# SOIs in general practice

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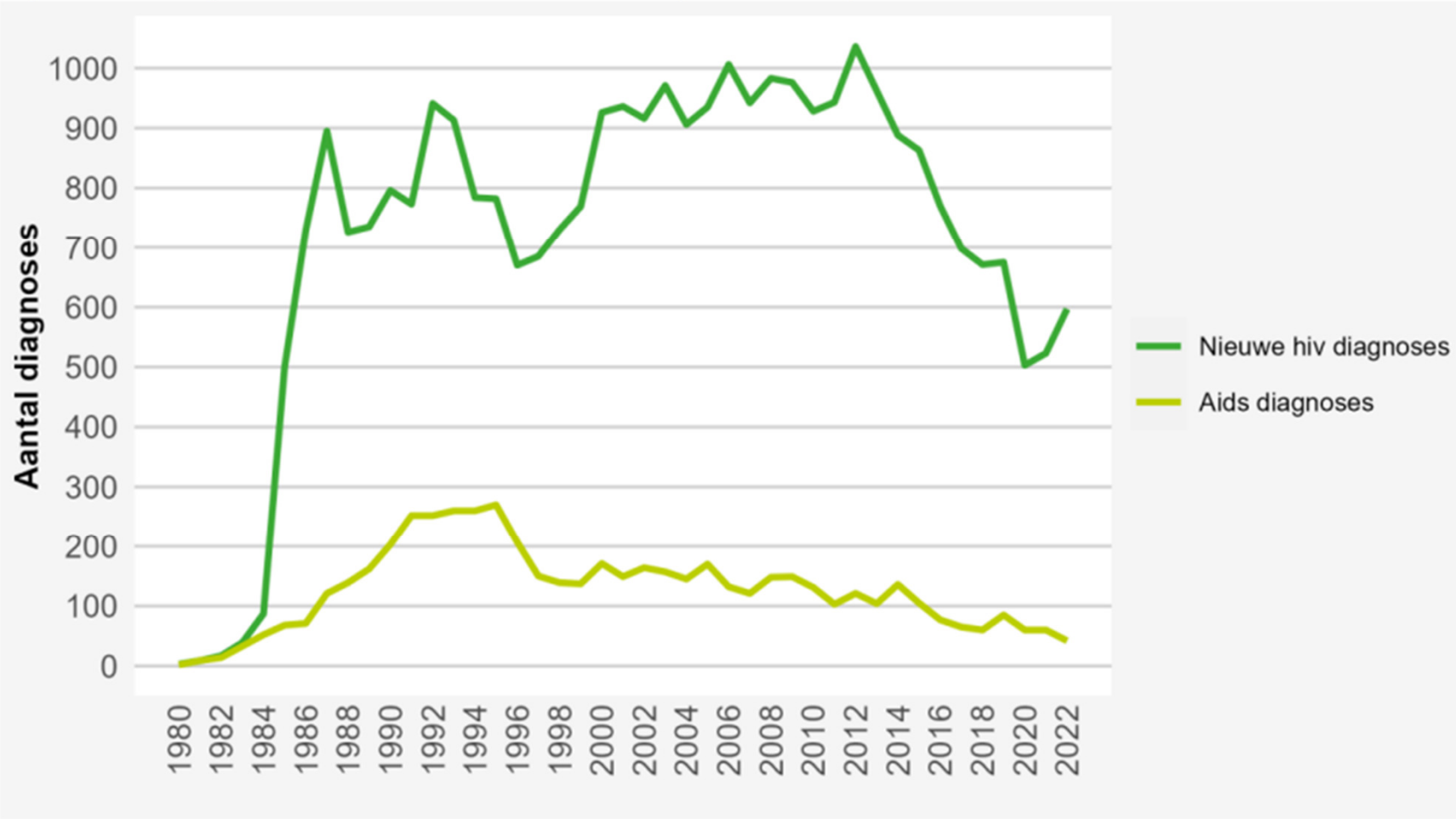
# Overview

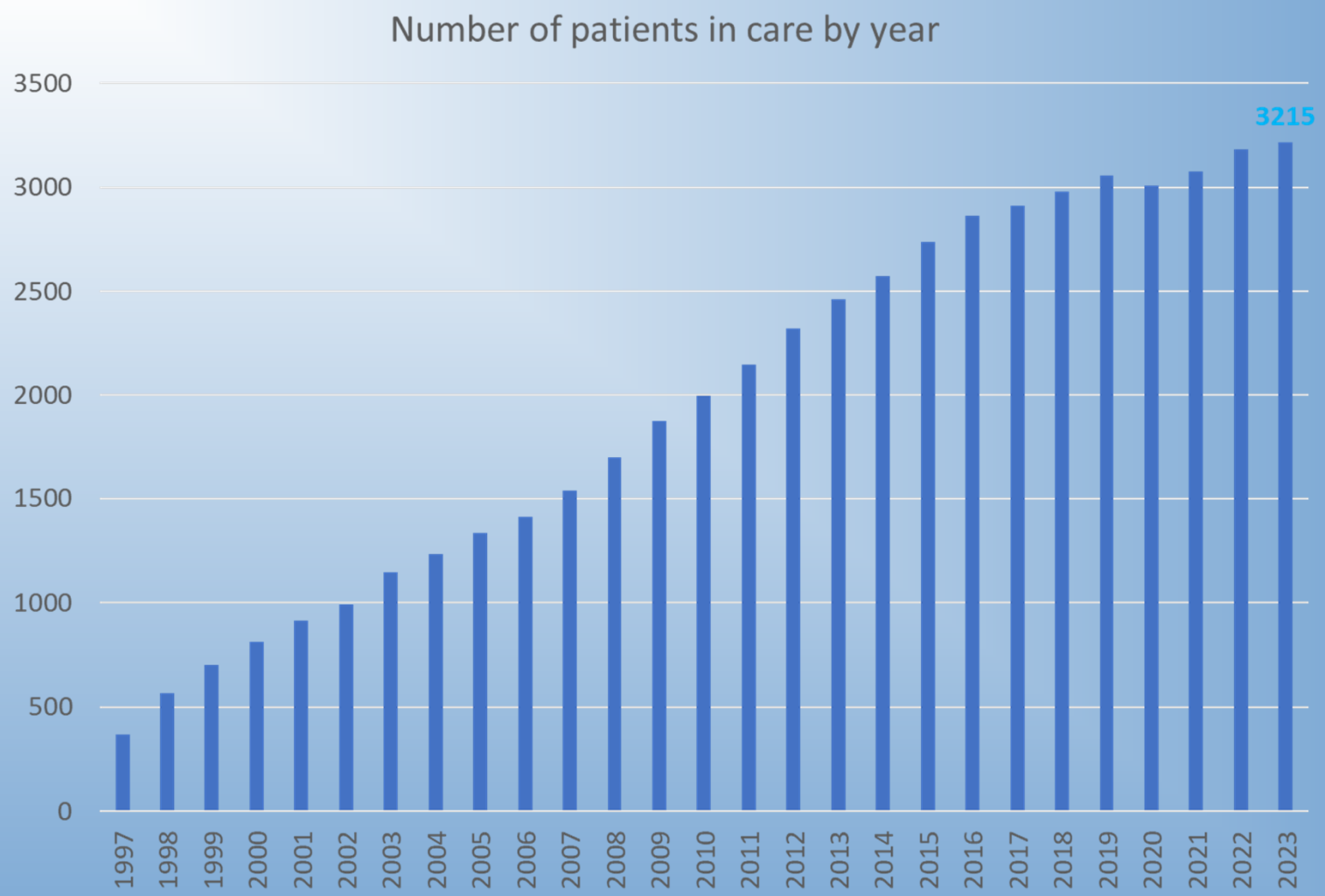
- HIV/AIDS in Belgium
- Our own cohort: incidence and cumulative rates
- Other STIs
- PEP and PrEP
- Resistance
- 'New' infections
- Conclusion / Challenges
- Discussion

# New HIV diagnoses per year Belgium 1985 - 2022

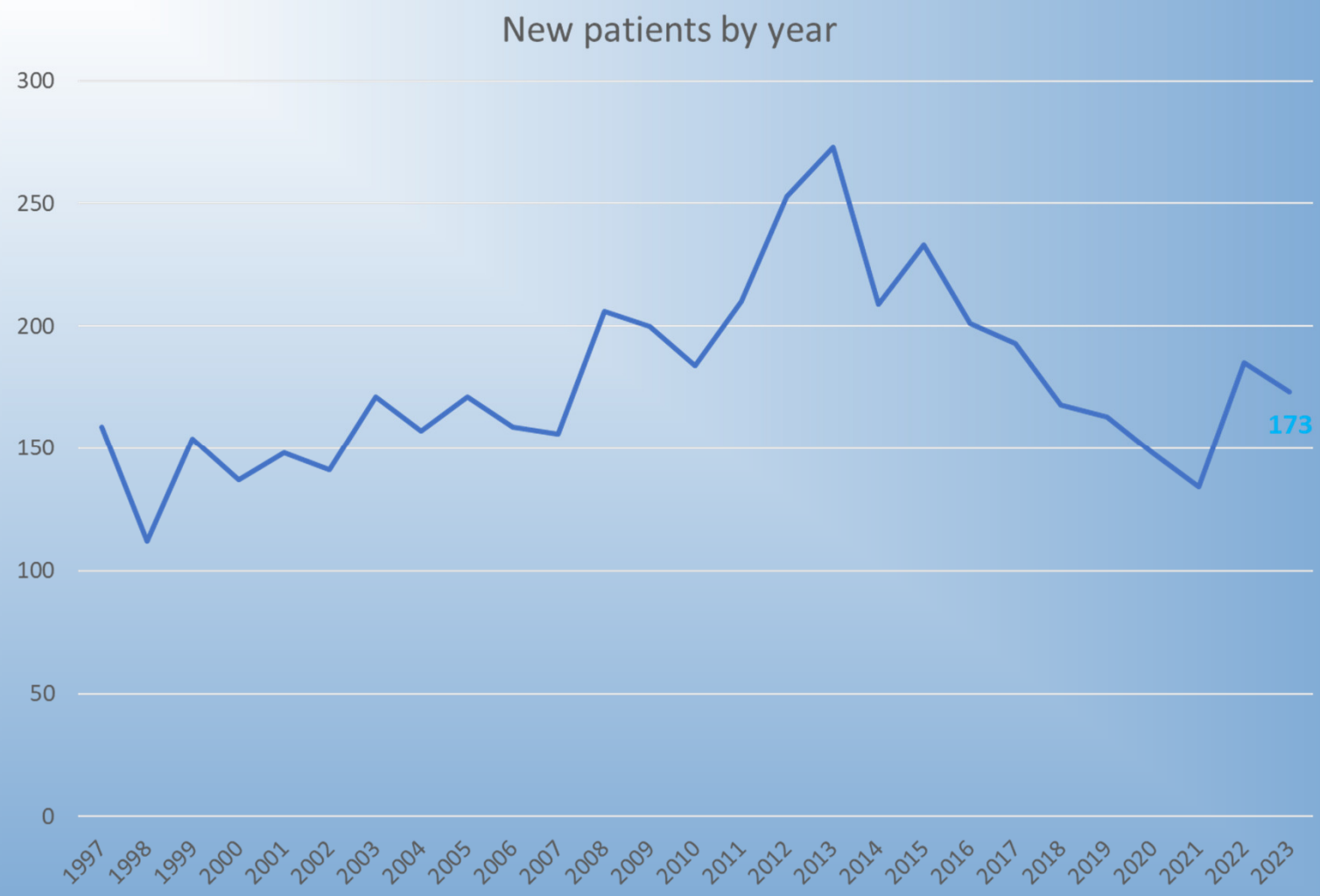
Figuur 1: Jaarlijks aantal nieuwe hiv en aids-diagnoses, België, 1980-2022



# Total number of patients followed in the HIV clinic at the ITG



# Number of new HIV patients/year, seen in the ITG



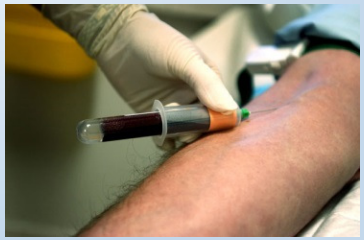
# Epidemiology of HIV

- Significant decrease in incidence of new HIV infections
- MSM remains top risk group in Belgium
- Trend towards younger age groups in Belgium
- Increasing risk behaviour
- Declining mortality rate: HIV as a chronic infection
- Role of: 'the first line'

# Detection: testing!

**Blood samples**

- 'Full' blood



- Peripheral blood (finger prick)

- Dried blood spot

**Saliva samples**

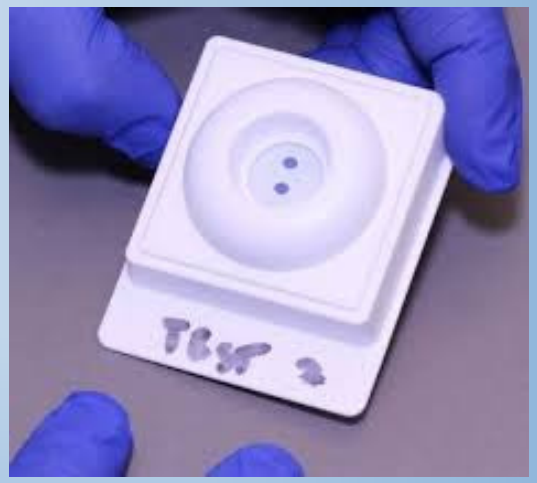
- 'Oral fluid'

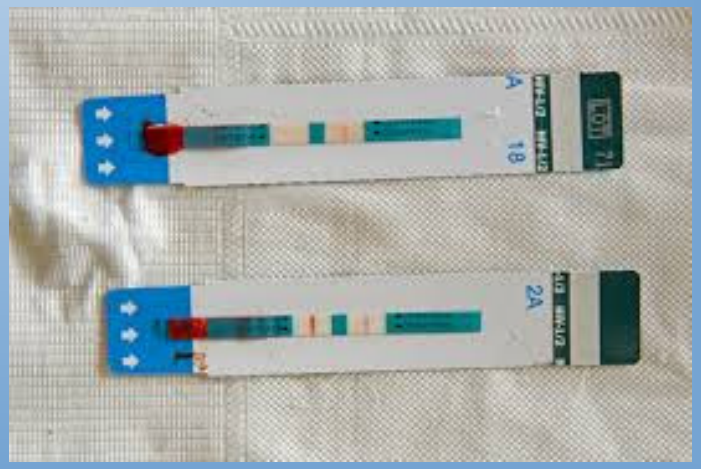


# Testing

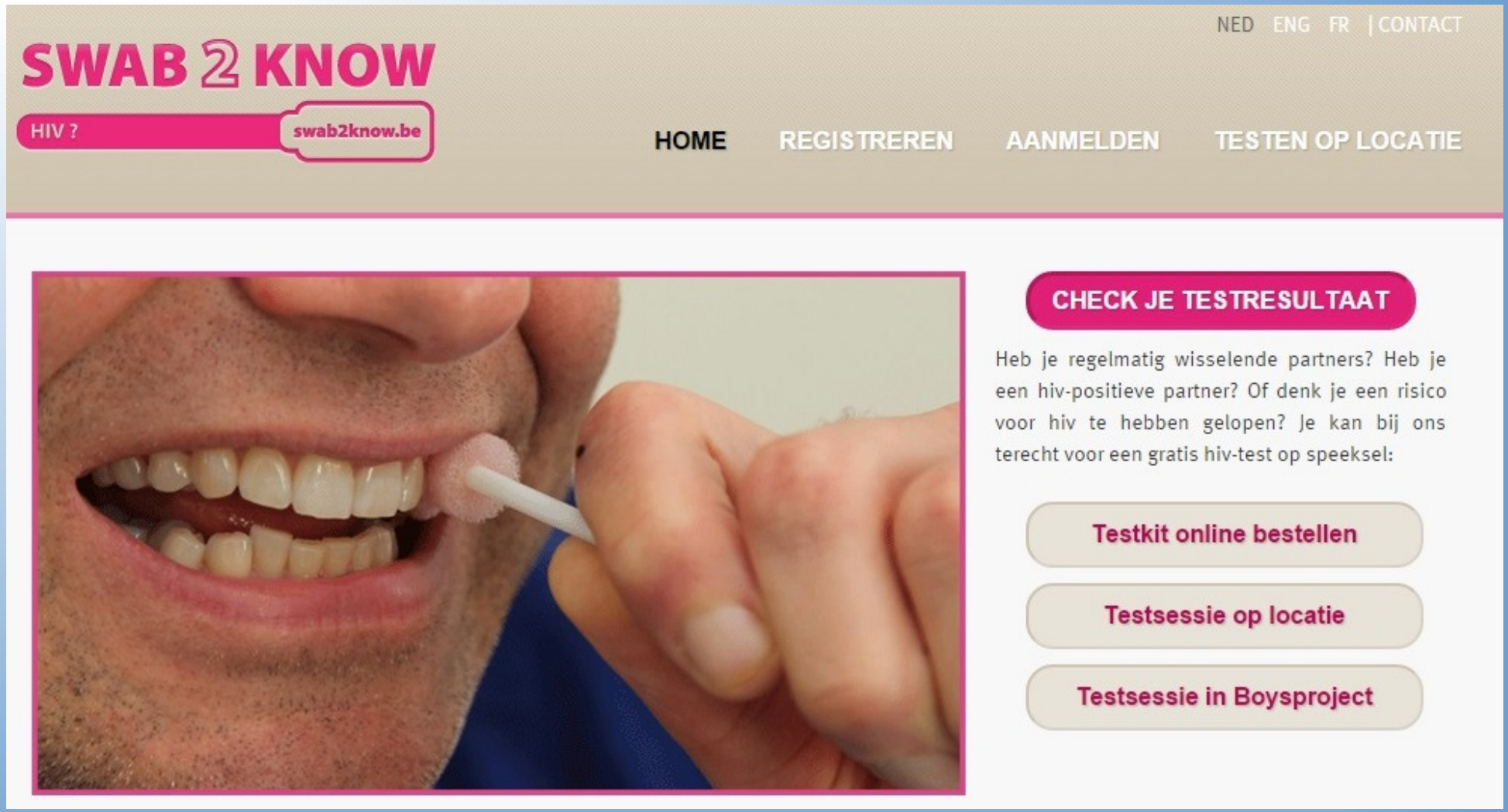
## Test in the laboratory

## Quick test





# New testing strategies…



# Self-testing, self-sampling, ...?

- Only use validated tests, or know the properties: low prevalence - > high probability of false positive result!
- Testing platforms: avoiding useless screening
  - Mycoplasma genitalium
  - Trichomonas hominis
- No empirical treatment!

# HIV: an evolving condition: no longer fatal, less complex, less 'medical'

- Psycho-social support comes more to the fore, rather than medical care
- Treatment anno 2024: more than 90% of patients are stable with one pill/day, e.g:
  - Triumeq® (dolutegravir/abacavir/lamivudine)
    - Food-independent, easily combined with other medications
  - Dovato® (dolutegravir/lamivudine)
  - Biktarvy® (bictegravir/emtricitabine/tenofovir alafenamide).
  - Delstrigo® (doravirine/emtricitabine/tenofovir alafenamide).
    - Food-independent, good lipid profile

- Injectables! One injection vocabria®/rekambys® IM every two months.
  - For patients with poor oral compliance
  - Less (self) stigma
  - Side effects not dangerous but annoying (pain at injection site)
  - Compliance as crucial as oral therapy: every two months +/- one week maximum

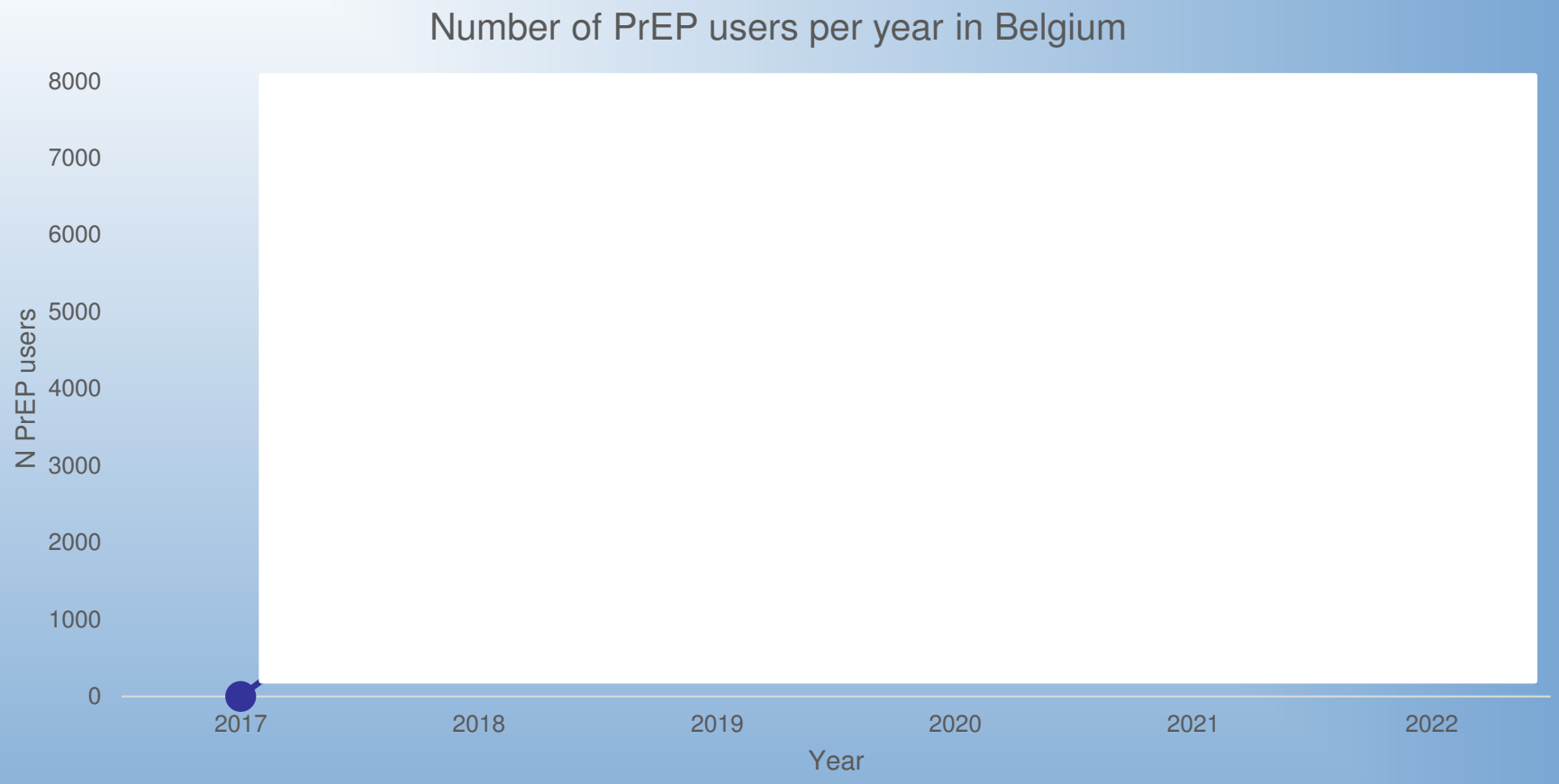
- Crucial in treatment: compliance! 'Once daily' means every 24h +/- 1h maximum
- Main reason for therapy failure = poor adherence NOT resistant virus!
- Role of the GP!
- Looking up interactions?
  - www.hiv-druginteractions.com
  - Phone to the ITM

# 'Pathway to cure'?

- Currently: life expectancy HIV-P = life expectancy general population given lifelong medication
- Undetectable = no longer infectious
- 'PEP': post-exposure prophylaxis
- 'PrEP': pre-exposure prophylaxis (truvada®)
- 'Cure' = only when HIV reservoir can be eradicated

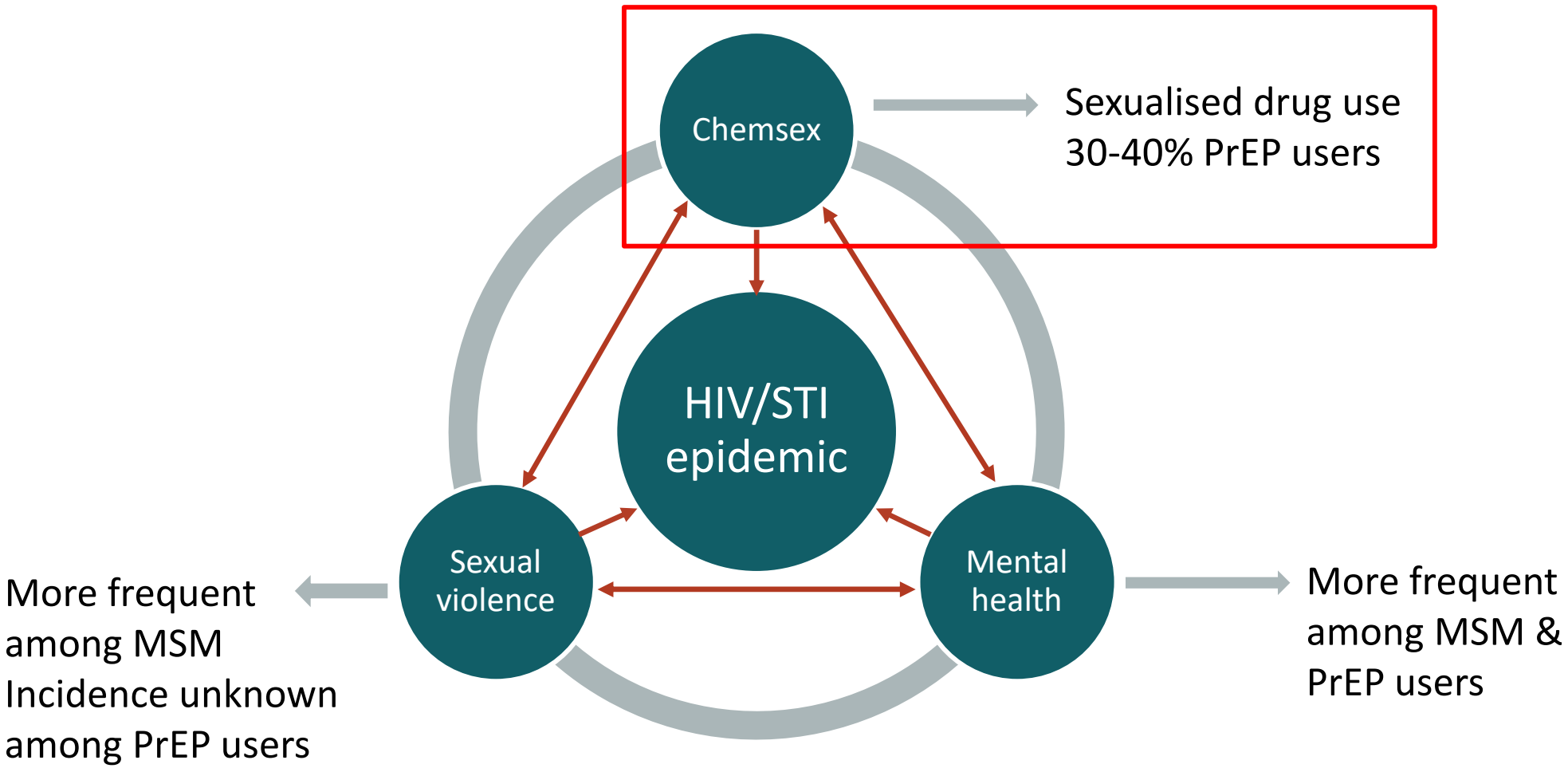
# PEP and PrEP: forms of 'medical prevention'

- PEP: start within 72h *of* risk contact
  - Only in recognised HIV reference centres (start via emergency!)
  - Free, but only for sexual risk
  - One-month delstrigo®, strict procedure in terms of testing before and after
- PrEP: chemoprophylaxis *for* high-risk contact: truvada®
  - Every day for frequent high-risk behaviour
  - Intermittent: 2 pills, minimum 2h, maximum 12h before risk contact
  - Followed by 1 pill, 24h and 48h after risk contact
  - Regular medical follow-up: HIV/STI testing




Source: Sciensano, 2023

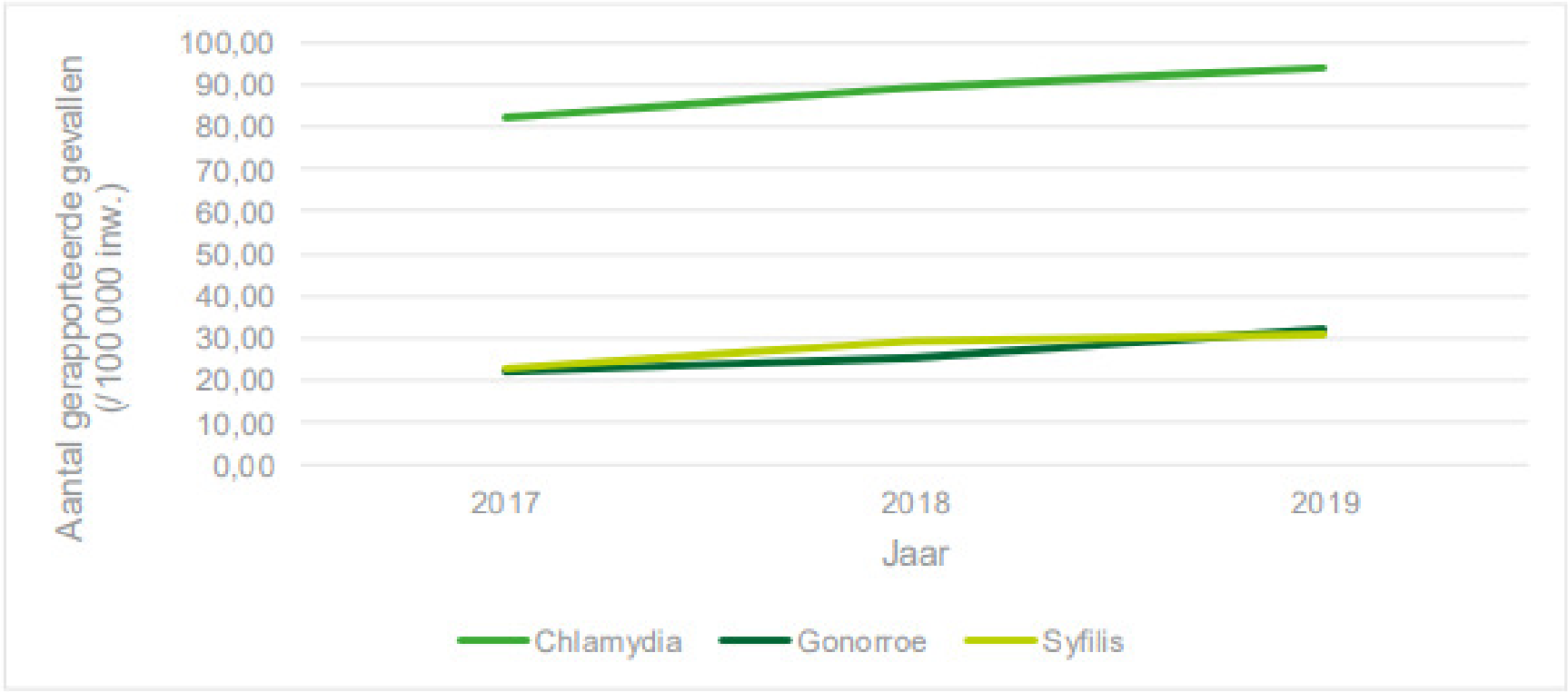
# Syndemic




Source: Nöstlinger et al, 2020; King et al, 2008; Senn et al, 2010; Drückler et al 2021

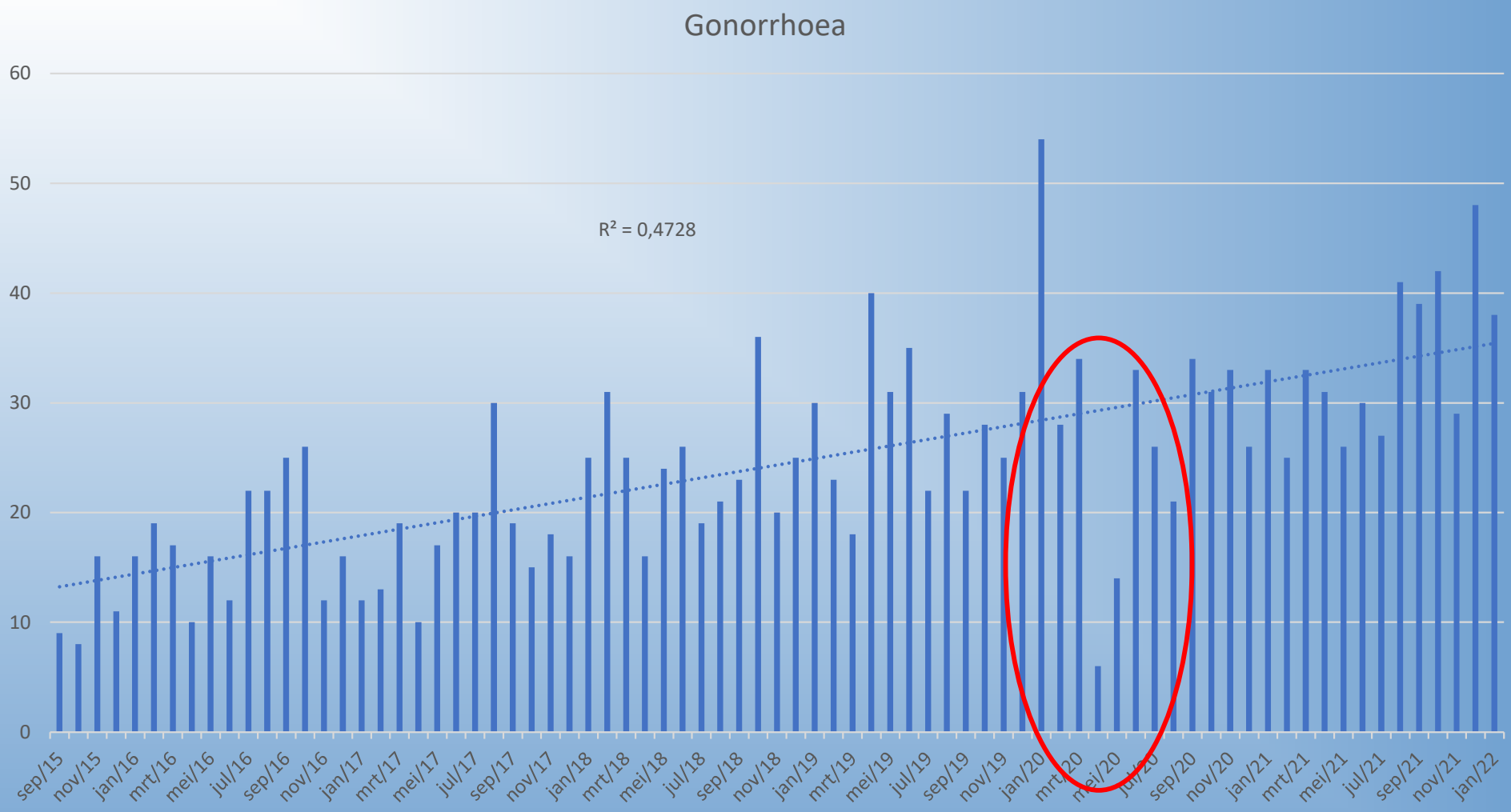
# Other STIs: Chlamydia, gonorrhoea, syphilis: slow but steady increase since 2002

**Figuur 8.** Aantal gerapporteerde gevallen /100 000 inw. van chlamydia, gonorroe en syfilis, Vlaanderen, 2017-2019



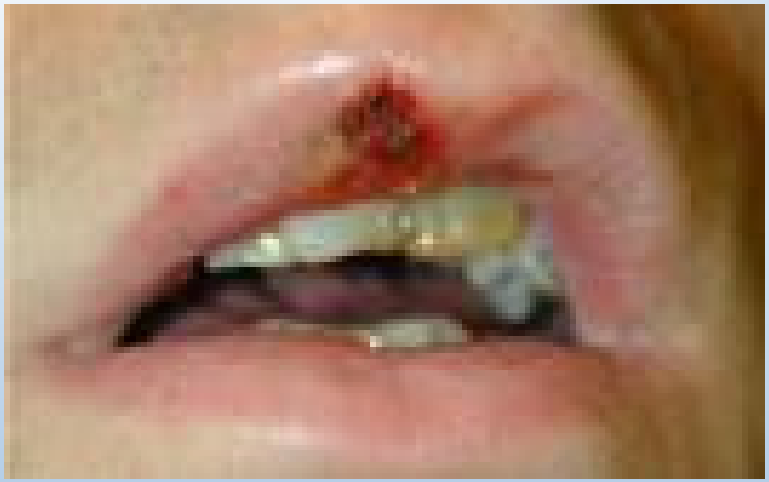

**Bron :** Peillaboratoria voor microbiologie

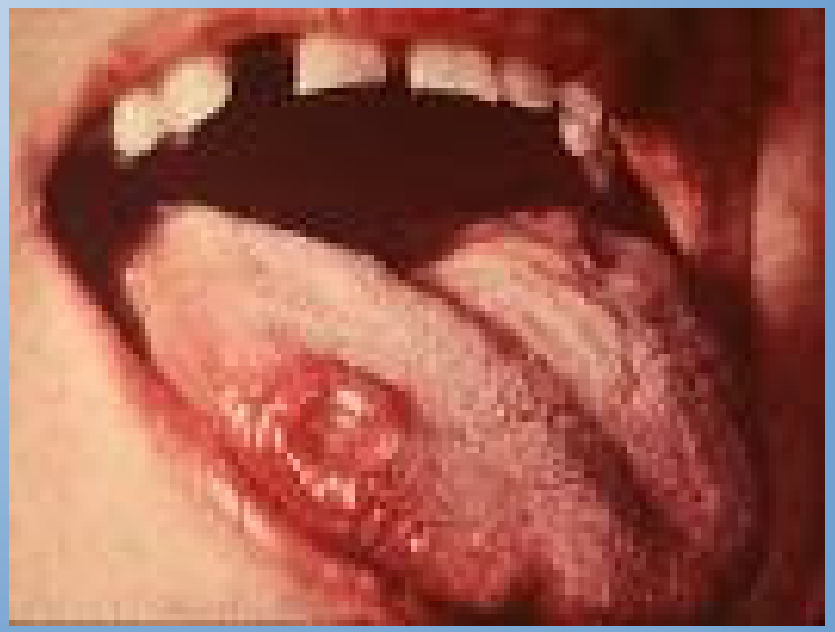
# Figures gonorrhoea ITG STD clinic



# Primary syphilis: 'hard chancre'

# Other localisations...

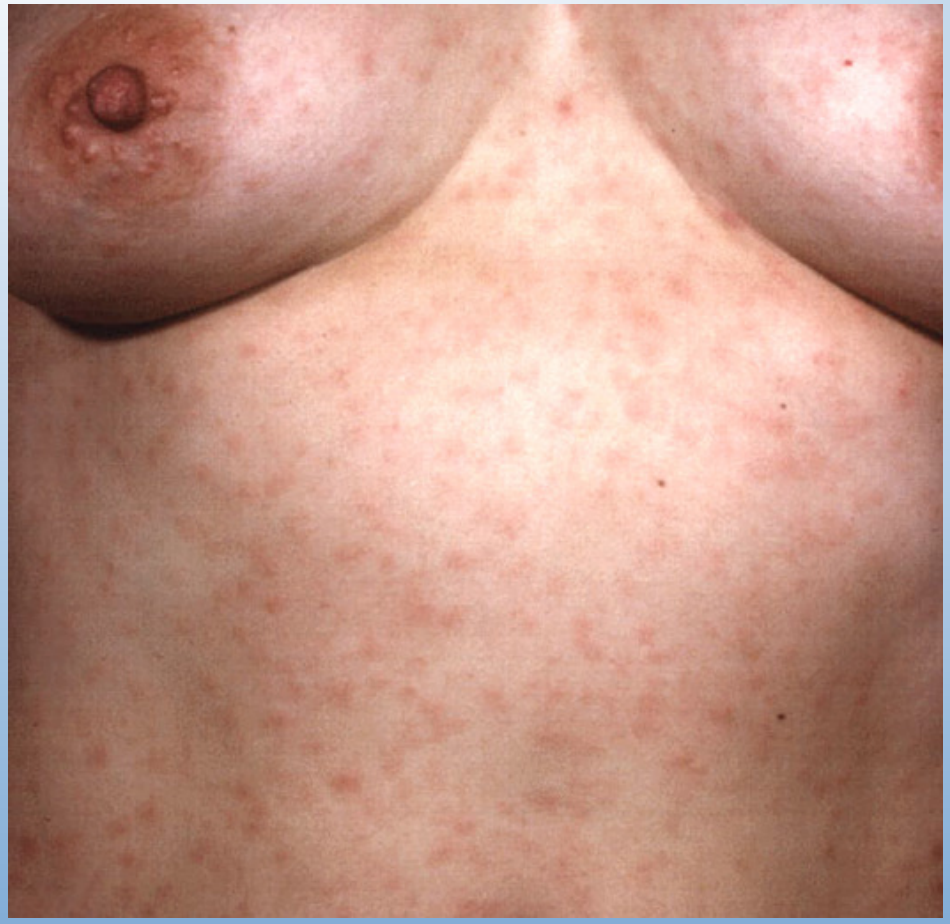


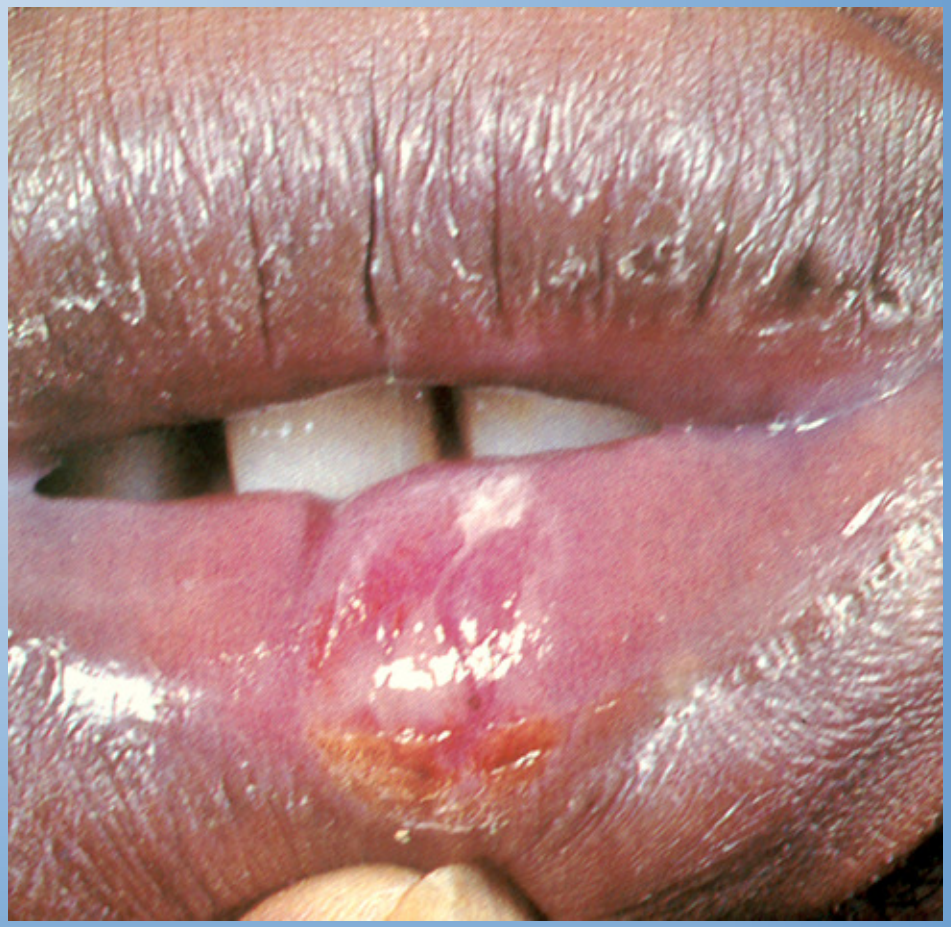


50% of new syphilis cases in France are caused by oral sexual intercourse

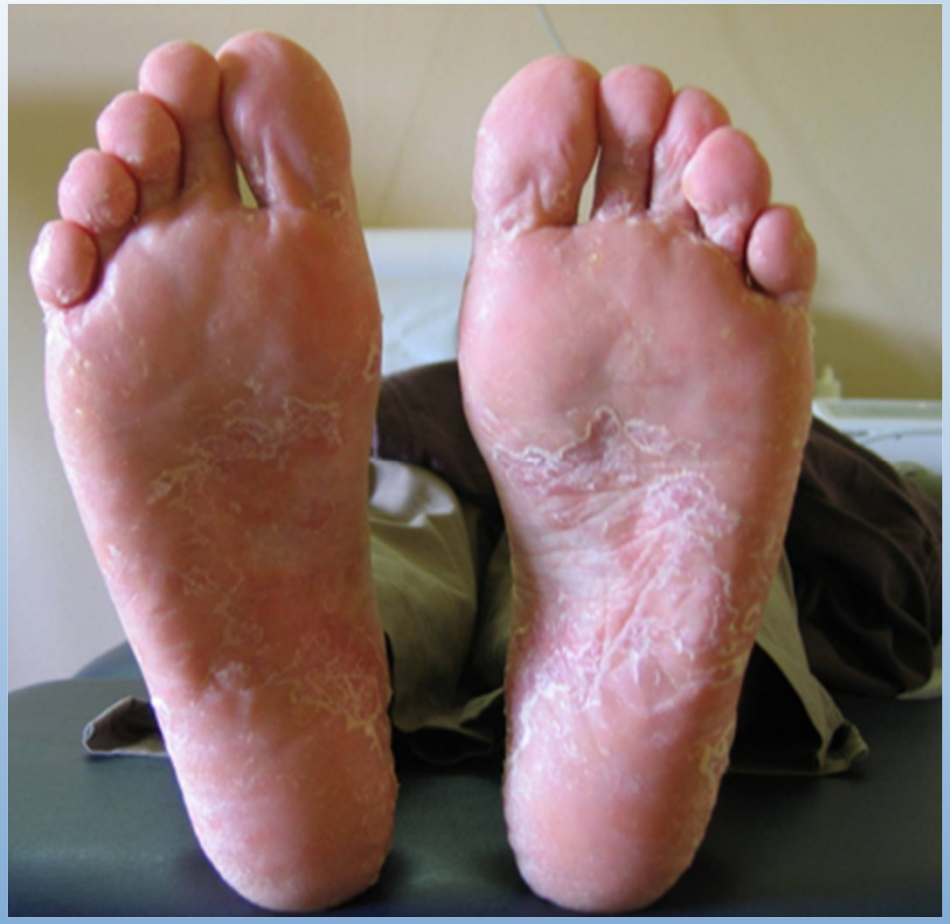
50% of patients are HIV positive

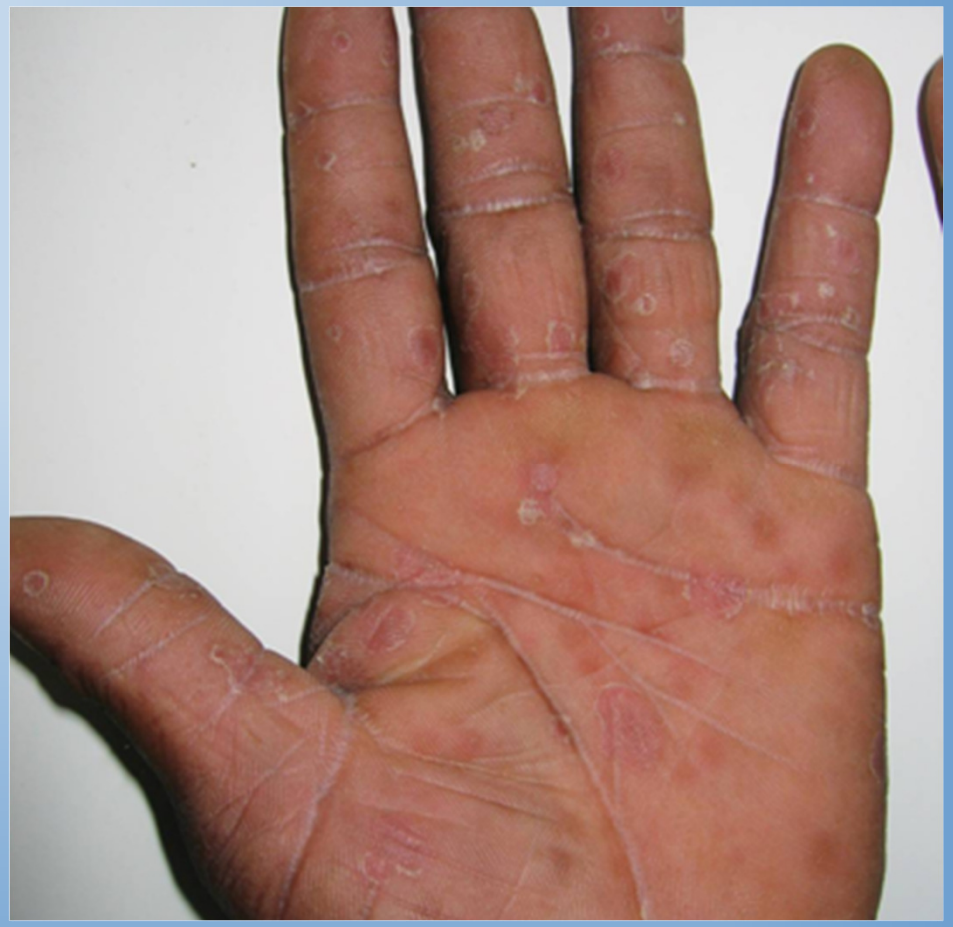
# Primary and secondary syphilis, an often missed diagnosis

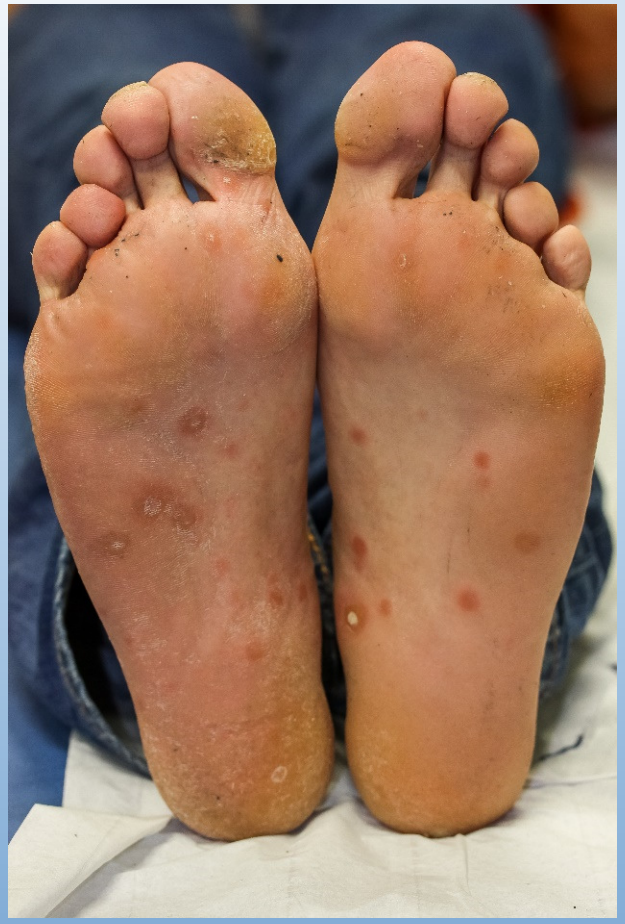


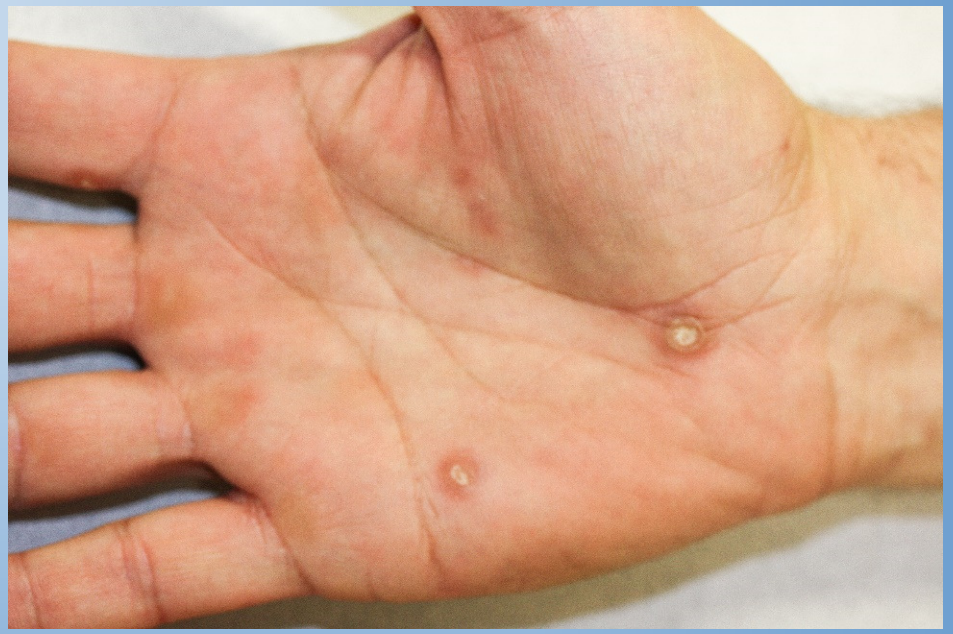


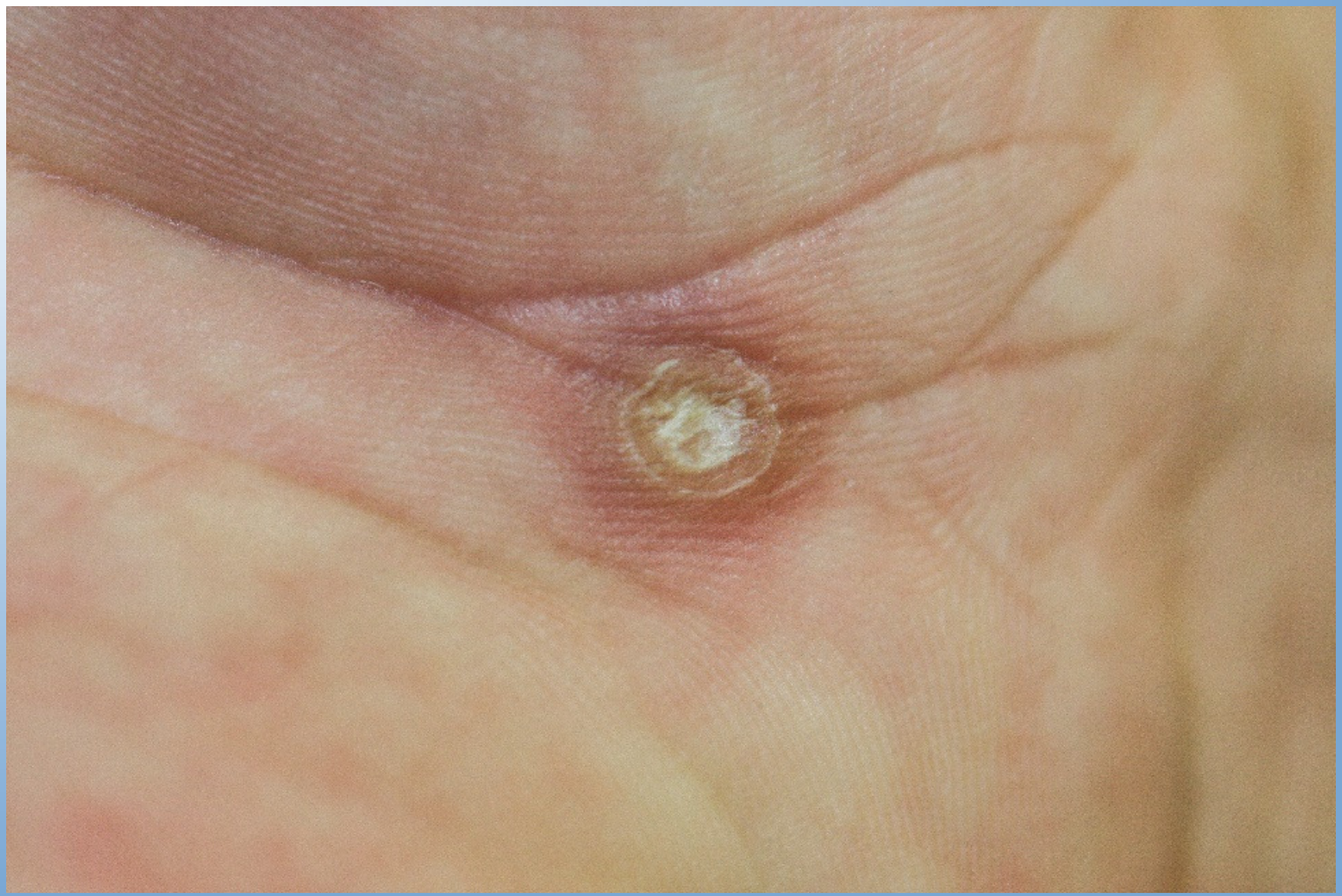
# Secondary Syphilis

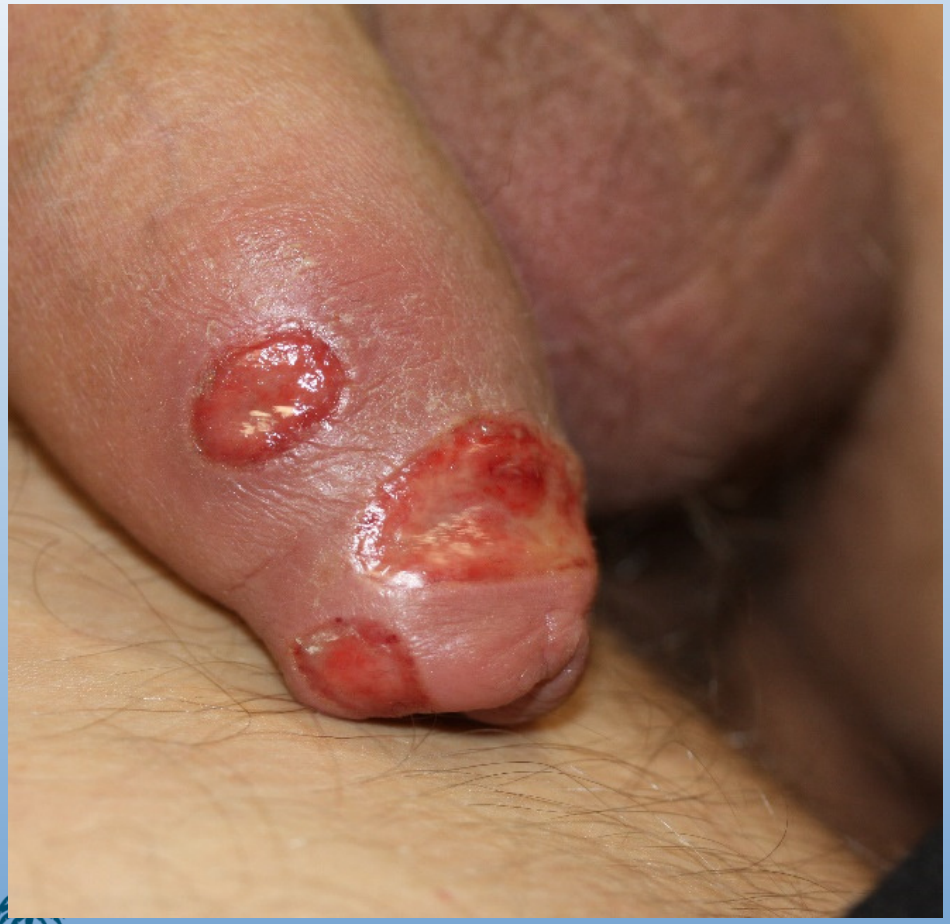


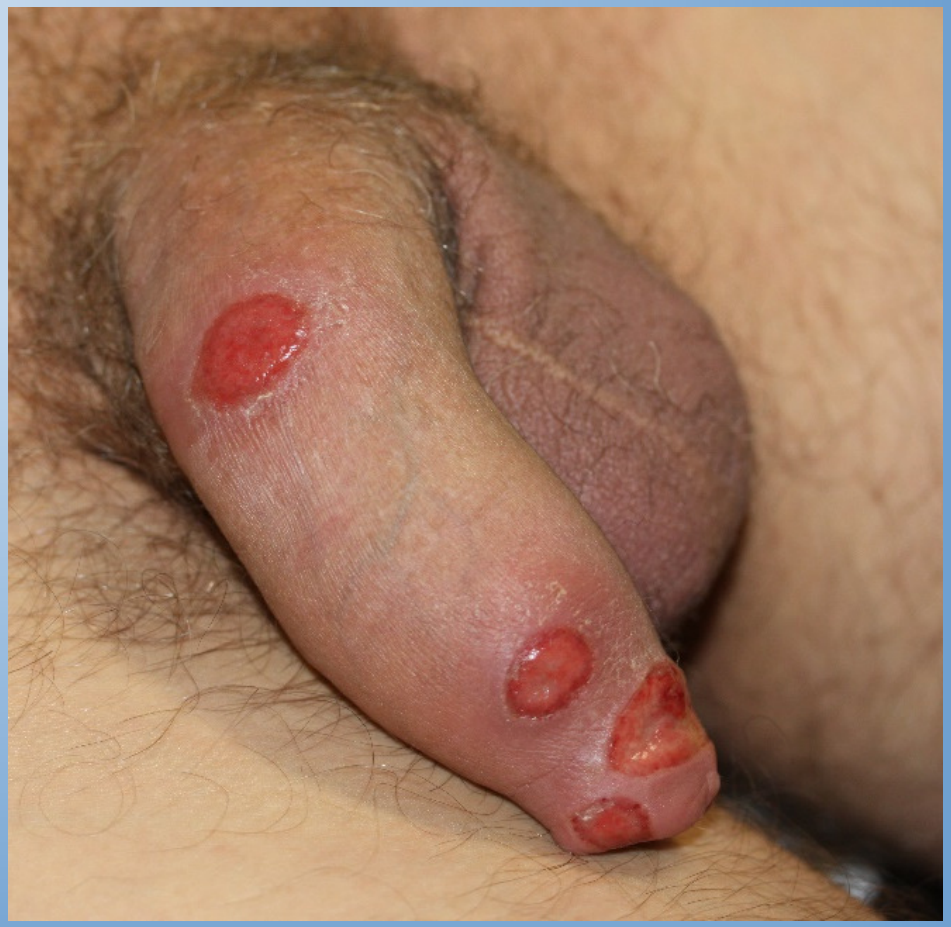




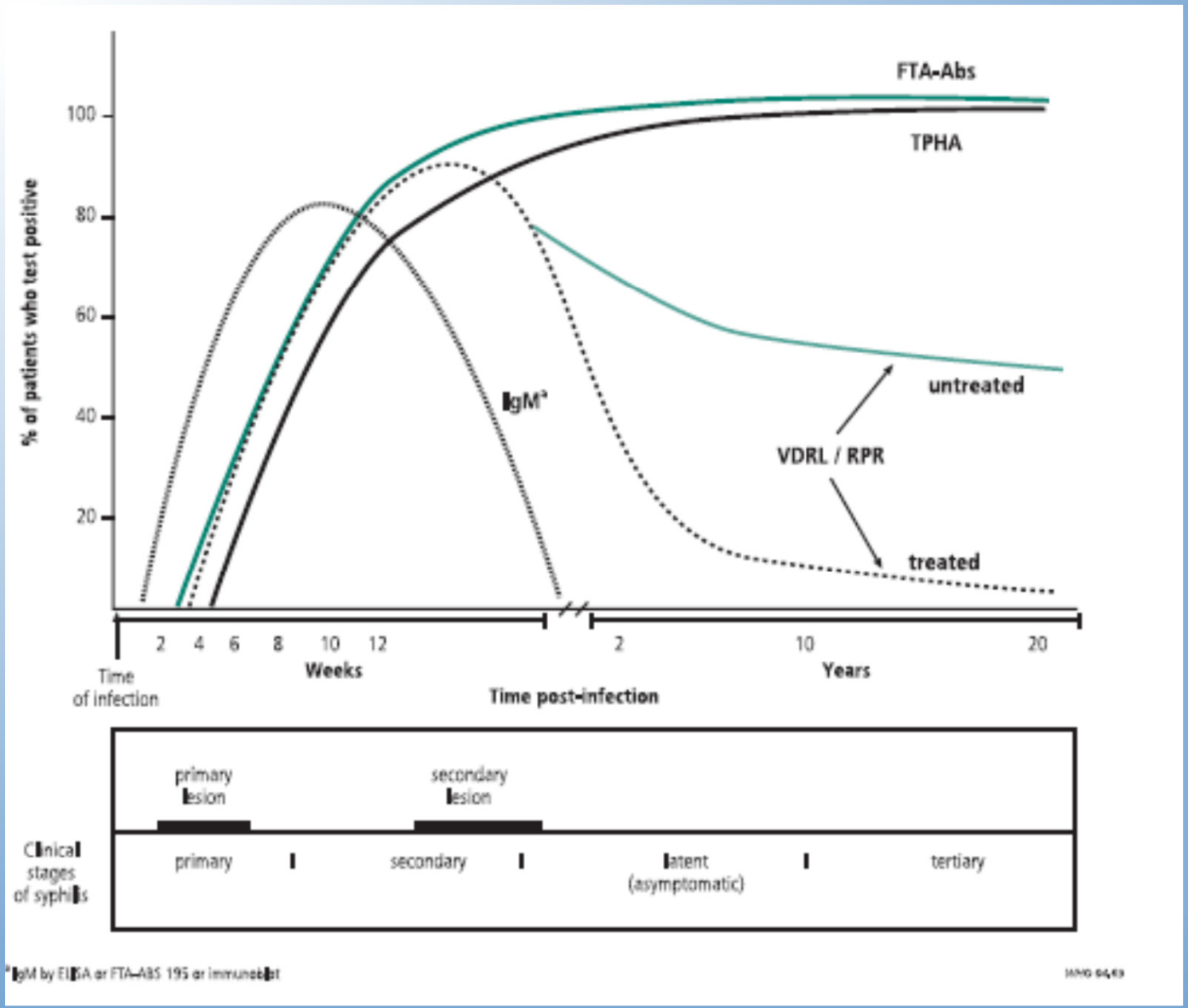








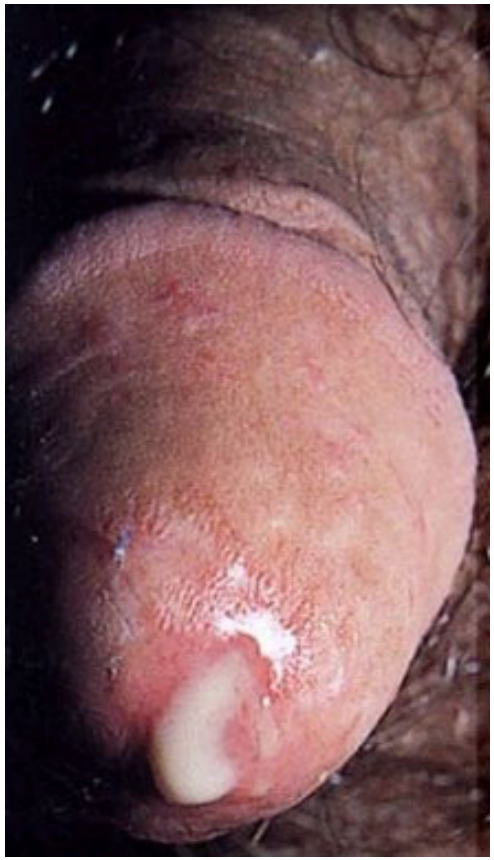
# Diagnosis: serological tests



# Treatment

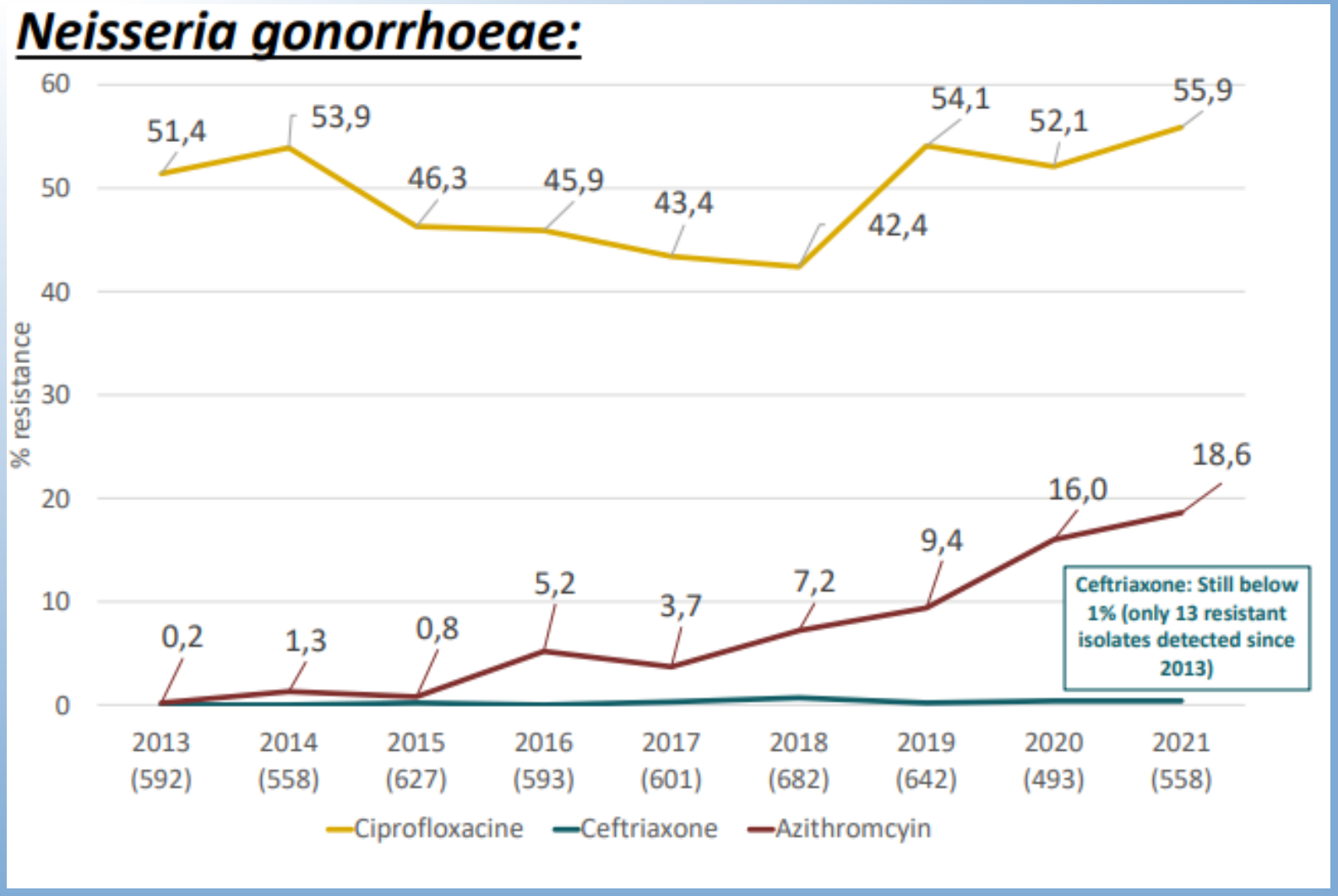
- RPR (or VDRL) and TPPA (or TPHA): for both diagnostics and follow-up
- First choice: benzathine penicillin 2 x 1.2 ME/week
  - once for primary/secondary syphilis
  - weekly for three weeks in cases of latent syphilis
  - sometimes hard to come by!
- Cave: herxheimer reaction
- Second choice: doxy 200 mg/day for a fortnight

# Gonorrhoea: treatment

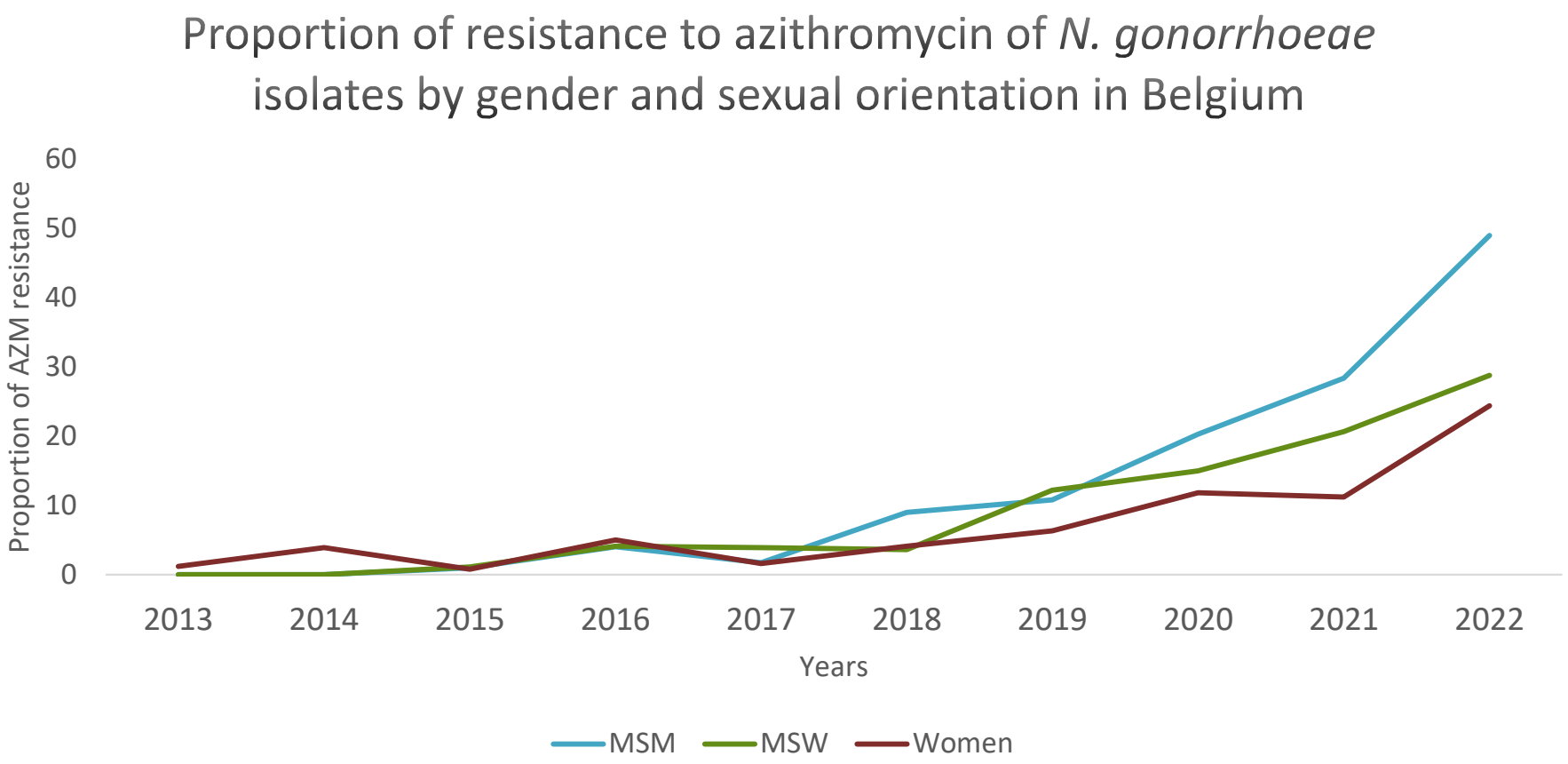


- NO more ciprofloxacin as first choice
- Ceftriaxone 1g IM once + ~~Azithromycin 2g orally~~
- Second choice: guided by antibiogram
- Diagnosis: swab / PCR
- Culture remains necessary for AB-gram

# Surveillance resistance NG in ITG lab:



# Azithromycin resistance in *N. gonorrhoeae* in Belgium




Source: De Baetselier et al, 2022

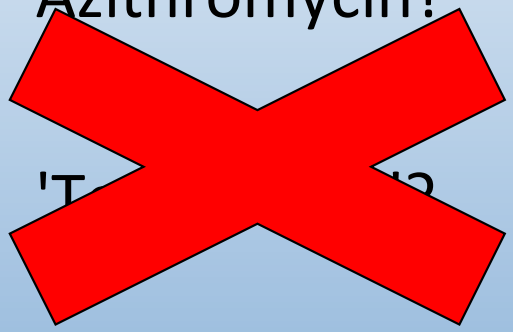
# Chlamydia: treatment

**Simple:**

- Any form of chlamydia (urogenital, anal or pharyngeal): Doxycycline 200mg/day (or 2x100mg/day) for one week

- Azithromycin?

- 'T[illegible]'?



# '"New" infections: LGV vs urogenital chlamydia

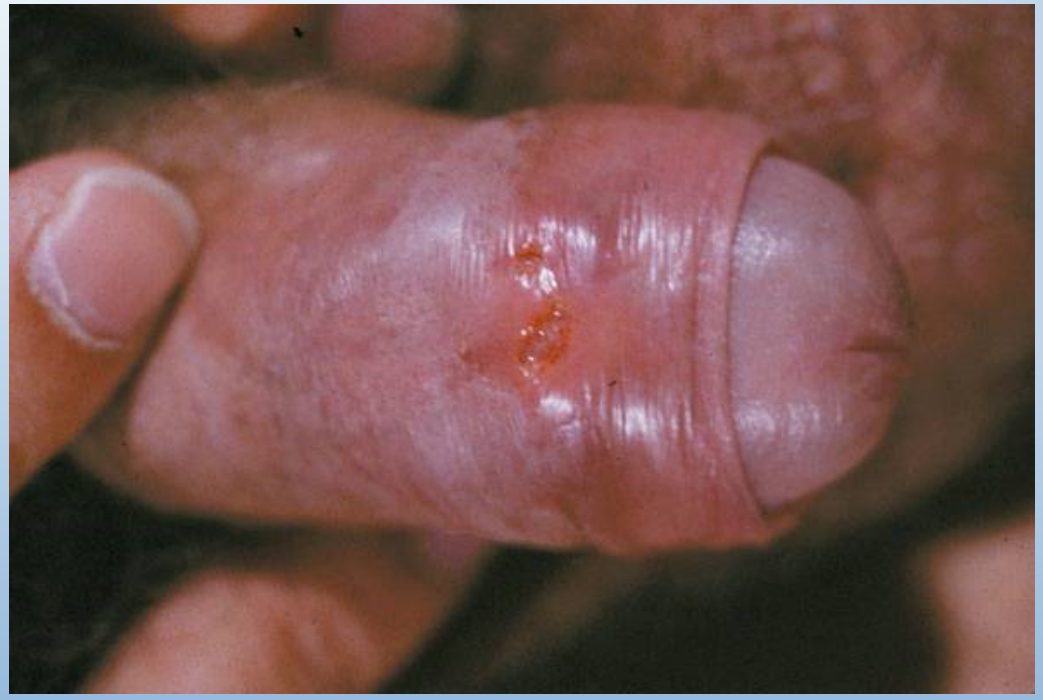
## Lymphogranuloma venereum

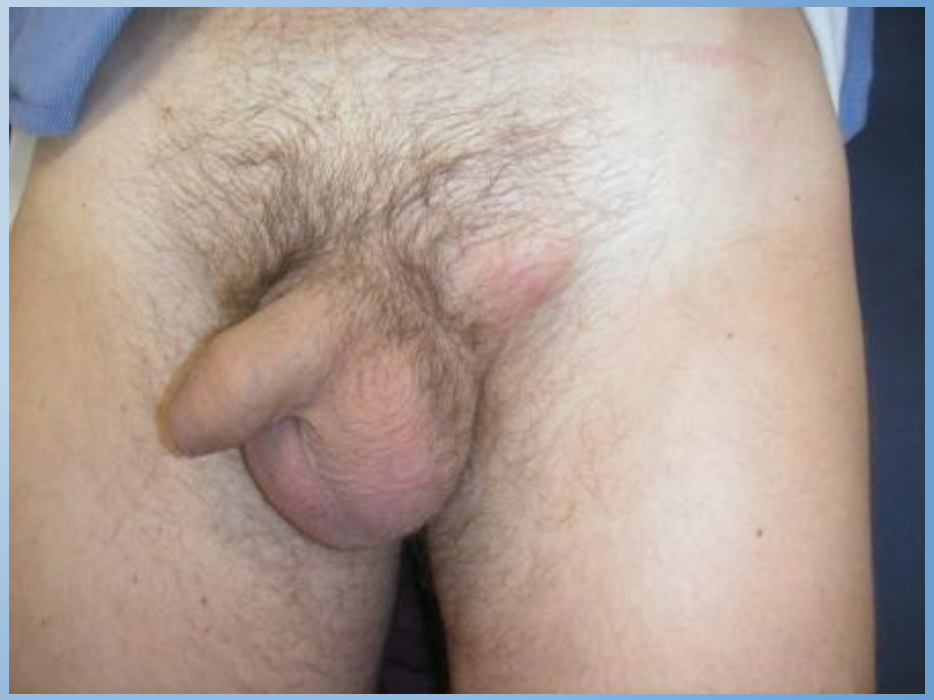
- *C. trachomatis* L1, L2, L3 (LGV genovar)
- connective tissue and lymphatics
- severe inflammation
- usually symptomatic

## Urogenital chlamydia

- *C. trachomatis* D-K (trachoma genovar)
- mucosal connective tissue
- mild inflammation
- Usually asymptomatic

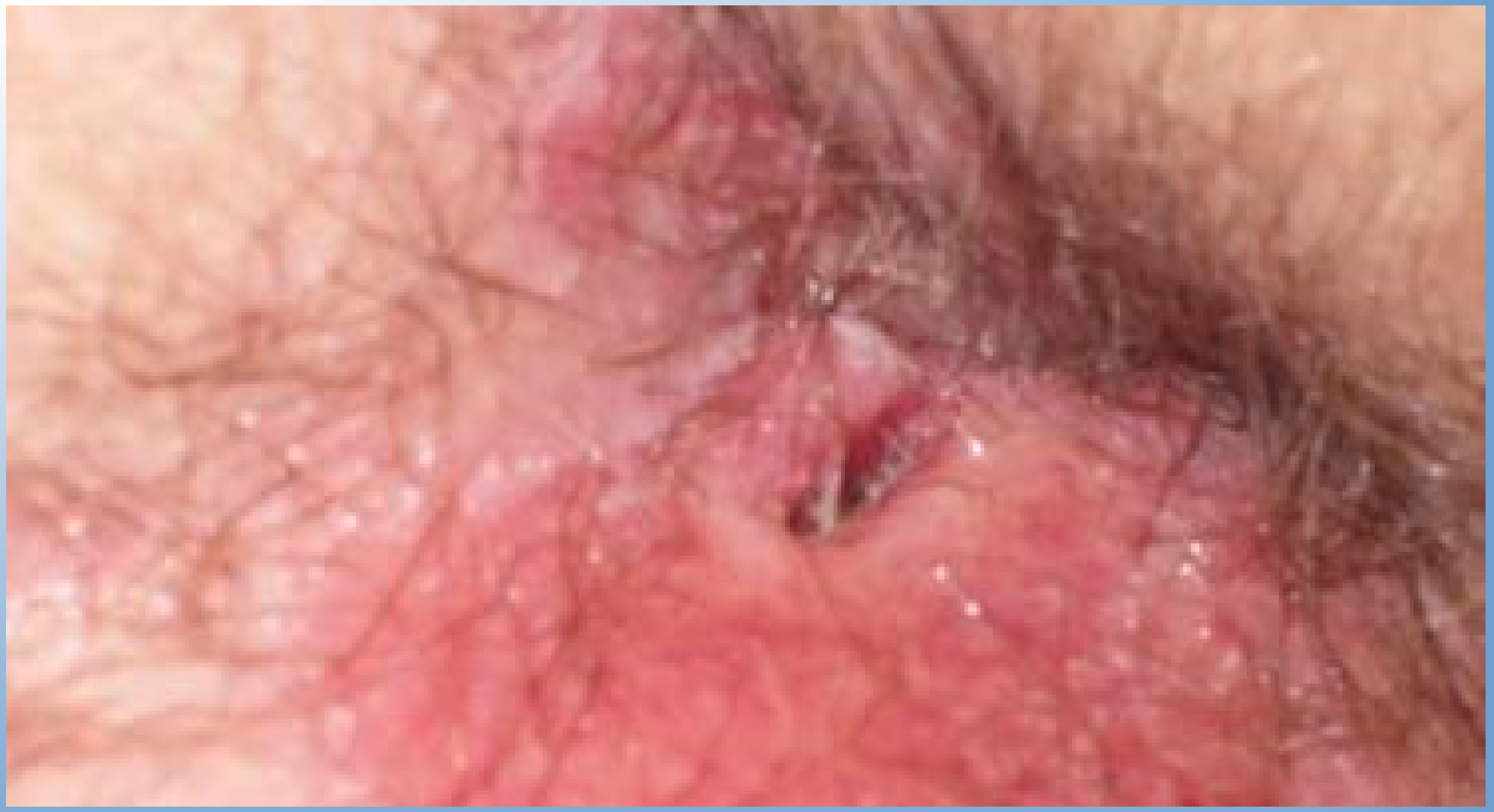
# Lymphogranuloma venereum: Inguinal syndrome



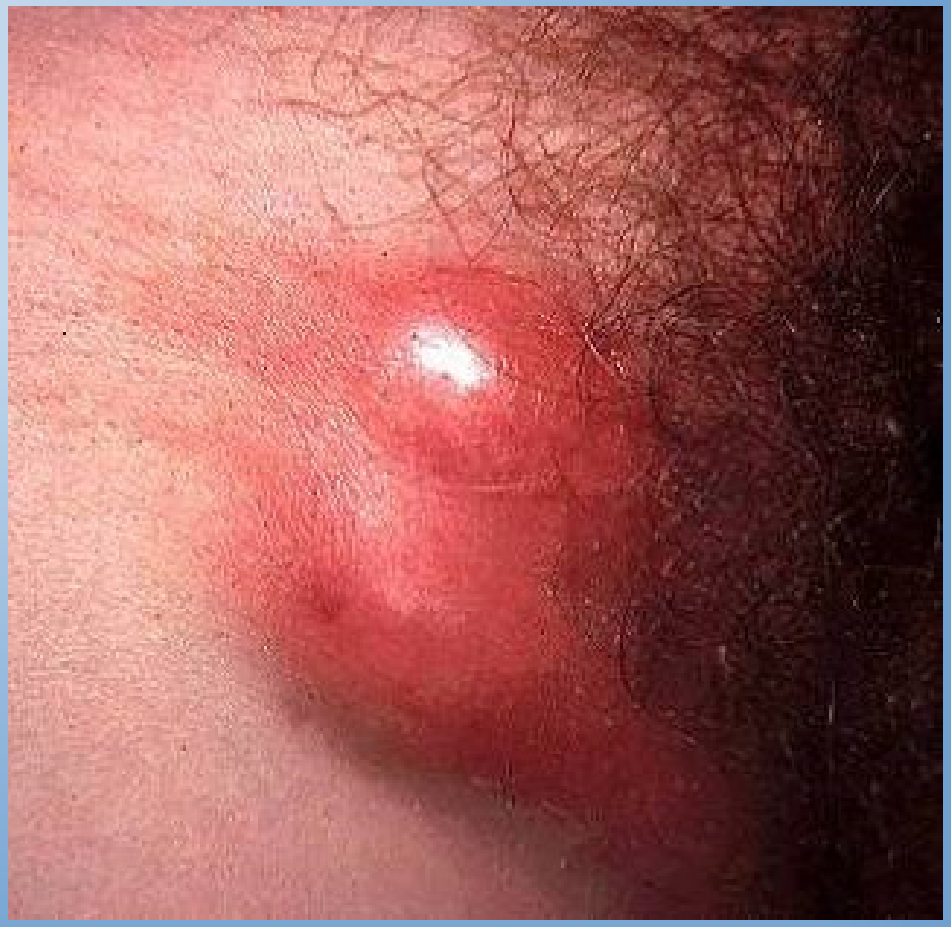


STD outpatient clinic Health Service Amsterdam
Neth.Tijdsch. Medicine. 18 Dec 2004

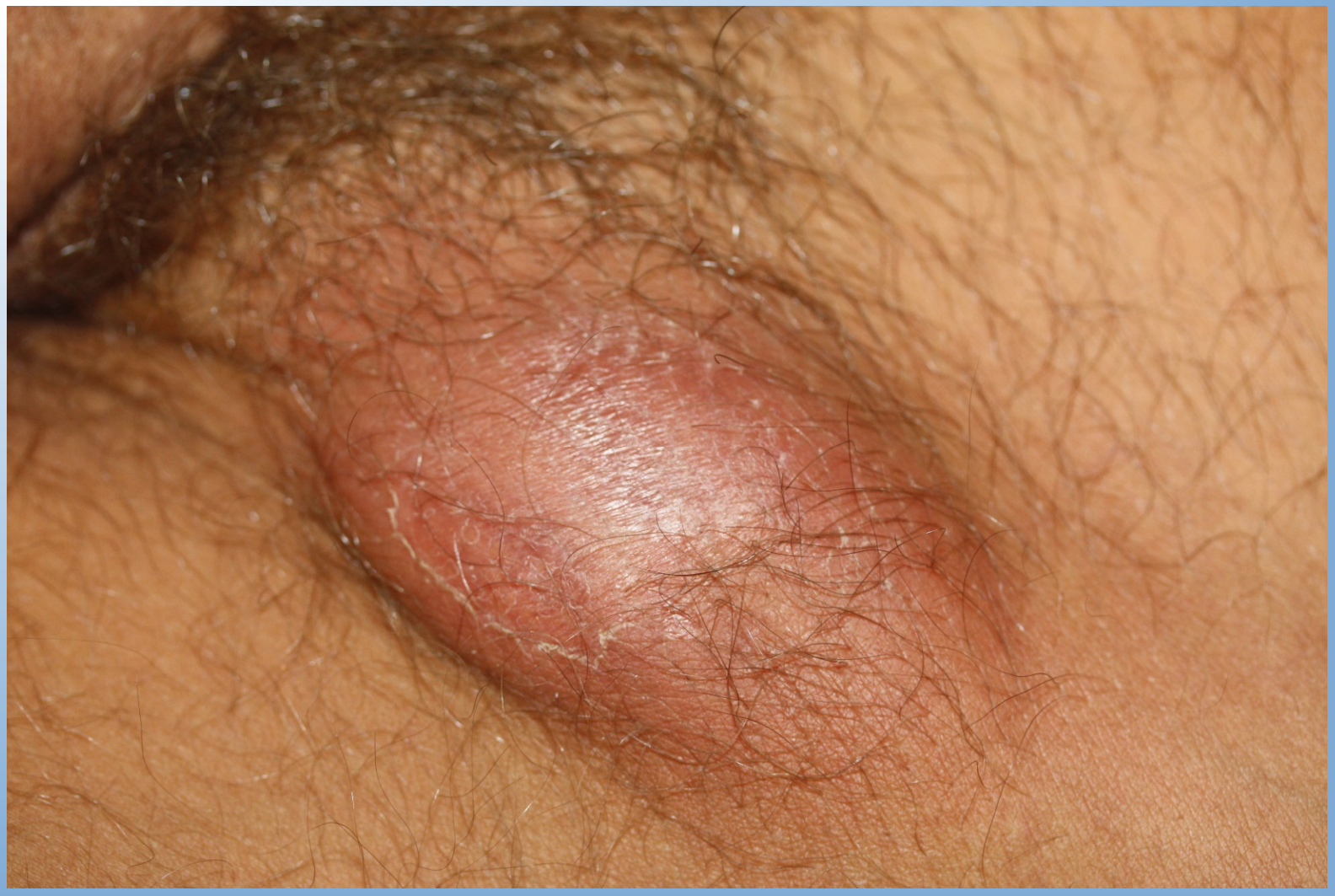
# LGV stage 1



# LGV stage 2



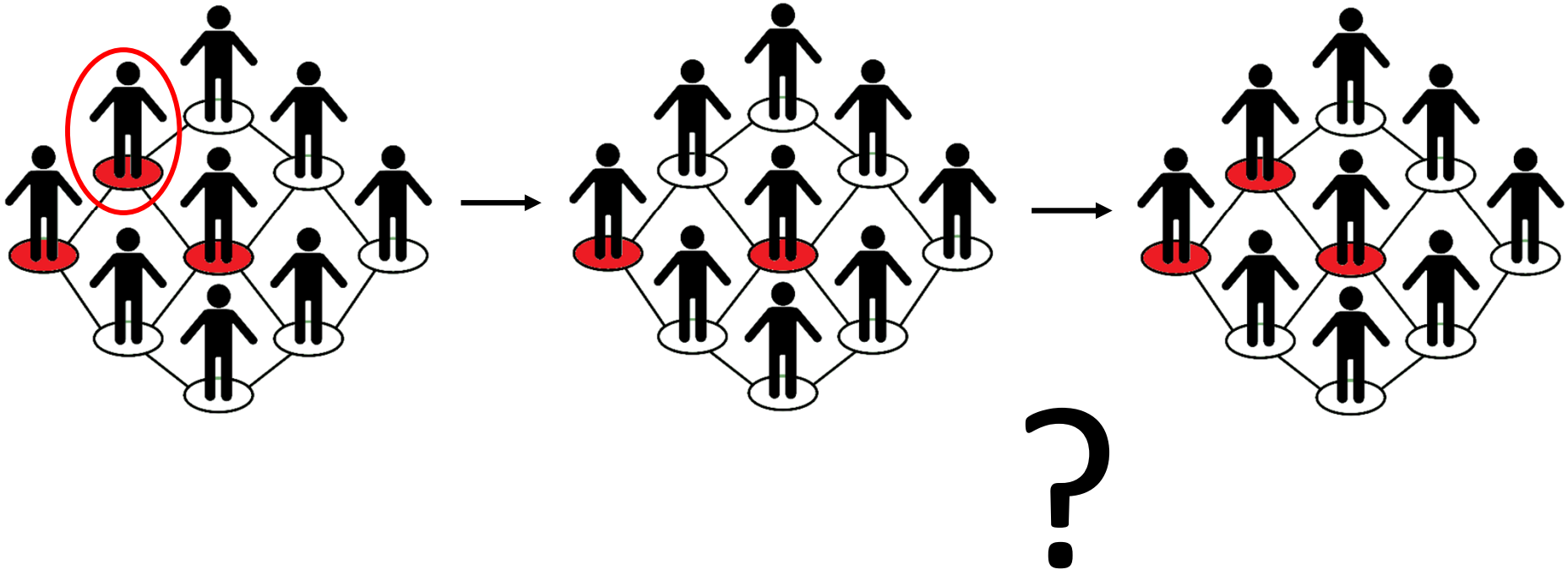
# Bubo in MSM



# LGV: treatment

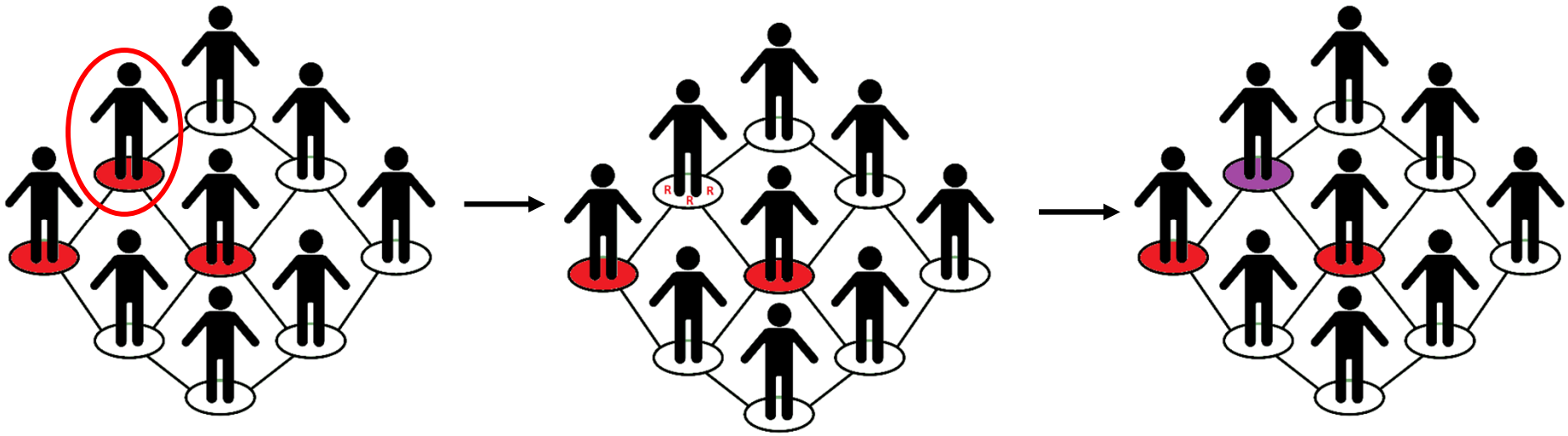
- Simple: doxy 200mg OD for three weeks.
- But: difficult diagnosis: PCR on swab, serology...think about it, especially with MSM!

# The effect of screening for gonorrhea and chlamydia on the prevalence




Based on Kenyon et al, 2018

# The effect of screening for gonorrhea and chlamydia on AMR



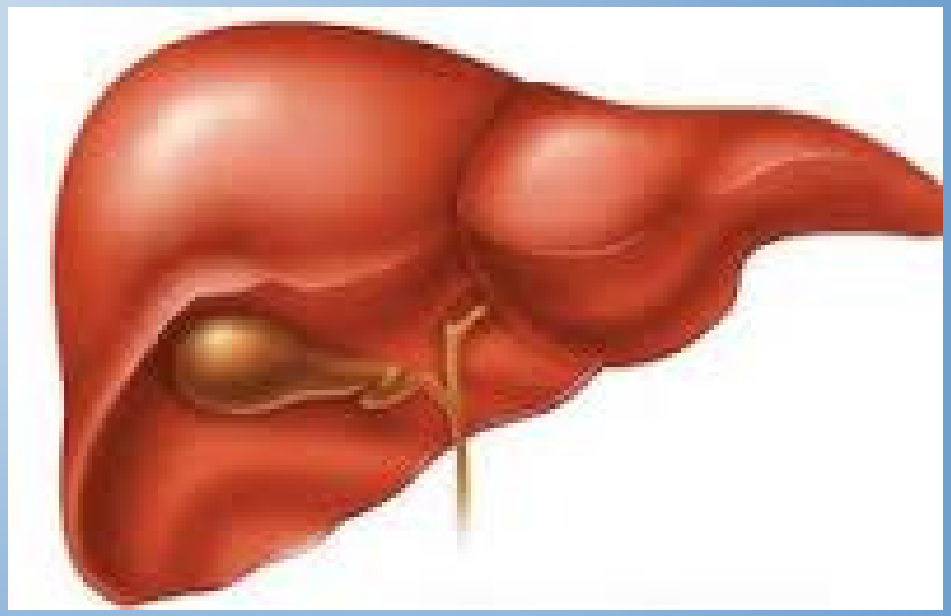

Based on Kenyon et al, 2018

# Mycoplasma genitalium

- NO screening test, only after excluding Neisseria gonorrhoea and Chlamydia trachomatis ('NGU' = non-gonococcal urethritis)
- Spontaneous clearing the rule
- If symptomatic and proven
  - Azithromycin 1g followed by 500mg/day for five days
  - In case of resistance: Moxifloxacin 400mg/day for seven days

# Hep B: action? Hepatologist...

- Active chronic Hep B: biopsy +/- treatment
  - HBV DNA > 10000 copies/ml for HBeAg-neg patients
  - HBV DNA > 100000 copies/ml for HBeAg-pos patients
  - Plus an increased ALT (>2xULN)
- Inactive chronic Hep B
  - Low or undetectable HBV DNA and normal ALT values



# Hepatitis C

- Increasing incidence of Hep C infections in MSM since late 1990s, but now stable
- Treatment: difficult, less successful in HIV positive co-infected patients
- Interferon/ribavirin-based regimens have completely given way to oral-only therapies (boceprevir/telaprevir): shorter (three months, six weeks...) and better tolerated, but...
- THOUSANDS!

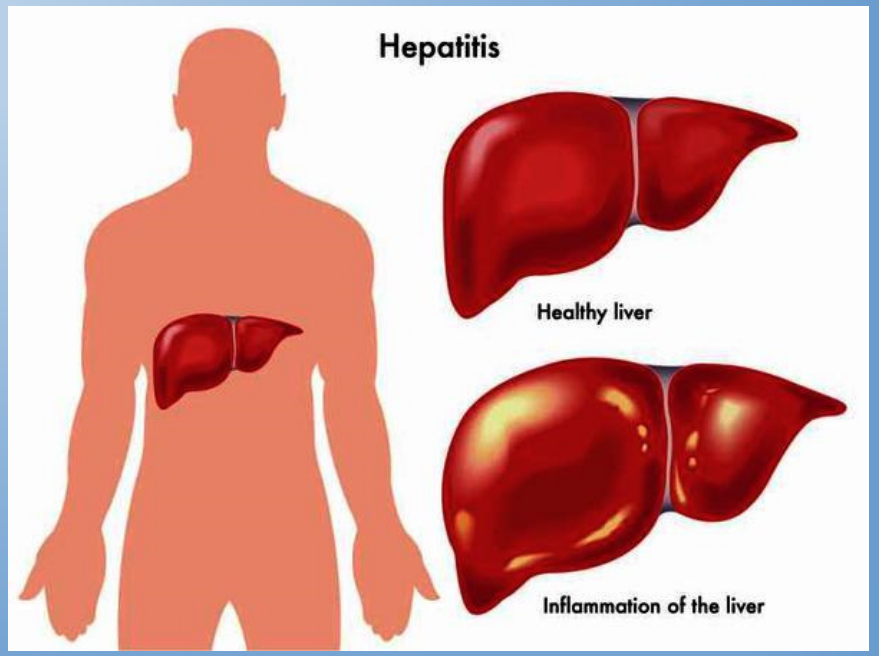
# Conclusion hepatitis B and C

- Lifelong monitoring is required in all patients with chronic hepatitis B.

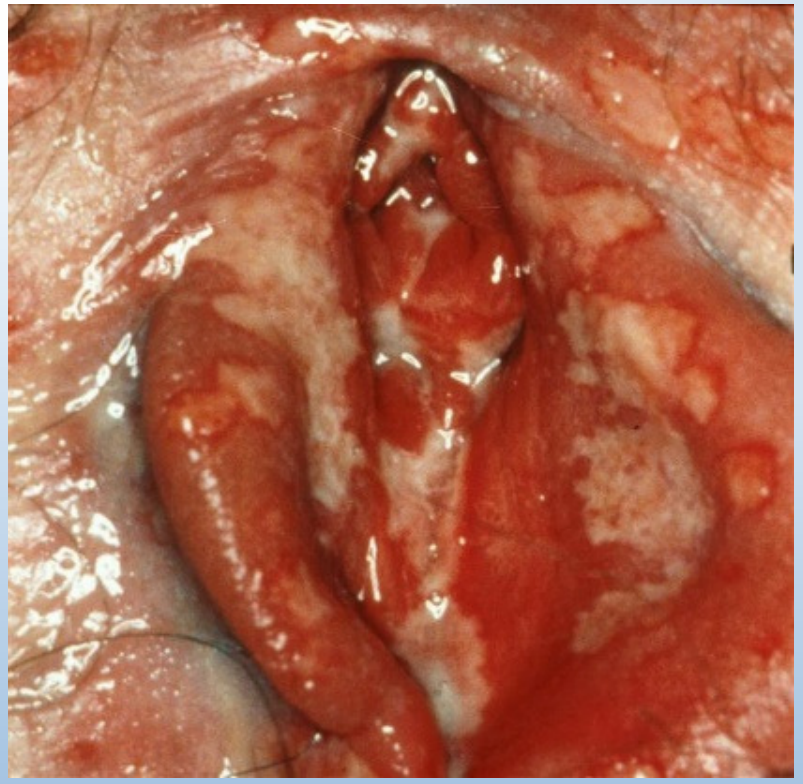
- Distinction between active and inactive chronic hepatitis B is determined with the HBV DNA.

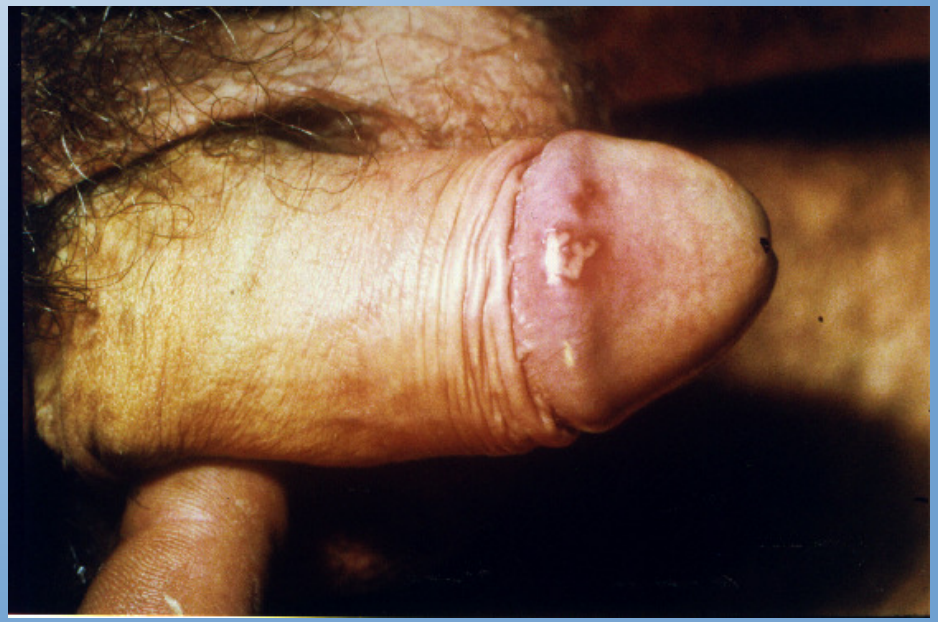
- A positive anti-HCV requires determination of HCV RNA to differentiate between a active and an endured hepatitis C.

- The treatment of hepatitis B and C is centralised in hepatitis treatment centres.



# HSV - Herpes simplex 1 and 2





# Preventie van transmissie in disconcordante koppels


- Condoom
- Geen seks tijdens opstoot
- Chronisch suppressieve therapie (terugbetaald bij ≥ 6 opstoten/j)?

- Maar, geen van deze interventies geeft een 100% zekerheid
- En: onze taak = info, het koppel beslist

# And Human Papilloma Virus?

- Like Herpes: major source of concern, difficult counselling
- Increased risk of anal cancer in MSM in certain subtypes (cfr cervixca)
- Serology is of little use, both for HPV and HSV

- Role of vaccination! Even after exposure
- Gardasil® month 0, 2 and 6
- Propose to all MSM <40 yr, at least <26 years.
- Cost is an issue.

# Monkey Pox virus (MPX)? New since May 2022

- West African variety, distributed here via Darklands festival (leather & fetish)
- MSM 98% of all patients (+/- 800 patients, 2 children in Belgium , a few women, 5% hospitalised , 1 death)

# Clinic:

## Letsels: verschillende stadia

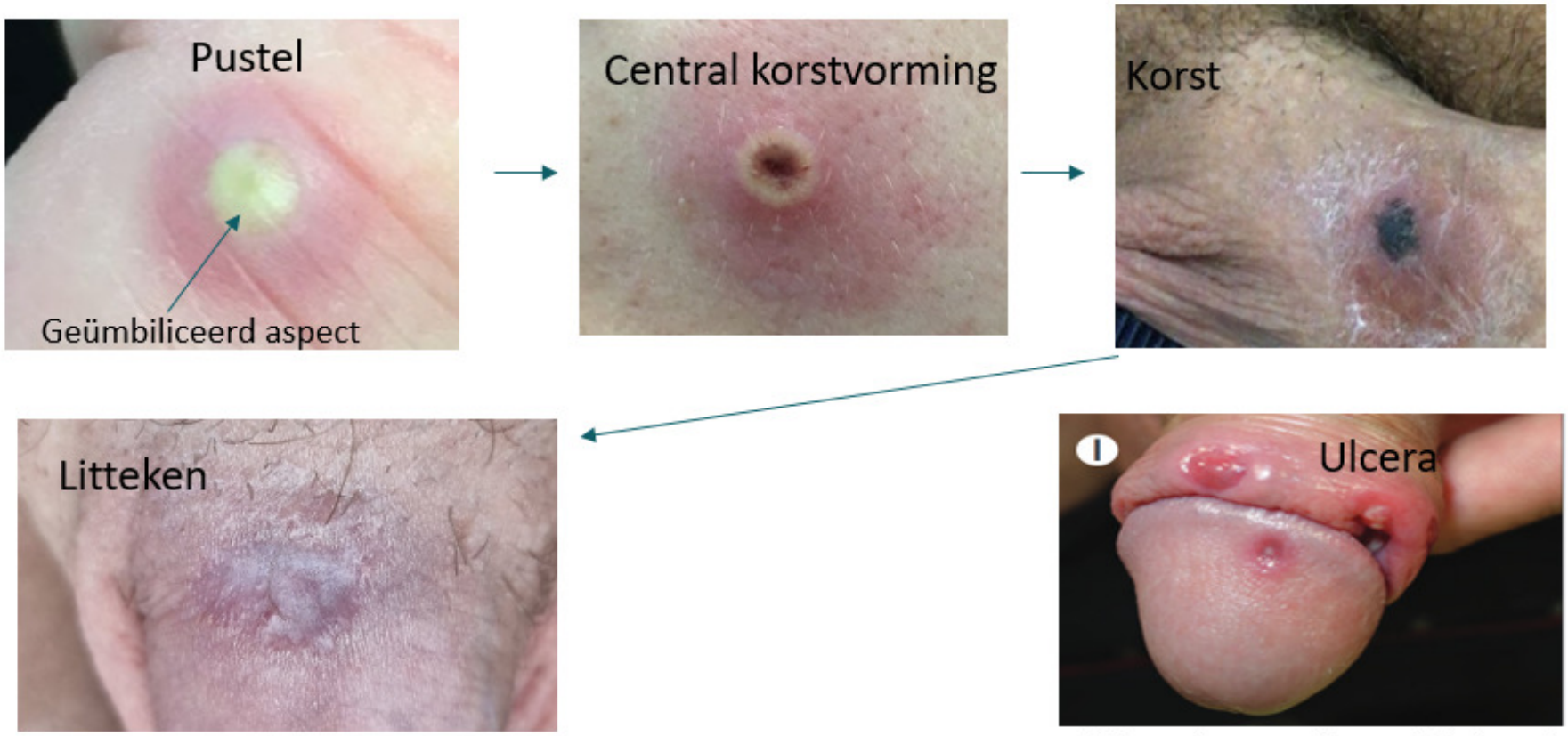



Foto: Tarín-Vicente EJ, Alemany A, Agud-Dios M, et al. Clinical presentation and virological assessment of confirmed human monkeypox virus cases in Spain: a prospective observational cohort study. The Lancet. 2022;400:661–669.

# Conclusion

- Significant decline in HIV incidence since 2012
- Rising proportion of syphilis reinfections + increase in LGV in known HIV pos MSM (mainly in age group 35-54 years)
  - Subpopulation of HIV+ MSM with continuous high-risk sexual behaviour (throughout Europe)
- Rise in Chlamydia incidence: screening?
- Strong indication of continuous unsafe sexual behaviour in a specific risk group, likely to be 'immune' to safe sex messages

# Conclusion (2)

- Rising STI incidence is not accompanied by a decrease in taboo!
- Confidentiality remains a challenge
- Counselling requires a specific approach! (sensoa)
- Are we maintaining the taboo ourselves?....

# Thanks to


- Dr Marc Vandenbruaene for STI registration and data collection in the ITG
- Christophe Burm for the ITG data
- Institute of Public Health - Brussels for national and provincial data