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Subject:	ARTHROPOD EXAMINATION (INCLUDING SCABIES)				
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ARTHROPOD EXAMINATION (INCLUDING SCABIES)

General Considerations

Common arthropods of interest are flies, mosquitoes, bedbugs, kissing bugs, fleas, lice, ticks and mites. Arthropods thought of as vectors cause injury by their bites, either by hypersensitivity or effects of their salivary products. Endoparasitic arthropods invade a host's body and cause disease.

Several genera of mites, *Sarcoptes scabiei*, infect the skin of mammals including humans. They are microscopic and live in skin burrows where the fertilized female deposits eggs. Usual skin sites are the inter-digital spaces, backs of the hands elbows, axillae, groin, breasts, umbilicus, penis, shoulder blades, small of the back and buttocks. The outstanding clinical symptom is intense itching. Scratching commonly causes weeping, bleeding and secondary infection.

SPECIMEN COLLECTION AND TRANSPORT:

- Arthropod –
 1. Collect the suspected arthropod (bedbug, flea, lice, tick, etc) in a sterile collection container for transport to the Microbiology Laboratory.
 2. Send to the Microbiology Laboratory for examination.
- Skin Scraping for Scabies - **Skin Scraping method**
Needed Supplies: Microscope slide, Mineral Oil and Scalpel. Call the Microbiology Laboratory at 17328 for slides and mineral oil.
 1. Place a drop of mineral oil on a microscope slide or directly on the papule.
 2. Allow some of oil to flow onto papule.
 3. Scrape with a slide or use a scalpel to remove the top of the papule. There should be tiny flecks of blood in the oil.
 4. Transfer the oil and scraped material to another slide, placing the frosted sides of the slides together or transfer to a sterile cup or slide box.
 5. Send to the Microbiology Laboratory for microscopic examination.

RESULTS:

- Arthropod or *Sarcoptes scabiei* (scabies)
 1. Positive- Arthropod name.
 2. Negative- Negative result=Morphologic features of an Arthropod not present.
 3. Negative- When a specific arthropod review has been requested. Negative result: No structures seen on examination resembling [Arthropod name].

LIMITATIONS:

- Quality of the specimen.
- Collection of the specimen.

REFERENCES:

- Manual of Clinical Microbiology. Versalovic, James/editor in chief; editors, Karen C. Carroll, James H. Jorgensen, Guido Funke, Marie Louise Landry, David W. Warnock. 10th Edition. ASM Press, Washington, DC. page 2255-2277.
- Tick Encounter Resource Center. The University of Rhode Island. 2005-2016. Website; <http://www.tickencounter.org>.