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Vulvovaginitis: Screening for and Management of Trichomoniasis, Vulvovaginal Candidiasis, and Bacterial Vaginosis

This clinical practice guideline has been prepared by the Infectious Diseases Committee, reviewed by the CANPAGO and Family Physician Advisory Committees, and approved by the Executive and Board of the Society of Obstetricians and Gynaecologists of Canada.

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Abstract

Objective: To review the evidence and provide recommendations on screening for and management of vulvovaginal candidiasis, trichomoniasis, and bacterial vaginosis.

Outcomes: Outcomes evaluated include the efficacy of antibiotic treatment, cure rates for simple and complicated infections, and the implications of these conditions in pregnancy.

Evidence: Published literature was retrieved through searches of MEDLINE, EMBASE, CINAHL, and The Cochrane Library in June 2013 using appropriate controlled vocabulary (e.g., vaginitis, trichomoniasis, vaginal candidiasis) and key words (bacterial vaginosis, yeast, candidiasis, trichomonas vaginalis, trichomoniasis, vaginitis, treatment). Results were restricted to systematic reviews, randomized control trials/controlled clinical trials, and observational studies. There were no date limits, but results were limited to English or French language materials. Searches were updated on a regular basis and incorporated in the guideline to May 2014. Grey (unpublished) literature was identified through searching the websites of health technology assessment and health technology-related agencies, clinical practice guideline collections, and national and international medical specialty societies.

Values: The quality of evidence in this document was rated using the criteria described in the Report of the Canadian Task Force on Preventive Health Care (Table 1).

Summary Statements

1. Vulvovaginal candidiasis affects 75% of women at least once. Topical and oral antifungal azole medications are equally effective. (I)
2. Recurrent vulvovaginal candidiasis is defined as 4 or more episodes per year. (II-2)
3. *Trichomonas vaginalis* is a common non-viral sexually transmitted infection that is best detected by antigen testing using vaginal swabs collected and evaluated by immunoassay or nucleic acid amplification test. (II-2)
4. Cure rates are equal at up to 88% for trichomoniasis treated with oral metronidazole 2 g once or 500 mg twice daily for 7 days. Partner treatment, even without screening, enhances cure rates. (I-A)

Table 1. Key to evidence statements and grading of recommendations, using the ranking of the Canadian Task Force on Preventive Health Care

Quality of evidence assessment*	Classification of recommendations†
I: Evidence obtained from at least one properly randomized controlled trial	A. There is good evidence to recommend the clinical preventive action
II-1: Evidence from well-designed controlled trials without randomization	B. There is fair evidence to recommend the clinical preventive action
II-2: Evidence from well-designed cohort (prospective or retrospective) or case–control studies, preferably from more than one centre or research group	C. The existing evidence is conflicting and does not allow to make a recommendation for or against use of the clinical preventive action; however, other factors may influence decision-making
II-3: Evidence obtained from comparisons between times or places with or without the intervention. Dramatic results in uncontrolled experiments (such as the results of treatment with penicillin in the 1940s) could also be included in this category	D. There is fair evidence to recommend against the clinical preventive action
	E. There is good evidence to recommend against the clinical preventive action
III: Opinions of respected authorities, based on clinical experience, descriptive studies, or reports of expert committees	L. There is insufficient evidence (in quantity or quality) to make a recommendation; however, other factors may influence decision-making

*The quality of evidence reported in here has been adapted from The Evaluation of Evidence criteria described in the Canadian Task Force on Preventive Health Care.[76]

†Recommendations included in these guidelines have been adapted from the Classification of Recommendations criteria described in the Canadian Task Force on Preventive Health Care.[76]

5. Current evidence of the efficacy of alternative therapies for bacterial vaginosis (probiotics, vitamin C) is limited. (I)

Recommendations

1. Following initial therapy, treatment success of recurrent vulvovaginal candidiasis is enhanced by maintenance of weekly oral fluconazole for up to 6 months. (II-2A)
2. Symptomatic vulvovaginal candidiasis treated with topical azoles may require longer courses of therapy to be resolved. (1-A)
3. Test of cure following treatment of trichomoniasis with oral metronidazole is not recommended. (I-D)
4. Higher-dose therapy may be needed for treatment-resistant cases of trichomoniasis. (I-A)
5. In pregnancy, treatment of symptomatic *Trichomonas vaginalis* with oral metronidazole is warranted for the prevention of preterm birth. (I-A)
6. Bacterial vaginosis should be diagnosed using either clinical (Amsel's) or laboratory (Gram stain with objective scoring system) criteria. (II-2A)
7. Symptomatic bacterial vaginosis should be treated with oral metronidazole 500 mg twice daily for 7 days. Alternatives include vaginal metronidazole gel and oral or vaginal clindamycin cream. (I-A)
8. Longer courses of therapy for bacterial vaginosis are recommended for women with documented multiple recurrences. (I-A)

ABBREVIATIONS

HIV	human immunodeficiency virus
NAAT	nucleic acid amplification test
PHAC	Public Health Agency of Canada
STI	sexually transmitted infection
VVC	vulvovaginal candidiasis

VULVOVAGINAL CANDIDIASIS

Vulvovaginal candidiasis is a very common condition that affects up to 75% of women at least once in their lifetime.[1] Risk factors for VVC include sexual activity, recent antibiotic use, pregnancy, and immunosuppression from such conditions as poorly controlled HIV infection or diabetes.[2,3]

The Organisms

VVC is most often caused by Candida albicans[4]; however, other species of Candida such as glabrata, parapsilosis, and tropicalis are emerging.[5]

The main reservoir for Candida is thought to be the rectum, but vaginal colonization is also common. The factors associated with evolution from colonization to symptomatic infection are multiple and involve a combination of host susceptibility, host inflammatory responses, and Candidal virulence factors. Symptoms are thought to be caused by an overabundance of yeast and its penetration of vulvovaginal epithelial cells.[6]

The Disease

The signs and symptoms of uncomplicated VVC include a thick cottage-cheese–like discharge associated with vaginal and vulvar pruritus, pain, burning, erythema, and/or edema. External dysuria and dyspareunia may also occur.

Complicated VVC may be defined as that which is recurrent (4 or more episodes in a 12 month period), associated with severe symptoms, the result of a non-albicans species, or present in a compromised host.[7] This condition is more