

# Bedbug Control for Healthcare Facilities

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

If you have any questions or comments contact IPC at [ipcsurvstdadmin@ahs.ca](mailto:ipcsurvstdadmin@ahs.ca)

## Best practice recommendations

### Purpose

To help healthcare providers care for patients with bedbugs.

- To prevent or minimize the risk of an undetected **infestation** and resulting impact on the facility.
- To outline bedbug control if a **transient introduction** or infestation occurs.

Note: If specific program processes/recommendations vary from the general recommendations provided in this document, refer to and follow program specific processes.

### Application

Alberta Health Services employees, members of the medical and midwifery staffs, students, volunteers and other persons acting on behalf of Alberta Health Services (including contracted service providers as necessary).

## Recommendations

### 1. IPC routine practices

- 1.1 Additional precautions are not required for suspected or confirmed cases of bedbugs.
- 1.2 Personal protective equipment (PPE) is not required when caring for patients with bedbugs. Wear PPE as needed for [routine practices](#).
  - Shoe coverings may be worn by staff entering heavily infested private homes/residences to avoid removing shoes.
- 1.3 Standard laundering practices are adequate to kill bedbugs:
  - Handle soiled or used linens with minimal agitation and place directly in linen bag without sorting.
  - Separate clean and soiled laundry. Do not place soiled laundry where clean linen is stored or in rooms that contain clean linen.
  - At home, or in a domestic washer, launder clothes and other washable fabrics in a washing machine and dry in a hot dryer for 30 minutes.
  - Do not over-fill the dryer or laundry may not get hot enough.
  - The heat of a hot dryer will kill all stages of bedbugs.

### 2. Background/Prevention

- 2.1 To learn more, review [Bedbugs](#) topics at MyHealth.Alberta.ca
- 2.2 Transient introductions of bedbugs occur when bedbugs are brought into a facility on clothes or belongings. Hospital and acute care environments are more likely to have transient introduction of bedbugs rather than an infestation as acute care rooms are designed to minimize the risk of infestation, e.g., sparsely furnished, metal furniture and free of clutter.

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[ipcsurvstdadmin@ahs.ca](mailto:ipcsurvstdadmin@ahs.ca)  
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- 2.3 Bedbug infestations may occur in any healthcare setting; however, this is more common in longer-stay facilities such as long-term care and assisted living because:
- patients bring in personal possessions from home, e.g., clothing, furniture, beds, wheelchair cushions, and respiratory devices;
  - patients may not be able to communicate that they are being bitten or may be hesitant to report bedbug concerns.
- 2.4 Bedbug infestations occur in several stages:
1. Introduction
  2. Establishment
  3. Increase in number
  4. Spread to other areas
- 2.5 Establish site practices for inspection of personal furnishings and belongings brought into healthcare setting, e.g., assisted living, continuing care.
- 2.6 Determine site/unit or department specific lead responsible for pest control, e.g., Environmental Services (ES), Facilities Maintenance & Engineering (FME) or Property Management (PM).
- 2.7 Seal cracks and crevices in patient rooms and common spaces, e.g., lounges, to prevent bugs from migrating through walls and where pipe or wiring goes through a wall or floor, e.g., heated ducts, plumbing pipe, TV cables and medical gases.

### 3. Integrated pest management

#### 3.1 Staff and patient resources

3.1.1 [Education and resources](#) are available from Alberta Health Services.

3.1.2 Staff working in a patient's home/residence with bedbugs can access further information at [Working in Places with Bedbugs](#).

3.1.3 For additional information refer to these resources:

- [How do I inspect for bedbugs?](#)
- [How do I treat a bedbug infestation?](#)
- [Service Alberta, Alberta Residential Landlord Association.](#)
- [Government of Canada, Bedbugs – Where do I go for more information?](#)
- [Appendix A: Quick Steps for Bedbug Control in a Healthcare Facility.](#)
- [Appendix B: Workplace Health and Safety Communicable Disease Recommendations.](#)

#### 3.2 Control of suspected or confirmed bedbugs

3.2.1 Early detection measures minimize the risk of bedbug infestation and spread. Observe patient clothing or belongings for signs of bedbugs, e.g., visible bedbugs or bites, and if bedbugs are suspected:

- Ask questions to determine if their current accommodation has bedbugs, such as:
  - Have you stayed where you might have been exposed to bedbugs in the past 3 months?
  - Many people have concerns about bedbugs, lice or other pests. Do you need any help with these issues?

- If the patient has visible evidence of live bugs:
  - Have the patient change into facility-supplied clothing (gown or scrubs);
  - Do not move the patient from the room until they have changed clothes;
  - Clean and disinfect hard surface belongings such as cell phones with a [pre-moistened ready-to-use disinfectant wipe](#) and return to the patient.
  - Seal the patient's clothing and other belongings that cannot be cleaned and disinfected, in a plastic bag;
  - Keep the bag sealed until the patient leaves.

3.2.2 Observe for bedbugs in the environment. Inspect living areas and crevices of anything brought into the room/treatment area, including equipment, bags, shoes and clothing. If bedbugs are found:

- Identify the bedbug. Place specimens in a sealed container to prevent escape.
- Destroy other bugs by mechanical force (squish).
- Watch for ongoing signs of bedbugs and if signs are present, the full extent of the problem is assessed by ES, FME or PM responsible for pest control.
- Remove patients/visitors from the room and close the door.
- Avoid rearranging or removing furniture from the room to prevent the disturbance and spread of bugs before assessment is completed.
- If signs of bedbugs are found, collect and launder all linens and cloth items in the room.

### 3.3 Communication for bedbugs (suspected or confirmed)

#### 3.3.1 In a healthcare setting:

- Report the incident to the unit or facility manager.
- The manager engages with ES, FME or PM responsible for pest control, who then consults with experts such as Environmental Public Health or a pest control service provider if required, e.g., depending on the certainty of identification and the location or severity of the problem.

3.3.2 In a patient's home/residence contact Environmental Public Health by calling Health Link: 1-866-408-5465 or 811.

3.3.3 Healthcare providers who experience a workplace related or acquired bedbug infestation of their home or belongings should notify their manager, report the incident into MySafetyNet (Insite) and notify local Workplace Health and Safety.

### 3.4 Documentation

3.4.1 Record relevant details on the patient record or chart, e.g., sighting of bedbugs on the patient or patient environment, bites.

3.4.2 The ES, FME or PM responsible for pest control maintains records including date, type of incident, unit or room number, date of first pest inspection, results of the inspection, details about preparation of the area, pest control recommendations and follow-up actions to prevent re-infestation.

### 3.5 Treatment of room and furnishings (as directed by the pest control service provider)

#### 3.5.1 Pre-treatment

- Reduce clutter by:
  - discarding any garbage and

- organizing clothing and belongings that cannot be cleaned and disinfected and placing them into sealed bags.
- Follow advice of the pest control service provider about whether to keep clothing and belongings in a sealed bag or to launder as per [clause 1.3](#).
- Empty furniture and move it away from walls.

### 3.5.2 Treatment

- If the pest control service provider is unable to respond in a timely manner and immediate removal of visible bedbugs is desired, ES, FME or PM with responsibility for pest control, may use a vacuum cleaner with a bag to vacuum room/area and furniture to reduce the severity of the problem until the pest control service provider arrives.
- Immediately after vacuuming is completed dispose of the vacuum bag into a garbage bag. Seal the garbage bag. This step removes the risk of spreading bedbugs through the vacuum and the vacuum can be used in other rooms.
- Once the extent of an infestation is confirmed by a pest control service provider, various management techniques may be implemented including physically removing bedbugs, e.g., vacuuming, steam treatment or use of pesticides. Follow the pest control service provider's recommendations.
- Following treatment by the pest control service provider, clean area as per usual cleaning processes. Unless indicated by a point-of-care risk assessment, 'bedbug specific' PPE is not required. Additional disinfectants or pesticides are not recommended.
- Sticky tape, i.e., double sided, is not effective to catch bedbugs and is not recommended for routine use, unless recommended by the pest control service provider.

### 3.6 Evaluate treatment

- Evaluate the success of the integrated pest control program.
- Continue to monitor and observe for signs of bedbugs in the patient's environment and furnishings.
- Follow recommendations of the pest control service provider, e.g., further treatment.

| Version | Date (YYYY-MM-DD) |
|---------|-------------------|
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## Definitions

**Infestation** means to inhabit or overrun in numbers or quantities large enough to be harmful, threatening or obnoxious, e.g., bedbugs found in the environment. Evidence of bedbug infestation include signs of feeding and excreta (small blood stains and/or dark spots) on sheets and mattresses.

**Integrated pest management** means a multi-pronged, effective bedbug control program with multiple stakeholders, e.g., staff, patients, visitors and pest control service providers. Integrated pest control requires collaboration and participation of all stakeholders and includes several components, including:

- planning for prevention and early detection;
- educating staff and patients;
- identifying the pest correctly;
- inspecting all living areas for potential or suspected infestations;
- documentation of when and where pests are found;
- preparing for treatment;
- performing treatment;
- evaluating the success of the program.

**Transient introduction** means evidence of live bedbugs found on a patient or visitor’s clothing or belongings prior to or at the time of patient admission without evidence of an infestation, e.g., bloodstains and dark spots on sheets and mattresses, bed clothes, walls, etc.

**Appendix A:** Quick Steps for Bedbug Control in a Healthcare Facility

**Appendix B:** Workplace Health and Safety Communicable Disease Recommendations

## References

1. Durham Health Region. 2015. Bed Bug Action Plan. Retrieved from <https://www.durham.ca/en/health-and-wellness/resources/Documents/IllnessInfectionDisease/bedBugsIPM.pdf>
2. Health Canada, 2019. Stop Bedbugs! Start By Checking Your Room. Retrieved from: <https://www.canada.ca/en/health-canada/services/consumer-product-safety/reports-publications/pesticides-pest-management/fact-sheets-other-resources/stop-bedbugs-start-checking-your-room.html>.
3. National Pest Management Association. Response to Bedbugs in Medical Facilities. Retrieved from <http://www.pestworld.org/media/560218/bbprotocol-medical.pdf>.

| Version | Date (YYYY-MM-DD) |
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## Appendix A: Quick steps for bedbug control in healthcare facilities

### Step 1: Assess the patient for bedbugs

- Ask about bedbugs in current accommodations.
- Observe for, and ask about bedbug bites.
- Inspect patient’s personal belongings.

### If bedbugs are suspected or observed on the patient or patient belongings

#### Step 2: Stop bedbug introduction into facility

- Have patient change into facility provided clothing (gowns or scrubs).
- Do not move the patient from the room until they have changed clothes.
- Clean and disinfect hard surface belongings such as cell phones with a pre-moistened ready-to-use disinfectant wipe and return to the patient.
- Seal the patient’s clothing in a plastic bag with their other belongings that cannot be cleaned and disinfected; and keep the bag sealed until patient leaves facility.
- Place soiled or used laundry directly into a linen bag (standard laundry practices will kill bedbugs).


#### Step 3: Communicate

- Notify receiving department or unit.
- Send bagged belongings with patient.
- Report findings to the unit manager.
- The manager engages with ES, FME or PM responsible for pest control who then consults with experts such as Environmental Public Health or a pest control service provider if required, e.g., depending on the certainty of identification, and the location or severity of the problem.

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## Appendix B: Workplace Health and Safety Communicable Disease Recommendations

| General Information about Bedbugs  |   |  |   |  | Exposure Management  |   |  |
|--|---|--|---|--|--|---|--|
| Insect   | Incubation and confirmation of cases  | Transmission <sup>1,2</sup>  | Period of communicability   | Prevention and precautions <sup>2</sup>  | Definition of exposure   | Treatment <sup>1</sup>  | Post exposure prophylaxis  |
| <p>Bedbugs (<i>cimex lectalauris</i>)</p> <p>Signs and symptoms<sup>1</sup></p> <ul style="list-style-type: none"> <li>• Small, hard, swollen welts that become inflamed and itchy, similar to a mosquito bite.</li> <li>• Bites may be random or appear in rows</li> <li>• Insomnia</li> <li>• Anxiety</li> </ul> | <p>Incubation<sup>1,2</sup></p> <p>No incubation period, bites can appear anywhere from 1-14 days</p> <p><b>Confirmed case</b></p> <p>Confirmed case of bedbugs include finding evidence of:</p> <ul style="list-style-type: none"> <li>• Exoskeletons of bugs after biting.</li> <li>• Bedbugs in seams of mattress or sheets</li> <li>• Rust colored blood spots on linens or sheets</li> </ul> | <ul style="list-style-type: none"> <li>• Not transmitted from person to person but requires direct personal contact with infested materials/objects.</li> <li>• Bedbugs are usually transported from place to place as people travel.</li> <li>• Bedbugs travel in seams and folds of luggage, clothes, bedding, etc.</li> <li>• Bedbugs are not known to spread disease. Allergic reactions or secondary infections from excessive scratching may occur.</li> </ul> | <ul style="list-style-type: none"> <li>• Not applicable</li> <li>• Not transmitted from person to person</li> </ul> | <ul style="list-style-type: none"> <li>• <a href="#">Routine practices</a>, including a point-of-care risk assessment are required.</li> <li>• See <a href="#">Infection Prevention and Control resources manual</a>.</li> <li>• The best way to prevent bedbugs is regular inspection for signs of an infestation (refer to confirmed case)</li> <li>• People who travel frequently and share living and sleeping quarters where other people have previously slept have a higher risk for being bitten or spreading bedbug infestation.</li> </ul> | <ul style="list-style-type: none"> <li>• Exposure results when there is a direct personal contact with infested materials<sup>1,2</sup></li> </ul> | <ul style="list-style-type: none"> <li>• Best ways to treat a bite is to avoid scratching the area</li> <li>• Apply antiseptic creams or lotions to bites.</li> <li>• Infestations are treated with an insecticide spraying done by a professional with experience treating bedbugs.</li> </ul> | <ul style="list-style-type: none"> <li>• No post exposure prophylaxis is required<sup>1</sup></li> </ul> |
| Work restrictions <sup>1</sup>   | There are no work modifications or restrictions for healthcare workers (HCWs) who have been exposed to or bitten by bedbugs   |  |   |  |  |   |  |
| References   | 1. Centre for Disease Control: <a href="https://www.cdc.gov/parasites/bedbugs/faqs.html">https://www.cdc.gov/parasites/bedbugs/faqs.html</a>  |  |   |  |  |   |  |
| References   | 2. Alberta Health Services (2020): <a href="http://www.ahsweb.ca/ipc/diseases-conditions-table-z0-rm-ac">http://www.ahsweb.ca/ipc/diseases-conditions-table-z0-rm-ac</a>  |  |   |  |  |   |  |

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