



# COVID-19

## What Facilities, Maintenance, and EVS Departments Need to Know

April 2, 2020

Presented by

**Heather Lauzon Werner**

**Alex Werner**

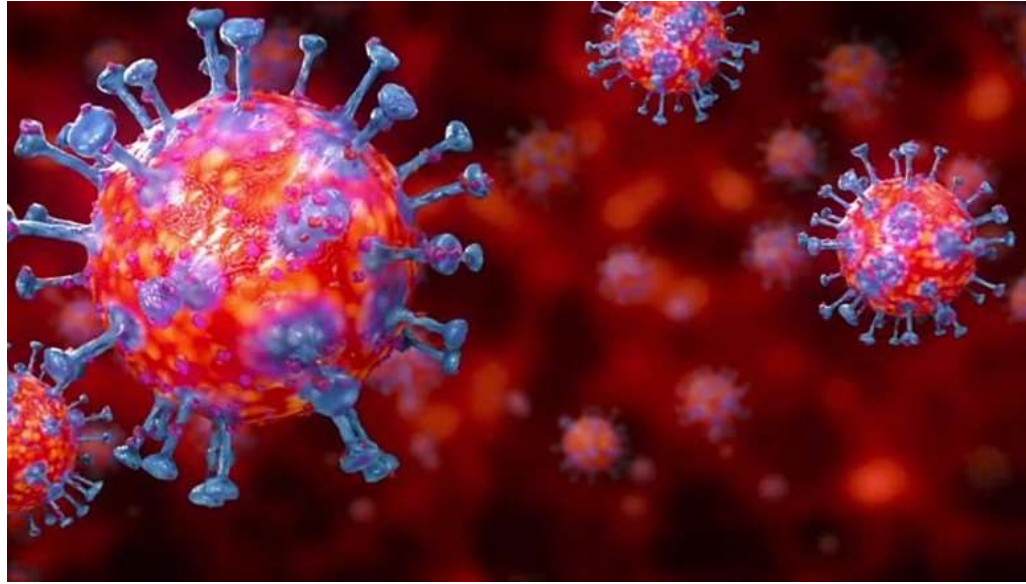
[heather@lauzonlifesafety.com](mailto:heather@lauzonlifesafety.com)

[alex@lauzonlifesafety.com](mailto:alex@lauzonlifesafety.com)

262-664-9071

262-321-9376

[www.lauzonlifesafety.com](http://www.lauzonlifesafety.com)



# Coronavirus

What we Know About this Disease

# Origin - Zoonotic Disease

- ▶ Diseases that are transmitted from animal to human
- ▶ Similar virus found naturally in horseshoe bats
- ▶ Stress leads to weakened immune system
  - ▶ Being hunted
  - ▶ Deforestation – Reduction of habitat
  - ▶ Captivity
- ▶ Wet-markets -- animals are held captive together and sold as pets or food (butchered on site)
  - ▶ Unnatural mix of species and viruses



# Zoonotic Diseases Happen

H1N1(Swine Flu)

Bubonic Plague

Toxoplasmosis

Hantavirus

Cysticercosis

Lyme's Disease

HIV

Rabies

Malaria

Ebola

- ▶ “HIV, the virus that causes AIDS, has been traced to a type of chimpanzee in Central Africa, according to the CDC.
- ▶ The chimp version of this disease (*simian immunodeficiency virus*, or SIV) was likely passed to humans when they hunted these animals for meat, getting exposed to their infected blood. Once they were exposed, the virus mutated into HIV.”

# Aerosol Generating Procedures



Precautions include:

1. Perform procedure in Airborne Infection Isolation (AII) room
2. Health Care Providers wear all recommended PPE
3. Limit the number people present to essential personnel
4. Clean and disinfect the room in accordance with environmental infection control guidelines



# Emergency Order #12 Safer at Home

March 25-April 24 "or until a superseding order is issued"



Everyone must follow  
Social Distancing  
Requirements as much  
as possible.

► <https://evers.wi.gov/Documents/COVID19/EMO12-SaferAtHome.pdf>

# Emergency Order #12 Safer at Home

## ► Exclusions

- Providers of any related or any ancillary healthcare services
- Long-term care and assisted living facilities
- Building management and maintenance; operation and maintenance of utilities

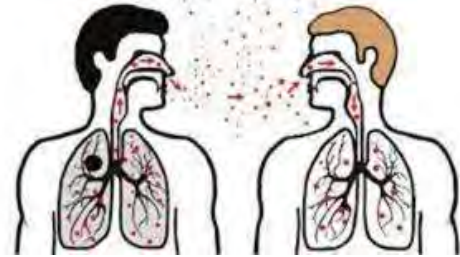


# Standard Precautions

## Standard Precautions: Droplet and Contact

**Source control:** put a mask on the patient. Instruct patient in Respiratory Hygiene/Cough Etiquette

- ▶ **Ensure appropriate patient placement** - single room if possible.
  - ▶ Follow guidelines for Isolation Precautions
  - ▶ Place patients who require Droplet Precautions in an exam room or cubicle as soon as possible
- ▶ **Limit transport and movement of patient**
  - ▶ Medically necessary purposes. Instruct patient to wear a mask



<https://www.cdc.gov/infectioncontrol/basics/transmission-based-precautions.html>



# Standard Precautions

## Standard Precautions: Droplet and Contact

**Source control:** put a mask on the patient. Instruct patient in Respiratory Hygiene/Cough Etiquette

- ▶ **Personal protective equipment (PPE)**

- Wear mask upon entry into the patient room or patient space

- ▶ Wear a gown and gloves for all interactions that may involve contact with the patient or the patient's environment.



- ▶ **Contact - Use disposable or dedicated patient-care equipment** If unavoidable, clean and disinfect equipment before use on another patient.

- ▶ **Prioritize cleaning and disinfection of the rooms**

<https://www.cdc.gov/infectioncontrol/basics/transmission-based-precautions.html>

# Standard Precautions: Airborne

- ▶ **Source control:** put a mask on the patient. Instruct patient in Respiratory Hygiene/Cough Etiquette
- ▶ **Ensure appropriate patient placement in an airborne infection isolation room (AIIR)**
  - ▶ Place the patient in a private room with the door closed
- ▶ **Restrict susceptible healthcare personnel from entering the room**
- ▶ **Personal protective equipment (PPE)** - Fit-tested NIOSH-approved N95 or higher level respirator for healthcare personnel.
- ▶ **Limit transport and movement of patients**
  - ▶ Medically-necessary purposes. Instruct patient to wear a mask or respirator

# Employees

- ▶ Designate an employee entrance to the building
- ▶ The same screening performed for visitors should be performed for staff and contractors.
- ▶ Restrict staff from work if they have fever or signs of respiratory infection
- ▶ Staff that develop symptoms of a respiratory infection while on-the-job
  - ▶ Immediately stop work, put on a facemask, and self-isolate at home
  - ▶ Inform the infection preventionist, and include information on individuals, equipment, and locations the person came in contact with; and
  - ▶ Contact and follow the local health department recommendations for next steps (e.g., testing, locations for treatment)

# Patients

- ▶ Implement respiratory hygiene and cough etiquette (mask) and
- ▶ Isolate in an examination room with the door closed
- OR
- ▶ Have a separate, waiting area for suspected COVID patients
  - ▶ Allows them to be separated by 6 or more feet
  - ▶ Access to respiratory hygiene supplies
  - ▶ Stable patients may choose to wait in a personal vehicle or outside and be contacted by mobile phone when it is their turn

Respiratory hygiene and cough etiquette supplies at entry locations

Alcohol-based hand rub  
(>60% alcohol)  
Tissues  
Masks  
Waste receptacle for disposal of tissues



# Guidelines for Placement

- ▶ Unless medically necessary, treatment for COVID-19 can be at home
- ▶ All Rooms are not required unless performing Aerosol Generating Procedures
- ▶ Dedicated bathroom in patient room



Where possible have designated COVID-19 units or floors

- Do not place patients here unless COVID-19 is confirmed

Dedicated staff to care for these patients

If patients share a room, they should have the same pathogen

# Guidelines for Patient Rooms

Provide Supplies for Infection Prevention and Control Practices

Hand hygiene supplies:

- At least 60% Alcohol-based hand sanitizer in every patient/resident room (ideally both inside and outside of the room) and other common areas
- Sinks are well-stocked with soap and paper towels
- Provide PPEs
- Trash can near the exit inside the room
  - Discarding PPE
    - Before exiting the room
    - Before providing care for another patient/resident in the same room



AII Rooms or Standard Rooms

- Keep door closed



# Negative Pressure Rooms

Airborne Infection Isolation Rooms

# ASHRAE 170 Requirements

- ▶ Sealed to limit air leakage
- ▶ Exhaust air pass through HEPA filters just prior to leaving room



ASHRAE 170 2013 7.2.1

- b. All air from the AII room shall be exhausted directly to the outdoors.

**Exception:** All rooms that are retrofitted from standard patient rooms from which it is impractical to exhaust directly outdoors may be provided with recirculated air from the room's exhaust on the condition that the air first passes through a HEPA filter.

2008 edition specifies MERV 17 HEPA filter

Pressure to Adjacent Areas	Total ach (min)	Outdoor ach (min)	Exhaust Direct Outdoors	RH%	Temp (F)
Negative	12	2	Yes	Max 60	70-75





# Making More Negative Pressure Rooms

When You Have More Patients Than  
Your Building Can Handle

# Cleaning and Disinfection

How to Keep the Infection from Spreading



# Environmental Infection Control

Work from clean to dirty – If assigned some non-isolation rooms also, do them first

- ▶ Routine cleaning and disinfection procedures
  - ▶ Use cleaners and water to pre-clean surfaces
  - ▶ Apply an EPA-registered, hospital-grade disinfectant
  - ▶ Contact time per manufacturer
  - ▶ Includes patient-care areas where aerosol-generating procedures are performed.
- ▶ Clean and disinfect high-touch surfaces.
  - ▶ Focus on bathrooms, common areas, and areas where the patient was for extended periods of time.
  - ▶ Concentrate on high touch surfaces
    - ▶ Tables and Hard-backed chairs
    - ▶ Doorknobs and Light switches
    - ▶ Handles and desks
    - ▶ Toilets and sinks

# Time Before Terminal Cleaning

Depends on the number of air changes per hour

ASHRAE 170-2013  
requirement for  
Standard patient  
rooms



ASHRAE 170-2013  
requirement for  
All and PE Rooms



Total Number of Air Changes per Hour	Time in Minutes to Clear 99% of Contaminants	Time in Minutes to Clear 99.9% of Contaminants
2	138	207
4	69	104
6	46	69
8	35	52
10	28	41
12	23	35
15	18	28
20	14	21
50	6	8

<https://www.cdc.gov/infectioncontrol/guidelines/environmental/appendix/air.html#tableb1>





# Surveys, Inspection, and Maintenance

How Does this Situation Impact Compliance with other Codes

# DQA: Plan Review and Inspections Notice – March 31, 2020

## Plan Submittals

- ▶ Digital documents should be submitted when possible.
- ▶ Application - Scanned copy of the completed and signed form
- ▶ Payment – Check sent to Milwaukee plan intake office as usual

## Construction Inspections

If health care construction is taking place, there will be inspections.

- ▶ Areas that do not involve patient or resident care areas or *passing through that area*
- ▶ Per the current CDC and State of Wisconsin DHS criteria
  - ▶ Social distancing
  - ▶ If approved by OPRI staff
  - ▶ Virtual visits
  - ▶ Video and photo-based inspections



# Survey Compliance

CMS – Suspended all non-essential surveys

- ▶ Immediate Jeopardy
- ▶ Serious violation regarding patient harm
- ▶ The Joint Commission suspend all regular surveys as of Monday, March 16
- ▶ Other accreditation organizations have followed suit.

TJC expects surveys and other activities, to be on hold at least until the end of April.



# Life Safety Required Inspections

CDC guidance states that maintenance of essential healthcare operations be continued

## All the Required Inspections Must Take Place on Schedule

Wisconsin Executive Order 72 declared a health emergency and provides relief from strict compliance with Wisconsin administrative rules.

Suspend the provisions of any administrative rule, if the Secretary of the Department of Health Services determines that compliance with that rule would prevent, hinder, or delay necessary actions to respond to the emergency and increase the health threat.

You must do the inspections, but there are options for how you are going to comply.





# Do We Have to do Fire Drills at This Time?

- ▶ Fire drills primary purpose:
  - ▶ Test and instruct staff
  - ▶ Verify the transmission of alarms internally to the facility and offsite to a remote location
  - ▶ Engage residents, when capable, to practice defend-in-place strategies.

The first two functions can/should be done during a state and national health emergency



# Waivers



How Do We Get a Waiver?

# 1135 Blanket Waivers

- ▶ Issued March 13 – Retroactive to March 1
- ▶ The Centers for Medicare and Medicaid Services (CMS) has issued blanket waivers of some Federal requirements under the Social Security Act
- ▶ 1135 Blanket Waivers – no additional action





# Emergency Operations Plan

Document, Document, Document

# Emergency Operations Plan Activated



Use this event as one of your disaster drills

- Two drills per year
- Influx of patients
- Escalating event in which local community cannot help
- Community wide

Evaluate the effectiveness of how facility manages:

- Communication (inside and outside of facility)
- Resources and Assets (ventilators, respirators, PPE, ABHR, etc.)
- Security and Safety (patients, staff, community, etc.)
- Staff roles and Responsibilities
- Utility Systems
- Patient Clinical and Support Care Activities

**Document Everything**