How is the high vaginal swab used to investigate vaginal discharge in primary care and how do GPs’ expectations of the test match the tests performed by their microbiology services?

H Noble, C Estcourt, C Ison, P Goold, L Tite, Y H Carter

Objectives: To describe the management of vaginal discharge in general practice, with particular regard to the use of the high vaginal swab (HVS), and to compare GPs’ expectations of this test with the processing and reporting undertaken by different laboratories.

Methods: A postal questionnaire survey of 2146 GPs in the North Thames area and postal questionnaire study of the 22 laboratories serving the same GPs were carried out. GPs were asked how they would manage a young woman with vaginal discharge and what information they would like on an HVS report. Laboratories were asked how they would process and report on the HVS sample from the same patient.

Results: Response rate was 26%. 72% of GPs would take an HVS and 62% would refer on to a genitourinary medicine (GUM) clinic. 45% would offer empirical therapy and 47% of these would treat for candida initially. 75% of GPs routinely request “M,C&S” on HVS samples but 55% only want to be informed about specific pathogens. Routine processing of HVS samples varies widely between laboratories and 86% only report specific pathogens. 78% of GPs would like to be offered a suggested diagnosis on HVS reports, and 74% would like a suggested treatment. 43% of laboratories ever provide a diagnosis, and 14% provide a suggested treatment.

Conclusions: GPs frequently manage vaginal discharge and most of them utilise the HVS. GPs’ expectations of the test are not well matched to laboratory processing or reporting of the samples.
Data were recorded and analysed in an Access database.

RESULTS

Demographics

In all 2146 GPs were identified and completed responses were received from 553 (25.8%). Characteristics of responding GPs are shown in Table 1.

Seventy two per cent of GPs reported that women with vaginal discharge sometimes present directly to the practice nurse.

Completed responses were received from 14 (63.6%) of the 22 laboratories which were sent questionnaires.

Clinical management

GPs’ management of a young woman with symptoms and a new sexual partner is summarised in Table 2. The case presented was as follows: “Laura, 20 years old, attends your surgery complaining of 2 weeks of increased vaginal discharge. She has a new male sexual partner and is taking the combined oral contraceptive pill.”

Of the 397 GPs who would take an HVS 298 (53.9%) would also routinely test for Chlamydia trachomatis and 71 (17.9%) would not (missing 27, 6.8%). Of those requesting C trachomatis routinely, 280 (94.0%) would use material from an additional endocervical swab, 18 (6.0%) would request trachomatis on a urine sample.

Tests done by GPs (n = 553)*

- HVS (for M,C&S) 397 (72)
- HVS (for M,C&S) only 14 (3)
- STI screen† 323 (58)
- STI screen only 282 (51)
- Would you refer to a GU clinic? (n = 553)
  - No 72 (13.0)
  - Missing 340 (61.5)
- Tests performed by GPs referring to a GU clinic (n = 340)
  - No tests 39 (11.5)
  - Missing 79 (23.2)
  - HVS only 65 (19.1)
  - HVS+STI screen 144 (42.4)
  - STI screen only 13 (3.8)
- Treatment prescribed by GPs offering empirical therapy? (n = 248)
  - Treatment for candida‡ 116 (46.8)
  - Treatment for BV§ 26 (10.4)
  - Other 106 (42.8)

*Percentages do not total 100 because GPs could tick more than one response.
†STI screen not defined in questionnaire.
‡Options were clotrimazole pessaries and/or cream, or fluconazole orally.
§Options were metronidazole orally, metronidazole vaginal cream, clindamycin vaginal cream.
give a clinical diagnosis on the basis of microbiological findings. Seventy four per cent (409) of GPs would like a suggested treatment to be included on the HVS report (4.3% would not, 120 (21.7%) missing) but only two laboratories (14%) provide this.

**DISCUSSION**

Our study confirms that vaginal discharge is a common presentation in general practice. Almost half of our sample is seeing 1–5 women per week with vaginal discharge, and one third of our sample of GPs are prepared themselves to manage a young woman at risk of STIs, without reference to specialist services. Almost three quarters of GPs surveyed would take an HVS.

Encouragingly, GPs are screening for STIs and over half would test appropriately for *C. trachomatis*.

Just under half of the GPs offered empirical therapy, and most commonly treated for candidiasis first line. However, bacterial vaginosis is at least as common a cause of vaginal discharge as candidiasis.7–9

GPs wanted as much information as possible from an HVS report, including direction from their laboratory with regards to diagnosis and treatment. Most laboratories do not provide this, and some expressed the opinion that this is outside their role.

We have shown that there is wide variation in the processing of HVS samples by microbiology laboratories in north London, and it is reasonable to assume that this is the case throughout the United Kingdom. In view of the workload that HVS samples represent to microbiology laboratories and the potential increase in samples received as GPs increase their involvement in sexual health’s a national guideline on processing HVS samples is likely to be beneficial.

Despite a disappointing GP response rate, we are able to report data from over 500 GPs. Selection bias is likely given that female GPs are over-represented in our sample,91 single handed GPs are under-represented (YH Carter, personal communication), and GPs who see fewer women with vaginal discharge were less likely to respond. Almost three quarters of GPs felt that women with vaginal discharge might present directly to their practice nurses but we only had one returned questionnaire clearly completed by a practice nurse. Further work is needed to look at how practice nurses manage women presenting with vaginal discharge. As with all questionnaire surveys our study is likely to include reporting bias.

GPs in the United Kingdom are facing ever increasing clinical and administration pressures. The emphasis of the National Strategy for Sexual Health and HIV1 in widening access to sexual health care by increased provision in primary care settings is likely to be a considerable challenge to GPs who, while welcoming increased sexual health education, would have limited time in which to access it.

The HVS remains the mainstay of GPs’ management of vaginal discharge. Three quarters of GPs request non-specific (“M, C & S”) whereas most would prefer specific and directive reports, including suggested further investigation and treatment. Almost two thirds of GPs would do an additional *C. trachomatis* test but in the specialist setting all such women would be tested for *C. trachomatis*. GPs would appear to be receptive to guidance on STIs (*C. trachomatis*) screening included on HVS reports.

**CONCLUSIONS**

Although many GPs are appropriately managing young “at risk” women with vaginal discharge our study highlights the potential for laboratory GP liaison in terms of HVS processing and reporting, which could greatly and cheaply assist GPs’ decision making when faced with a woman with vaginal discharge.

**ACKNOWLEDGEMENTS**

We thank all the GPs and microbiologists who replied to our survey and helped with our pilot study. Invaluable IT support was provided by Peter Sutcliffe and Kevin Jones. Dr N Webber and Robin Rampal assisted with the mail merge and data entry.

**CONTRIBUTORS**

CE, HN, CI, YHC, and PG conceived and designed the study; HN, CE, LT, and PG helped with data collection and interpretation; CE, CI, and YHC supervised the study; HN wrote the draft of the manuscript; and HN, CE, CI, PG, and YHC reviewed the manuscript.

**Authors’ affiliations**

H Noble, C Estcourt, P Goold, L Tite, Infection and Immunity, Barts and the London NHS Trust, London, UK

C Estcourt, Institute of Cell and Molecular Science, Barts and the London NHS Trust, Queen Mary’s School of Medicine and Dentistry, London, UK

C Ison, Department of Infectious Diseases and Microbiology, Imperial College School of Medicine, London, UK

Y H Carter, Department of General Practice and Primary Care, Barts and the London NHS Trust, Queen Mary’s School of Medicine and Dentistry, London, UK

Funding: Barts and the London NHS Trust.

Conflict of interest: None.

**REFERENCES**


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Sex Transm Infect 2004 80: 204-206
doi: 10.1136/sti.2003.007781

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