

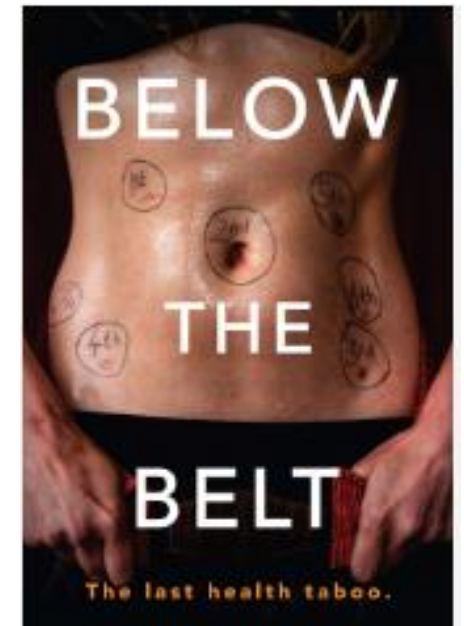
Genital ulcer disease

Presented by Dr Bernadett I. Gosnell

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On behalf of Prof MYS Moosa (HOD)

Topic is difficult to address with patients

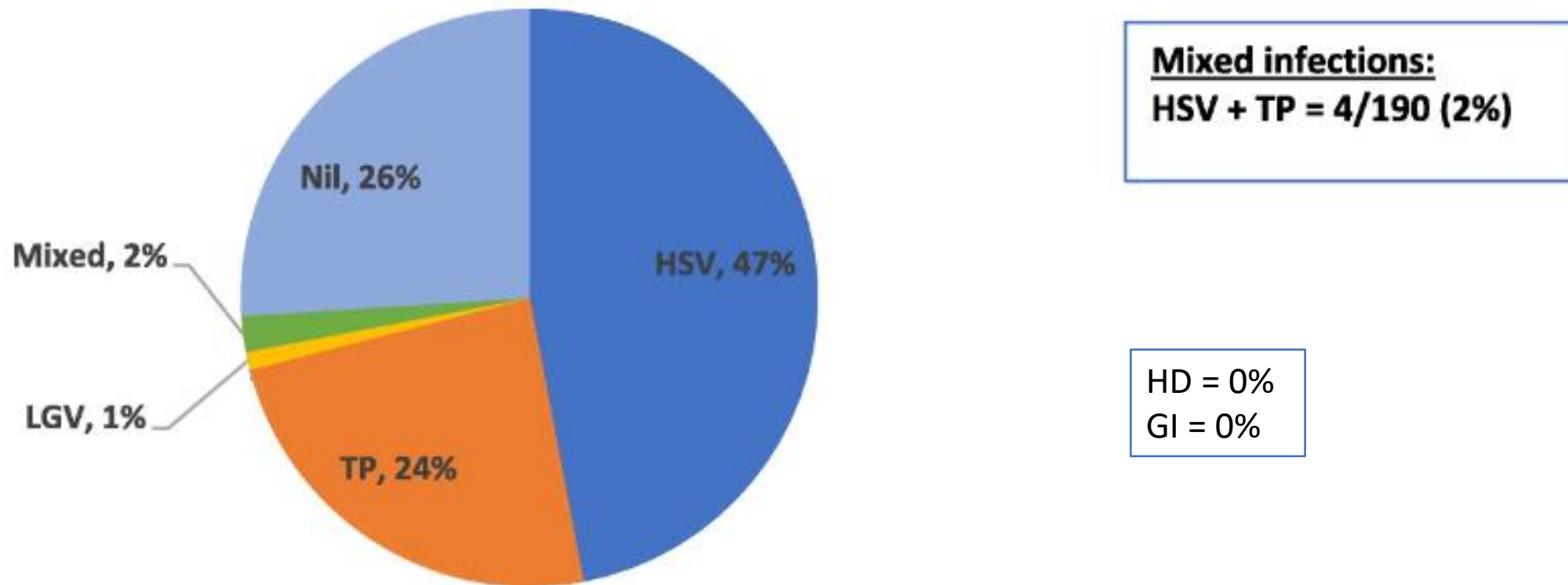


Which is/ are the most common ulcerative STI in South Africa

- A syphilis
- B Herpes genitalis
- C ducreyi
- D Lymphgranuloma venerum

- E All of the above

Etiological Surveillance of Genital Ulcer Syndrome in South Africa: 2019 to 2020



Relative prevalence of STI pathogens in GUS (N = 190). GI, granuloma inguinale; HD, *Haemophilus ducreyi*; TP, *Treponema pallidum*.

Microbiological aetiology of GUS

TABLE 1: Microbial aetiology of sexually transmitted infection syndromes.

Syndrome	Common aetiology (> 10% of cases)	Less common aetiology (< 10% of cases)
Genital ulcer syndrome	HSV-1 and HSV-2 <i>Treponema pallidum</i>	<i>Chlamydia trachomatis</i> biovar Lymphogranuloma venereum <i>Haemophilus ducreyi</i> <i>Klebsiella granulomatis</i>

HSV, herpes simplex virus.

Southern African HIV Clinicians Society guideline for the management of sexually transmitted infections: Moving towards best practice S Afr J HIV Med 2022; 23(1)

Herpes infection

- There are two types of herpes simplex virus.
- Type 1 (HSV-1) mostly spreads by oral contact and causes infections in or around the mouth (oral herpes or cold sores). It can also cause genital herpes. Most adults are seropositive for HSV-1.
- Type 2 (HSV-2) spreads by sexual contact and causes genital herpes.
- Symptoms can include painful, recurring blisters or ulcers. New infections may cause fever, body aches and swollen lymph nodes.
- Symptoms may be different during the first episode (or 'outbreak') of infection than during a recurrent episode. If symptoms occur, they often begin with tingling, itching or burning near where the sores will appear.

Syphilis – key facts

- **Most infections are asymptomatic or unrecognized.**
- **Initial painless ulcer, secondary skin rashes, late: organ involvement**
- **WHO estimates that 7.1 million adults between 15 and 49 years old acquired syphilis in 2020.**
- **Syphilis in pregnancy, when not treated, treated late or treated with the incorrect antibiotic, results in 50–80% of cases with adverse birth outcomes.**
- **Key populations such as gay men and other men who have sex with men are disproportionately affected.**

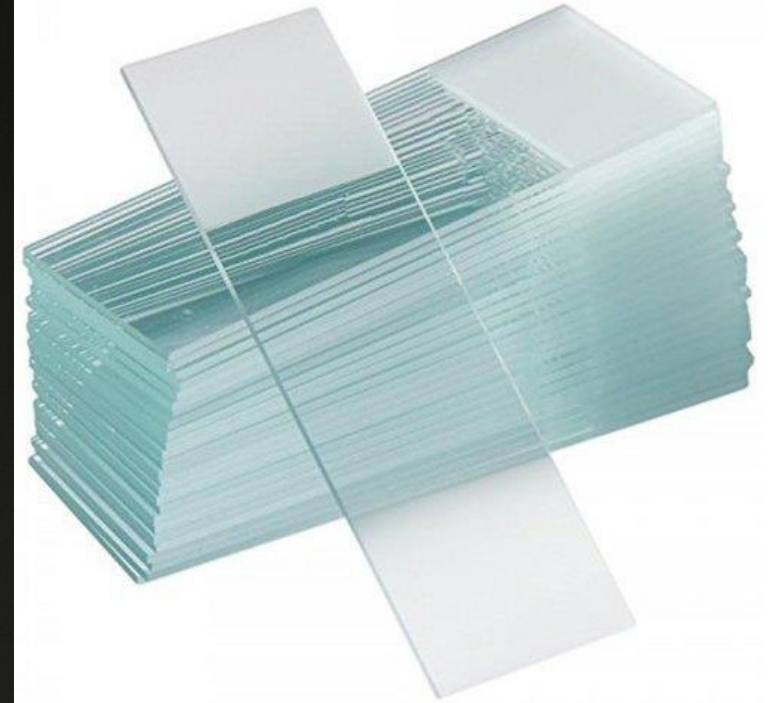
Lymphgranuloma venereum (LGV)

- Organism: gram-negative bacteria *Chlamydia trachomatis*, especially serovars L1, L2, and L3. It is an uncommon, sexually transmitted infection. It is transmittable by vaginal, oral or anal sex.
- lymphogranuloma venereum has three stages of infection :
- Primary stage characterized by the development of painless genital ulcer or papules.
- Secondary stage with the development of unilateral or bilateral tender inguinal and/or femoral lymphadenopathy (also called buboes).
- Late stage with strictures, fibrosis, and fistulae of the anogenital area.
- There are increasing numbers of reports in men who have sex with men.
- Therapy Doxycycline 100 mg BD for 21 days.

Sample taking- suspected bacterial ulcer

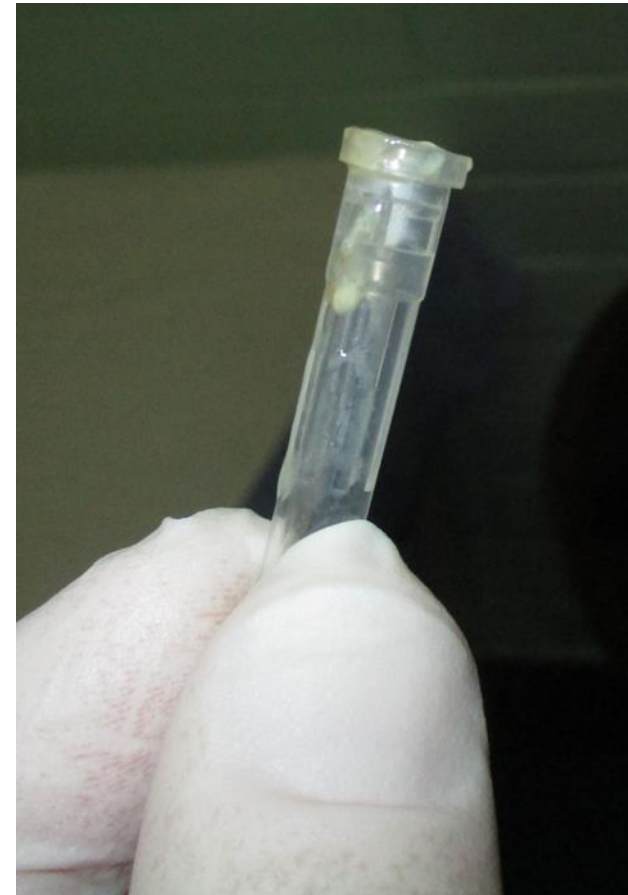
Clean ulcer by rolling cotton swab over the base of ulcer.

Use new cotton swab and roll firmly over base of ulcer and rub along the edge, then roll over glass slide and submit for Cytology



Sampling technique for HSV/ genital ulcer PCR

- Pat ulcer clean with gauze or proceed after cotton swab.
- Roll a dracon (COVID) swab across the base of the ulcer including the edge of the ulcer. Place into a universal transport container (with or without viral transport media and request HSV / genital ulcer PCR
- Tip: A needle cap can be used instead



Blood test for syphilis

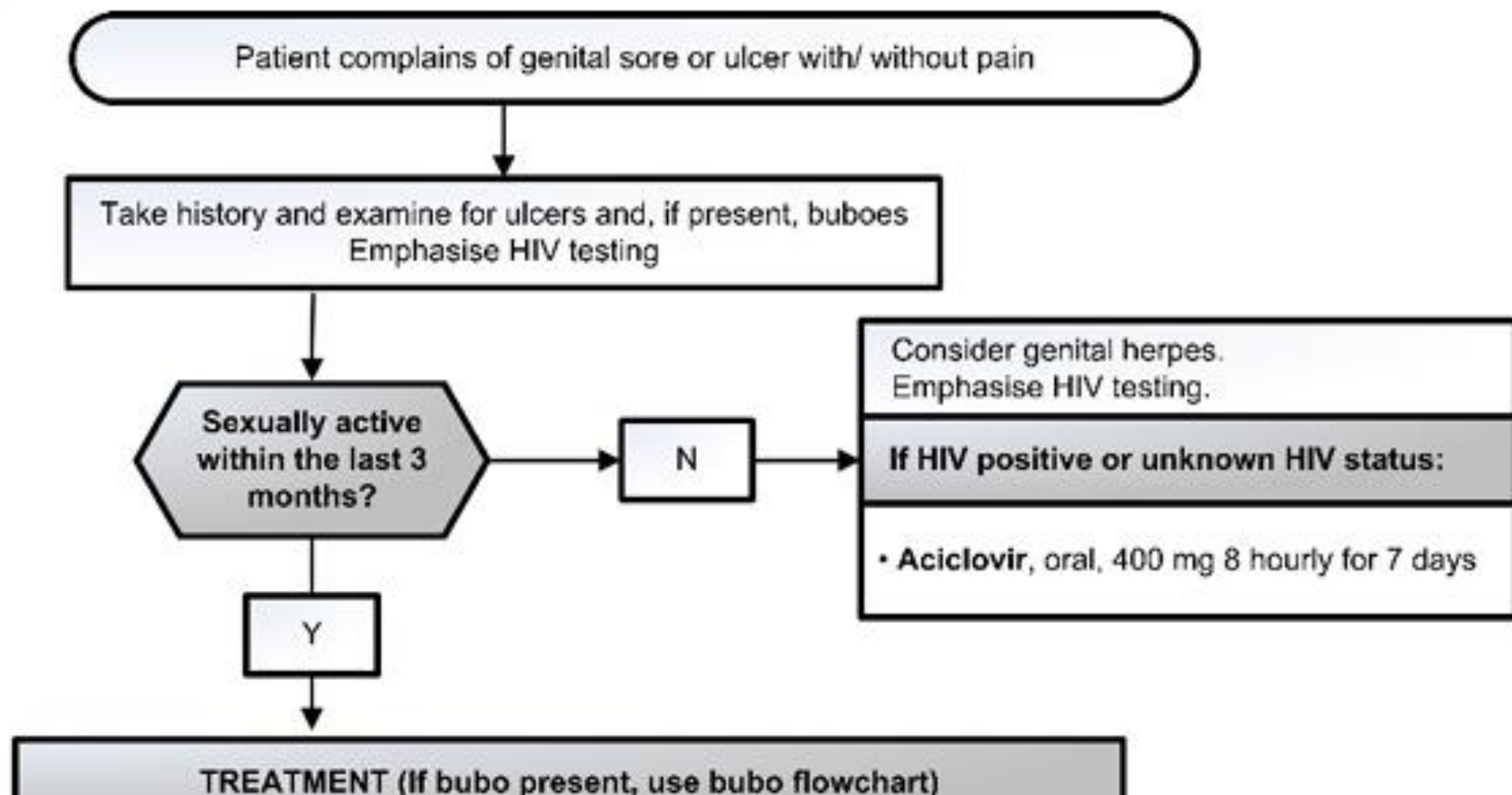
- Venous blood specimen: 5 mL in serum separator tube for syphilis serology – send to local NHLS laboratory.
- RPR positive –(reactive) titre 1:16 or 1:32
- 6-12 months after therapy titre should drop by 4 fold (1:4, 1:8)
- TPHA is a specific test for exposure to syphilis remains positive and is not useful in treatment response monitoring

Therapy

- Syndromic management

12.5 GENITAL ULCER SYNDROME (GUS)

A60.9/A51.0



▼

TREATMENT (If bubo present, use bubo flowchart)

- Doxycycline, oral, 100 mg 12 hourly for 14 days.***

Except in pregnant women:

- Benzathine benzylpenicillin*, IM, 2.4 MU immediately as a single dose**

Pregnant and benzathine benzylpenicillin is unavailable:

- Amoxicillin, oral, 1 g 8 hourly for 14 days

AND

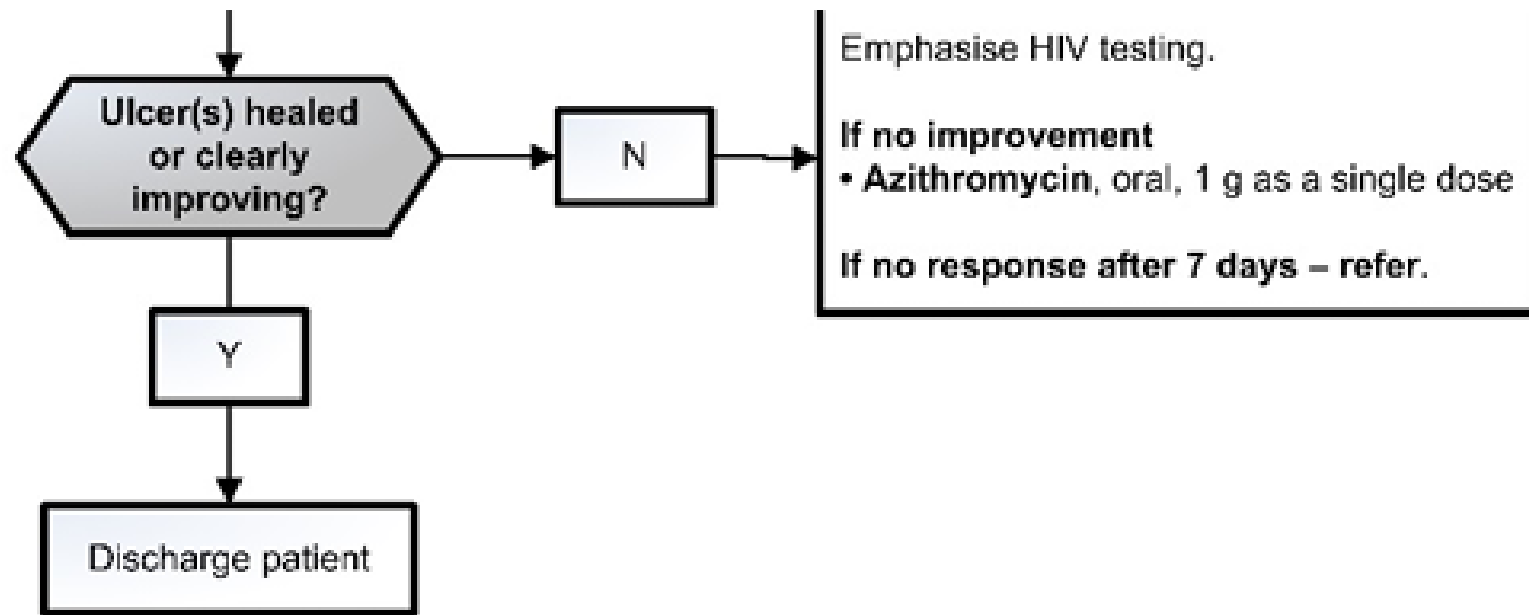
- Probenecid, oral, 250 mg 8 hourly for 14 days.***

If HIV positive or unknown HIV status, add:

- Aciclovir, oral, 400 mg 8 hourly for 7 days

Pain relief if indicated.

Review all cases in 1 week.



***Penicillin allergic pregnant women: refer for confirmation of new syphilis infection and possible penicillin desensitisation.**

****For benzathine benzylpenicillin, IM, 2.4 MU: Dissolve benzathine benzylpenicillin 2.4 MU in 6 mL lidocaine 1% without epinephrine (adrenaline).**

***** 6-month follow-up RPR required of early syphilis cases treated with doxycycline OR amoxicillin + probenecid.**

Note: Pregnant women presenting with genital ulcer(s) in the third trimester should be referred (risk of neonatal herpes).

TABLE 3: Recommended first-line antimicrobial treatment regimens for sexually transmitted infection syndromic management.

Syndrome	First-line option	Effective substitutes
First episode††	Acyclovir 400 mg, orally, three times a day for up to 10 days <i>PLUS</i> Benzathine benzylpenicillin 2.4 MU, intramuscularly single dose	First episode†† Acyclovir 400 mg, orally, three times a day for up to 10 days <i>PLUS</i> Doxycycline 100 mg, orally, twice daily for 14 days¶
Recurrent episode††	Acyclovir 400 mg, orally, three times a day for 5 days <i>PLUS</i> Benzathine benzylpenicillin 2.4 MU, intramuscularly single dose	Recurrent episode†† Acyclovir 400 mg, orally, three times a day for 5 days <i>PLUS</i> Doxycycline 100 mg, orally, twice daily for 14 days¶

EML catalogue : 180282035 Aciclovir; 400mg; Tablet, dispersible; 70 Tablets R 54.3

Doxycycline R 15 for 14 days, metoclopramide R 2 for 10 tbl

Surveillance regarding Resistance to Acyclovir

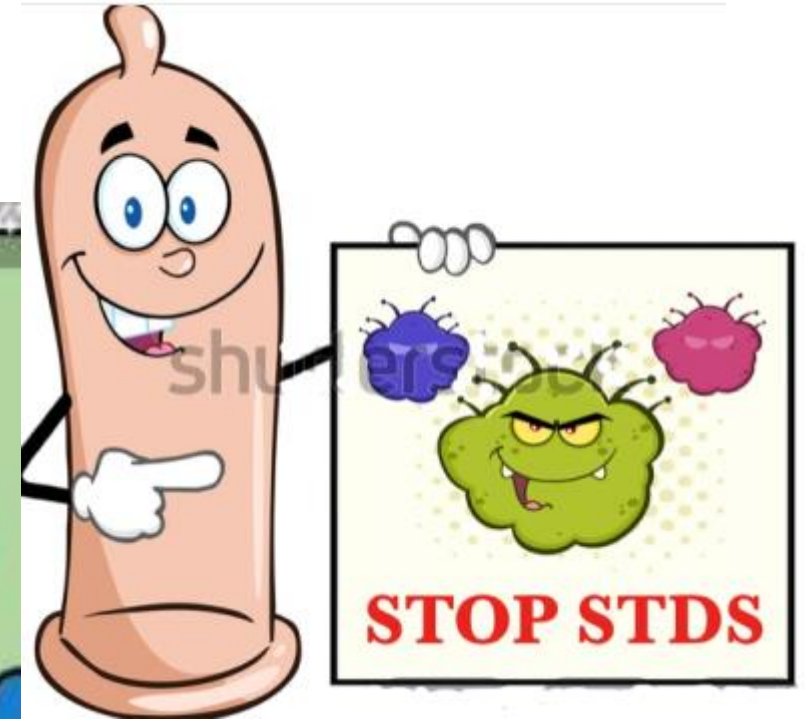
- . **Phenotypic and genotypic acyclovir resistance surveillance of genital herpes simplex virus 2 in South Africa**
- [Etienne E Muller¹](#), [Dumisile V Maseko²](#), [Ranmini S Kularatne³](#)
- No acyclovir resistance detected in HSV2 surveillance swabs 2018-2020.

j.antiviral.2022.105277

What about Prevention?

- Which method is has **not** been studied to reduce STI and genital ulcers?
- A male medical circumcision
- B taking a shower after sex
- C Condom use
- D post exposure prophylaxis

Prevention



Male medical circumcision

- Male circumcision and risk of syphilis, chancroid, and genital herpes: a systematic review and meta-analysis

Key messages

- Results support the common belief that circumcised men are at lower risk of syphilis and chancroid
- Evidence for a protective effect of male circumcision on HSV-2 infection is weak and contrasts with a strong, consistent effect seen against HIV infection
- If male circumcision is promoted as an HIV prevention measure in the future, an added benefit would be protection against ulcerative STI

Does voluntary medical male circumcision protect against sexually transmitted infections among men and women in real-world scale-up settings? Findings of a household survey in KwaZulu-Natal, South Africa

What are the new findings?

- ▶▶ This study provides the first real-world data on the association of MMC with STIs in men and women in a programmatic voluntary MMC (VMMC) scaleup setting: KwaZulu-Natal, South Africa, where STI prevalences are high.
- ▶▶ For men, MMC was protective against HSV-2, *M. genitalium*, hepatitis B (a novel finding) and HIV. For women, partner circumcision was protective against HSV-2 and HIV.

HPV vaccine

- One dose Cervarix prevents infection with types 16 and 18 -CA cervix
- 2 doses Gardasil⁴ prevents infection with 16 and 18 and 6, 11 (Warts).
- GARDASIL⁹ with 5 additional HPV types (31, 33, 45, 52, 58).
- I would like to see adoption of Gardasil for boys and girls and catch up vaccines for “missed” persons up to 21 years of age.

Thank you

- to Prof Yunus Moos for years of mentorship
- my colleagues working in our busy clinic
- our patients for agreeing their images to be used

- For Referrals:
- ID hotline 0800 111 740 or 063682588 (thanks to CAPRISA)
- Email gosnell@ukzn.ac.za