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Prevention and Control Team	Reference Number: CLI.8011.PL.014
Team Lead: Regional Director -	Program Area: Infection Prevention
Staff Development, Infection	and Control
Prevention and Control	
	Policy Section: Infection Prevention
Approved by: VP - Human	and Control
Resources	
	Subject: Bed Bug Management in
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### POLICY SUBJECT:

Bed Bug Management in Acute Care & Personal Care Home (PCH).

### PURPOSE:

To provide assistance in identifying and preventing a bed bug infestation in an Acute Care or PCH setting.

### POLICY:

Infection Prevention and Control works together with Acute Care/PCH management and staff when bed bugs are suspected or identified in facility.

#### **DEFINITIONS:**

**Bed Bugs "Cimex lectularius":** Bed bugs are oval, flattened, brown and wingless parasitic insects approximately 6 mm long (¼ inch) and are visible to the naked eye. Bed bugs are mainly active at night, appear similar to wood ticks, and hide during the day in dark, protected areas. Bed bugs cannot fly or jump and are able to enter into extremely small locations due to their flattened bodies.

**Client:** Refers to an individual and/or their family/care provider who accesses and/or receives health care related services from a Southern Health-Santé Sud facility or program. Clients may be patients in an acute care setting, residents in a personal care home, or clients in a community program or facility.

**Confirmed Bed Bug Infestation:** Visible bugs on a client and/or their clothing are confirmed to be bed bugs by a person who is knowledgeable and experienced in identification e.g. pest

control specialist, Public Health Inspector (PHI), Environmental Services, Physical Plant or Infection Prevention and Control.

Suspect Bed Bug Infestation: Meeting at least one of the following criteria:

- Visible bites observed close together, often a series of two or three welts.
- Visible evidence of highly suspicious bugs thought to be bed bugs but not yet confirmed to be, on the person, clothing or personal belongings.
- An outer shell (exoskeleton) or small dark spots/dots of fecal matter or blood observed on bed sheets, mattresses, etc. is observed.
- > A client's home is strongly suspected to be infested with bed bugs.

### **IMPORTANT POINTS TO CONSIDER:**

- Bed bugs are an infestation and not considered the cause of infections. Infestations require collaboration between Acute Care/PCH facility management and staff, Infection Prevention & Control, the office of the PHI, Environmental Services, and Physical Plant and should be confirmed by a person who is knowledgeable and experienced in identification.
- Bed bugs do not live on humans, but only use them to feed. When feeding, bed bugs pierce the skin, injecting saliva containing an anticoagulant and an anesthetic-like substance. The injected substances cause the skin to itch, become irritated and inflamed; however, the client often remains undisturbed when bitten.
- A bed bug's lifespan is approximately 10 months. Bed bugs can survive without feeding for long periods of time – typically 80 to 140 days. It is also possible for bed bugs to survive in temperatures from –15 °C to 25 °C.

### Feeding Habits:

- > Bed bugs emerge from hiding spots to feed when it is dark, they avoid light.
- Bed bugs feed on the blood of humans and animals.
- Bed bugs (adults and nymphs) use their sharp beak to pierce the skin of the host; they inject saliva containing an anticoagulant, which helps them obtain blood.
- Nymphs may become engorged with blood within three minutes, whereas a full-grown bed bug usually feeds for ten to fifteen minutes.
- Following feeding, bed bugs crawl away to a hiding place to digest the meal. When hungry, they search for a host.
- Bed bugs do not stay on the host longer than it takes to get a blood meal. They do not possess any appendages designed for clinging to hair, fur or skin.

### **Hiding Places:**

- Bed bugs hide during the day in dark, protected sites. They prefer fabric, wood and paper surfaces and are able to travel over 100 feet but tend to live within 8 feet of where people sleep.
- Bed bugs initially can be found in tufts, seams and folds of mattresses, as well as the crevices of bedframes and springs.
- Bed bugs can be found on the velcro of client wheelchairs.

- The spread of bed bugs often occurs from the host or the host bed components, bed linens or contaminated laundry, relocating the insect to a new host.
- Bed bugs are often transported from place to place when people travel. Bed bugs may travel in the seams and folds of luggage, overnight bags, folded clothes, bedding, furniture, and anywhere they can hide.
- Bed bugs cannot fly and will not jump from the floor to the bed.

### **Disease Transmission:**

- Bed bugs are not known to transmit human pathogens, including hepatitis B, hepatitis C and HIV.
- > Local infection of bites can occur as a result of scratching the area of the bite.

### PROCEDURE:

- **Emergency Department/Observation Unit SUSPECTED Bed Bug Infestation:** 
  - When a bed bug infestation is expected upon triage, notify Emergency
    Department staff to remove all unnecessary equipment, furniture and supplies
    from the room prior to client entry.
  - A thorough assessment must be done of the client and all clothing, seams, hems, pockets and personal belongings.
  - o If bugs not found, document same. No Contact Precautions required.
  - If bugs found, notify a person who is knowledgeable and experienced in identification e.g. pest control specialists, PHI, knowledgeable Environmental Services, Physical Plant or Infection Prevention and Control personnel. If confirmed to be bed bugs, follow Emergency Department/Observation Unit-CONFIRMED Bed Bug Infestation procedure.

## **Emergency Department/Observation Unit - CONFIRMED Bed Bug Infestation:**

- If bed bugs confirmed after client has occupied the room, do not remove equipment, furniture and supplies from the room.
- Initiate Contact Precautions including use of disposable booties.
- Place double-sided tape around perimeter of single client room OR place doublesided tape around perimeter of bed space in shared client room.
- Remove all visible insects from clients' skin/belongings with gloved hands.
  Collect one to four insects in a securely closed specimen container. Label with location and date. Use firm pressure to kill additional insects.
- $\circ$   $\;$  Double bag all personal items, securely sealing both bags.
- Provide client with a facility gown or pajamas.
- Contact Environmental Services to vacuum all areas of the room, including stretcher, mattress and furniture, as soon as possible after initial sighting of bed bugs with client remaining in room. Seal vacuum bag in a plastic bag and dispose in outdoor garbage immediately after use.
- Client to change into own clothing upon discharge.
- Provide client and family with Bed Bugs Fact Sheet.
- Following discharge, double bag and securely seal all linen in a plastic bag, label "possibly infested" and launder as per routine facility laundry protocol.

- Housekeeping is required to thoroughly vacuum and steam clean the client care area, furniture, bed and all crevices.
  - The client care area, furniture, bed and all crevices are inspected for any traces of bed bugs.
  - Remove double sided tape from floor.
  - Clean all surfaces as per routine isolation procedures.

# > Acute Care Inpatient/PCH Resident Room - SUSPECTED Bed Bug Infestation:

- A thorough inspection is done of the client and all clothing, seams, hems, pockets and personal belongings.
- If bugs are not found, document same. Schedule the client for weekly inspections for four weeks and mark the dates due on the Kardex or Integrated Care Plan. Ask the client to inform staff if they see any bugs. Do not isolate the client.
- If client's home is suspected to be infested with bed bugs, instruct family and visitors to not bring items from the client's home into the facility.
- If bugs found, notify a person who is knowledgeable and experienced in identification e.g. pest control specialists, PHI, knowledgeable Environmental Services, Physical Plant or Infection Prevention and Control personnel. If confirmed to be bed bugs, follow Acute Care Inpatient/PCH Resident Room-CONFIRMED Bed Bug Infestation procedure.

## > Acute Care Inpatient/PCH Resident Room - CONFIRMED Bed Bug Infestation:

- Place double-sided tape around the perimeter of the room.
- Initiate Contact Precautions including the use of disposable booties.
- If bed bugs are in the client's home, instruct family and visitors not to bring anything into the facility from the client's home.
- Provide client and family with the Bed Bugs Fact Sheet.
- Remove all visible insects from clients' skin/belongings with gloved hands.
  Collect one to four insects in a securely closed specimen container. Label with the location and date. Use firm pressure to kill additional insects.
- Client requires bath and thorough hair wash immediately following positive identification of bed bugs.
- If client has recently attended other areas of the hospital, immediately advise those departments and Environmental Services so all necessary actions can be taken.
- Transport items such as wheelchairs to be steam cleaned by Environmental Services.
- In Acute Care, double bag all personal items, securely sealing both bags and send home with family.
- In PCH, double bag and securely seal all client's linen and clothing and notify Environmental Services of need to launder as per routine facility laundry protocol. All personal items (i.e. wigs, shoes, bags, hair brushes, combs, etc.) should be labelled "possibly infested" and steam cleaned by Environmental Services.

- While client is having bath, Environmental Services vacuums and steam cleans all areas of the room, including stretcher, mattress and furniture. Seal vacuum bag in a plastic bag and dispose in outdoor garbage immediately after use.
- Contact Precautions may be discontinued when:
  - Client has bathed.
  - Clothing and personal effects have been double bagged and sealed.
  - Client area has been vacuumed and steam cleaned.
- Environmental Services to perform daily inspections of client room for 17 days based on bed bug egg to nymph life cycle. If bed bugs are found, follow Acute Care Inpatient/PCH Resident Room - CONFIRMED Bed Bug Infestation procedure.
- Unit staff to perform daily inspections of client for 17 days. Ask the client to inform staff if they see any bed bugs. If bed bugs are found, follow Acute Care Inpatient/PCH Resident Room - CONFIRMED Bed Bug Infestation procedure.
- Notify Environmental Services or Physical Plant to contact a pest control specialist if vacuuming and steam cleaning is not effective to eradicate bed bugs. If pest control is required to treat the client room, the room shall remain empty/unoccupied until released by pest control.
- At any time the double-sided tape is no longer sticky, notify Environmental Services to remove, clean floor, and place new tape on floor. Tape is to remain in place for 17 days.
- Clean all surfaces as per standard room cleaning procedures.

### **Roommate – Acute Care Patient/PCH Resident – CONFIRMED Bed Bug Infestation:**

- Consider entire room and both occupants as confirmed.
- Follow Acute Care Inpatient/PCH Resident Room CONFIRMED Bed Bug Infestation procedure.

### Client Transfer - CONFIRMED Bed Bug Infestation:

• Notify the receiving department/facility and Environmental Services of required ongoing bed bug precautions and inspections.

### > Client Day Pass - CONFIRMED Bed Bug Infestation:

- After leave of absence, the client must receive a thorough examination of skin, clothing, seams, hems, pockets and personal belongings.
- If bed bugs not found, document same.
- If client has visible evidence of bed bugs follow Acute Care Inpatient/PCH Resident Room - CONFIRMED Bed Bug Infestation procedure.

## > Dialysis Unit - CONFIRMED Bed Bug Infestation:

- Inform client not to bring belongings or to only bring minimal belongings sealed in a plastic bag.
- Upon arrival, place sealed bag in a second facility provided bag and seal.
- Place double-sided tape around the immediate area where the client is sitting/lying.

- Upon discharge, vacuum immediate client care area including floor, wheelchair, stretcher, chairs, furniture, etc.
- All disposable items inside double-sided tape perimeter, including vacuum bag, should be sealed in a plastic bag and disposed in outdoor garbage immediately after client discharge.

## > Responsibility of Laundry Services:

- Ensure laundry received from unit with suspected/confirmed bed bug infestation handled properly.
- Laundry should be received in sealed bags. Place items to be laundered directly in washing machine. Tip bag into machine to empty contents. Carefully place bag into a clean plastic bag, seal tightly and dispose in outdoor garbage immediately.
- Items need to be washed in hot water (>60c or >140F) and/or dried on the highest setting (>40C or >104F) for a minimum of 30 minutes. The dryer must reach a temperature of >40C to kill ALL stages of bed bugs, and should be filled to only 50% capacity.
- If infestation on-going, seal clean clothes in plastic bag and deliver to unit. Unit staff will remove clothes from the bags as needed.
- Laundered items need to be kept out of the infested area during treatment in order to prevent re-infestation of bed bugs.

# > Moving Into PCH:

- No fabric furniture to be moved into facility. All furniture shall be nonpermeable and cleanable with the facility approved disinfectant.
- All clothing is sealed in a bag and sent to laundry to be washed, dried and labelled prior to being placed in client room.
- Furniture is moved into PCH only during daytime office hours and taken directly to the client room. It is immediately and thoroughly inspected by Environmental Services for evidence of bed bugs.
- Wheelchairs, walkers, etc. are immediately and thoroughly inspected by Environmental Services for evidence of bed bugs.

## **>** Bringing Any Furniture into PCH

- All furniture is moved into facility Monday Friday days, PCH Environmental Services hours dependent. Special arrangements are required outside of these hours.
- $\circ~$  Client's furniture is taken directly to client's room. It should not be placed anywhere else in the PCH.
- Environmental Services immediately completes a thorough inspection for evidence of bed bugs AND vacuums furniture when it is brought into the PCH.
- If any evidence of bed bugs found follow bullet Bed Bug Infestation -CONFIRMED.

### **EQUIPMENT/SUPPLIES:**

Wood Wyant double-sided tape - SKU# 02263 Specimen container Disposable gloves Disposable gown Disposable booties Plastic bags

#### **REFERENCES:**

- Bed Bug (Cimex lectularius) Infestation Prevention Protocol. 80.220.017. (2011).Health Sciences Centre. https://policies.sharedhealthmb.ca/patient-services/#69-infection-prevention-control.
- Bed Bugs fact sheet. *Province of Manitoba What You Should Know About Bed Bugs.* <u>https://www.gov.mb.ca/asset\_library/en/bedbugs/bed\_bugs\_fact\_sheet.pdf</u>

Canadian Standards Association, Canadian Health Care Facilities, CAN/CSA-Z8000-18.

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- Cimex Lectularius (Bed Bugs). (2015, October 29). Winnipeg Regional Health Authority (2015). *Long Term Care Infection Prevention and Control Manual.* <u>https://professionals.wrha.mb.ca/old/extranet/ipc/files/manuals/ltc/BedBugOG.pdf</u>
- Bed bugs in healthcare settings (2012). Infection Control Hospital Epidemiology, 33(11), 1137 1142. Munoz-Price LS, Safdar N, Beier JC, Dogett SL.
- Winnipeg Regional Health Authority (2017). Bed Bugs (Cimex Lectularius) Protocol. Acute Care Infection Prevention & Control Manual. <u>https://professionals.wrha.mb.ca/old/extranet/ipc/files/manuals/acutecare/Cimex\_Lect\_ularius\_Bed\_Bugs.pdf</u>.