Genital Candidiasis

**DEFINITION**
Infection of the vagina with fungal organisms leading to symptoms of pruritis, external dysuria, and abnormal discharge. Candidiasis is always present in the vagina in small amounts. When the normal acidity of the vaginal changes, candida can multiply. It can be passed onto partners during sexual intercourse.

**SUBJECTIVE**
May include:
1. Vaginal discharge with or without vulvar and/or vaginal pruritis, burning, soreness or odor
2. History of recent use of antibiotics, oral contraceptives, or other drugs
3. Dyspareunia
4. Genital and/or vaginal irritation or excoriations
5. External Dysuria
6. History of diabetes mellitus, HIV, immunocompromising diseases or long term use of antibiotics or corticosteroids
7. History of recent herpetic outbreak or treatment for venereal warts

**OBJECTIVE**
May include:
1. Erythematous, swollen labia +/- excoriations
2. Tender, erythematous vaginal walls
3. Semi-adherent, curdy, white discharge present on vaginal walls, cervix and/or vulva
4. Genital itching, burning or rash

**LABORATORY**
May include:
1. Microscopic evaluation of vaginal side wall swabbing or vulvar scraping reveals monilial hyphae and spores. If difficulty is encountered visualizing characteristic microbes due to cellular debris, addition of 10% potassium hydroxide to slide may be useful.
2. Vaginal pH 4.0 - 5.0
3. Negative KOH "Whiff" test
4. Nickerson culture if diagnosis is strongly suspected but wet mount is negative
5. May consider vaginal culture with recurrent vulvovaginitis to identify unusual yeast species including non-albicans species
6. Blood sugar and/or urine dipstick
7. STD or HIV testing if clinically indicated

**ASSESSMENT**
Genital Candidiasis

**PLAN**
1. For women with uncomplicated vulvovaginal candidiasis:
   a. Intravaginal agents use one of the following:
      i. Butoconazole 2% cream 5 g intravaginally for 3 days (OTC).
      ii. Butoconazole 2% cream 5 gm (Butaconazole 1 – sustained release) single intravaginal applicator.
      iii. Clotrimazole 1% cream 5 gm intravaginally for 7-14 days (OTC).
      iv. Clotrimazole 2% cream 5 gm intravaginally for 3 days (OTC).
      v. Miconazole 2% cream 5 gm intravaginally for 7 days (OTC).
      vi. Miconazole 4% cream 5 gm intravaginally for 3 days (OTC)
      vii. Miconazole 100 mg vaginal suppository, one suppository for 7 days (OTC).
      viii. Miconazole 200 mg vaginal suppository, one suppository for 3 days (OTC).
      ix. Miconazole 1,200 mg vaginal suppository, one suppository for 1 day (OTC).
      x. Nystatin 100,000 unit vaginal tablet, one tablet for 14 days.
      xi. Tioconazole 6.5% ointment 5 gm intravaginally in a single application (OTC).
      xii. Terconazole 0.4% cream 5 g intravaginally for 7 days.
      xiii. Terconazole 0.8% cream 5 gm intravaginally for 3 days.
      xiv. Terconazole 80 mg vaginal suppository, one suppository for 3 days.
b. Oral Agent:
i. Fluconazole 150 mg tablet PO, one tablet in a single dose.
ii. Fluconazole 150 mg tablet PO, #2 tablets, 1 dose stat and may repeat in 72 hours if needed.

2. Recurrent vulvovaginal candidiasis: Defined as 4 or more episodes each year.
   a. Each individual episode responds well to short duration of oral or topical azole therapy. However, to maintain clinical and mycologic control—recommend a longer duration of initial therapy before initiating maintenance regimens such as:
      i. 7 – 14 days of topical therapy, OR
      ii. Fluconazole 150 mg (po) dose every 3rd day for a total of 3 doses, OR
      iii. Boric acid suppositories (600 mg/day vaginally for 14 days). Very helpful for treating C. Glabrata and C. Tropicalis, particularly in diabetic women.
   b. Maintenance Regimens include (Can be used and should be continued for 6 months):
      i. Clotrimazole 500 mg dose vaginal suppositories once weekly.
      ii. Fluconazole 150 mg qd for 3 doses, then 150-200mg weekly for six months.
   c. Evaluate immune status.
   d. Consider referral of partner for evaluation and treatment to R/O balanitis.

3. Severe vulvovaginitis: defined as extensive vulvar erythema, edema, excoriation and fissure function.
   a. Responds better to longer therapy:
      i. 7-14 days of topical azole therapy OR
      ii. Fluconazole 150 mg in 2 sequential doses, second dose 72 hours after initial dose.
   b. Adjunctive treatment with a weak topical steroid, such as 1% hydrocortisone cream, may be helpful in relieving some of the external symptoms.

4. Compromised Host: defined as women with underlying debilitating medical conditions such as uncontrolled diabetes or those receiving corticosteroid treatment.
   a. Respond better to 7-14 days of treatments with topical azole.
   b. Efforts to correct modifiable conditions should be made.

5. Pregnancy:
   a. Only topical azole therapies applied for 7 days are recommended

6. HIV infection:
   a. Treatment should not differ from that of HIV negative men and women.

7. For men: Treat with topical clotrimazole 1% cream. Apply to affected area once a day for 2 weeks or until symptoms is resolved.

8. For women with a history of diagnosed yeast and currently complaining of symptoms via phone may:
   a. Advise purchase of OTC products.
   b. Offer fluconazole or other prescription topical azole therapy.
   c. Advise infection check if continued symptoms after treatment.

9. For women experiencing three or more yeast infections a year, some evidence suggests oral or intravaginal probiotics may help prevent candida overgrowth.

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<tr>
<th>CLIENT EDUCATION</th>
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<tbody>
<tr>
<td>1. Provide education handout, review symptoms, treatment options, and vaginal health principles.</td>
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<td>2. Advise to avoid intercourse during treatment (vaginal therapies may weaken latex condoms).</td>
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<td>3. Stress the importance of not interrupting treatment during menses and not to use tampons during treatment with vaginal therapies.</td>
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<td>4. Counsel on importance of perineal hygiene.</td>
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<td>5. Advise partner to self-treat if symptomatic.</td>
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<td>6. Recommend client RTC if symptoms persist, or recur within 2 months of onset of initial</td>
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CONSULT/ REFER TO PHYSICIAN

<table>
<thead>
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<th>symptoms</th>
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<td>1. Persistent or recurrent infection unresponsive to treatments applied</td>
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<td>2. Extreme excoriation</td>
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References: