

# Management of Abnormal Vaginal Discharge in Women

Association of  
Medical Microbiologists

## Quick Reference Guide for Primary Care

For consultation and local adaptation



- ❑ In a primary care setting a clinical diagnosis of candida and bacterial vaginosis can be based on symptoms and signs.<sup>1</sup>
- ❑ Always consider sexually transmitted infection (STI) and take an endocervical swab and a chlamydia endocervical swab with HVS if sexually active and high risk: <25y or new partner <12 months and no condom use.<sup>2-4</sup>
- ❑ Offer chlamydia screen in sexually active, 16-24 year olds.
- ❑ Bacterial vaginosis and candidiasis are both common causes of abnormal vaginal discharge.<sup>1,2,5</sup>
- ❑ Bacterial vaginosis is the most common and is due to overgrowth of anaerobic organisms.<sup>2</sup>
- ❑ Trichomoniasis is a less common cause of vaginal discharge in the UK.
- ❑ *Chlamydia trachomatis* and *Neisseria gonorrhoeae* cause acute pelvic infection with vaginal discharge and additional symptoms including intermenstrual bleeding, recent deep dyspareunia, lower abdominal pain, adnexal tenderness, cervical excitation pain<sup>1</sup>

### WHEN TO SEND A SWAB

Submission of genital swabs to microbiology laboratories varies greatly from 5-40/1,000 population/year.

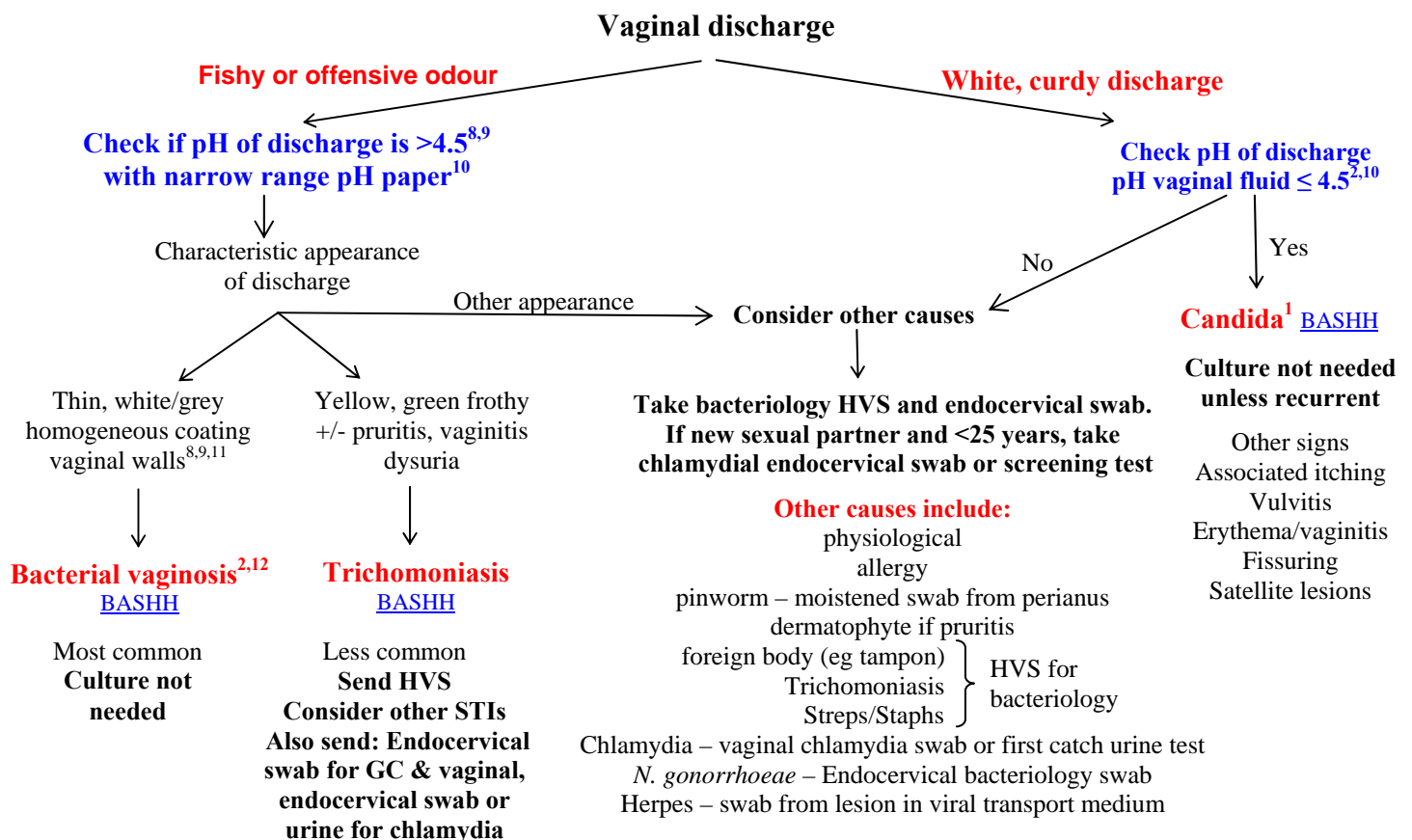
Send high vaginal swab (HVS)<sup>6</sup> if

- |  |   |                 |                                  |
|--|---|-----------------|----------------------------------|
| ❑ postnatal  | ❑ recurrent <sup>6</sup> (≥ 4 cases/year)                       | ❑ Possible STI  | } also send<br>endocervical swab |
| ❑ pre & post termination of pregnancy <sup>2</sup> | ❑ symptoms not characteristic of candida or bacterial vaginosis | ❑ Suspected PID |                                  |
| ❑ pre & post operative gynae surgery               | ❑ vaginitis without discharge                                   |                 |                                  |

### SAMPLING

- ❑ High vaginal swabs for microbiology: Obtain discharge present in vagina, place swab in transport medium and transport to the laboratory as soon as possible. Refrigerate at 4°C if any delay.
- ❑ If STI considered: Sample pus from endocervix for *Neisseria gonorrhoeae* and transport in charcoal-based transport medium.<sup>7</sup>
- ❑ Chlamydia: Submit vaginal swab (which can be self-taken), endocervical swab or first catch urine. Use chlamydia collection kit with plastic (not wooden) shafted swab provided by local laboratory. Do NOT put in charcoal medium.

### DIAGNOSIS OF CANDIDA AND BACTERIAL VAGINOSIS BY SYMPTOMS AND SIGNS



This guidance was developed by the South West GP Microbiology Laboratory Use Group in collaboration with GPs, AMM and experts in the field and is in line with other UK GP guidance including CKS

## References & Related Websites

1. Mitchell H. Vaginal discharge – causes, diagnosis and treatment. *BMJ* 2004;**328**:1306-08. *Excellent review – also covers recurrent candidiasis and bacterial vaginosis.*
2. UK national guidelines on sexually transmitted infections and closely related conditions. *Sex Trans Inf* 1999;**75**:Suppl 1 1. *Very extensive evidence-based guidance on the management of genitourinary infections.*
3. HPA Chlamydia laboratory use guidance. [http://www.hpa.org.uk/infections/topics\\_az/primary\\_care\\_guidance/Chlamydia\\_guide\\_280406.rtf](http://www.hpa.org.uk/infections/topics_az/primary_care_guidance/Chlamydia_guide_280406.rtf) Accessed 5th January 2007
4. MMWR Centres for Disease Control and Prevention 2002;**51**:RR-6 Guidelines for treatment of sexually transmitted diseases. <http://www.cdc.gov/std/treatment/rr5106.pdf> Accessed 5th January 2007
5. Clinical Knowledge Summary guidance on bacterial vaginosis [http://cks.library.nhs.uk/bacterial\\_vaginosis](http://cks.library.nhs.uk/bacterial_vaginosis) Accessed 13<sup>th</sup> November 2008
6. Marrazzo J. Vulvovaginal candidiasis. *BMJ* 2003;**326**:993-4. *Overview: Resistance has not increased with over-the-counter antifungals. Culture should be performed before embarking on long-term suppressive treatment as only 16% with recurrent symptoms have candidiasis.*
7. Macsween KF, Ridgway GL. The laboratory investigation of vaginal discharge. *J Clin Pathol* 1998;**51**:564-67.
8. Bradshaw CS, Morton AN, Garland SM, Horvath LB, Kuzevska I, Fairley CK. Evaluation of a point of care test BV Blue and clinical and laboratory criteria for the diagnosis of Bacterial vaginosis. *J Clin Microbiol* 2005;**43**:1304-8. *This study examined 252 women with vaginal discharge in an Australian sexual health centre. Compared to Nugent method for diagnosis of BV, pH > 4.5 had a 96% Sensitivity, 78% Specificity, 77% PPV and 97% NPV. The characteristic of discharge alone was unreliable (thin homogeneous discharge had a 84% Sensitivity, 46% Specificity, 54% PPV and 80% NPV).*
9. Luni Y, Munim S, Qureshi R, Tareen AL. Frequency and diagnosis of bacterial vaginosis. *JCPSP* 2005;**15**:270-72. *Studied 304 Women with vaginal discharge at O&G clinic in Aga Khan Hospital Bacterial vaginosis present in 16.1% by 3 of 4 Amsel's criteria. Most patients had a "thin homogeneous discharge". PH ≥ 4.5 had a 98% Sensitivity, 89% Specificity, 62% PPV and 99% NPV.*
10. Whatman indicator papers pH 4.0-7.0 narrow range. <http://www.whatman.com/PRODPHIndicatorsandTestPapers.aspx> 7mm x 5m dispenser cat. no. 2600-102A. This is a reel and is much cheaper than individual strips. Available on special order from VWR International (Merck) 0800 22 33 44 reel cat. No. 0080079-91. Whatman website <http://www.whatman.com/> Accessed 13<sup>th</sup> November 2008
11. Caillouette JC, Sharp CF, Zimmerman J, Roy S. Vaginal pH as a marker for bacterial pathogens and menopausal status. *Am J Obstet Gynecol* 1997;**176**:1270-7. *This study enrolled 55 premenopausal and 152 postmenopausal women. 19% had vaginal discharge. It looked at pH with culture of Strep Gardnerella vaginalis and mixed organisms compared to yeasts and normal flora. PH significantly lower in groups with yeasts and normal flora. The paper contains a simple clear figure showing distribution of pH.*
12. Amsel R, Totten PA, Spiegel CA *et al* Non-specific vaginitis: diagnostic criteria and microbial and epidemiologic associations. *Am J Med* 1983;**74**:14.

### Additional guidance

British Association for Sexual Health and HIV website <http://www.bashh.org/guidelines> accessed 13<sup>th</sup> November 2008

### Treatment advice can be found on our website:

<http://www.hpa.org.uk/webw/HPAweb&Page&HPAwebAutoListName/Page/1197637041219> Accessed 13th November 2008

We welcome, in fact encourage, opinions on the advice given and future topics we should cover. We would be most appreciative if you could email any evidence or references that support your requests for change so that we may consider them at our annual review. Comments should be submitted to Dr Cliodna McNulty, Head, HPA Primary Care Unit, Microbiology Laboratory, Gloucestershire Royal Hospital, Great Western Road, Gloucester GL1 3NN.

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