

Section: UTMB On-line Documentation	01.06 - Policy
Subject: Infection Control & Healthcare Epidemiology Policies and Procedures	11.29.2021 - Revised
Topic: 01.06 – Control of Ectoparasites and Environmental Pests	11.23.2021 - Author

01.06 - Control of Ectoparasites and Environmental Pests

Purpose	Pest control is essential to maintaining a sanitary environment for patient care.
Audience	All healthcare staff.
Policy	This policy delineates the response to various types of pests including ectoparasites and environmental pests.
Procedure	Infestation of lice or scabies necessitates the use of isolation precautions until the patient has been adequately treated. Other ectoparasites (e.g. ticks) generally do not require patient treatment beyond removal of the pest. Special handling of linen is typically required and patient clothing should be bagged and sealed.
Clinical Staff Response	<p>Diagnosis and treatment of ectoparasites. The primary care team can consider consulting the Infectious Diseases service or the Clinical Microbiology Lab to assist with this.</p> <p>If an insect is seen by staff and can be safely collected, following hand hygiene and donning gloves, place the insect in a collection cup with a sealed lid for review by the primary care and/or consult teams, Infection Control and pest control. The collection cup should be placed in a sealed biohazard bag. Gloves should be doffed, and hand hygiene practiced following collection.</p>
Service Response Center	<p>For infestation or bedbugs or environmental pests (e.g. flies, fleas, roaches): report to the Service Response Center at 409-772-4040.</p> <p>Depending upon type of problem reported, notify Environmental Services and/or the coordinator for pest control.</p> <p>Notify BOF (Property Services) when maintenance and repairs are needed to prevent pest entry.</p>
Response of Infection Control and Healthcare Epidemiology (ICHE)	<p>Provide guidance about preventing transmission of ectoparasites. As noted in Appendix A. Crusted scabies is a particular concern.</p> <p>Evaluate any case where patient infestation occurs after admission.</p> <p>Evaluate possible staff and patient exposures to ectoparasites.</p> <p>Assist as needed in evaluating the patient care environment for continued patient care activities in cases where infestations are not eliminated quickly. This may be triggered by a request from the manager of the patient care area, BOF, or Environmental Services.</p>

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Routine pest control measures

Keep food in tightly sealed containers to avoid attracting pests.
Immediately clean any food or beverage spillage.
Keep trash bins closed.
Ensure timely removal of waste from soiled utility or other trash collection sites.
Keep work area free of debris and clutter.

Bedbugs (*Cimex lectularius*)

These are reddish-brown, wingless, small, flat, parasitic insects ~1-7mm in length (figure 1) that feed on blood of humans and animals while sleep. They do not live on humans but rather within cracks/crevices of mattresses, cushions, bedframes and/or other structures. Diagnosis requires visualization of the insect.

Infection Control Practice for the Patient with Bedbug Infestation

- Patient should undress completely and place all belongings in a clear sealed bag. Under no circumstances should this bag be opened while the patient is at UTMB. Patient belongings should be picked up by a patient designee within 24 hours.
- Patient should take a shower washing their hair and body with soap and water.
- Patient should be provided a clean hospital gown and placed in a clean room with fresh linens.
- No additional contact precautions are necessary for patients with bedbugs.
- If bedbugs are identified and confirmed following admission to an inpatient unit, the above should be done in addition to the following:
 - Bag all hospital linens in the patient room in a yellow chemo bag for incineration.
 - Contact Infection Control and Environmental Services for pest control.

Scabies (*Sarcoptes scabiei*)

Scabies is a skin infestation caused by the microscopic mite *Sarcoptes scabiei* which burrows into the epidermis causing a pruritic rash. Diagnosis is ideally made by microscopic identification of the mite, eggs or fecal material in skin scrapings. However, given variation in mite loads, this is not always feasible and a presumptive diagnosis may be made with a consistent history and physical examination.

Classic scabies manifests as an intensely pruritic rash in characteristic distributions (finger webs, axilla, groin, wrists) (figure 2).

Crusted scabies is less common than classic scabies and is typically seen in immunocompromised hosts as poorly defined, erythematous

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patches with a prominent scale (figure 3). Any area may be affected however the scalp, hands and feet are most common. In contrast to classic scabies, crusted scabies may be minimally or non-pruritic.

Infection Control Practice for the Patient with Scabies Infestation

- Patient should undress completely and place all belongings in a clear sealed bag. Under no circumstances should this bag be opened while the patient is at UTMB. Patient belongings should be picked up by a patient designee within 24 hours.
- Patient should be provided a clean hospital gown and placed in a clean room with fresh linens.
- Patient should be placed on contact isolation with the use of gown, gloves and shoe covers for all patient interactions until at least 24 hours following successful treatment.
- If scabies is identified and confirmed following admission to an inpatient unit, the above should be done in addition to the following:
 - Bag all hospital linens in the patient room in a yellow chemo bag for incineration.
 - Contact Infection Control and Environmental Services for pest control.

Lice (*Pediculosis* *sp.*)

Lice are parasitic insects that live on the human body (scalp, eyelashes, body, pubis). They survive by feeding on blood. There are different types of lice depending on the area of the body affected. Diagnosis is by visualization of the insect or its nits on hair shafts/clothing.

Infection Control Practice for the Patient with Lice Infestation

- Patient should undress completely and place all belongings in a clear sealed bag. Under no circumstances should this bag be opened while the patient is at UTMB. Patient belongings should be picked up by a patient designee within 24 hours.
- Patient should be provided a clean hospital gown and placed in a clean room with fresh linens.
- Patients with head lice only should be placed on contact isolation with the use of gown and gloves for all patient interactions until at least 24 hours following successful treatment. No isolation precautions are required for any other types of lice.
- If lice are identified and confirmed following admission to an inpatient unit, the above should be done in addition to the following:
 - Bag all hospital linens in the patient room in a yellow chemo bag for incineration.
 - Contact Infection Control and Environmental Services for

Other

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Environmental pest control.
 Pests
 (e.g. rodents,
 birds,
 squirrels, bats)

Call Service Response Center to report problem.
 Infection Control and Healthcare Epidemiology should be contacted under the following circumstances:

- Infestation impacting a patient care area or where food is stored or handled to assess safety for continued patient care activity.
- Bites or other injuries to staff or patient.
 - First priority: treat person bitten. Note: if a bat is found in a room with a sleeping person, assume the person was bitten. The bite is typically inapparent.
 - Report to ICHE for any additional follow-up requirement



Figure 1. Adult bedbug, pre- and post-bloodmeal

Figure 2. Rash associated with classic scabies

Figure 3. Rash associated with crusted scabies

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Control of Ectoparasites and Environmental Pests: Appendix A

Type of Pest: Arthropods (insects, mites, ticks, spiders)

Type of Arthropod	Human Infestation		Isolation Precautions	Patient Treatment	Environmental Treatment	Staff Exposure Follow-up	Bag Patient Clothing or Personal Items	Notification
	Human Host	Only as a Vehicle						
Lice	X		Contact Precautions for head lice until treated 24 hrs. No precautions for other lice.	Yes- medication ordered by provider	Generally not necessary.	No	Yes	Environmental Services is routinely notified of all rooms housing patients on Contact Precautions May consult IC questions about environmental risk.
Scabies (note: confirm diagnosis)	X		Contact Precautions until 24 hrs after treatment (longer for crusted scabies)	Yes- medication ordered by provider	Generally not necessary.	Generally no. Prophylaxis may be recommended in some instances for exposure to crusted scabies.	Yes	Environmental Services is routinely notified of all rooms housing patients on Contact Precautions May consult ICHE for questions about potential exposure management and/or environmental risk.
Ticks	X	X	No (do not handle tick with bare hands)	Remove tick with tweezers	No. Dispose of tick in closed plastic bag or submerge in alcohol.	No	No	None unless an infestation is noted on the facility's grounds. Then call Service Response Center.
Bedbugs	X	X	No	No	Yes	No	Yes	Call Service Response Center to: -Exterminate -Dispose of bed linens
Flies		X (may be in form of nasal or wound myiasis)	No	Irrigate for myiasis	No for case of myiasis. Yes for environmental infestation.	No	No	Call Service Response Center to: -Exterminate flies -Identify point of entry -Address cause(s) of infestation (e.g. prolonged door opening, food/trash in area) -Notify IC if problem is not resolved to assess risk for patient care activities -Notify ICHE for any case of hospital-onset myiasis (nasal or wound)

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Type of Arthropod	Human Infestation		Isolation Precautions	Patient Treatment	Environmental Treatment	Staff Exposure Follow-up	Bag Patient Clothing or Personal Items	Notification
	Human Host	Only as a Vehicle						
Roaches		X	No	Hygiene if roaches on patient	Yes	No	Only if roaches seen on belongings	Call Service Response Center to -Exterminate -Identify point of entry -Address cause(s) of infestation -Notify ICHE if problem is not resolved to assess risk for patient care activities.
Mites (other than scabies)		X	No	No	Yes	No	No	Call Service Response Center for infestation in building or on grounds (may be associated with birds).
Spiders					No	Bites: report as staff injury	No	Call Service Response Center

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