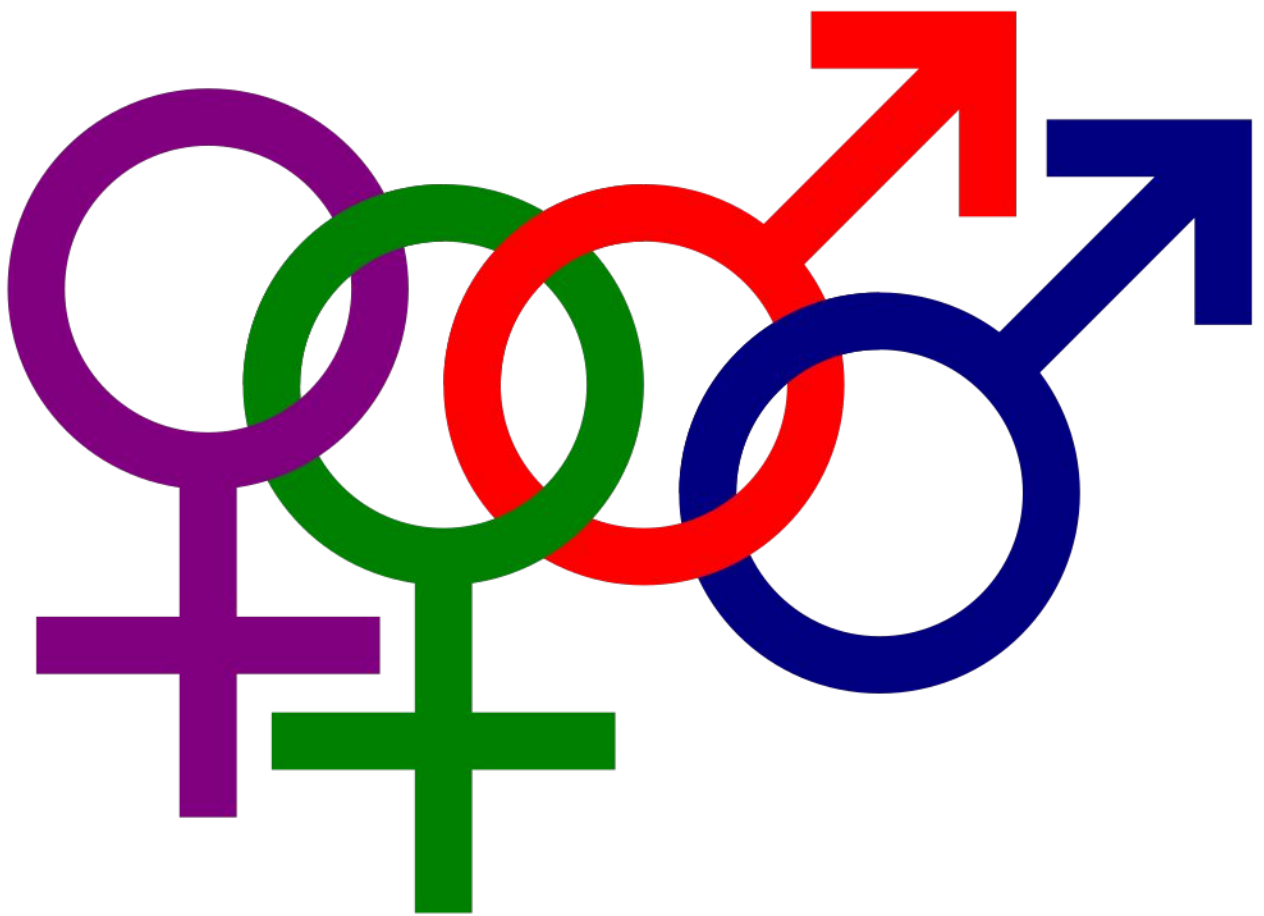


# PLABABLE

GEMS 

VERSION 2.2

## GENITOURINARY MEDICINE



# Gynae Swabs

**REMEMBER THESE TWO SWABS FOR SYMPTOMATIC WOMAN**



**HVS in charcoal medium**



**Sent for culture**



Microscopy may also be done in sexual health clinic:

- Dry mount - Thrush, BV
- Wet mount - Trichomonas



**Vulvovaginal swab for NAATs**



**Sent for PCR for chlamydia and gonorrhoea**



# Gynae Swabs



Vulvovaginal swab for NAATs

Sent for PCR for chlamydia and gonorrhoea

If chlamydia positive,  
treat

If gonorrhoea positive,  
take an additional swab  
for culture before  
treating

A high vaginal swab and  
an endocervical swab  
separately (these two  
samples are put into  
charcoal medium  
separate and sent to the  
lab for culture)

Why does gonorrhoea  
need to be cultured?  
Because of the growing  
resistance of  
gonorrhoea to antibiotics

# Gynae Swabs

## Good tips

**Most sensitive test for chlamydia and gonorrhoea**



**Vulvo-vaginal sample sent for NAAT (*Pick NAAT over culture*)**

**Asymptomatic women**



**Self-taken vulvovaginal swab**

**Symptomatic women**



**Clinician-taken swabs**

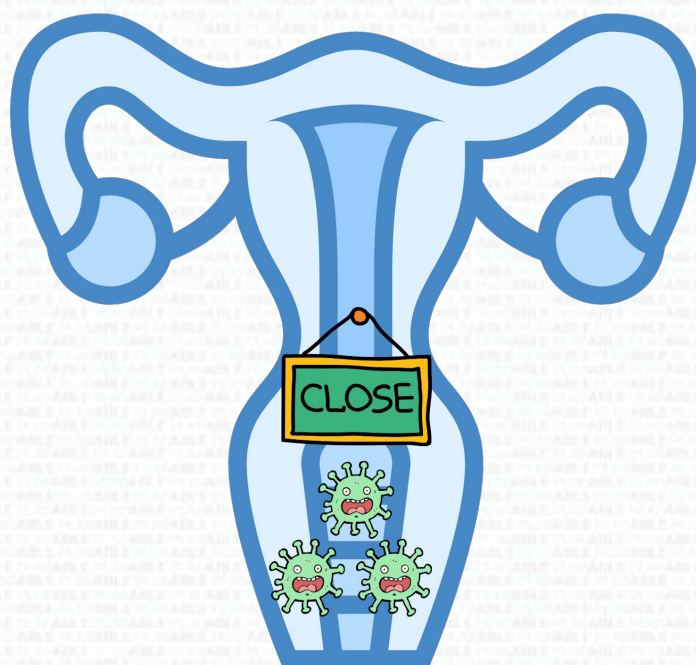


# Cervicitis

Cervicitis presents with vaginal discharge, that does not ascend upwards to pelvis, hence no pelvic pain

## Treatment

- ***N. gonorrhoeae*** - IM ceftriaxone 1g single dose or oral ciprofloxacin 500mg single dose
- ***C. trachomatis*** - oral doxycycline 100 mg BD for 7 days (contraindicated in pregnancy) or  
Day 1: Oral azithromycin 1g OD +  
Day 2&3: Oral azithromycin 500mg OD



# Cervicitis

Chlamydia

**D C B A**

**Doxycycline**

comes

**Azithromycin**

before

100mg BD for  
7 days

1g single dose  
+  
500mg OD x 2  
days

Azithromycin  
in pregnancy

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





# Cervicitis

*Neisseria gonorrhoeae*

C or C

Ceftriaxone

Ciprofloxacin

(When sensitivity is known)



1 gram IM  
injection  
single dose



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**

**Hints**

**New sexual partner** could be a cause of chlamydia



# Pelvic Inflammatory Disease (PID)

**Metronidazole**

400mg BD x 14 days

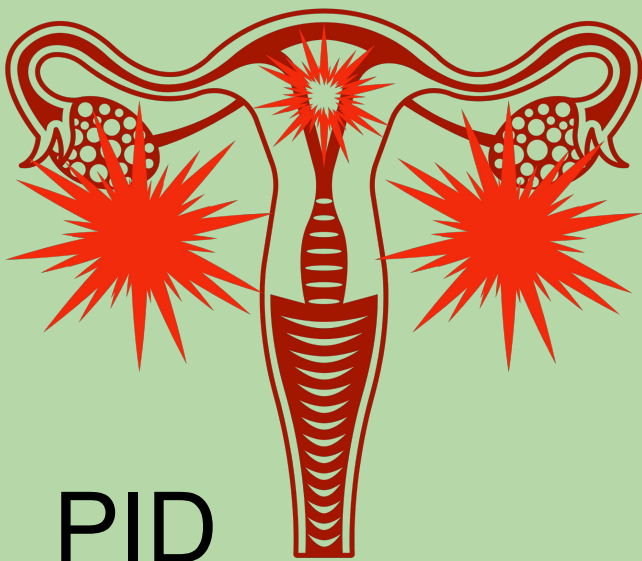


**Ceftriaxone**

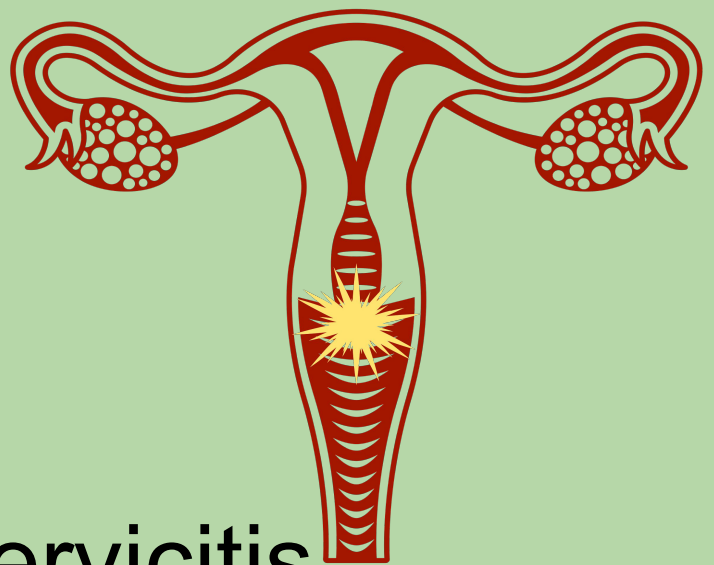
1 gram IM Single dose

**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 Infections

## Trichomoniasis (*Trichomonas vaginalis*)

- Frothy, **offensive** smelly **yellowish-greenish** discharge (also sometimes described as **fishy** smell)
- Vaginal itching
- **Strawberry** cervix
- Vaginal pH >4.5

**Treatment → Oral metronidazole**

## Bacterial Vaginosis (*Gardnerella vaginalis*)

- Thin, **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

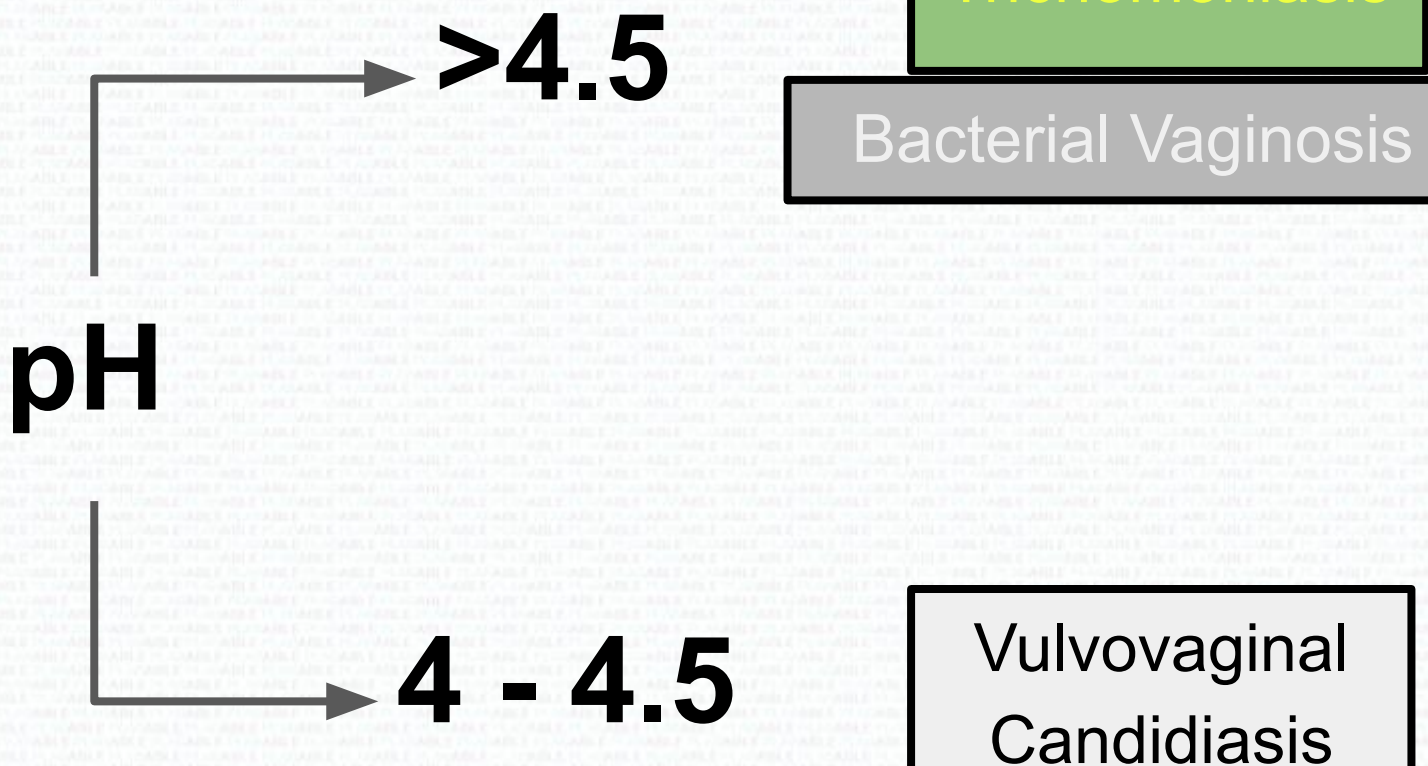
- Thick white (**cheese-like**) discharge
- Odourless
- Vaginal itching
- Vaginal pH 4-4.5

**Treatment → Topical clotrimazole or oral fluconazole**



# Vaginal Infections

We are going one step further to help you remember



The normal vaginal pH in a woman of child-bearing age is 3.5 to 4.5

Memory tool

Coke in a **CAN** is acidic very much like **CAN**didiasis



We have coloured the boxes to help you remember:

Trichomoniasis → Yellowish green discharge

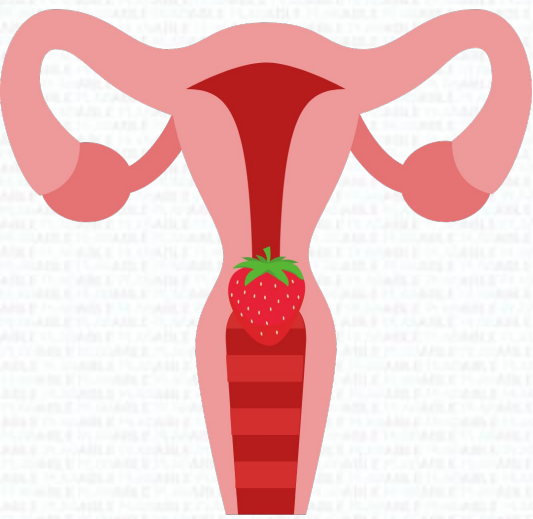
Bacterial Vaginosis → Grey-white discharge

Vulvovaginal candidiasis → White discharge

# Vaginal Infections

We are going one step further to help you remember

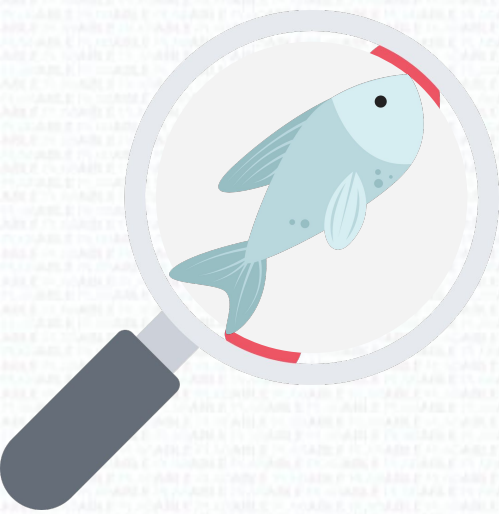
## Trichomoniasis



Strawberry cervix

*Also remember  
vulvovaginitis*

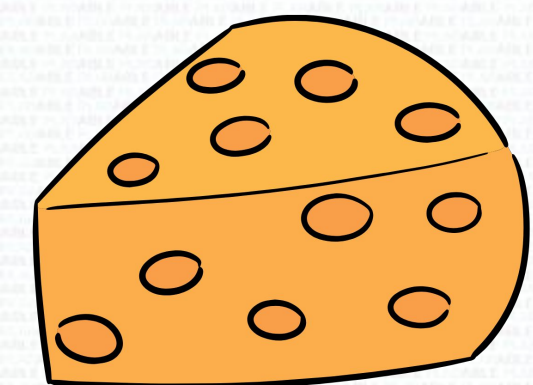
## Bacterial Vaginosis



Fishy smell →  
Clue cells

Note:  
Trichomoniasis  
can sometimes  
be described  
as fishy smell  
too

## Vulvovaginal Candidiasis



Cottage cheese



# Vaginal Infections

We are going one step further to help you remember

Trichomoniasis

Frothy



Bacterial Vaginosis

Thin



Vulvovaginal Candidiasis

Thick



# Vaginal Infections

When comparing trichomoniasis and bacterial vaginosis, also look for this BIG CLUE:

→ **Vulvovaginitis**

## Trichomoniasis

- Has an **inflammatory** process so vulvovaginitis is one of the signs found in trichomoniasis.
- Vaginal itching, pain, irritation and soreness are **mostly** present.

## Bacterial Vaginosis

- Has an **NON-inflammatory** process so vulvovaginitis is NOT one of the signs normally found in bacterial vaginosis
- Vaginal itching, pain, irritation and soreness are **rarely** present.



# Vaginal Infections

## Brain trainers:

A 30 year old woman present with very strong foul smelling vaginal discharge. The discharge is thin?

→ ***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 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 the most common cause of abnormal vaginal discharge in child-bearing age)
- Bacterial vaginosis is not sexually transmitted (*but incidence increases with women who are more sexually active*)
- Trichomoniasis has **yellowish-greenish** offensive discharge
- Trichomoniasis can result in vulvovaginitis but bacterial vaginosis rarely causes vulvovaginitis because it is non-inflammatory



# Human Papillomavirus (HPV)

## Features:

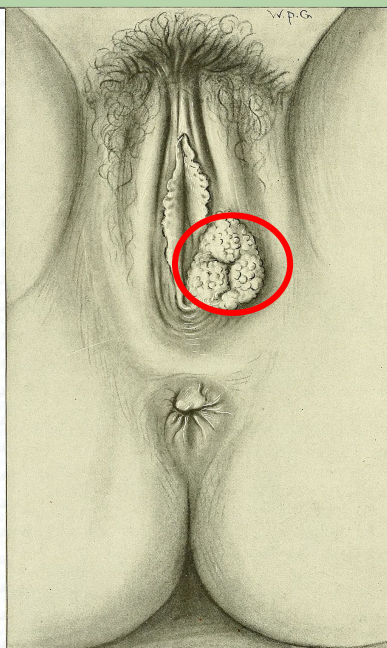
- Sexually transmitted
- HPV **6** and **11** → **Genital warts** (benign cauliflower-like growths)
- Includes **anogenital warts** in both male and female
- HPV **16** and **18** → **Cervical cancers**

## 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**



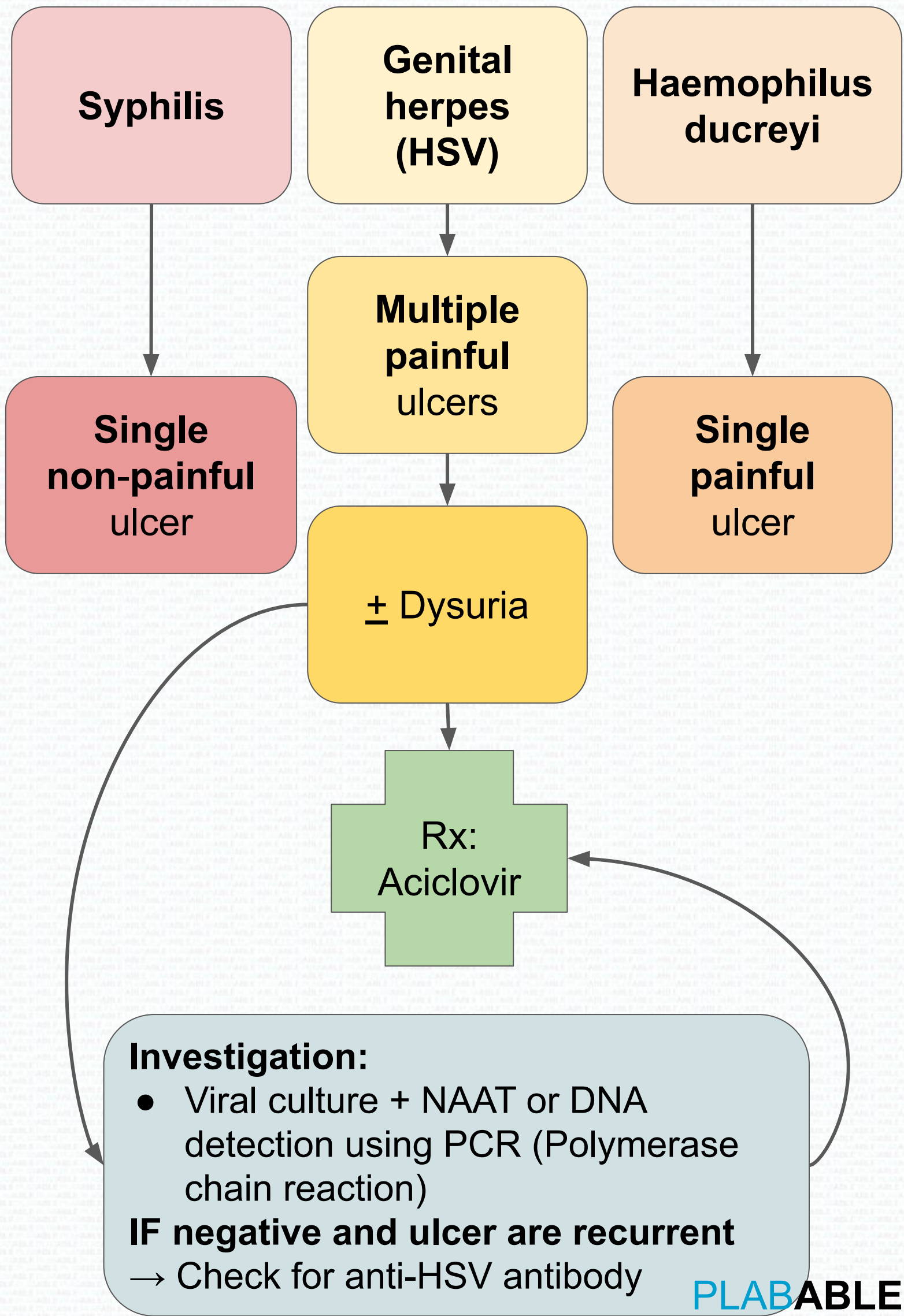
# Genital warts

## 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





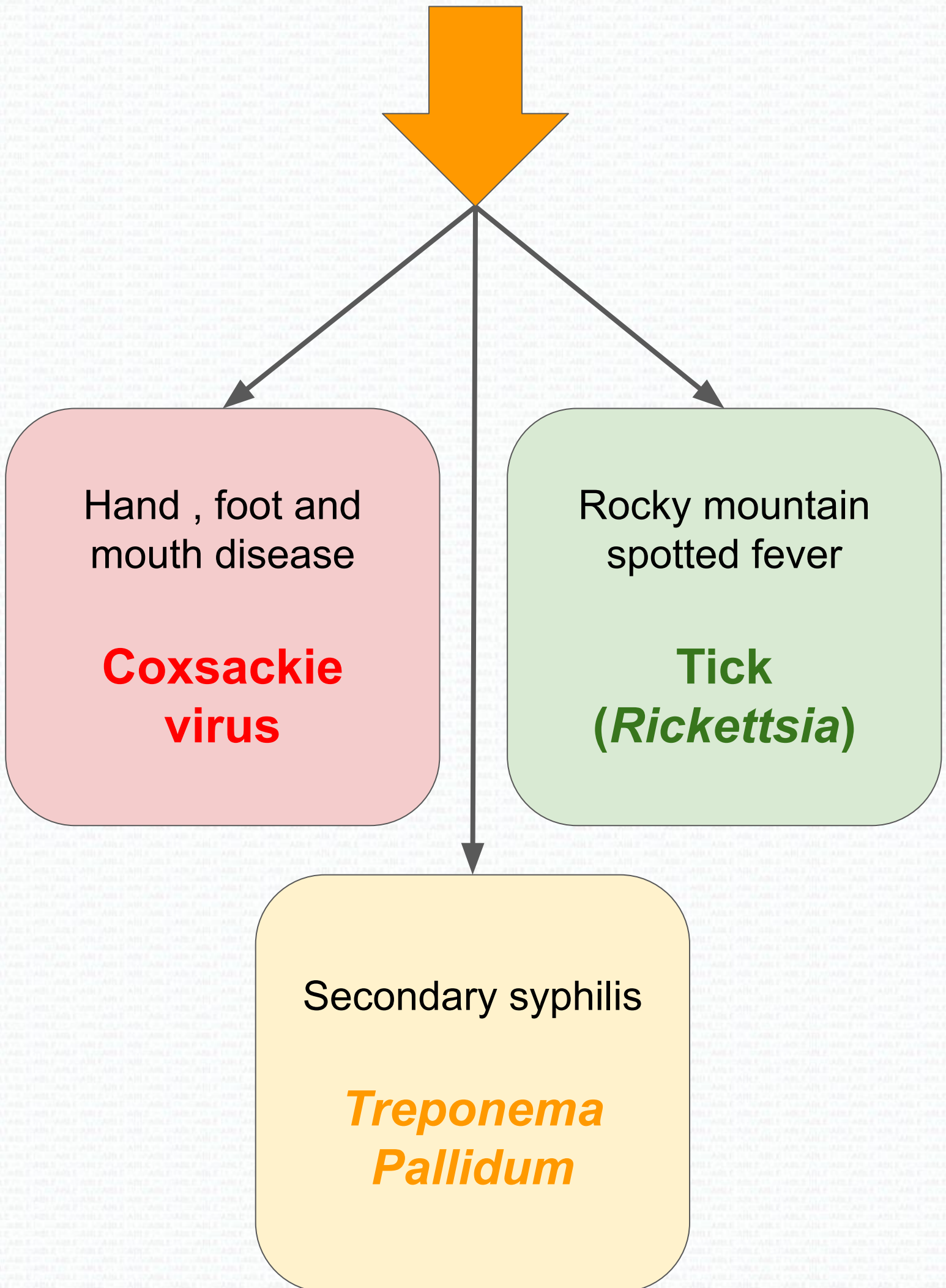
# Genital herpes

## 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

**Investigation**

**Chancre still present**

**Chancre has healed**

**PCR at  
GP  
clinic**

**Syphilis  
serology**

**Dark  
Microscopy  
at  
Genitourinary  
clinic**



# 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)

```
graph TD; Top[Top] --> TopBox[Has 'insertive' sexual intercourse i.e. inserting penis]; Bottom[Bottom] --> BottomBox[Has 'receptive' sexual intercourse i.e. receiving anus]; TopBox --> TopMethods[1. Urethral swab<br/>2. First void urine<br/>First 20 ml of urine for microscopy, culture]; BottomBox --> BottomMethods[1. Rectal Swab<br/>Nucleic-acid amplification test (NAAT) is needed for Chlamydia, Gonorrhea screening];
```

**Top**

**Bottom**

Has 'insertive' sexual intercourse  
i.e. inserting penis

Has 'receptive' sexual intercourse  
i.e. receiving anus

**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](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](https://commons.wikimedia.org/wiki/File:Gynecology_-__(1918)__(14793240523).jpg)

Internet Archive Book Images Public domain

[https://www.flaticon.com/free-icon/contract\\_684930](https://www.flaticon.com/free-icon/contract_684930)

This icon has been designed using resources from Flaticon.com