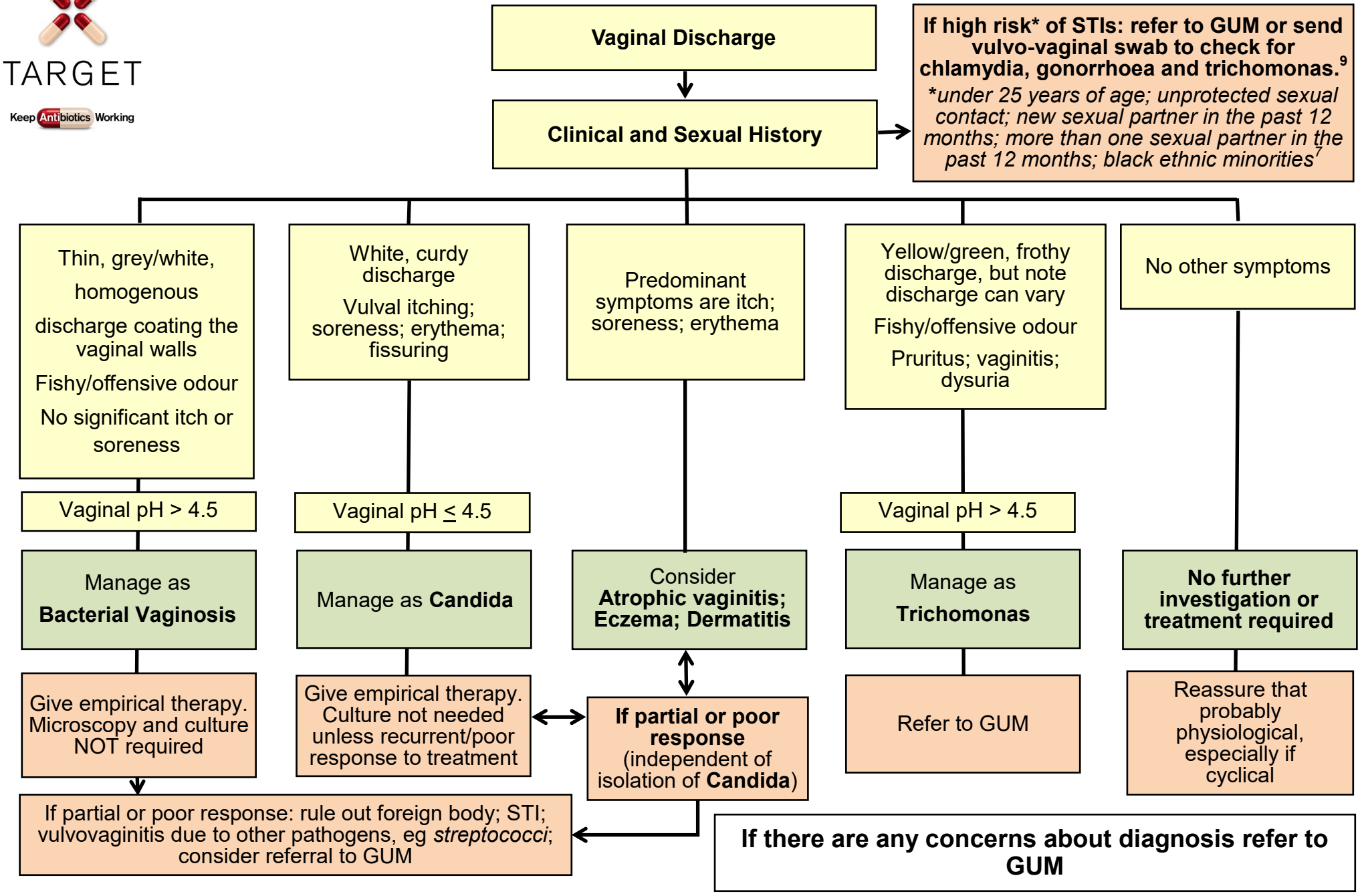
# Investigating infection in abnormal vaginal discharge: quick reference tool for primary care

TARGET
Keep Antibiotics Working

## DIAGNOSIS, BASED ON HISTORY, SYMPTOMS AND EXAMINATION: FLOWCHART

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## CAUSES OF VAGINAL DISCHARGE

- Vaginal discharge is most commonly caused by bacterial vaginosis, acute vulvovaginal candidiasis, and more rarely *Trichomonas vaginalis*.
- It can also be caused by other physiological and pathological conditions including cervicitis, aerobic vaginitis, post-menopausal atrophic vaginitis, and mucoid ectopy.
- Sexually transmitted infections (STIs): Chlamydia and gonorrhoea are the most common bacterial STIs in the UK. STIs may present with vaginal discharge due to cervicitis.

## WHEN SHOULD I INVESTIGATE?

- Laboratory tests should never substitute a careful history and physical examination including pH test (if available). See the flowchart for symptom and sign based diagnosis.
- Screen anyone under 25 who is sexually active for chlamydia annually, and on change of sexual partner.
- Screen patients over 25 years of age annually if they are having condomless sex with a new or casual partner.
- Culture and antimicrobial susceptibility testing for STI should be reserved for those with signs and symptoms compatible with gonorrhoea, and/or a positive chlamydia nucleic acid amplification test (NAAT) result.
- Send a high vaginal swab or other specimens as appropriate if suspected infection AND:
  - ◊ postnatal or post-miscarriage
  - ◊ pre- or post-gynaecological surgery
  - ◊ termination of pregnancy
  - ◊ within three weeks of intrauterine contraceptive insertion
  - ◊ recurrent symptoms
  - ◊ no, partial, or poor response to treatment
- Refer to NICE guidance for **suspected cancer: recognition and referral** if post-menopausal bleeding or suspected cancer.

## FURTHER INVESTIGATION AND TAKING A SAMPLE

- Submit all samples with clinical history: nature of vaginal discharge; result of vaginal pH test; any risk or suspicion of STI; any associated symptoms.
- Test for gonorrhoea/chlamydia: submit a (self-taken) vulvovaginal or endocervical swab for a NAAT (self taken vulvovaginal preferred). In some areas testing for TV as well may be possible through a (triple) NAAT.
- Vulvovaginal swab: This is collected by inserting a dry swab about 2–3 inches into the vagina and gently rotating for 10 to 30 seconds.
- Endocervical swab: An endocervical swab is taken and as the sample must contain cervical columnar cells, the swab should be inserted into the cervical os and firmly rotated against the endocervix. Inadequate specimens reduce the sensitivity of NAATs.
- High vaginal swab: Introduce speculum and roll swab on vaginal wall to gather discharge; can be self-taken.

## INTERPRETATION OF RESULTS AND MANAGEMENT

- Bacterial vaginosis (BV): BV is caused by the overgrowth of mixed anaerobes replacing normal vaginal lactobacilli. It is the commonest cause of abnormal discharge in women of childbearing age. BV can arise and remit spontaneously in both sexually active/inactive women.
- Acute vulvovaginal candidiasis (VVC): VVC is a fungal infection caused by the overgrowth of *Candida albicans* in more than 80% of cases. An estimated 75% of women will have at least one lifetime episode of VVC, and 40–45% will have two or more episodes.
- *Trichomonas vaginalis* (TV): TV diagnosis is relatively rare in the UK but 10-50% of women are asymptomatic. TV is almost always sexually transmitted in adults.
- Partner notification is recommended after any STI diagnosis, including TV.
- **See the BASHH treatment guidelines** for management of patients with vaginal discharge caused by Bacterial vaginosis, Vulvovaginal candidiasis or *T. vaginalis*.
- **See the BASHH treatment guidelines** for management of patients with urethritis or cervicitis caused by chlamydia or gonorrhoea.
- Refer to genitourinary medicine (GUM) or specialist GP service if: diagnosis in doubt; suspected cancer; persistent symptoms; treatment not effective; suspected STI; positive gonorrhoea NAAT result.

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