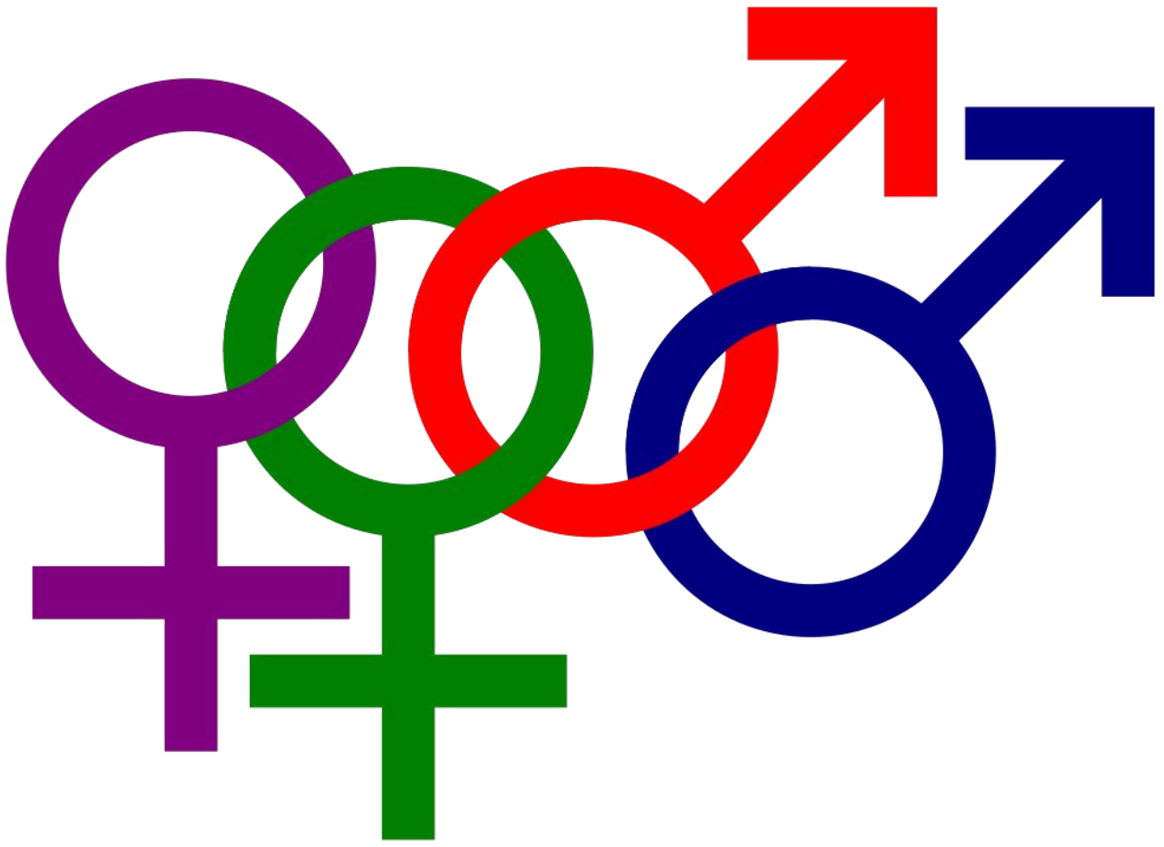
PLABABLE

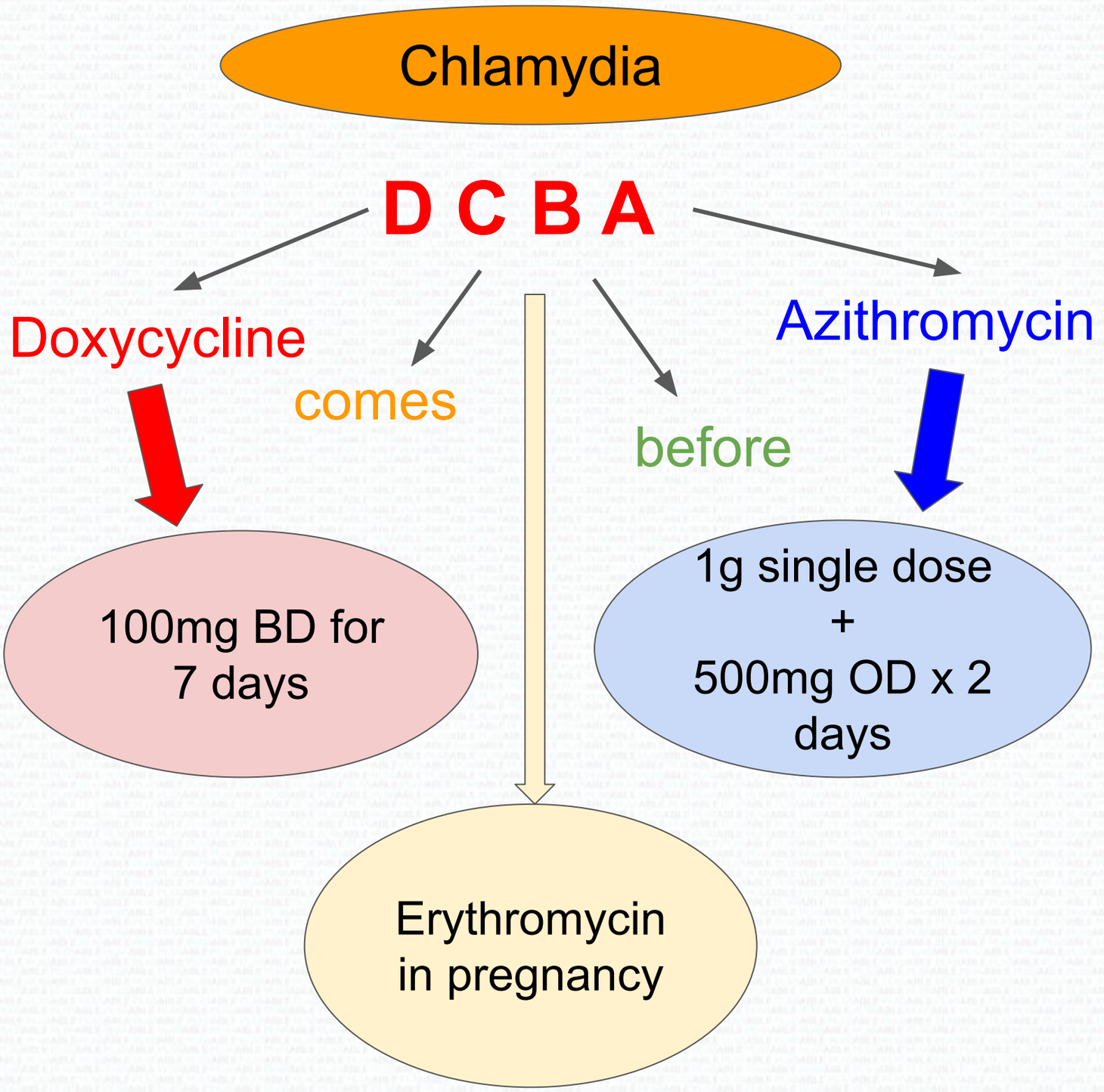
GEMS

VERSION 1.2

GENITOURINARY MEDICINE



Cervicitis



→ **Doxycycline (first line)**
→ **Azithromycin (second line)**

Cervicitis

Neisseria gonorrhoeae

C or C

Ceftriaxone

1 gram IM injection single dose

Ciprofloxacin

(When sensitivity is known)

500mg oral single dose

Chlamydia

Presentation in males

- Urethritis
- Dysuria
- Urethral discharge

If chlamydia or gonorrhoea untreated

- Epididymo-orchitis
- Epididymitis
- Unilateral testicular pain

Presentation in females

- Vaginal discharge
- Post-coital bleeding
- Red and inflamed vulva and cervix
- Tender pelvis **not** tender abdomen

If chlamydia or gonorrhoea untreated

- Salpingitis

Chlamydia is the most common sexually transmitted disease in UK

Chlamydia

Hints

New sexual partner could be a cause of chlamydia

Cervical Ectropion:

- Presented only with post-coital bleeding
- Nil other symptoms
- Resolves spontaneously
- Rx: cauterising with silver nitrate if needed

Investigation for Vaginal Infections

Endocervical and high vaginal swab

Can detect all possible organisms
e.g. Chlamydia, *N. gonorrhea*,
Trichomonas vaginalis

Self-collected vulvoaginal swab

Specimen of choice for **chlamydia**

For **gonorrhoea** when **pelvic examination** is **not needed**

Trichomonas vaginalis need high vaginal swab and can be diagnosed by seeing the motile organism under microscope

Which investigation

Brain trainer:

A young woman has vaginal discharge. An STI is suspected. What is the best investigation for this patient?

If suspicion of only chlamydia and gonorrhoea:

➔ **Self-collected vulvovaginal swab for NAAT**

If also suspicion of trichomonas vaginalis (e.g. green-yellow discharge)

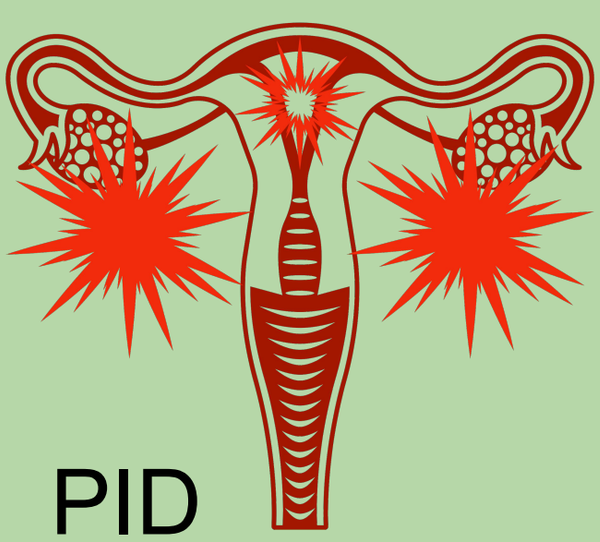
➔ **Endocervical swab for NAAT and high vaginal swab in charcoal medium**

Pelvic Inflammatory Disease (PID)

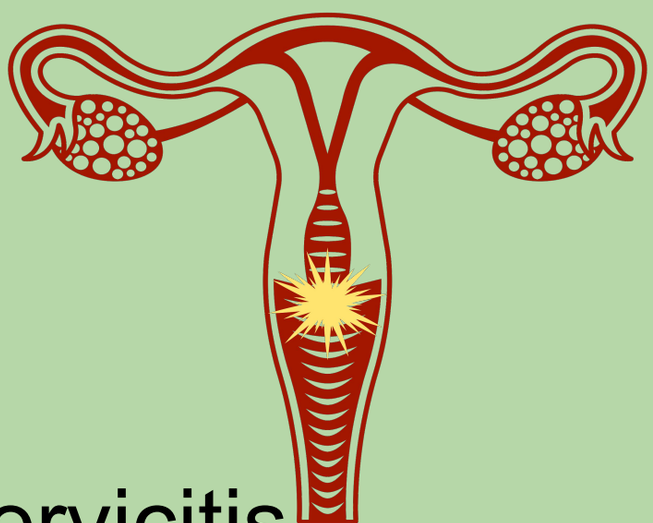
Metronidazole
400mg BD x 14 days

Ceftriaxone
1 gram IM Single dose

Doxycycline
100mg BD x 14 days



PID



Cervicitis

Cervicitis presents vaginal discharge, does not ascent upwards to pelvis, hence **no pelvic pain**

PID involves adnexa and other genital structure, hence **yes** **pelvic pain**

Vaginal Bacterial Infections

Trichomoniasis (*Trichomonas vaginalis*)

- Frothy, **offensive** smelly **yellowish-greenish** discharge
- Vaginal itching
- **Strawberry** cervix
- Vaginal pH >4.5

Treatment → Oral metronidazole

Bacterial vaginosis (*Gardnerella vaginalis*)

- Thick, **grey-white** discharge
- **Fishy** (very **offensive**) smell
- **Clue cells**
- Positive Whiff test (potassium hydroxide)
- Vaginal pH >4.5

Treatment → Oral metronidazole + oral clindamycin

Vulvovaginal candidiasis (*Candida albicans*)

aka vaginal thrush

- Thick white (**cheese-like**) discharge
- Odourless
- Vaginal itching
- Vaginal pH 4-4.5

Treatment → Topical clotrimazole or oral fluconazole

Vaginal Bacterial Infections

Brain trainers:

A 30 year old woman present with very strong foul smelling vaginal discharge?

➔ ***Gardnerella vaginosis (bacterial vaginosis)***

❌ Chlamydia or gonorrhoea as they do not present foul smelling discharge

A 29 year old woman present with frothy, yellow bad smelling discharge. Mild vaginal itching and vulva looks slightly inflamed. Sexually active.

➔ **Trichomoniasis**

Vaginal Bacterial Infections

Broad spectrum antibiotics

→ Kills normal vaginal flora

→ Increase risk of developing bacterial vaginosis or vaginal candidiasis

Bacterial vaginosis vs Trichomonas vaginalis

- Both pH > 4.5
- Bacterial vaginosis is more common
- Bacterial vaginosis is common cause of abnormal discharge in child-bearing age
- Bacterial vaginosis is not sexually transmitted
- Trichomoniasis has **yellowish-greenish** **offensive** discharge
- Different colours

Human Papillomavirus (HPV)

Features:

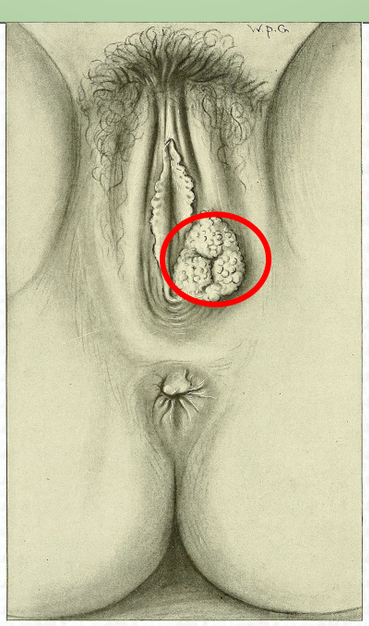
- Sexually transmitted
- HPV 6 and 11 → **Genital warts** (benign cauliflower-like growths)
- Includes **anogenital warts** in both male and female
- HPV 16 and 18 → **Cervical cancers**

Prevention:

- Gardasil vaccination (vaccine against HPV 6, 11,16 and 18)
- Has no benefit if genital wart has developed

Treatment:

- Ablation (cryotherapy)
- 30% of cases have spontaneous resolution in 6 months



Genital warts

Brain trainer:

A patient has genital warts on her vulva. What is the most appropriate treatment ?

➔ **Cryotherapy**

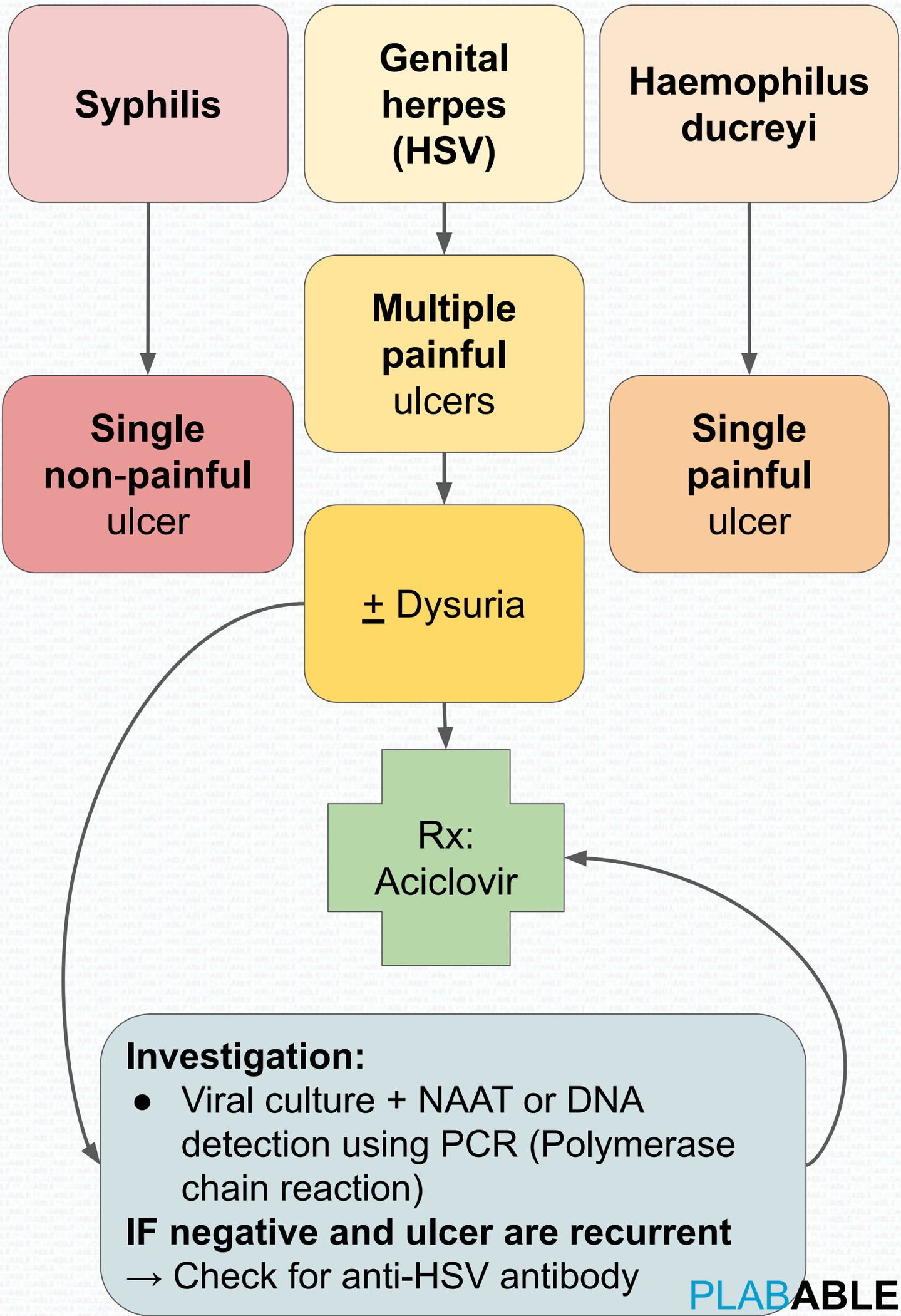
Genital warts

Brain trainer:

A woman presents with painless vulval lesions of varying sizes that appeared a few weeks ago. What is the most likely organism?

➔ **Human papillomavirus**

Genital Ulcers



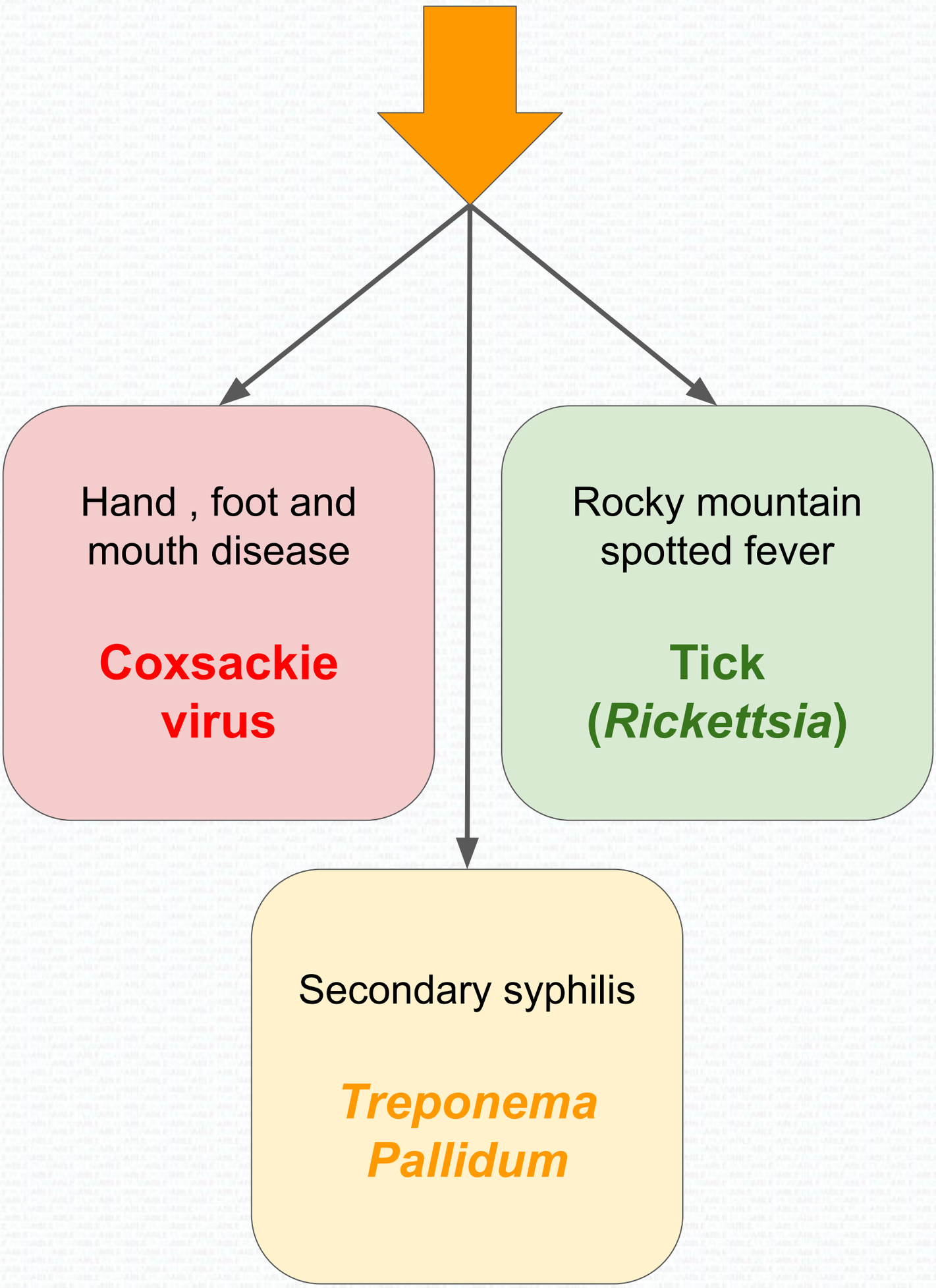
Genital herpes

Brain trainer:

You suspect a patient has genital herpes but PCR and viral culture are negative. What is the most appropriate investigation to make a diagnosis ?

➔ **Anti-HSV antibodies**

Rash in Palms & Soles



Syphilis

- Sexually transmitted
- Caused by *Treponema pallidum*

Primary stage:

- **Chancre** - **single painless** genital ulcer at site of sexual contact + lymphadenopathy

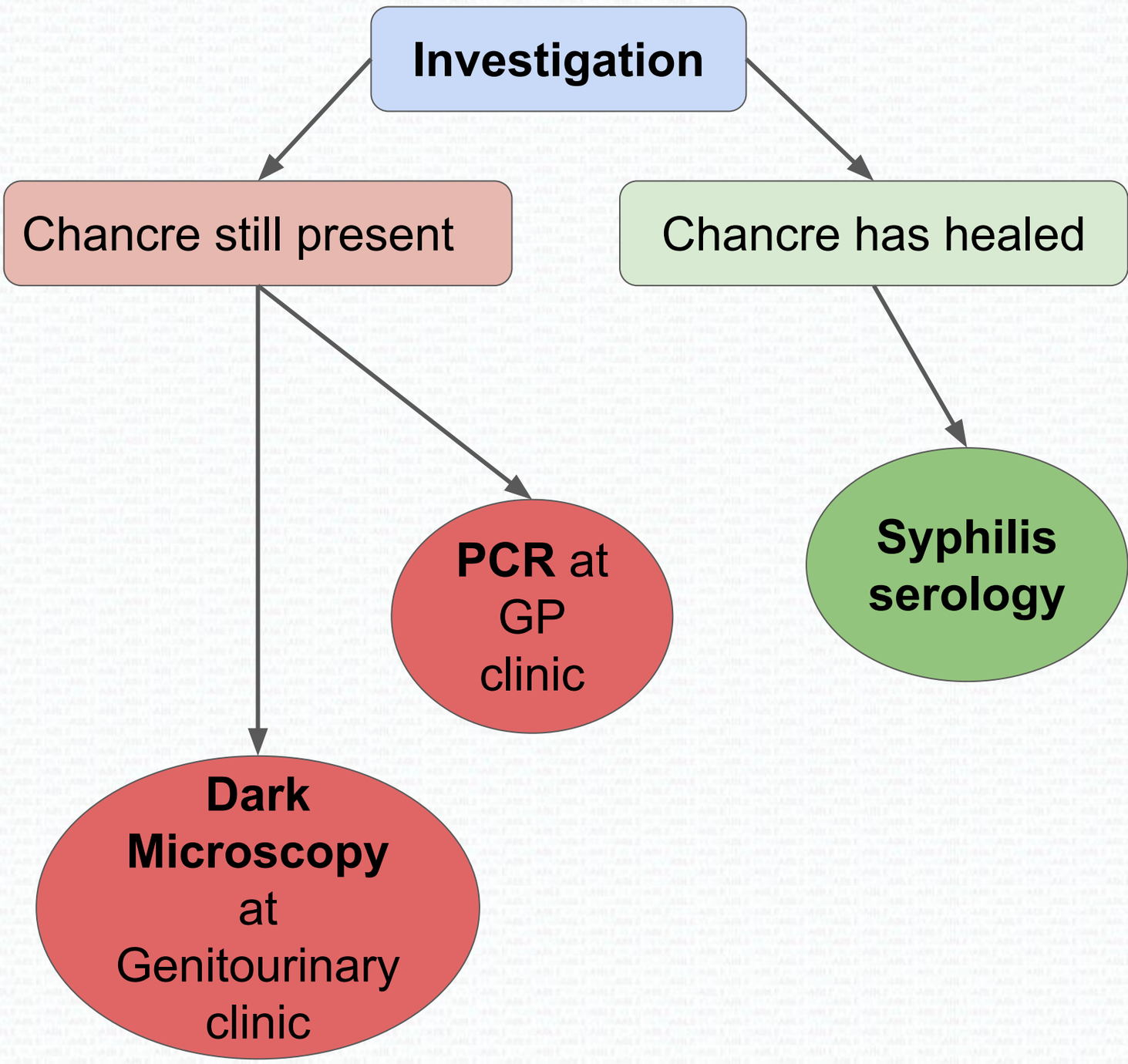
Secondary stage - 6 weeks after chancre appears:

- Fever, lymphadenopathy, malaise (**systemic symptoms**)
- **Rash** on soles, palms and face
- **Condyloma lata**

Tertiary stage - if remain untreated for long time:

- **Gummas** (granulomatous lesions commonly affected skin and bones)
- **Cardiovascular syphilis** (ascending aorta-aneurysm / AR)
- **Neurological syphilis** (dementia / tabes dorsalis)

Syphilis



Syphilis

Brain trainer:

A man has ulcers in his mouth and you suspect syphilis. What is the most appropriate investigation to make a diagnosis ?

➔ **Swab of mouth ulcer for PCR**

Men Sleep with Men (MSM)

Top

Bottom

Has ‘insertive’ sexual intercourse
i.e. inserting penis

Has ‘receptive’ sexual intercourse
i.e. receiving penis

Investigation methods

1. Urethral swab
2. First void urine

First 20 ml of urine for microscopy, culture

1. Rectal Swab

Nucleic-acid amplification test (NAAT) is needed for Chlamydia, Gonorrhea screening

Men Sleep with Men (MSM)

All MSM need screening for HIV, hepatitis B, chlamydia and *N. gonorrhoeae*

Receptive anal sex has a higher risk of getting HIV compare to insertive

Image Attributions

https://commons.wikimedia.org/wiki/File:Sexual_orientation_-_4_symbols.svg
Martin Strachoň CC-BY SA 3.0

https://en.wikipedia.org/wiki/McDonald%27s#/media/File:McDonald'sshadow.svg
McDonald's Corporation Public domain

https://commons.wikimedia.org/wiki/File:Gynecology_-_(1918)_(14793240523).jpg
Internet Archive Book Images Public domain

https://www.flaticon.com/free-icon/contract_684930
This icon has been designed using resources from Flaticon.com