

## **BED BUG PREVENTION: HOW EMS & FIRE DEPARTMENT PERSONNEL CAN PROTECT AGAINST BED BUGS**

As bed bug infestations continue to increase and spread throughout the county, emergency response teams are becoming more at risk of encountering bed bugs while in the process of caring for and transporting patients to the hospital. Precautions must be taken to prevent transporting bed bugs from patients' homes to the ambulance, fire truck, hospital, bases/barracks, or the vehicle and/or home of the emergency responder.

### **Education**

The prevention of the spread of bed bugs begins with education. For professions that require workers to visit patients at home, it is important that employees receive bed bug training. The training can be conducted by the local health department, an entomologist, or a pest management company experienced in bed bug control. The training should include the following topics: identification of live bed bugs, evidence of a bed bug infestation, where bed bugs hide, how to conduct a self-inspection for bed bugs, and proper containment or isolation procedures for infested items (see bed bug identification fact sheet).



### **Preparing for Emergency Response**

Due to the significant amount of bed bug complaints throughout the county, any structure entered has the potential of having an active infestation. Follow these guidelines when preparing for an emergency response:

- Keep accurate records of structures previously encountered with bed bugs.
- Avoid cargo pants and cuffed pants.
- Wear shoes that can be placed in a clothes dryer on high heat.
- Carry a supply of disposable coveralls (ie. Tyvec® suit) and disposable booties.
- Carry a supply of sealable plastic bags (such as Ziploc® plastic bags) and plastic sheeting.



### **Precautions at Patient's Home**

- Wear protective booties.
- If bed bugs have previously been encountered at the same location, personnel are encouraged to wear disposable coveralls (ie. Tyvec® suit) when patient care is not jeopardized.
- Do not sit on upholstered furniture, bed, or carpeting.
- Place plastic sheeting on the floor prior to kneeling down to assist patient.
- Carry only essential items into the home. Use a plastic clipboard to hold your paperwork.
- Avoid placing equipment on upholstered furniture, bedding, carpeting, or against the walls. Place on hard surfaces, such as, counter tops, tables, etc. or on plastic sheeting.
- One team member should be on bed bug alert, looking for signs of an infestation. Signs to look for are: live and dead bed bugs; fecal spots; skin and egg castings; raised, red welts/bite marks on patient; etc.

### **Discovering Bed Bugs at a Patient's Home or Apartment**

If bed bugs are discovered at the patient's residence, remain calm. Take the following steps to avoid transporting the bed bugs out of the patient's home.

- When returning to the emergency vehicle, remove your booties immediately and seal them in a plastic bag. If the patient lives in a multi-unit dwelling, remove the protective gear just outside their door. Do not leave the shoe covers on as you walk through the building. Place them in a sealable plastic bag and discard in an outdoor trash receptacle.
- If coveralls were worn, remove the coveralls by turning them inside out and trapping any bed bugs inside. Place the coveralls in a sealable plastic bag and dispose in an outdoor trash receptacle.
- Perform a self-inspection for bed bugs. Check clothes, shoe treads, cuffs, and collar.
- If an insect is found, use a wet wipe to capture it. Place it in a Ziploc® bag for identification. Use a second wet wipe to wipe down seams, buttons, and other bed bug hiding places.

## Transporting Patients Who May Have a Bed Bug Infestation

While transporting a patient from a bed bug infested home, take the following measures to protect your emergency vehicle:

- Remove patients clothing in their residence and wrap patient in a clean sheet. Removal of clothes should not be done in the squad unless patient care is jeopardized.
- Patients should not bring any personal items. If personal items must be transported with patient, place items inside a plastic container with tight fitting lid and/or sealable plastic bag.
- Persons from the same residence should not ride in the ambulance unless absolutely necessary.
- Notify receiving hospital so they can activate their arrival procedures.
- Remove all linen from the cot and place in a sealable plastic bag. Follow hospital procedures for disposal of linen.
- Notify all agencies involved in the emergency response of potential bed bug exposure.



## Returning to Base – Emergency Vehicle Inspection

- Carefully remove linen from cot and place in sealed bag prior to laundering/disposal.
- Inspect cot mattress and all equipment that entered the residence.
- Inspect interior of vehicle, including cracks, crevices and horizontal surfaces.
- If no bed bugs are found, the vehicle should still receive a thorough cleaning (ie. vacuuming, washing/sanitizing, etc.)
- If bed bugs are found, the use of non-chemical and/or chemical pesticide treatment should be initiated (ie. commercial steam/freezing techniques, chemical pesticides labeled for bed bug control, etc.)
- Severe infestations should be referred to a licensed pest management professional.
- Follow up inspection should be conducted in approximately 10-14 days.

NOTE: If possible, the emergency vehicle should be placed out of service until it is determined to be free of bed bugs.

## Barracks & Bases

- Inspect living and sleeping quarters daily for evidence of a bed bug activity. Look for blood stains, fecal matter, shed skins, and live bed bugs.
- Inspect cot mattress for holes or cracks that would provide hiding places. Replace as needed.
- Do not store items on the floor under or near the bed. Place linens, clothing, extra shoes, and coats in plastic bins with tight fitting lids.
- Do not bring any second hand furniture into the barracks/base. Use city owned furniture only.
- Place encasements/covers certified for bed bugs and/or dust mites on mattresses and box springs.
- Place monitoring devices such as Climb-Up Interceptors or sticky traps under or near the bed legs to assist in early detection of bed bugs.
- Wash and dry uniforms separately on hot settings (high heat).
- Frequently clean living and sleeping quarters, including vacuuming.
- Shower and change clothes prior to entering personal vehicle to return home.



Blood stains and fecal spots on a mattress



Bed bug eggs and cast skins



Bed bug bites

Note: These guidelines include recommendations by the Cleveland EMS and Fire Departments.