

COVID-19

COVID-19 infection prevention and control when using mobile air conditioners and floor fans in healthcare facilities

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Version 1.0

Interim opinion

Notes: The recommendations below are based on the information available at the time of writing. Given that the situation and our knowledge of the SARS-CoV-2 (COVID-19) virus are evolving rapidly, these recommendations are subject to change. In the absence of conclusive data specifically relating to COVID-19, this is an expert opinion.

Background

Summer heat waves and extreme high temperatures can and do occur. We need to decide on an approach to infection prevention and control for the use of mobile air conditioners and floor fans in healthcare facilities as the COVID-19 pandemic continues. Further to the MSSS plan for managing extreme heat events (2018), INSPQ is now setting down ground rules for the use of mobile air conditioning units and floor fans in healthcare facilities. The guidelines do not apply to permanent central ventilation and air conditioning systems.

Target audience

- Hospital facilities
- Rehabilitation facilities
- CHSLD, PSR/RI/RTF
- Other facilities working with for vulnerable groups (e.g., clinics, drop-in centres)

Guiding Principles

The equipment this opinion applies to is used in healthcare facilities in the summer. Note however that some scientific associations recommend against their use when additional droplet, airborne, or contact precautions are in place (AHS, 2020; ASE, 2018; NHS, 2015; VCH, 2018; WRHA, 2018). They may increase the risk of infection by dispersing microorganisms, debris, or dust suspended in the air. There is also a risk of disrupting the normal airflow patterns in the patient's surroundings.

Currently there is no literature that provides significant hard data specific to the use of mobile air conditioners or floor fans with patients with confirmed or suspected cases of COVID-19. In the absence of such conclusive data and in consideration of the available literature, the decision whether to use the devices in rooms and units occupied by patients with confirmed or suspected cases of COVID-19 will be subject to a local risk assessment to determine whether the

benefits outweigh the dangers. The benefits of comfort vs. the safety of patients and staff must be closely analyzed, and a safe and comfortable environment must be provided. The management of risk must be in line with the extreme heat management plans already in place in the facility.

If it is decided, in consideration of the COVID-19 pandemic, that the use of such devices is necessary for the health and safety of patients and staff, such use must comply with the guiding principles.

Guiding principles to be applied at all times for all patients and staff

- Mobile (window or other) air conditioners and floor fans must be properly and regularly maintained when they are installed, in use, or removed as per manufacturer's instructions for local conditions.
- Do not position devices so that airflow is directed toward the exit, to prevent droplets from being dispersed outside the room or unit.
- Do not aim the airflow at the patient's face, or the face of any other patient if other patients are sharing the room. If that's not possible, use a deflector or baffle to redirect the airflow away from the occupants' faces.
- If used in multi-occupant rooms, do a separate risk assessment for each patient in the room. The oscillating function of floor fans should also be turned off to prevent radial or uncontrolled particle dispersion.

Additional guiding principles for patients with confirmed or suspected cases of COVID-19.

- Schedule more frequent maintenance of floor fans and mobile air conditioners used in environments occupied by patients with confirmed or suspected cases of COVID-19. Clean and disinfect high-touch surfaces more often, at least once a day. Clean and disinfect low-touch surfaces more often as well (such as fan blades if dust buildup is visible).
- Shut off floor fans if an AGMP or sterile or aseptic procedures are conducted. Keep the floor off when such actions are taking place.
- N95 respirators are not required in places where floor fans and mobile air conditioners are used, because the devices don't aerosolize respiratory secretions. The airflows they produce can however tend to disperse infectious droplets from patients.
- Restrict the number of people from outside coming into the facility and units during an outbreak (e.g., air-conditioner installer). Make sure that everyone present in the facility strictly follows the rules for preventing the spread of COVID-19.

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