Purpose:
To provide guidelines for managing patients presenting with Bed bugs, Scabies or Lice (Arthropod infestation)

Introduction:

Bed bugs are wingless, red-brown, blood sucking insects. Bed bugs hide in cracks and crevices in beds, wooden furniture, floors, and walls during the daytime and emerge at night to feed on their preferred host, humans. Bed bugs do not fly or jump, they travel by being transported and can spread through luggage, second hand mattresses, infested furniture, and clothing. Unlike body lice, bed bugs are rarely found on affected persons or their clothing. Bed bug bites can result in clinical manifestations: the most common are small clusters of extremely pruritic, erythematous papules or wheals. Bites should be managed symptomatically with topical emollients, topical corticosteroids, oral antihistamines, or some combination of these treatments. Although bed bugs could theoretically act as a disease vector, they have never been shown to transmit disease. Bed bugs typically feed at night. The bites often occur on the arms, shoulders, neck, and legs. The elongated mouthpart of the insect is used to get a blood meal, which takes about 10 minutes. The bed bug injects the site with salivary fluid that has both anesthetic and anticoagulative properties to facilitate feeding. NOTE: The bed bug leaves the host once feeding is complete, so one will not typically see bugs on a person whose environment is infested. This is in contrast to many other arthropod infestations of humans (e.g., lice, scabies, myiasis) in which the pest resides on the host. Therefore, bed bug prevention and intervention strategies, are directed at the environment rather than the host.

Lice are tiny parasites that live on human beings and feed on blood. They seldom cause serious medical problems, but they are both annoying and contagious. There are three types of lice that can live on people.

Head lice (Pediculus humanus capitis) are about the size of a sesame seed or 2.1 to 3.3 millimeters long when adults. Their eggs, called nits, are barely visible whitish or yellow ovals that attach to hair shafts. Having head lice isn't related to the degree of personal hygiene. Head lice are contagious.

Pubic lice (Pthirus pubis) are yellow-gray parasites found in the pubic region and transmitted by sexual contact. They are only 1.1 to 1.8 mm long and are also called crab lice, or crabs, because of their shape and the crab-like claw-like front legs with which they cling to hair. Eggs can barely be seen; these tiny white particles attach so firmly to hair shafts that they are not removed by normal washing. Sometimes pubic lice may be found in other areas of the body containing coarse hair, such as armpits or the chest.
Body lice (*Pediculus humanus corporis*) are nearly identical in appearance to head lice but may be more difficult to find. Adults grow to 2.3 to 3.6 mm long. When not feeding, they tend to hide in the seams of clothing and folds of bedding. If the lice are not treated, the person can develop complications such as skin sores or bacterial infection of the affected area. Body lice can also spread blood infections.

**Scabies** is another contagious skin disease caused by the mite *Sarcoptes scabiei var. hominis*. The primary symptom -- an incredibly itchy rash -- results when the female mite burrows into the skin and deposits eggs. Female mites grow to 0.3 to 0.45 mm long and are larger than males. Closed environments such as nursing homes and child-care centers provide ideal breeding grounds for this parasite, which needs a human host to survive.

**Policy:**

All suspect cases of bed bugs, Scabies or Lice in patients presenting at Premier Medical Group will be managed following the guidelines below.

**Role Responsibility:** Department head/designee will ensure compliance.

**Procedures/Guidelines:**

**Patients with known or suspected bed bugs in their belongings:**

- Place the personal items of the patient into a large plastic bag, seal and leave it in a designated area.
- Place the patient coat, hat and gloves in a large plastic bag, seal and place in a designated area. These items should never be placed in a common closet or coat rack.
- Patient should not have direct skin to skin contact with other patients or staff
- Patients can be permitted to attend appointments with the following recommendations:
  - Patients should not sit on cloth covered chairs, sofas, or on a carpeted surface
  - Limit the number of shopping bags, knapsacks, pocketbooks, fanny-packs and belongings that are brought into the clinic area.
  - Provide the patient with a large plastic bag for such items.
  - Refer patient to the medical physician to evaluate and treat any rashes or for medication to kill Lice.
  - Notify the Infection Control Coordinator
  - Inform the patient that he/she may call the County Department of Health for information about eliminating bed bug infestations in their residence.
- Where appropriate spray cloth chairs, furniture carpets or curtains with arthropod killing spray (Brand name spray NIX) as recommended by manufacturer. A can of spray will be maintained at each site location for such needs. The Safety Data Sheet (SDS) will be maintained in the appropriate book.

**Control Measures if a Suspect Bed Bug is Seen:**

- If possible, capture the bug in a specimen cup, blood tube or pill bottle for identification by the exterminator.
- Notify Administration or Supervisor so that they can contact the exterminator and arrange for cleaning. Areas with carpet should be vacuumed, and NIX spray used as directed by manufacturer.

**Scabies Prevention and Control:**

- When a person is infested with scabies mites the first time, symptoms may not appear for up to two months after being infested. However, an infested person can transmit scabies, even if they do not have symptoms. Scabies usually is passed by direct, prolonged skin-to-skin contact with an infested person.
• However, a person with crusted (Norwegian) scabies can spread the infestation by brief skin-to-skin contact or by exposure to bedding, clothing, or even furniture that he/she has used.

• Scabies is prevented by avoiding direct skin-to-skin contact with an infested person or with items such as clothing or bedding used by an infested person. Scabies treatment usually is recommended for members of the same household, particularly for those who have had prolonged skin-to-skin contact. All household members and other potentially exposed persons should be treated at the same time as the infested person to prevent possible re-exposure and re-infection. Bedding and clothing worn or used next to the skin anytime during the 3 days before treatment should be machine washed and dried using the hot water and hot dryer cycles or be dry-cleaned. Items that cannot be dry-cleaned or laundered can be disinfested by storing in a closed plastic bag for several days to a week. Scabies mites generally do not survive more than 2 to 3 days away from human skin. People usually can return to school, or work the day after treatment.

• Persons with crusted scabies and their close contacts, including household members, should be treated rapidly and aggressively to avoid outbreaks. Institutional outbreaks can be difficult and require a rapid, aggressive, and sustained response.

• Rooms used by a patient with crusted scabies should be thoroughly cleaned and vacuumed after use. Environmental disinfestation using pesticide sprays or fogs generally is unnecessary and is discouraged.

**Pediculosis:**

• Pediculosis is an infestation of the hairy parts of the body or clothing with the eggs, larvae or adults of lice. The crawling stages of this insect feed on human blood, which can result in severe itching. Head lice are usually located on the scalp, crab lice in the pubic area and body lice along seams of clothing. Body lice travel to the skin to feed and return back to the clothing. Anyone may become louse infested under suitable conditions of exposure. Pediculosis is easily transmitted from person to person during direct contact. Head lice infestations are frequently found in school settings or institutions. Crab lice infestations can be found among sexually active individuals. Body lice infestation can be found in people living in crowded, unsanitary conditions where clothing is infrequently changed or laundered. For both head and body lice, transmission can occur during direct contact with an infested individual. Sharing of clothing and combs or brushes may also result in transmission of these insects. Crab lice are most often transmitted through sexual contact.

• Usually, the first indication of an infestation is the itching or scratching in the area of the body where the lice feed. Scratching at the back of the head or around the ears should lead to an examination for head louse eggs (nits) on the hair. Itching around the genital area should lead to an examination for crab lice or their eggs. Scratching can be result in secondary bacterial infection in these areas. Pediculosis can be spread as long as lice or eggs remain alive on the infested person or clothing.

**Prevention of Lice:**

Physical contact with infested individuals and their belongings, especially clothing, headgear and bedding, should be avoided. Health education on the life history of lice, proper treatment and the importance of laundering clothing and bedding in hot water or dry cleaning to destroy lice and eggs is extremely valuable. In addition, regular direct inspection of children for head lice, and when indicated, of body and clothing, particularly of children or persons in schools, institutions, nursing homes and summer camps, is important.

**References:** NYSDOH and CDC and Web MD

**Date Policy to be reviewed:** 10/17