Air Management Strategies

Mitigation Strategies

OMSs should create and implement an air management plan utilizing a layered application of technology and behavior to minimize the risk of SARS-CoV-2 transmission. Each OMS and facility may have a different combination and method to reach this goal. One prescriptive method does not exist, so no single strategy can be recommended.

HVAC Systems

Concerns/Considerations
- Isolate contaminated from non-contaminated/clean air spaces.
- Maintain air flow from clean to contaminated areas.
- Increase outdoor air into the building.
- Ventilate interior air outdoors.
- Decontaminate air that cannot be ventilated to the outdoors.

Usage
- Humidity – Keep between 40-60 percent; lower humidity may favor SARS-CoV-2 viability.
- Filtration – Use the highest filter value possible for system.
- Outdoor air – Increase amount of outdoor air circulated in building.
- Thermostats – Reprogram to avoid system shutting off during occupied hours.
- Exhaust fans – Leave on when feasible, especially in bathrooms.

Portable HEPA Filtration Units

Concerns/Considerations
- No direct research exists to verify if a HEPA air purifier reduces the transmission of COVID-19.
- SARS-CoV-2 is generally carried in respiratory droplets, which are much larger than other particles known to be captured by HEPA filters.
- Use as an adjunct to the HVAC system to expedite room air exchange.

Usage
- Place portable units during and immediately following an aerosol-generating procedure.
- Place so surgical personnel are not between the patient and the HEPA filtration unit, which would direct patient spatter and aerosols toward them.

Air Scrubbing/Decontamination

Concerns/Considerations
- Though the absolute benefit of air scrubbing for decreasing SARS-CoV-2 transmission in an OMS office is unclear, it may still be beneficial to improve the general air quality and reduce the recirculation of contaminants.
- The ions created through air scrubbing are dispersed throughout all the air in the workspace, extending to areas where UVGI or even some fogged disinfectants may not reach.

Usage
- Wet scrubbing uses a damp or wet medium to filter particles and contaminants out of the air.
- Dry scrubbing utilizes the properties of positive and/or negatively charged ions to destroy certain molecules, disrupt the viability of airborne organisms and viruses, and cause airborne particles to aggregate, fall and/or be caught in filters.

Ultraviolet (UV) Light

Concerns/Considerations
- Ultraviolet germicidal irradiation (UVGI) has the potential to cause human health diseases, including skin cancer and eye disease.
- UVGI cannot be used in an occupied space, except when installed in an upper-room fashion.

Usage
- Suspend UVGI lamps from ceilings or upper portion of walls; shield base of lamp to direct radiation upward and outward.
- Consider UV technology installation in HVAC ducts.
- Consider Far UVC, which can inactivate virus without human health risks in occupied spaces.

Review the full White Paper on Air Management Strategies for more information.

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