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Innovation, Quality, Safety and Risk	
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STANDARD GUIDELINE SUBJECT:

Bed Bug Management in Community Care

PURPOSE:

To provide assistance in identifying and controlling a bed bug infestation in a community setting where client care is being provided.

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.

Suspect Bed Bug Infestation: Visible evidence of highly suspicious bugs thought to be Bed Bugs but not yet confirmed to be, on the person or their clothing or their place of residence.

Confirmed Bed Bug Infestation: Visible evidence of Bed Bugs on the person and/or their clothing, or a Bed Bug infestation of their place of residence. Bugs are identified and confirmed to be Bed Bugs by a pest control specialist or Public Health Inspector (PHI).

IMPORTANT POINTS TO CONSIDER:

NOTE: Bed Bug infestations are NOT infectious. Infestations require collaboration between Community Care program leads, Infection Prevention & Control, the office of the Public Health Inspector - Health Protection Unit, Environmental Services, Facility/Program Management, and should be confirmed by a Pest Control Professional.

Clinical Presentation:

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 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. On rare occasions, adult Bed Bugs have been able to survive up to 550 days without food. It is also possible for Bed Bugs to survive in temperatures from –15 °C to 25 °C.

Evidence of Bed Bug Infestation:

- Bites, often a series of two or three welts (described as "breakfast, lunch and supper" bites), close together, are produced following a feeding (varies from person to person).
- Small dark spots/dots of fecal matter or blood on bed sheets, mattresses, etc.
- Observation of an outer shell exoskeleton shed and left behind when a nymph goes through its stages of growth.
- An offensive, sweet, musty odor from the Bed Bugs scent glands may be detected when Bed Bug infestations are severe.

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 that helps them obtain blood. The saliva often causes the skin to itch and become swollen.
- Nymphs may become engorged with blood within three minutes, whereas a full-grown Bed Bug usually feeds for ten to fifteen minutes.
- They then crawl away to a hiding place to digest the meal. When hungry, Bed Bugs again search for a host.
- They 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 usually found close to where the host sleeps.
- Bed Bugs initially can be found about tufts, seams and folds of mattresses as well as the crevices in the bedframe and springs.
- Most dispersal occurs when the host or the host bed components, bed linen, contaminated laundry relocates the insect to a new host.

Disease Transmission:

Bed Bugs are not known to transmit human pathogens, including hepatitis B, hepatitis C and HIV.

PROCEDURE:

- 1. Client with SUSPECT Bed Bug Infestation in their dwelling
 - 1.1 Responsibilities of Health Care Worker (HCW)/Proctor when suspicious bugs thought to be Bed Bugs are found in the working environment. E.g. insects suspected to be Bed Bugs are seen on the client's skin, clothes, furniture or other personal belongings or the client relates that their home has an infestation and is being sprayed.
 - 1.1.1. Contact Supervisor/Manager/Community Mental Health Worker (CMHW) immediately to report when Bed Bugs are suspected in the working environment.
 - 1.1.2. Complete a thorough assessment of the client, clients clothing and immediate working environment:
 - Remove all visible insects from clients' skin/belongings with gloved hands. Collect one to four insects in a securely closed clear watertight specimen container. Label with location and date. Use firm pressure to kill any additional insects.
 - Contact Supervisor/Manager to provide further direction and to coordinate identification of the bugs by the Public Health Inspector or a pest control professional.

- > Do not remove any items from clients' home unless tightly sealed in a plastic bag.
- If Bed Bugs not found, document same. Schedule the client for weekly inspections for four weeks and note the dates due. Ask the client to inform staff if they see any Bed Bugs in the future. Do not implement precautions.
- 1.1.3. As directed by Supervisor/Manager/CMHW follow steps below: "Client with CONFIRMED Bed Bug Infestation".

2. Client with CONFIRMED Bed Bug Infestation in their dwelling

- 2.1 Responsibilities of HCW / Proctor:
 - 2.1.1. Implement Bed Bug precautions immediately for all confirmed Bed Bug infestations. These precautions are used by staff who will have contact with client's bedding, clothing or upholstered furniture.
 - 2.1.2. Prior to providing care:
 - Where possible, meet clients outside of infested areas, e.g. in a community program office
 - Take only items needed to provide care into the home. If you must take personal belongings into the home e.g. coat, shoes, backpack or purse, place items directly inside a plastic bag or a plastic container and seal the bag/container for the duration of the visit.
 - Do not store items e.g. personal protective equipment (PPE), in infested areas.
 - Do not place items to be taken out of the dwelling in areas or on surfaces such as beds, couches or chairs.
 - Do not bring possibly infested items into another dwelling.
 - 2.1.3. When entering the client's home:
 - Don PPE including disposable gown, high top booties (with pant legs in booties), gloves extending over the cuff of the gown.
 - 2.1.4. Prior to leaving client's home:
 - 2.1.4.1. Remove PPE (gown, booties, and gloves). Place in plastic bag and tightly seal for disposal outdoors in garbage receptacle.
 - 2.1.4.2. Perform hand hygiene.
 - 2.1.4.3. Inspect clothing, especially pant legs before leaving work or getting into your car. Pat pant legs down and shake foot to dislodge possible Bed Bugs.
 - 2.1.5. When the HCW has been informed, or becomes aware, of infestation during or following care already provided: see also Important Points to Consider Evidence of Bed Bug Infestation
 - 2.1.5.1. Implement Bed Bug precautions as soon as Bed Bug infestation is confirmed.
 - 2.1.5.2. Immediately remove obvious Bed Bugs and apply firm pressure to kill them.
 - 2.1.5.3. If possible, capture suspected bug in a sealed container and take to PHI or pest control specialist for identification. Ensure bug is intact.
 - 2.1.5.4. Don clean clothing as soon as possible.
 - 2.1.5.5. Seal possibly infested clothing in a plastic bag.
 - 2.1.5.6. Launder clothing worn in suspect environment in hot water cycle for 30 minutes followed by hot dryer for 30 minutes. See also Bed Bug Fact Sheet available at: https://www.gov.mb.ca/bedbugs/factsheets.html.
 - 2.1.5.7. Empty backpack or bag used for client visits into bathtub and vacuum thoroughly, paying attention to seams. Contents should be washed or vacuumed before returning to bag. Place used vacuum bag in a plastic bag that is placed in a garbage receptacle outside of the home.
 - 2.1.5.8. Indoor shoes should be brushed with a gloved hand to remove Bed Bugs and/or eggs.
 - 2.1.5.9. HCW's working in suspect areas may choose to keep a change of clothing available and stored in a plastic bag or container.
 - > Follow Supervisor/Manager/CMHW direction regarding:
 - Acquisition of supplies
 - Bed Bug precautions
 - o Risk and care of other clients

- Maintain Bed Bug precautions for a minimum of two weeks post treatment or until direction to remove precautions is provided by the supervisor or manager. Direction will be based on a report that suite/dwelling has:
- Been re-inspected and remains Bed Bug free, and
- Bed Bug Management precautions are in place for the specific address in a major infestation.
 - O Discontinue precautions only when:
- > There is no evidence of bedbugs in the environment,
- The client is free of bites, and
- As directed by the Manager or Supervisor.
- 2.2 Responsibilities of the Supervisor/Manager/CMHW:
 - Provide advice to the HCW/Proctor on precautions for Bed Bugs; acquisition of supplies; how to minimize risk of spread to staff and other clients.
 - > Consult with local Public Health Inspector.
 - > Report possible infestations to the individual most likely to initiate steps to deal with the bugs e.g. Manager of group home or shelter.
 - ➤ Inform all staff who attend the infested location providing training and PPE as required e.g. disposable gloves, booties and gowns.
 - ➤ Instruct clients residing in rental property to notify their landlord. Treatment of the environment is the responsibility of the owner of the dwelling or of the landlord. If there are ongoing or unresolved concerns, the Public Health Inspector should be consulted.
 - Service plans may need to be modified during period of treatment.
 - Advise clients who own the home in guestion to consult a Pest Control Professional:
 - o Community Healthcare Workers should provide education to clients about Bed Bugs.
 - o Clients should be encouraged to self-report any pests in their home.
 - Clients are not required to report suspicion of Bed Bugs in their home.
- 2.3 Responsibilities of the Client Services Manager (CSM)/Program Director (PD)
 - ➤ Notify Resource Coordinator (RC), Case Coordinator (CC), CMHW of treatment notices affecting their clients.
 - Consult local PHI as appropriate.
 - > Discuss with Team members and provide direction regarding:
 - Implementation of Bed Bug precautions may be for individual client or a grouping of clients.
 - Responsibility for contacting clients/management of housing for assessment and treatment.
 - Maintenance of Bed Bug precautions are for a minimum of two weeks post treatment.
 Final decision is based on a report that suite/ home has been re-inspected and remains
 Bed Bug free and other suites and areas in the building are free of a major infestation.
 - Notification of affected staff.
 - Ensure supplies are maintained on site.
- 2.4 Responsibilities of the RC/CSM Mental Health
 - > Implement Bed Bug precautions with staff as soon as Bed Bug infestation is suspected/confirmed.
 - ➤ Maintain Bed Bug precautions for time period designated by the CSM/PD.
 - > Implement Bed Bug precautions promptly with little, if any, delay or disruption in service.
 - ➤ Notify and screen all potential staff contacts in a client situation.
 - > Document in:
 - o General comments presence/suspicion of Bed Bugs and need for Bed Bug precautions.
 - o Procura "Red Flag" client in the Comments section of the Client Information.
 - Notify other partners as required e.g. back-up agencies.

2.5 Responsibilities of the CC/CSM Mental Health

- ➤ Notify CSM/PD or designate and RC as soon as Bed Bug infestation is suspected/confirmed.
- Implement Bed Bug precautions with client for HCW's.
- Maintain Bed Bug precautions until notified as safe to discontinue by CSM/PD.
- > Implement Bed Bug precautions promptly with little, if any, delay or disruption in service.
- Notify outside providers e.g. Adult Day Program (ADP), day hospital, to apply modified precautions (bag and seal belongings including coats, boots, etc.) upon presentation to the program until diagnosis is confirmed and treatment done.
- > Order specific supplies for client to be delivered to the office.
- ➤ Determine the contacts of the affected client for a time frame designated through discussions with the CSM/PD.
- ➤ Discuss with RC potential staff contacts. Discuss who will follow-up with staff re contacts.
- Consult with CSM/PD if more than a single case or client living in blocks with possible multiple contacts.
- > Follow-up with client and/or family to confirm diagnosis and coordinate client and treatment:
 - Bedding and Environment: Client and family responsible to treat environment and linen.
 - o Education: provide information to clients and families about treatment and precautions.
 - Encourage clients complaining of rash or bites to seek advice from their family physician.

Gather Information:

- Ask the client to report the date the rash/bite was first noticed; were bites acquired in their home, while visiting relatives, hotels or with travel, e.g. while staying in a hostel
- Ask client if bugs have been seen and ask to describe them. If yes, provide Bed Bug Fact
 Sheet to assist with management of Bed Bugs. Fact sheet available from MB Health at:
 http://www.gov.mb.ca/asset_library/en/bedbugs/bed_bugs_fact_sheet.pdf
- Advise client to collect the bug in question. Where possible:
 - Do not squish the bug.
 - Do not apply tape to the bug.
 - Place the bug in a securely closed clear watertight container e.g. clean, empty food jar/pill bottle.
 - Request identification of the bug by PHI or Pest Control Professional.
- Document in: General comments presence/suspicion of Bed Bugs and need for Bed Bug precautions; Nursing notes should include all contacts and discussions re: Bed Bugs including implementation of precautions and removal of precautions.
- Notify other partners as required e.g. contract agencies.
- Liaise with block management as required.

3. Additional Situations for Consideration

3.1. Transport in car:

- ➤ Place a fresh bed sheet over the passenger seat prior to client entering the vehicle.
- Following delivery of client, roll the bed sheet into itself and seal in a plastic bag to be laundered. Follow usual laundry processes placing sheet carefully in washing machine, using hot water for 30 minutes and drying on a hot cycle.
- Place any potentially infested disposable items in a sealed plastic bag for disposal in an outdoor garbage receptacle.
- Visually inspect the vehicle interior.

3.2 Admission to regional facility:

- Inform client to bring minimal belongings sealed in a plastic bag.
- ➤ Upon arrival at the facility place sealed bag from home in a second facility provided bag and seal. In facility laundry, launder items in hot water followed by hot drying cycle.
- ➤ Vacuum flooring and furniture upon discharge. Seal any disposable items, including trash and vacuum bag, in a plastic bag that is placed in a garbage receptacle outside of the facility.

3.3. Attendance at Adult Day Program

Refer client residing in a confirmed Bed Bug infested area to the CC or CSM to determine any additional considerations prior to attending the adult day program.

- 3.4 Appointment at Physician Clinic or with Community Health Programs
 - > Client with known Bed Bug infestation should be placed in a private room, where possible.
 - o Choose a room without upholstered furniture and with minimal clutter.
 - o Place clients clothing and belongings in a bag and seal while being examined.
 - > Seal disposable items, including paper sheet, in plastic bag that is placed in a garbage receptacle outside of the facility.
 - > Visually inspect room upon discharge of client.
- 3.5 Occupational Health and Safety Considerations
 - There are no modifications to work practices or work restrictions for HCW's exposed while at work to Bed Bug infested environment, person, or laundry.
- 3.6 Responsibilities when HCW has Suspect or Confirmed Bed Bug infestation in their home

3.6.1 HCW

- ➤ HCW's with suspect or confirmed Bed Bug infestation in their home may contact PHI for further direction and support.
- ➤ HCW's with suspect or confirmed Bed Bug bites should consult with their family physician for diagnosis and treatment.
- ➤ HCW should capture suspected bug and take to any Pest Control Company for identification. Ensure bug is intact.
- If bug is identified as a Bed Bug, staff must comply with the following:
 - Arrange for Pest Control Company to treat home. Bedding and clothing should be washed and sealed in plastic until home treated.
 - Bag used for client visits should be emptied into bathtub and vacuumed thoroughly, paying attention to seams. Contents should be washed or vacuumed before returning to bag. Place used vacuum bag in a plastic bag that is placed in a garbage receptacle outside of the home.
 - o Indoor shoes should be brushed to remove Bed Bugs and/or eggs.
 - Once bag and indoor shoes are cleaned, they be stored in a sealed plastic bag or box in trunk of car.
 - Place clothing to be worn to client visits in dryer for 30 minutes just prior to leaving home. This should be done until Pest Control Company deems home environment free of Bed Bugs.

3.6.2 RC/CC/CSM Mental Health

> Consult with CSM/PD or designate and CC as soon as Bed Bugs is suspected or confirmed.

3.6.3 Case Coordinator

> Follow-up with specific clients as agreed to with CSM/PD.

4. Bedbug Treatment of Dwelling

Note: Treatment of the environment is the responsibility of the owner of the dwelling or of the landlord.

4.1 Initial Treatment

A professional pest controller should be enlisted to ensure safe, effective control of a Bed Bug infestation. The treatment plan should include:

➤ A thorough inspection of the area of infestation before proceeding with control procedures. This is usually done using glue boards and visual inspection. Pest Control Company or landlord may do this. Manitoba Housing Authority (MHA) can initiate for suites managed by MHA.

- > Treatment based on number of suites and degree of infestation. All potential daytime hiding spots must be located and treated with a low hazard insecticide registered for this purpose.
- It is the responsibility of the Pest Control Company to provide the MSDS to the Housing Company.
- Notifying clients and the landlord as to how long they will need to remain out of the home/apartment (exclusion time). Time varies based on degree of infestation and type of treatment initiated.
- Home Care will be responsible to assist with planning in regards to changes in client services during time of treatment e.g. rescheduling or cancellation.
- ➤ Different Pest Control Companies use different products. Information regarding the exclusion time is available on the MSDS.

4.2 Post Treatment

- Staff to maintain Bed Bug precautions and laundry instructions for a minimum of two weeks post treatment (usually three-four treatments are required for total eradication).
- Direction regarding same will be provided by PD/PHI/Pest Control specialist based on:
 - Report that home has been re-inspected and remains Bed Bug free, and
 - Report that other suites and areas in building are Bed Bug free.
- After the site/room has been treated the following measures shall be taken prior to admitting clients:
 - Follow laundry instructions.
 - Do not wash down the walls, bed frames, dresser tops, etc. for fourteen days, as this will remove the residue that will kill Bed Bugs that were not killed by the initial spraying.
 - Floors may be vacuumed, if this will not affect the residue.
 - Fourteen days after treatment all rooms may be cleaned as normal.
 - o If another live Bed Bug is found after treatment the building site manager shall:
 - Close the room,
 - Re-engage the pest control technician who will re-assess the situation, and
 - Implement the recommendation(s) of the technician.

4.3 Treatment Notices

- Treatment notices are forwarded to Southern Health-Santé Sud by Manitoba Housing, indicating specific blocks and the suites for inspection and then treatment.
- Treatment notices are forwarded to Team Managers for planning in their respective areas.

4.4 Ordering Supplies

- Information on specific supplies required/approved for Bed Bugs shall be provided by CSM/PD.
- An adequate amount of appropriate supplies shall be maintained in each community office for emergency use.
- Once a specific client has been identified supplies are ordered for that specific client for delivery to the office site and are picked up at the office site by the HCW.
- Community sites will be responsible to identify options for alternative storage and emergency access storage when there are major infestations in large blocks. Supplies should not be stored in common area without special packaging.
- > Do not store items, such as gowns, gloves and booties, in infested areas.
- Do not bring items that may be infested into another home.

EQUIPMENT or SUPPLIES NEEDED

Clear watertight container e.g. clean, empty food jar/pill bottle
Disposable gloves
Disposable gown
Disposable high top booties
Plastic bag(s)
Garbage receptacle
Tape to seal bags
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