

DIAGNOSIS OF SCABIES BY SKIN SCRAPING

The diagnosis of scabies can be confirmed by microscopic identification of mites, eggs or scybala (fecal pellets) from specimens obtained by skin scrapings. A physician or nurse from the facility can be taught the procedure by a dermatologist, the consulting physician or by a nurse or technician who has had professional training to perform the procedure. A confirmed diagnosis of scabies should be made in at least one symptomatic case before recommending wide-spread scabicide prophylaxis in health care facility outbreaks. A physician, nurse or other healthcare professional who has been trained to perform the procedure should only do skin scrapings.

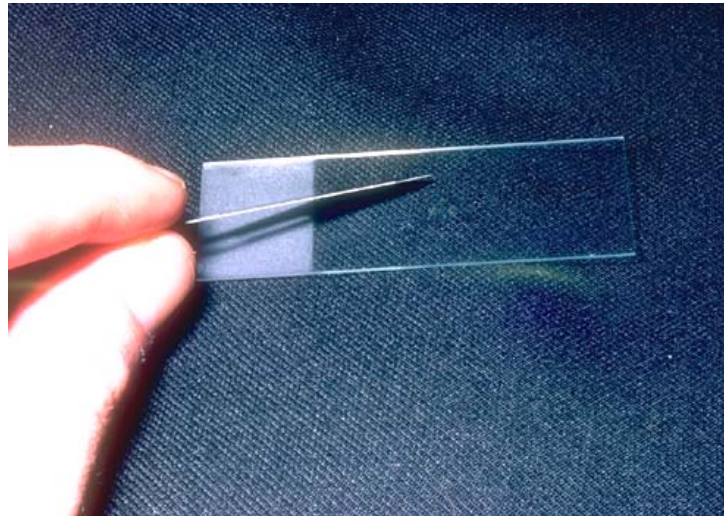
Equipment

1. Gloves and gowns
2. Magnifying glass
3. Light source such as goose neck lamp
4. Felt tip pen, green or blue washable ink
5. Alcohol swabs/wipes
6. #15 scalpel blade and handle,
7. Glass slides or cures for scraping
8. Mineral oil or immersion oil
9. Slides and cover slips
10. Laboratory requisition forms
11. Sharps container
12. Clear nail polish
13. Microscope

Procedure

Observe patient's skin with a magnifying lens and look for lesions suggestive of scabies infestation. The shoulders, back, abdomen, hands, wrists, elbows, buttocks, axillae, knees, thighs and breasts are common sites for burrows.

1. Use hand magnifying lens to identify recent burrows or papules. A bright light and magnifying lens will assist in visualizing the tiny dark speck (the mite) at the end of the burrow.



2. Identify these high yield lesions by applying mineral oil (best used over dry scaly areas) or by applying the burrow ink test to possible burrows. The burrow ink test is done by using a wide felt tip pen (blue or green are best) over burrows and then wiping off with an alcohol swab. The alcohol will remove most

surface ink, but will not remove the ink taken up by the burrow, thus leaving a dark irregular line.

3. Apply mineral oil or preferably microscope immersion oil to lesions or scalpel blade and glass slides.
4. Scrape non-excoriated, non-inflamed areas (burrows and papules) vigorously with a #15 scalpel blade or glass slide held at a 90-degree angle to the skin, while holding the skin taut, until the stratum corneum is removed. (Vigorous scraping appropriately results in a few red blood cells visible under the microscope, but there should not be frank bleeding.) Some practitioners prefer using a small curette. Change blades or curettes between scrapings on different persons. Blades can be placed on and removed from the handle with a forceps. Used blades must be placed in a sharps container.
5. Transfer skin scrapings from at least 6 different sites to a single slide or to separate slides. These scrapings can be pushed onto the slide edge and then moved to the center of the slide.
6. Place the cover slip over the slide.
7. Examine entire slide methodically under low power (2.5-4x) and then at 25-50x magnification. Microscopic examination of the skin scrapings should be performed at the facility; however, if the practitioner is not trained in reading the prepared slides, the cover slip should be secured to the slide at all edges with clear nail polish and transported by courier, or by mail (in a secure mailer) to a hospital or laboratory or to a physician's office with prior-arrangements.