://www.cleanlink.com/cp/article/H1N1-Fact-Sheet-For-Cleaning-Professionals--10915>
- "Pandemic Influenza Preparedness and Response Guidance for Healthcare Workers and Healthcare Employers." Occupational Safety & Health Administration, U.S. Department of Labor. 2009. [http://www.osha.gov/Publications/OSHA\\_pandemic\\_health.pdf](http://www.osha.gov/Publications/OSHA_pandemic_health.pdf)

