TO: All Ambulance and First Response Services

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RE: Bed Bugs and EMS Response

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Recent news reports have highlighted a resurgence of bed bug introductions and infestations across the globe, particularly in New York State. In Suffolk County, we have had several recent instances of EMS crews encountering bed bugs in residences while caring for patients. To best address this worldwide phenomena, this situational awareness memo will help explain the issues and provide some helpful mitigation strategies.

Bed bugs were nearly eliminated due to previously-available pesticides and limitations associated with world travel. Experts now attribute the resurgence of this insect to the inability to use specific, and now banned, pesticides, and the ease with which worldwide travel of people and cargo is accomplished. Bed bug citings are not limited to areas of lower economic status, or based on an individuals personal hygiene. Rather, bed bugs are turning up in a variety of places, including those where clutter is a factor and those associated with a high turnover of people, such as hotels, clothing stores, college dormitories, restaurants, trains/subways, schools, airports/airplanes and even hospitals.

Bed bugs are nocturnal insects. Although they feed exclusively on blood, they are not known to pass along any disease to humans. In fact, while bed bugs carry the perception of unsanitary and germ ridden locations, we are more at risk from contact with mosquitoes, than we are from contact with bed bugs. Bed bugs seek out blood meals at night, and adult bugs can survive for up to six months on a single blood meal, making them perfect stowaways in luggage, bed frames, mattresses, crates, and other hiding places. Adult bed bugs are visible to the naked eye, are straw-colored to reddish-brown in color, and are oval shaped. Before feeding, the adult bed bug measure less than (<) 1 inch one long, and is relatively flat, as flat as a piece of paper, optimizing their ability to hide in small narrow crevices. After feeding, their body length increases and they take on a bloated and dark red appearance. Bed bug eggs appear as white, small cylindrical or elongated shaped objects, about 1/32 inches long, usually in clusters of 10-50 eggs. Newly hatched bed bugs resemble adult bed bugs, only much smaller. It is common to find adults, the young, and unhatched eggs in the same location.

Bed bugs do not have wings, severely limiting their ability to cross from object-to-human or human-to-human. Bed bugs leave bite marks, either in a cluster, or in a straight line, across any exposed part of a body, such as the face, neck, arms and hands. They cannot jump or fly and do not burrow into skin. Mechanical transfer from one location to another through movement of inanimate objects is the mechanism of introduction from one environment into a new environment.

While most people are not even aware that they have been bitten by a bed bug, few show localized reddened areas, and even fewer, signs of allergic reaction. There is a risk of secondary infection associated with scratching bites.

Continued.
EMS encounters with bed bugs are increasing due to the resurgence of the insect, not because of disease transmission, or illness associated with a bed bug bite. EMS Providers are encouraged to have available, and don when needed, tyvek suits, caps and booties, to protect outer clothing when encountering patients in a residence where bed bugs have been sighted. Similarly, the patient should be wrapped in a disposable plastic blanket, after assessment and treatment and until arrival at the hospital, and the staff there should be advised that bedbugs were sighted. It is appropriate to follow the hospital’s disposal / laundering policy, and expect to place the linen and blanket in a sealed trash bag. The bed bug does not latch onto clothing, so there is no issue with bed bugs being transferred during routine emergency medical care. You can greatly reduce the threat of mechanical cross-transfer of bed bugs by performing visual inspection of equipment and standard cleaning practices.

Typical ambulance construction does not promote bed bug infestation as there are virtually no surfaces in which the bed bugs can hide. The most vulnerable area of the ambulance is the stretcher, where it is possible for bed bugs to hide in the mattress. Closely following that area, are any interior cabinet spaces and equipment bags, often stored in the dark, and not routinely checked. Thorough decontamination, with traditional bleach and hot water solution with a stiff-bristled brush after calls is key to routine prevention of cross-contamination of a variety of germs, and is essential in ensuring that any visualized bed bugs are removed to prevent any infestation. If live bed bugs are found, place them in a container of Isopropyl Rubbing Alcohol, and discard normally.

While bleach alone does not kill the bed bug, hot water is effective in killing the bed bugs, and along with the visual inspection that comes with the cleaning, helps ensure your ambulance compartment is appropriately cleaned and pest-free. Uniforms or personal clothing worn by EMS providers should be placed in a clothes dryer for 15 minutes as the high heat will kill any bugs that may have migrated to clothing.

If you encounter situations where you believe that there are bed bugs at a residence in your district, please ensure that appropriate mitigation strategies described herein are taken by your personnel. The Department of Health Services has no jurisdiction in this type of situation, homeowners and business owners are responsible to find a commercial pest management professional and employ a strategy known as an Integrated Pest Management Plan (IPM).

Please feel free to contact the EMS Office if you have any questions or need any additional information.