Vaginal discharge

Overview

- The most common cause of vaginal discharge in people of reproductive age is normal physiological discharge
- Exclude other causes with history, examination and investigations

Possible causes

- Non-sexually transmitted infections (STIs): Group B streptococcal vaginitis, *Candida albicans*, bacterial vaginosis (BV). While BV is not considered an STI, it is associated with sexual activity.
- Non-infectious causes: hormonal contraception, physiological, cervical ectropion and cervical polyps, malignancy, foreign body (e.g. retained tampon), dermatitis, fistulae, allergic reaction, erosive lichen planus, desquamative inflammatory vaginitis, atrophic vaginitis in lactating and postmenopausal people, and in trans men and non-binary people using gender affirming testosterone replacement.
- STIs: *Chlamydia trachomatis*, *Mycoplasma genitalium* *(M. Genitalium)*, *Neisseria gonorrhoea*, *Trichomonas vaginalis*, Herpes Simplex Virus (HSV).

Clinical presentation

Symptoms	Considerations
Discharge	Physiological: white and clear, non-offensive, varying with menstrual cycle (ectropion may be mucoid) Bacterial vaginosis: thin, grey-white, offensive and fishy odour Candidiasis: thick, white, non-offensive Chlamydia and *M. genitalium*: minimal discharge or purulent (cervicitis) Gonorrhoea: purulent (cervicitis) Trichomoniasis: offensive green and yellow, scanty to profuse and frothy (vaginitis)
Bleeding – intermenstrual or postcoital	Chlamydia, *M. genitalium*, gonorrhoea, cervical ectropion or polyps, malignancy, vaginitis Presence can suggest cervicitis or pelvic inflammatory disease (PID)
Itch	Candidiasis, trichomoniasis, vulvovaginal dermatitis
Superficial dyspareunia	Candidiasis, dermatitis, lichen planus, lichen sclerosus

Symptoms	Considerations
Deep dyspareunia	Chlamydia, gonorrhoea, *M. genitalium*, trichomoniasis. Presence can suggest PID
Lower abdominal pain	Chlamydia, gonorrhoea, *M. genitalium*, trichomoniasis. Presence suggests upper genital tract infection.
Dysuria	Chlamydia, trichomoniasis, candidiasis, herpes and dermatitis can present with external dysuria, fissuring Presence can also suggest gonorrhoea
Systemic symptoms	Presence of systemic symptoms such as fever and tachycardia indicates upper genital tract infection and PID

Symptoms	Considerations
Associated factors	Bacterial vaginosis: unclear Candidiasis: spontaneous, recent antibiotics, pregnancy, immunosuppression Chlamydia: age < 30 years, new partner or > 1 partner in 12 months preceding, known contact Gonorrhoea: age < 30 years, new partner or > 1 partner in 12 months preceding, known contact, co-infection with other pathogen; high-risk population (e.g. Aboriginal and Torres Strait Island people in remote community) *M. genitalium*: age < 30 years, new partner or > 1 partner in 12 months preceding, known contact Trichomoniasis: new partner, patient or partner from high-prevalence population Dermatitis: irritants, eczema

Diagnosis

Take a history and perform a physical examination, including inspection of external genitalia, speculum examination of cervix and vagina, and bimanual palpation. Specifically examine for signs: characteristics of discharge (colour, consistency, distribution, volume and odour), cervicitis, vaginitis, vulvitis, ulceration, upper genital tract infection – PID). Clinician-collected samples are preferred but self-collected samples may be considered if the patient declines examination

Site/specimen	Test	Consideration
High vaginal swab OR Self-collected vaginal swab	Bacterial vaginosis: -microscopy and gram stain -Whiff test (odour during examination indicates a positive whiff test) – pH test (pH > 4.5 indicative of bacterial vaginosis) Candidiasis: microscopy and culture	Microscopy and gram stain Whiff test (odour during examination indicates a positive whiff test) pH test (pH > 4.5 indicative of bacterial vaginosis)
Endocervical swab OR Self-collected vaginal swab OR FPU	NAAT test: *N. gonorrhoeae*, *C. trachomatis*	Endocervical swab, if speculum examination is indicated, or self-collected vaginal swab is the most sensitive
High vaginal swab OR Self-collected vaginal swab OR First pass urine (FPU)	NAAT test: trichomonas	Vaginal swab is the most sensitive

NAAT – Nucleic acid amplification test

Specimen collection guidance

Clinician collected | Self-collection

Special considerations

- Perform cervical screening if overdue. Human papillomavirus (HPV) testing only is indicated for vaginal discharge, a co-test (HPV + cytology) should be ordered for abnormal bleeding, or suspicious findings on examination of the cervix

Management

Treat the discharge based on what cause is identified. See bacterial vaginosis, candidiasis, chlamydia, gonorrhoea, *M. genitalium*, trichomoniasis, pelvic inflammatory disease (PID)

Treatment advice

- Treat as per guidelines for diagnosis made after consideration of risk and assessment findings: initially presumptively, and then based on results when these become available
- Intravaginal azoles and clindamycin can damage latex condoms
- Avoid alcohol with metronidazole

Other immediate management

- Consider other STI testing if assessment indicates risk or suspected or proven STI
- Consider advice and referral if complicated presentation, systemically unwell or diagnosis uncertain
- Provide patient with factsheet

Contact Tracing

- No contact tracing is required for non-STIs
- Contact tracing for chlamydia, gonorrhoea, trichomoniasis and is a high priority and should be performed in all patients with confirmed infection

See Australasian Contract Tracing Manual for more information

Follow Up

If confirmed STI, follow up provides an opportunity to:

- Confirm patient adherence with treatment and assess for symptom resolution
- Confirm contact tracing procedures have been undertaken or offer more contact tracing support
- Provide further sexual health education and prevention counselling

Even if all test results are negative, use the opportunity to:

- Reassess for resolution or recurrence of symptoms
- Educate about condom use, contraception, HIV PrEP/PEP, safe injecting practices, consent, and CST.
- Vaccinate for hepatitis A, hepatitis B, human papillomavirus (HPV), if susceptible
- Discuss and activate reminders for regular testing according to risk
- Educate about normal genital skin care

For **test of cure** and **retesting** advice see:

- Chlamydia
- Gonorrhoea
- Trichomoniasis

Auditable Outcomes

100% of patients diagnosed with bacterial vaginosis are treated with an appropriate antibiotic regimen