

Horticulture in Healthcare

Note: Terms in bold are defined in the **Definitions** section

If you have any questions or comments contact IPC at ipcsurvstdadmin@ahs.ca.

Best practice recommendations

Principles

- Therapeutic and recreational horticulture activities may benefit patient health and wellness.
- These recommendations are intended to reduce infection risks during horticulture activities.

Purpose

- To describe how to assess the risk of infection for patients from horticultural activities (unit/disease and individual specific).
- To outline infection prevention and control (IPC) measures to reduce the risks to facility, unit, and patients before and during participation in therapeutic and recreational horticultural activities.

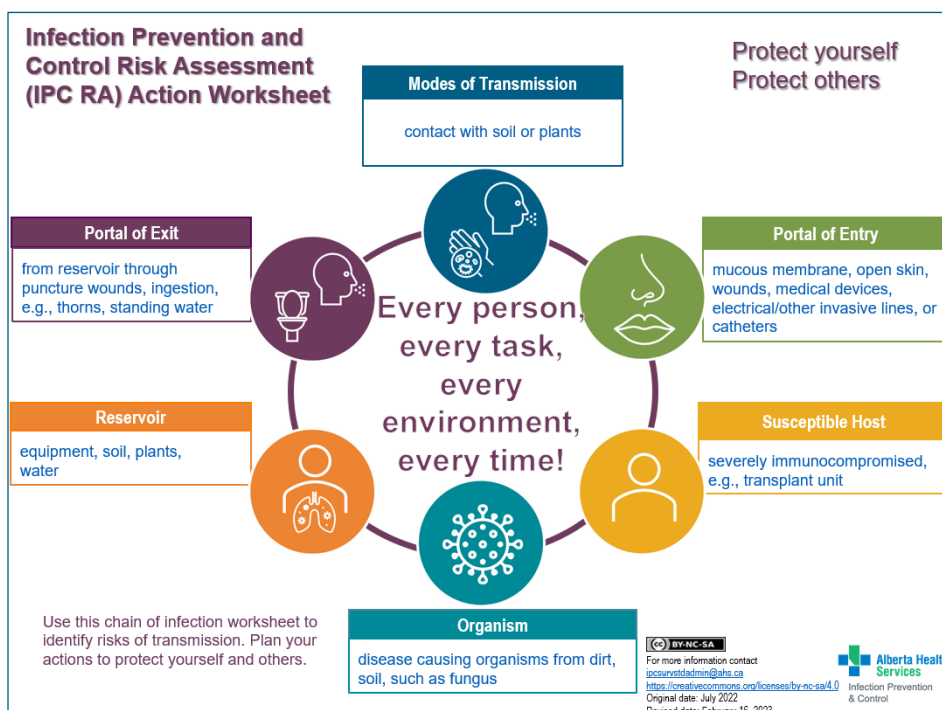
Application

This recommendation applies to all Alberta Health Services (AHS) employees, members of the medical and midwifery staffs, students, volunteers, and other persons acting on behalf of AHS and contracted partners.

IPC Risk Assessment Chain of Infection

This sample Infection Prevention and Control Risk Assessment (IPC RA) Action Worksheet is provided to help identify potential sources of infection related to horticulture activities and can be used to assess the infection risk to patients. Risks may vary according to unit/setting.

Alternatively, users may prefer to complete their own [worksheet](#).



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1. Routine Practices

1.1 Before considering horticulture activities assign responsibility for:

- Selecting patients to participate based on risk to patient population, e.g., type of unit, and individual patient risk;
- Implementing IPC measures;
- Selecting type of plants, e.g., safe for patient contact, fragrance-free;
- Management of:
 - horticulture supplies, e.g., avoid standing water, minimizing dirt and dust; and
 - equipment, e.g., select space for transport, cleaning and storage.

1.2 IPC Risk Assessment

Refer to [Infection Prevention and Control Considerations for Immunocompromised Patients](#) for details including the definition and management of immunocompromised patients.

1.2.1 Immunocompromised patients may be excluded from participation in therapeutic horticulture activities such as gardening, or direct access to living walls or a green roof, unless approved by the clinical team, as plants have microbial flora that may cause illness in those patients.

Exclude plants, planters, and flowers, i.e., fresh, dried, and artificial from specialized units that predominantly care for immunocompromised patients as recommended in [Infection Prevention and Control Considerations for Immunocompromised Patients](#).

1.2.2 Patients on additional precautions usually do not participate in activity outside their rooms. Consult with IPC staff before considering in-room participation in horticulture activities.

1.3 Hand hygiene

- Perform hand hygiene before starting horticultural activity and wash hands with soap and water after activity, due to contact with plants, soil or water materials.
- Follow the AHS [hand hygiene policy](#) and [procedure](#).

1.4 Patients

1.4.1 Before patients participate in horticulture activities, educate or assist them to:

- perform hand hygiene;
- protect clean clothing, e.g., gown, housecoat, or a water-resistant gown/apron if required;
- if gardening gloves are used, dedicate them to a single patient and wash them before re-use by another patient.

1.4.2 Before patients return to their room:

- Cover any clothes that are visibly soiled, e.g., replace gown or housecoat, or change into clean clothes.

1.4.3 Notify and consult with the attending physician if a cut occurs or soil gets into a wound as tetanus vaccination, wound care, and monitoring for infection may be indicated.

1.5 Handling equipment and supplies

- Avoid standing water and overwatering, e.g., empty watering containers when not in use; use pots with drainage holes; and change vase water regularly, e.g., every 48 hours.
 - Dispose of water in a soiled utility room sink and not in the patient room.
 - Clean and disinfect vases when not in use.

- Potted plants
 - Pot in commercially prepared compost. Do not use manure.
 - Monitor for plant diseases and pest infestation. Discard plant if needed.
- Assign, schedule, perform, and document regular maintenance and care of horticulture-related equipment and supplies. This includes garden beds and potted plants, indoors and outdoors, as well as horticultural activities such as tending flowers and plants.

1.6 Cleaning

- Locate plants, including artificial plants, where they can be easily accessed and cleaned regularly.
- Clean and disinfect gardening tools, reusable gloves, and aprons before reuse.
- Clean and disinfect environmental surfaces where gardening implements have been handled.

1.7 Transport

- Cover plants and soiled horticulture tools and avoid patient care areas during transport, if possible.

1.8 Storage

- Store clean gardening supplies in a clean area dedicated for this purpose.

1.9 Before consuming produce resulting from horticultural activities:

- Wash produce prior to consumption/
- Refer to [Food Safety: Preparing](#) for details.

2. Designing and building environments

- 2.1 Refer to [IPC Healthcare Facility Design Requirements](#), page 13, Special Design Elements section and [Alberta Infrastructure Green Roof Design](#) for details about building living walls or a green roof.
- 2.2 Follow CSA Z317.2:19 Special requirements for heating, ventilation, and air-conditioning (HVAC) systems in healthcare facilities for details about ventilation requirements, e.g., for immunocompromised patients.

Definitions

Living wall means wall partially or completely covered with greenery that includes a growing medium, e.g., soil, water, and substrate, and an integrated water delivery system.

Green roof means a roof of a building, partially or completely covered with vegetation and a growing medium, planted over a waterproofing membrane. It may also include additional layers such as a root barrier and drainage and irrigation systems.

References

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Resources (additional detail)

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- Chambers, N. (2003). Horticultural Therapy and Infection Control in the Healthcare Environment. Journal of Therapeutic Horticulture, 14, 56–61. Retrieved June 16, 2023 from <https://www.jstor.org/stable/44025066>.
- CSA Z8004-22 standard, Long-term care home operations and infection prevention and control. Toronto, ON: Canadian Standards Association Group.
- clause **8.1.4.3**, recommends a home garden environment be integrated into outdoor spaces during facility planning to provide an opportunity for a range of activities such as gardening, exercise, watering flowers and enjoying the space.

Version history

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V1	2023-11-27	Issued for information. (This document supersedes IPC Recommendations for Horticultural Activities at Healthcare Facilities, Doc. no./ID hi-ipc-calgary-zone-horticulture-bpg.)



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