TPPC INFORMATION HANDOUT:

**<| YEAST INFECTIONS |>**

Candidiasis (yeast infection, moniliasis) is infection by the yeast Candida.

 Candidiasis tends to occur in moist areas of the skin.

 Candidiasis may cause rashes, scaling, itching, and swelling.

 Doctors examine the affected areas and may view skin samples under a microscope or in a culture.

 Antifungal creams or antifungal drugs given by mouth usually cure Candidiasis.

Candida yeast is a normal resident of the mouth, digestive tract, and vagina that usually causes no harm. Under certain conditions, however, Candida can overgrow on mucous membranes and moist areas of the skin. Typical areas affected are the lining of the mouth, the groin, the armpits, and the skin folds of the stomach. Conditions that enable Candida to infect the **skin include the following**:

 Hot, humid weather

 Tight, synthetic underclothing

 Poor hygiene

 nflammatory diseases (such as psoriasis) that occur in skin folds

 Use of antibiotics or corticosteroids and other drugs that suppress the immune system

 Disorders such as diabetes or a weakened immune system

People taking antibiotics may develop Candidiasis because the antibiotics kill the bacteria that normally reside on the body, allowing Candida to grow unchecked. Corticosteroids or immunosuppressive therapy after organ transplantation can also lower the body's defenses against Candidiasis. Inhaled corticosteroids, often used by people with asthma, sometimes produce Candidiasis of the mouth. Obese people and people with diabetes also are more likely to be infected by Candida.

**SYMPTOMS**

Symptoms vary, depending on the location of the infection.

* **Infections in skin folds** (intertriginous infections) or in the navel usually cause a bright red rash, sometimes with softening and breakdown of skin. Small pustules may appear, especially at the edges of the rash, and the rash may itch intensely or burn. A candidal rash around the anus may be raw, white or red, and itchy. Babies may develop a Candida rash in the diaper area.
* **Vaginal Candidiasis** (vulvovaginitis, yeast infection) is common, especially in women who are pregnant, have diabetes, or are taking antibiotics. Symptoms of these infections include a white or yellow cheese like discharge from the vagina and burning, itching, and redness along the walls and external area of the vagina.
* **Penile Candidiasis** most often affects men with diabetes, uncircumcised men, or men whose female sex partners have vaginal Candidiasis. Sometimes the rash may not cause any symptoms, but usually, the infection produces a red, raw, itching, burning or sometimes painful rash on the head of the penis and sometimes the scrotum.
* **Thrush** is Candidiasis inside the mouth. The creamy white patches typical of thrush cling to the tongue and sides of the mouth and may be painful. The patches cannot be scraped off easily with a finger or blunt object. Thrush in otherwise healthy children is not unusual, but in adults it may signal a weakened immune system, possibly caused by cancer, diabetes, or AIDS. The use of antibiotics that kill off competing bacteria increases the chances of getting thrush.
* **Perlèche** is Candidiasis at the corners of the mouth, which causes cracks and tiny fissures. It may stem from chronic lip licking, thumb sucking, ill-fitting dentures, or other conditions that make the corners of the mouth moist enough that yeast can grow.
* **Candidal paronychia** is Candidiasis in the nail beds, which causes painful redness and swelling. This disorder typically occurs in people with diabetes or a weakened immune system or in otherwise healthy people whose hands are subjected to frequent wetting or washing.

**DIAGNOSIS and TREATMENT**

Usually, doctors can identify Candidiasis by observing its distinctive rash or the thick, white, pasty residue it generates. To confirm the diagnosis, doctors may scrape off some of the skin or residue with a scalpel or tongue depressor. The sample is then examined under a microscope or placed in a culture medium (a substance that allows microorganisms to grow) to identify the specific fungus.

Generally, Candidiasis of the skin is easily cured with creams containing miconazole, clotrimazole, oxiconazole, ketoconazole, econazole, ciclopirox, or nystatin. The cream is usually applied twice daily for 7 to 10 days. Corticosteroid creams are sometimes used with antifungal creams because they quickly reduce itching and pain (although they do not help cure the infection itself and, used alone, worsen the infection). Candidiasis that does not respond to antifungal creams and liquids may be treated with gentian violet, a purple dye that is painted on the infected area to kill the yeast.

Keeping the skin dry helps clear up the infection and prevents it from returning. Talcum powder helps keep the surface area dry, and talcum powder with nystatin may further help prevent a recurrence.

Different treatments are prescribed for vaginal yeast infections, thrush, and nail infections.

A. Damian Dhar, MD