

# Use of Portable Fans/Air Conditioners in Health Care Facilities in the Saskatchewan Health Authority (SHA)

This document was developed in collaboration with the following groups: Infection Prevention and Control (IPAC), Occupational Health and Safety (OH&S) and Facility Maintenance/Biomedical Engineering.

## Background:

- Some SHA facilities/units and long term care (LTC) homes do not have air-conditioning and during summer months are poorly equipped to deal with rising temperatures. This could place vulnerable patients<sup>1</sup> and staff wearing personal protective equipment at risk of additional heat stress.
- The use of portable fans or air conditioners may assist with patient and staff comfort when all other measures have been exhausted.
- Fans (bladed and bladeless) have been shown to disperse dust and airborne transmitted particles, create airborne *Clostridium difficile* spores, and alter air flow patterns.
- Portable air conditioner drip pans and other components can become contaminated if they are not cleaned and maintained properly. Once contaminated, air conditioners may spread healthcare associated pathogens leading to infections and outbreaks.
- The use of this equipment is permitted only on a case-by-case basis. Many facilities are unable to support the additional electrical load of a portable air conditioner. Therefore, the evaluation will determine if they are permitted as a temporary solution.

## Best Practice Recommendations:

1. Portable fans/air conditioner units are **not recommended** for use in acute care facilities. For compassionate reasons (e.g. end of life) portable fans and air conditioners may be considered on a case-by-case basis.
2. Portable fans/air conditioner units **may** be permitted in long term care facilities on a case-by-case basis.
3. Alternate cooling methods<sup>2</sup> should always be considered first prior to use.
4. Portable fans/air conditioner units are **strictly prohibited** for use in the following locations and situations:
  - Critical Care Units (e.g., ICU, CCU, PICU, NICU)
  - High acuity units/patients (e.g., close observation, transplant units/patients)
  - Operating Room
  - Units/departments where procedures are completed (e.g., Endoscopy Suite, Medical Imaging, Interventional Radiology, Cardiac Cath/EP Lab)
  - Sterile Processing Department and areas where medical device reprocessing takes place
  - Areas used for storage of clean and sterile devices/supplies
  - Laboratory
  - Oncology Unit/patients, including areas where chemotherapy is administered

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<sup>1</sup> In this document the term patient is inclusive of patient, resident and client

<sup>2</sup> Alternate cooling methods: contact Facilities Maintenance to review and adjust airflow and temperature, cleanable window coverings (blinds), cool washcloths, ice packs, portable patient cooling blankets (if available)

- Dialysis Unit
  - Patient Isolation Room where any transmission-based precautions are in place, whether single or multi-bed room
  - Negative and positive pressure rooms
5. Portable fan/air conditioners are not permitted for use during an outbreak.
  6. Prior to purchasing, consider the ease of cleaning as per the manufacturer's directions.
  7. The fans and air conditions must have CSA or equal electrical approval. All electrical items must have an electrical check performed prior to installation.
  8. The unit must be directly plugged into an appropriately rated wall outlet and it is NOT recommended that these units be operated using an extension cord application.
  9. If an the extension cord is being considered (in temporary application) it must have an appropriate heavy duty electrical rated cord and be strung and secured overhead - not across the floor, through doorways, or any other floor position and limit max length.

**General Principles for the use of portable fans/air conditioner units in acute and LTC:**

1. If permitted, only portable fans/air conditioner units approved by the facility after an evaluation of safety, maintenance and care requirements by IPAC, OH&S and Facility Maintenance/Biomedical Engineering may be used.
2. Portable fans/air conditioner units must be clean prior to first-use.
3. Perform hand hygiene prior to the cleaning, handling and/or maintenance of the portable fan/air conditioner unit.
4. Fans should be used within a single patient room, or if used in a multi-patient room, within the patient's bed space with the curtain drawn.
5. Portable fan/air conditioner should be used only as a temporary measure (e.g. summer months) and not on a year round basis (unless there is an exceptional circumstance and is approved by the IPAC department).
6. Ensure airflow is into patient's bed space and not across patient to roommate or hallway. Position at patient bed level or higher. Placement of table fans on floors is not acceptable; fans must be positioned such that airflow is level with the surface of the bed (e.g., place table fans on a surface at bed level; telescoped floor fans may be accepted if this can be accomplished).
7. Fan must never blow directly on burned skin, burn dressings and open wounds or directly in the patient's face.
8. Fan must be turned off during patient care procedures (e.g., line insertions, surgical-type procedures, dressing changes, or a tracheostomy site).

**Cleaning and disinfection:**

- Facility/patient-owned portable fans/air conditioners must be accompanied by a cleaning schedule, including who will be responsible for cleaning and maintenance.
- Follow manufacturer's instructions for cleaning, disinfection and maintenance.
- Portable fans must be cleaned weekly or when visibly soiled, between patients and/or at patient discharge.

**Portable fan/air conditioning in non-patient areas:**

1. When fans or air conditioners are used in a non-patient care area (e.g., nursing station, staff rooms):
  - Direct the airflow within the area to prevent contamination to patient care equipment or a care delivery zone
  - See Appendix A for Sample Cleaning and Disinfection instructions.
2. Consider strategies for staff comfort found at: [Saskatchewan Safe Workplace - 6 tips to stay cool](#)

## References:

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3. Vancouver Coastal Health. IPAC Best Practices Guideline- Portable Fans in Acute Care. Revised Sept. 2018 Accessed May 29, 2020 <http://ipac.vch.ca/Documents/Acute%20Resource%20manual/Portable%20Fans%20in%20Acute%20Care.pdf>
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