

Four Infection Control Ideas for Even After COVID-19

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This pandemic could change the design and programming of seniors housing forever.

By Russ Garber, M+A Architects

Our senior citizens are wise and brave and giving, but they are also among our most vulnerable loved ones. For the many in senior living facilities, the COVID-19 pandemic is a time filled with trepidation. For the operators of those facilities and their dedicated staff members, this is a time of long days and addressing many concerns, large and small.

As of March 23, at least 150 skilled nursing facilities in more than half the states had at least one resident with COVID-19, according to data from the Centers for Medicare & Medicaid Services. Those numbers have surely gone up by now.

One concern, infection control, is top of mind for everyone who cares for, or cares about, a senior. Given the close living conditions and the often-frail health conditions of the residents, seniors in senior living communities are especially vulnerable.

Smaller is better

By organizing a senior living center into multiple smaller-group settings instead of one giant facility, there is less intermingling of residents — for example, in a large common dining room — and disease spread is limited.

Instead of a large, high-rise facility with 100 units and central dining and activities, reduce the density with ten ten-unit corridors, for example. Each corridor has private resident spaces and its own communal spaces such as living room, activity space, and dining room.

There are also other benefits to smaller living groups, including a home-like feeling, more intimate connections with neighbors, and less distance to travel for meals and activities.

In the planning stages, include access to the outside for each resident. Patios or balconies in each living space ensure that everyone has access to fresh air and sunshine, even while isolating during health crises. While some people believe that fresh air lessens the chance of infection, there is no doubt that, even in times with no crisis, everyone's mood improves with natural light, fresh air and spending time outdoors.

Caregivers' compassion

During this pandemic, a number of senior living staff members are volunteering to stay in the facility to limit their trips in and out and, therefore, the opportunity for pathogens to enter the facility. If we design senior living communities with spaces for staff to live onsite during crises, we can limit the health risks that enter through the doors each day.

Another way to reduce the number of people entering and leaving a facility each day would be to hire universal workers who can address multiple needs: housekeeping, food service, laundry and caregiving. By limiting both the number of people in contact with each resident and also the number of residents and the space that each worker covers, there is a lower chance of infection.

Breathe easy

Higher-quality ventilation reduces the prevalence of airborne pathogens. Consider designing or modifying HVAC systems to meet the ASHRAE 170 standard used for healthcare facilities.

- Increased air exchange rates increase ventilation and decrease airborne pathogens. Complete air turnover every four hours instead of the more common 24 hours significantly decreases airborne disease.
- UV light systems within the HVAC system can disinfect the air as it circulates through the system.

- Copper mesh filters inside the ductwork can also reduce pathogens in circulated air.

Tech to the rescue

The more we can eliminate the need to touch surfaces that many people touch, the more we eliminate the spread of pathogens that are often spread through our hands.

Consider no-touch options for:

- Light switches, such as motion activated
- Bigger elevator buttons for elbows to push or voice-activated controls
- Doorknobs and entry systems that use wristbands with RFID proximity sensors to unlock resident doors
- Faucets throughout the facility (not just in restrooms) that are motion activated
- Smart speakers and smart home devices
- Voice activation to avoid touching controls for lights and other appliances
- Voice control to use, but avoid touching, tablets and phones

Installing UV disinfecting lights above horizontal surfaces that often harbor pathogens can render the surfaces inhospitable to bacteria, viruses, molds and other pathogens. Foodservice surfaces are especially important to disinfect effectively.

We know that seniors often use handrails and chairs to help with walking and balance. Those surfaces that are frequently touched can be coated with antimicrobial coatings to eliminate infection spread.

Once this pandemic ends, we will have learned many valuable lessons. We will celebrate going back to normal, but we will return to a “new normal.” It is important to use our learnings, make changes to be better prepared for the next crisis, and offer our seniors an increased level of protection from external threats. They have earned stress-free days with full confidence in the care they receive.

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