PURPOSE:
The purpose of this procedure is to prevent transmission of and eliminate the parasitic infestation commonly called scabies.

CONSIDERATIONS:
1. Contact the local public health department for additional guidance and resources for local and regional outbreaks of parasitic disease.
2. Use of insecticide sprays and fumigants is not recommended.
3. Types:
   a. Scabies: Human scabies is caused by an infestation of the skin by the human itch mite (*Sarcoptes scabiei* var. *hominis*). The microscopic scabies mite burrows into the upper layer of the skin where it lives and lays its eggs. Scabies mites generally do not survive more than 2-3 days away from human skin.
   b. Crusted Scabies: Some immunocompromised, elderly, disabled or debilitated persons are at risk for a severe form of scabies called crusted, or Norwegian, scabies. Persons with crusted scabies have thick crusts of skin that contain large numbers of scabies mites and eggs. The mites in crusted (Norwegian) scabies are not more virulent than in non-crusted scabies; however, they are much more numerous (up to 2 million per patient). Because they are infested with such large numbers of mites, persons with crusted (Norwegian) scabies are very contagious to other persons. In addition to spreading scabies through brief direct skin-to-skin contact, persons with crusted scabies can transmit scabies indirectly by shedding mites that contaminate items such as their clothing, bedding and furniture. [Note: Persons with crusted scabies should receive quick and aggressive medical treatment for their infestation to prevent outbreaks of scabies.]
4. Transmission: Scabies is spread by direct, prolonged, skin-to-skin contact with a person who has scabies.
5. Diagnosis and Treatment: The most common symptoms of scabies are intense itching and a pimple-like skin rash. Diagnosis can be confirmed a skin scraping to examine under a microscope for mites, eggs or mite fecal matter. A person can still be infested even if mites, eggs or fecal matter cannot be found. The first time a person gets scabies they usually have no symptoms during the first 2 to 6 weeks they are infested; however, they can still spread scabies during this time. In addition to the infested person, treatment also is recommended for household members and sexual contacts, particularly those who have had prolonged direct skin-to-skin contact with the infested person.

All persons should be treated at the same time to prevent reinfection.
6. Medication: Obtain physician orders for the medication. Scabicides are available only with a doctor's prescription. No over-the-counter products have been tested and approved to treat human scabies. Follow product instructions carefully.
   a. Topical:
      (1) Permethrin cream 5% Brand name product: Elimite is approved by the US Food and Drug Administration (FDA) for the treatment of scabies in persons who are at least 2 months of age. Permethrin is safe and effective when used as directed. Permethrin kills the scabies mite and eggs. Permethrin is the drug of choice for the treatment of scabies. Two (or more) applications, each about a week apart, may be necessary to eliminate all mites, particularly when treating crusted (Norwegian) scabies.
      (2) Crotamiton lotion 10% and Crotamiton cream 10%; Brand name products: Eurax; Crotan Crotamiton is not FDA-approved for use in children. Frequent treatment failure has been reported with crotamiton.
      (3) Lindane lotion 1 is an organochloride. CAUTION: Although FDA-approved for the scabies, lindane is not recommended as a first-line therapy. Overuse, misuse, or accidentally swallowing lindane can be toxic to the brain and nervous system. The use of lindane should be restricted to patients who have failed treatment with, or cannot tolerate, other medications that pose less risk. Lindane should not be used to treat: premature infants, persons with a seizure disorder, women who are pregnant or breast-feeding, persons with irritated skin or sores, infants, children, elderly, or persons who weigh less than 110 pounds.
   b. Oral: Ivermectin; Brand name product: Stromectol Ivermectin is an oral antiparasitic agent approved for the treatment of worm infestations. Evidence suggests that oral ivermectin may be a safe and effective treatment for scabies; however, ivermectin is not FDA-approved for this use. Oral ivermectin has been reported effective in the treatment of crusted (Norwegian) scabies; its use should be considered for patients who have failed treatment with, or who cannot tolerate, FDA-approved topical medications for the treatment of scabies. A total of two or more doses of ivermectin may be necessary to eliminate a scabies infestation.
EQUIPMENT:
- Magnifying glass – optional
- Gloves
- Gown
- Trash bag to receive patient clothing, bath, towels, and wash cloths for laundering
- Trash bag for personal protective equipment (PPE)
- Bath items: Towels, wash cloths
- Clean clothing for the patient

PROCEDURE:
1. Keep environment warm as once the product is applied the patient will be exposed for a period of time as directed by the product label.
2. Don gloves and gown.
3. Have patient remove clothing and place in plastic bag for laundering.
4. Apply the topical medication carefully following the instructions contained in the box or printed on the label.
   a. CDC recommendations: Scabicide lotion or cream should be applied to all areas of the body from the neck down to the feet and toes. When treating infants and young children, scabicide lotion or cream also should be applied to their entire head and neck because scabies can affect their face, scalp, and neck, as well as the rest of their body.
   b. The lotion or cream should be applied to a clean body and left on for the recommended time before washing it off.
5. Bathe patient to remove scabicide following package directions.
   a. Observe and document skin for rashes and sores secondary to scratching.
   b. Obtain physician order for care of sores that need medical attention. Skin sores that become infected should be treated with an appropriate antibiotic.
   c. Clean clothing should be worn after treatment.

AFTER CARE:
The following after care is for all patients using topical or oral medication:
1. Clothing, towels and bedding:
   a. Bedding, clothing, and towels used by infested persons or their household, sexual, and close contacts anytime during the three days before treatment should be laundered.
   b. Wash in hot water and dry in a hot dryer, or have items dry-cleaned, or seal items in a plastic bag for at least 72 hours.
2. Because the symptoms of scabies are due to a hypersensitivity reaction (allergy) to mites and their feces, itching still may continue for several weeks after treatment even if all the mites and eggs are killed.
3. If itching is present more than 2 to 4 weeks after treatment or if new burrows or pimple-like rash lesions continue to appear, retreatment may be necessary.
4. Educate patient and care giver to monitor and report signs of reinfestation.

REFERENCES: