

MANAGEMENT OF A GENITAL ULCERATION OF THE MUCOUS MEMBRANE



— Pr Ahmed Bouhamidi —



Learning objectives

1



Define an ulceration
of the genital mucosa

2



Guide the etiological diagnosis
of a genital ulceration

3



Diagnose a syphilitic chancre

4



Diagnose a soft chancre

5



Recognize other infectious
and non-infectious causes

6



Order the appropriate
additional investigations

7



Plan treatment
according to the etiology

8



Organize partner screening
and treatment

9



Prevent sexually
transmitted infections



KEY MESSAGE

Nine practical clinical skills, applicable from the emergency setting to routine clinical practice.

Définition and clinical importance



Genital ulceration: loss of cutaneous-mucosal substance involving the dermis, affecting the external genital organs, pubis, perineal or anal region, with or without satellite lymphadenopathy.



- ▶ **To distinguish** erosion (loss of superficial substance, epidermis only, without scarring)



- ▶ **A frequent reason** for consultation in dermatology, general medicine, gynecology and STI screening centers



- ▶ **Marker of sexual exposure at risk:** major factor in transmission and acquisition of HIV



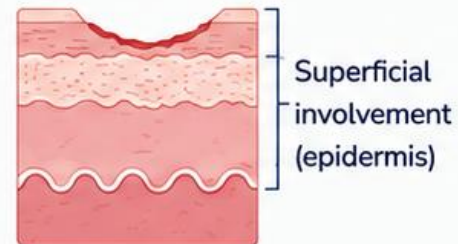
- ▶ **Diagnostic urgency:** syphilis remains the first cause to be systematically ruled out



KEY MESSAGE

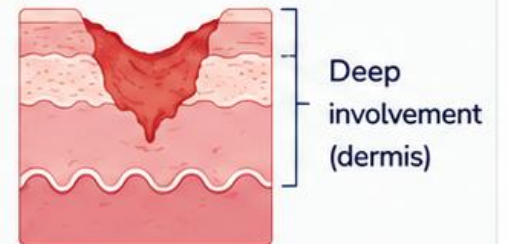
Any genital ulceration must be considered an STI until proven otherwise.

EROSION



Superficial involvement (epidermis)

ULCER



Deep involvement (dermis)

Epidemiology and public health impact



374 M

new curable STIs/year
worldwide
(chlamydia, gonorrhoea, syphilis,
trichomoniasis) — WHO



8 M

new cases of syphilis
in adults estimated
each year worldwide — WHO



x2-5

relative risk of HIV acquisition
in the presence of a
genital ulcer



resurgence of syphilis
observed in most WHO
regions since 2015



Predominant etiologies depending on the context: genital herpes and syphilis in high-resource countries; soft chancre, LGV and donovanosis in endemic areas (sub-Saharan Africa, Caribbean, South Asia, South America, Oceania)



In Morocco and in North Africa: syphilis and genital herpes predominate; soft chancre has become rare but has not been eliminated



Any genital ulcer requires systematic testing for HIV co-infection and other STIs



Endemic areas: sub-Saharan Africa, Caribbean, South Asia, Oceania



KEY MESSAGE

Local epidemiology must always guide the order of diagnostic hypotheses.

Male genital anatomy and mucous membranes at risk



PRIVILEGED INOCULATION SITES

- 1 | Balano-preputial sulcus and gland (most frequent site)
- 2 | Inner preputial surface, frenulum of the glans
- 3 | Urethral meatus (potential source of discharge)
- 4 | Scrotum, pubis, perineal region (anal relationships)



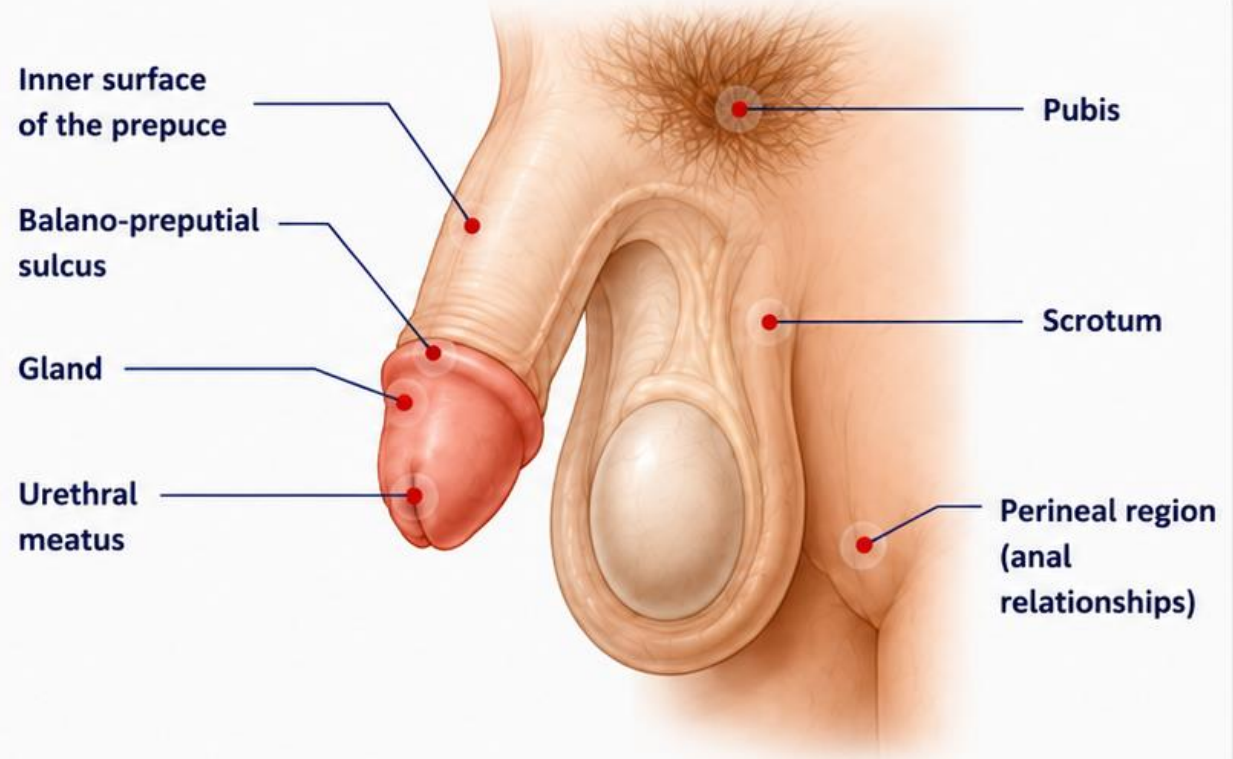
MALE GENITAL MUCOUS MEMBRANE

- The non-keratinized malpighian epithelium of the glans and inner prepuce — more permeable to infectious agents than keratinized skin of the frenulum.



KEY MESSAGE

80% of male chancres occur at the level of the balano-preputial sulcus and gland.



Female genital anatomy and lymphatic drainage



PRIVILEGED INOCULATION SITES

- Large and small lips, vulvar vestibule, clitoris
- Vestibule, vaginal walls, exocervix (often asymptomatic — lesion not visible)

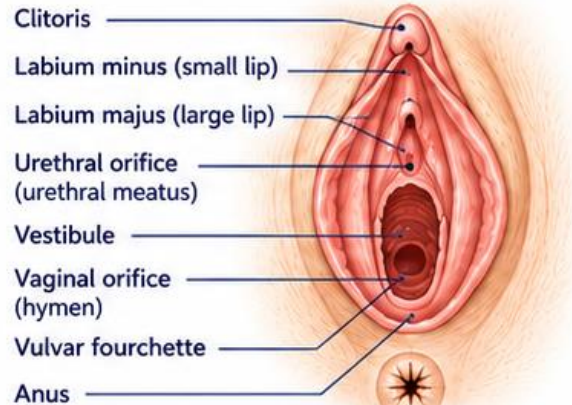


LYMPHATIC DRAINAGE

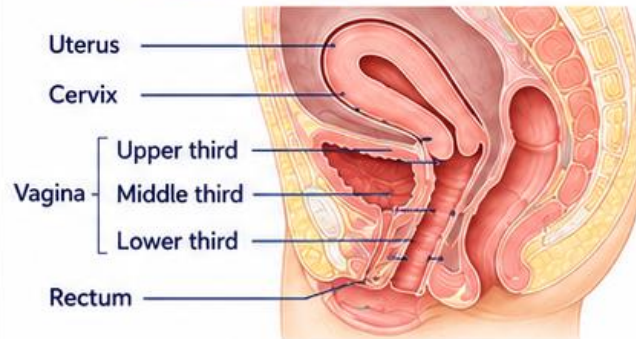
- Vulva, perineum, scrotum, anus
→ superficial then deep inguinal lymph nodes
- Upper third of the vagina, uterine cervix, upper rectum
→ internal iliac lymph nodes (deep pelvis, not palpable)

FEMALE GENITAL ANATOMY

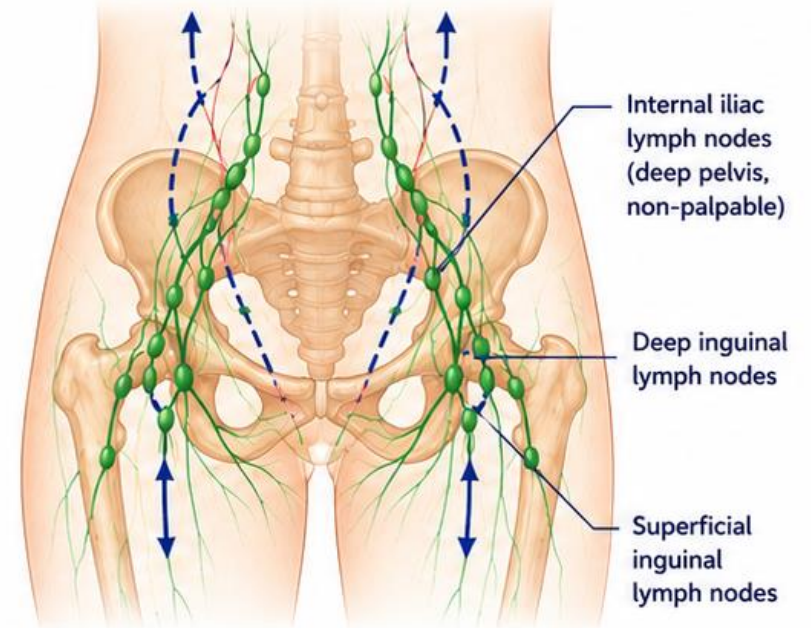
EXTERNAL VIEW (VULVA)



INTERNAL VIEW – SAGITTAL SECTION



LYMPHATIC DRAINAGE



- Drainage of external genital organs (vulva, clitoris, lower 1/3 of the vagina)
- Drainage of internal genital organs (upper 1/3 of the vagina, uterine cervix, upper rectum)



KEY MESSAGE

An ulceration of the cervix or the upper vagina drains to the pelvis: inguinal lymphadenopathy may be absent.

Guiding semiology in the evaluation of a genital ulceration

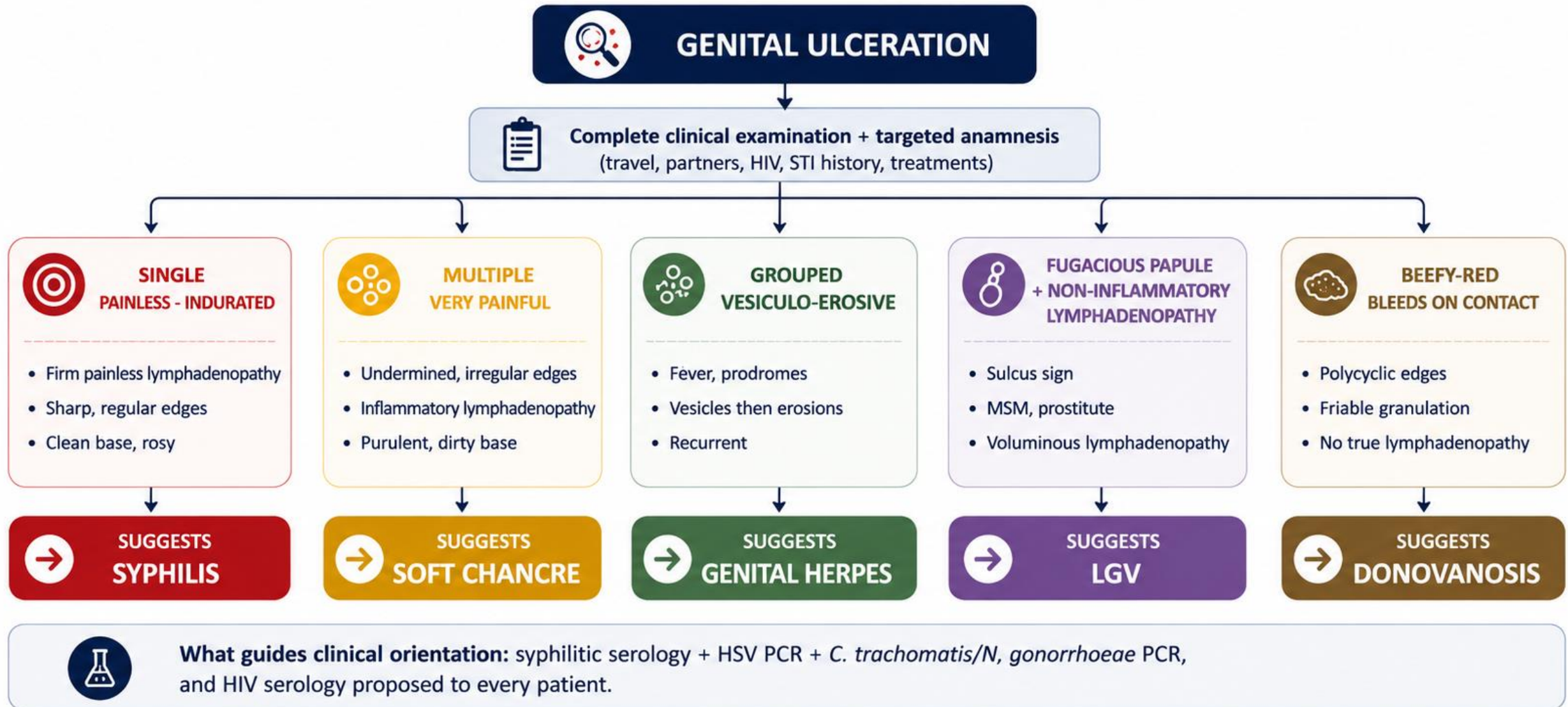
Feature	 Suggests syphilis	 Suggests soft chancre	 Suggests herpes
 Number	Single	Often multiple	Multiple, grouped
 Pain	Painless	Very painful	Painful, burning
 Edges	Sharp, regular	Undermined, irregular	Polycyclic, scalloped
 Consistency	Firm (cartilaginous)	Soft	Soft
 Base	Clean, rosy	Purulent, dirty	Erythematous, vesicular
 Lymphadenopathy	Firm, painless, non-inflammatory	Painful, unilateral, may suppurate or fistulize	Painful, bilateral
 Fever / Systemic signs	Absent	Rare	Frequent (primary infection)



KEY MESSAGE

No sign is pathognomonic alone: it is the **combination** that guides.

Decision-making diagnostic algorithm



4 • SYPHILITIC CHANCERE

Treponema pallidum: agent and physiopathology



AGENT

- *Treponema pallidum*, a motile spirochete, not cultivable *in vitro*.



TRANSMISSION

- Direct mucocutaneous contact with an infectious lesion (chancre, plaques, mucous patches) during unprotected sexual intercourse (genital, anal, oral).



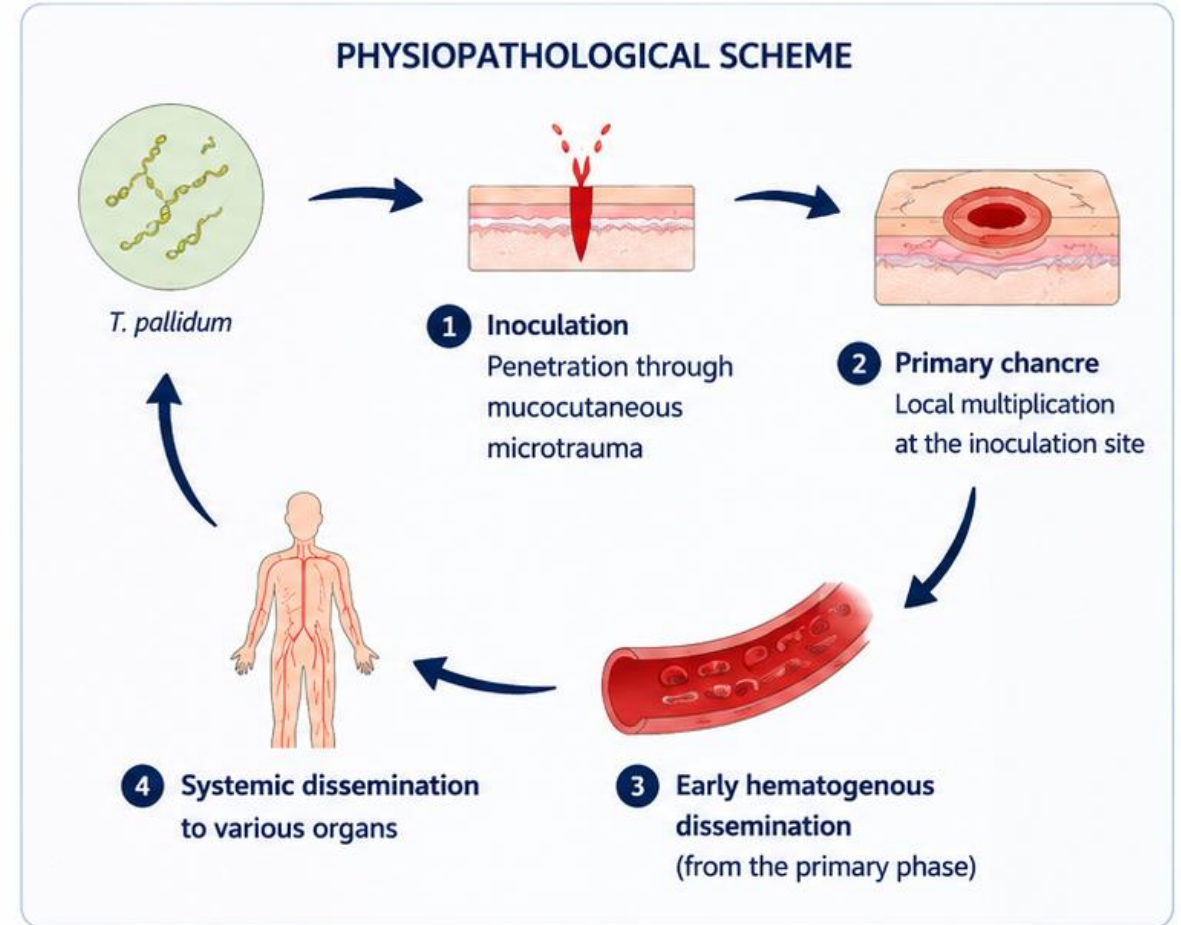
INCUBATION

- 10 to 90 days (average 21 days) between infectious contact and the appearance of the chancre.



PHYSIOPATHOLOGY

- Favoring penetration of mucosal microtrauma
→ local multiplication → chancre at the inoculation site
→ early hematogenous dissemination (from the primary phase).



KEY MESSAGE

From the chancre stage, *Treponema* is already disseminated: syphilis is a systemic disease from the outset.

Clinical presentation: the classic triad

1 SINGLE

A single ulcer with the typical appearance (occurs in 10–30%, especially in HIV+)



Often at the site of inoculation

2 INDURATED

Cartilaginous base on palpation, sharp, well-defined, regular edges, “stamp-like”



Firm induration on palpation

3 PAINLESS

Absence of spontaneous pain and on palpation — major diagnostic clue



Painless on palpation



SATELLITE LYMPHADENOPATHY

- Unilateral or bilateral, firm, painless, mobile, without periadenitis (“ganglionic pleiad”).
- Appears 1 week after the chancre.



SPONTANEOUS EVOLUTION

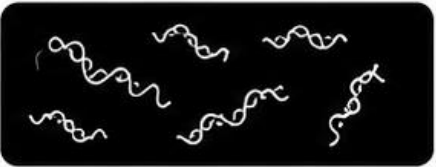
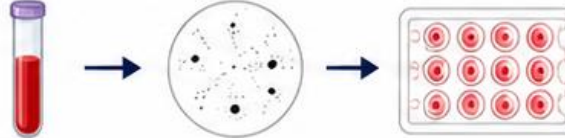
- Heals spontaneously in 3 to 6 weeks without treatment.
- Never leaves a scar.



FREQUENT ATYPICAL PRESENTATIONS

- Multiple chancres
- Painful or superinfected (in HIV+)
- “Giant” chancre
- Bipolar chancre (genital + oral)

Diagnostic confirmation

Examination	Principle	Illustration	Use / limitations
 Direct examination with dark-field microscopy	Direct visualization of motile treponemes in the exudate from the chancre.		Immediate diagnosis if the lesion is active; requires equipment and expertise, not widely available. 
 PCR <i>T. pallidum</i>	Genetic amplification on a sample from the lesion.		Sensitive and specific; reference test when available. 
 Treponemal serology (TPHA, FTA-Abs, EIA/CLIA)	Detects specific anti-treponemal antibodies.		Becomes positive in J7–J10; remains positive for life (serologic scar). 
 Non-treponemal serology (VDRL, RPR)	Detects non-specific anti-cardiolipin antibodies.		Quantitative, follows disease activity; useful for post-therapeutic follow-up. 



CLASSIC TIP: At the onset of the chancre, serology may still be negative (serologic window).

If clinical suspicion is high, treat presumptively and repeat serologic testing in 2 to 4 weeks.



Diagnostic différentiel du chancre syphilitique

Diagnostic différentiel	Caractéristiques cliniques clés	Éléments distinctifs / orientation
 CHANCRE MOU (<i>Haemophilus ducreyi</i>)	• Douloureux • Mou, fond nécrotique • Bords décollés, irréguliers • Adénopathie inguinale douloureuse • Parfois chancre mixte (co-infection)	→ Douleur marquée, adénopathie suppurée (bubons), contexte de rapports sexuels à risque. 
 HERPÈS GÉNITAL (HSV-1 ou HSV-2)	• Lésions multiples, vésiculeuses • Évolution en ulcérations superficielles • Très douloureuses • Contexte fébrile possible, prodromes	→ Vésicules groupées, douleur importante, récurrences fréquentes, contexte d'infection virale. 
 APHTOSE GÉNITALE (M. Lipschütz)	• Adolescente ou jeune femme • Ulcérations multiples, profondes • Contexte viral, non indurée • Douleur modérée à importante	→ Terrain particulier (adolescente), étiologie virale, évolution bénigne et spontanément résolutive. 
 MALADIE DE BEHÇET	• Aphthose bipolaire récidivante (bouche + génital) • Pathergy test positif • Atteinte oculaire, cutanée, articulations	→ Atteintes systémiques associées (oculaires, articulaires, vasculaires), histoire de récurrences. 
 CARCINOME ÉPIDERMOÏDE	• Ulcération indurée, bords surélevés • Fond irrégulier, saignant facilement • Terrain à risque (âge, tabac, HPV, immunodépression)	→ Induration, évolution chronique, absence de guérison, facteurs de risque oncogènes. 
 TRAUMATISME / FIXED DRUG ERUPTION	• Lésion traumatique ou érosions post-traumatiques • Antécédent de prise médicamenteuse (FDE) • Localisation atypique, non indurée	→ Antécédent de traumatisme ou de médicament, évolution non typique du chancre syphilitique. 



MESSAGE CLÉ

Devant tout doute diagnostique persistant : biopsie cutanée pour analyse histologique.

Treatment and follow-up of early syphilis

REFERENCE TREATMENT



Benzathine penicillin G 2,4 million IU IM

single dose — primary, secondary and early latent syphilis (< 1 year)



If allergic to penicillin (non-pregnant) :

doxycycline 100 mg twice daily by mouth for 14 days



Pregnancy: systematic desensitization to penicillin — doxycycline is contraindicated

FOLLOW-UP AND MONITORING



Quantitative VDRL/RPR

at 6 and 12 months: success if decrease ≥ 4 dilutions



Jarisch–Herxheimer reaction

possible within 24 hours (fever, myalgia) — inform the patient



HIV testing and other STIs

to be repeated at 3 months



Sexual abstinence

until complete healing and until the end of treatment of sexual partners

SCREENING AND TREATMENT OF SEXUAL PARTNERS



90 days
(primary syphilis)



6 months
(secondary syphilis/
early latent syphilis)



Serologic screening
and systematic treatment
of sexual partners



KEY MESSAGE

A single IM injection of benzathine penicillin treats early syphilis: *simplicity and maximum adherence.*

Haemophilus ducreyi: agent and epidemiology



AGENT

- *Haemophilus ducreyi*, Gram-negative coccobacillus: direct examination shows a characteristic appearance in “bicycle chain” or “schools of fish”.



INCUBATION

- Short: 4 to 10 days.



ÉPIDEMIOLOGY

- Now rare in Europe and North America; persistent foci in sub-Saharan Africa, the Caribbean and Southeast Asia; cofactor for HIV transmission.

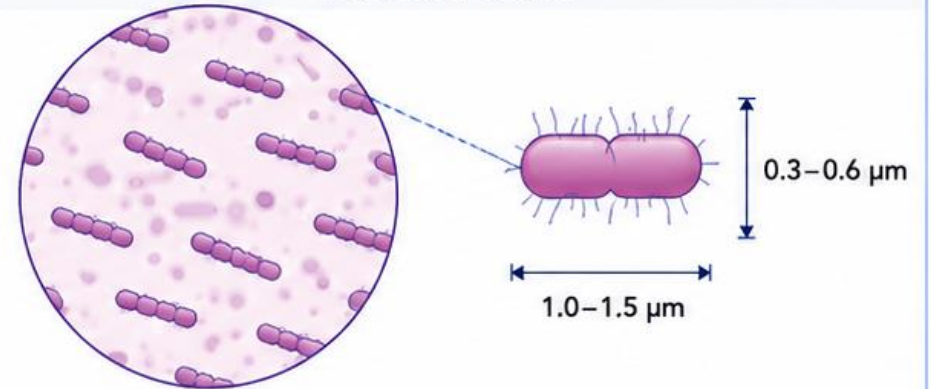


SETTING

- To be considered in any patient with a painful ulcer at the edge of an endemic area or during localized outbreaks.

Bacteriological scheme

Gram staining of an ulcer exudate smear showing Gram-negative coccobacilli arranged in parallel chains.



Characteristic appearance

Bicycle chain



Schools of fish



KEY MESSAGE

Rare in Europe/North America today, but remains a classic differential diagnosis to be known.

Clinical presentation



Painful ulcer(s), often multiple



Irregular, undermined borders, “punched out”, not indurated



Base is dirty, purulent, bleeds easily on contact



“**Mirror-like**” lesions possible due to auto-inoculation (satellite contact lesions)



Unilateral inguinal lymphadenopathy (bubo)



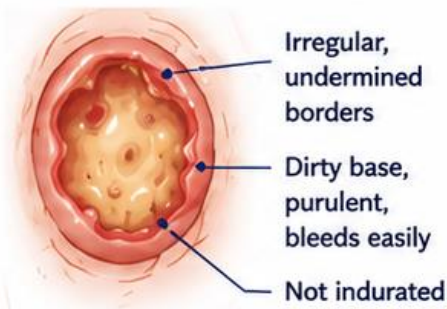
Very painful, inflammatory, suppurative — may fistulize spontaneously with evolution to suppuration (contraindication to syphilis)



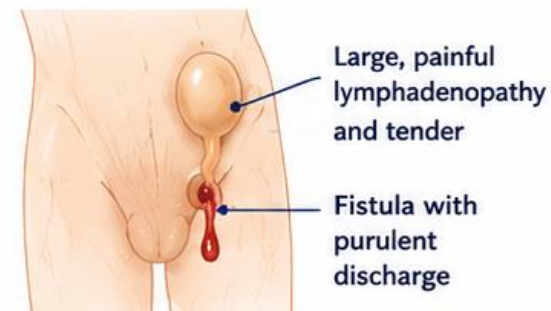
Absence of systemic signs in the majority of cases



Typical ulcer



Inguinal bubo



Comparison: soft chancre vs. syphilitic chancre

Soft chancre



Syphilitic chancre



KEY MESSAGE

Painful ulcer + inguinal bubo with fistula = clinical signature of soft chancre, in opposition to syphilis.

Diagnosis and treatment



DIAGNOSIS



Essentially presumptive diagnosis in clinical practice
(difficult culture, specific media rarely available)

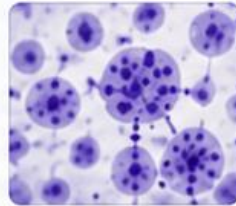


PCR for *H. ducreyi* if available:
current reference test



Probable CDC diagnostic criteria:

- ✓ typical painful ulcer(s)
- ✓ absence of *T. pallidum* (dark-field microscopy/serology)
- ✓ negative HSV PCR/culture



Always eliminate syphilis and herpes
in parallel before retaining this diagnosis



KEY MESSAGE

Presumptive clinical diagnosis accepted by the CDC in the absence of an available culture.



TREATMENT (a single dose is often sufficient)



Azithromycin 1 g PO in a single dose



OR **Ceftriaxone** 250 mg IM in a single dose



OR **Ciprofloxacin** 500 mg twice daily PO
for 3 days



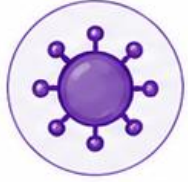
OR **Erythromycin base** 500 mg three times
daily PO for 7 days



Fluctuant bubo: puncture-aspiration
with a needle (no incision) to prevent
the development of a chronic fistula



Virology and herpetic primary infection



HSV-2: _____

- Major cause of recurrent genital infections, transmission almost exclusively sexual.



HSV-1: _____

- Responsible for a growing proportion of primary genital infections (oro-genital contacts), genital recurrences rarer than with HSV-2.



Symptomatic primary infection: _____

- Multiple grouped vesicles evolving into erosions/ulcerations, bilateral and confluent, on an erythematous base.
- General symptoms: fever, malaise, bilateral painful inguinal lymphadenopathy.
- Duration of symptoms: 2 to 3 weeks without treatment.



CLUSTERED VESICLES



EROSIONS / ULCERATIONS



BILATERAL PAINFUL INGUINAL LYMPHADENOPATHY



painful



KEY MESSAGE

Genital herpes is now one of the leading causes of genital ulcerations in high-resource countries.

Herpetic recurrences

CHARACTERISTICS	 PRIMARY INFECTION	 RECURRENCE
 Prodrome	Absent or mild	Common (tingling, burning 24–48 h beforehand)
 Distribution	Bilateral, extensive	Unilateral, localized
 Severity	Severe, systemic symptoms	Moderate, no fever
 Duration	2–3 weeks	6–10 days
 Triggering factors	—	Stress, fever, menstruation, sexual intercourse, immunosuppression

 **Asymptomatic viral shedding** may occur between outbreaks: a major factor in transmission.

 **Variable frequency:** from a few recurrences per year to more than 6 episodes/year in severe forms.

 **KEY MESSAGE**

Sexual transmission of herpes occurs predominantly in the absence of visible outbreaks.



Diagnosis and treatment



DIAGNOSIS



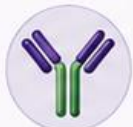
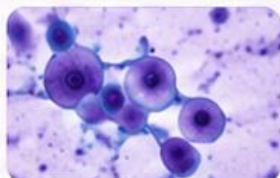
- **HSV PCR (lesion swab):**
reference test, sensitive and rapid,
precise typing 1 or 2



- **Viral culture:**
alternative if PCR unavailable,
lower sensitivity



- **Tzanck smear cytodiagnosis:**
rapid but low sensitivity/specificity,
not recommended as first-line test



- **Type-specific serology (glycoprotein G):**
useful for retrospective diagnosis
or for asymptomatic partner screening



ANTIVIRAL TREATMENT



Initial episode:

- aciclovir 400 mg three times daily for 7–10 days
(or valaciclovir 1 g twice daily,
or famciclovir 250 mg three times daily)



Recurrence (episodic treatment):

- aciclovir 400 mg three times daily for 5 days,
starting at the prodrome



Suppressive therapy:

- if ≥ 6 recurrences/year — aciclovir 400 mg twice
daily or equivalent, reduces recurrence frequency
and transmission



TAKEN EARLY
from the prodrome



REDUCES
duration and severity
of outbreaks



REDUCES
transmission



KEY MESSAGE

Antiviral treatment shortens outbreaks but does not eradicate latent virus in sensory ganglia.

Chlamydia trachomatis L1–L3: the three clinical stages

Stage 1

Primary invasion



Small, superficial genital papule or ulcer, indolent and fugacious — often unnoticed (few days)



A few days

Stage 2

Ganglionic phase



2–6 weeks after: inguinal and/or femoral inflammatory lymphadenopathy, painful, unilateral or bilateral, “groove sign” (inguinal and femoral nodes separated by the crural arch); may suppurate (“cold abscess”). Frequent anorectal involvement in MSM: hemorrhagic proctitis, tenesmus, discharge.



2–6 weeks



Inguinal/femoral lymphadenopathy



Groove sign



Possible fistulization



Anorectal involvement (MSM)

Stage 3

Late sequelae



Rectal fibrosis, rectal strictures, genital elephantiasis (untreated) — now rare thanks to early treatment



Rare today



KEY MESSAGE

The three stages progress sequentially in the absence of treatment. Screening and early management help prevent serious complications.

Diagnosis and treatment



DIAGNOSIS



PCR for *C. trachomatis* on ulcer swab, lymph node aspirate or rectal swab (anorectal forms)



Genotyping confirming serovars L1–L3 when available (distinction with endemic genital chlamydiosis)



Chlamydial serology: high titers suggestive but not specific, useful as a second-line test



Needle aspiration of fluctuant lymph nodes (never incision–drainage)



TREATMENT



Doxycycline 100 mg twice daily PO for 21 days



Duration voluntarily extended and different from that of uncomplicated genital chlamydiosis (7 days): target is deep tissue involvement



Alternative: azithromycin 1 g PO once weekly for 3 weeks



Systematic treatment of partners from the last 60 days



KEY MESSAGE

21 days of doxycycline: the longest treatment duration of all currently recommended bacterial STIs.



Klebsiella granulomatis: epidemiology and clinical features



AGENT

- **Klebsiella granulomatis** (formerly *Calymmatobacterium granulomatis*), an intracellular Gram-negative bacillus



Intracellular
Gram-negative
bacillus



ÉPIDEMIOLOGY

- Rare, with limited endemic foci — India, Papua New Guinea, South Africa, Aboriginal populations of Australia, and certain regions of Brazil



CLINICAL FEATURES

- Painless, clean ulcer with exuberant, bright-red (“beefy red”) granulation tissue, bleeding easily on contact, with slow, progressive, serpiginous extension



Bright-red
granulation tissue



Easy contact
bleeding



Slow, serpiginous
extension



LYMPH NODE FEATURES

- No true lymphadenopathy; possible subcutaneous “pseudobuboes” (granulomas) mimicking lymphadenopathy



No true
lymphadenopathy



Pseudobuboes
(granulomas)



Bright-red
granulation tissue
 (“beefy red”)



Easy contact
bleeding



Absence of true
lymphadenopathy



KEY MESSAGE

“Beefy red” + easy contact bleeding + absence of true lymphadenopathy =
the characteristic triad suggestive of donovanosis.

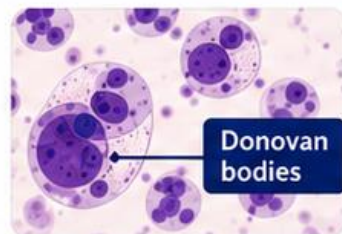
Diagnosis and treatment



DIAGNOSIS



- **Smear (“crush preparation”)** stained with **Giemsa or Wright**: demonstration of Donovan bodies — intracytoplasmic basophilic inclusions within monocytes/macrophages



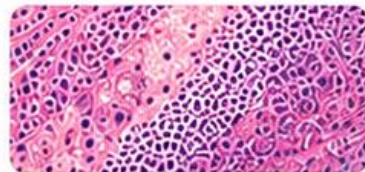
- **Specific PCR** when available (limited availability)



- **Routine culture** not feasible (difficult-to-culture organism)



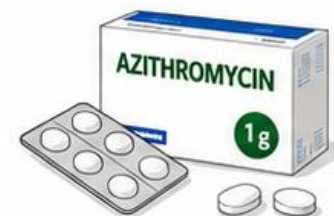
- **Biopsy** with histopathological analysis if smear is non-contributory



TREATMENT (prolonged)



- **Azithromycin 1 g/week** (or 500 mg/day) PO, for at least 3 weeks and until complete healing



- **Alternatives:** doxycycline 100 mg twice daily, ciprofloxacin 750 mg twice daily, trimethoprim–sulfamethoxazole, erythromycin — same prolonged durations



- **Close clinical follow-up:** relapse possible 6 to 18 months after apparently effective treatment



KEY MESSAGE

Treatment is continued until complete healing,
never for a fixed duration predetermined in advance.



Non-infectious genital ulcerations



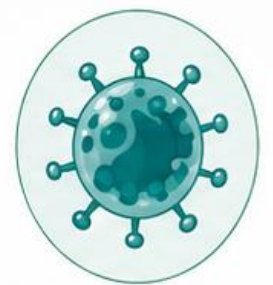
Behçet's disease

Bipolar aphthosis (oral + genital)
recurrent, pathergy test positive,
uveitis/erythema nodosum associated



Simple genital aphthosis (Lipschütz)

Young woman, often post-viral
(e.g., EBV, COVID-19...),
not sexually transmitted,
spontaneous healing



Trauma

Anamnesis suggests — sexual activity,
manipulation, piercing, sport



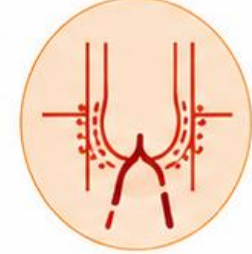
Epidermoid carcinoma

Chronic, indurated, exophytic ulceration
not healing, systematic biopsy
if in doubt, HPV-related lesion



Crohn's disease (ano-perineal)

Fissures, linear ulcers
“knife-cut” appearance, fistulas —
digestive context



Inflammatory dermatoses / toxicodermia

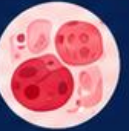
Erosive lichen planus, pemphigus/pemphigoid,
fixed drug eruption (recurrence at the same
site after re-exposure to the drug)



KEY MESSAGE

A chronic genital ulcer that does not heal under appropriate treatment
should be biopsied.

Comparative table of the main etiologies

	 Syphilis	 Soft chancre	 Genital herpes	 LGV	 Donovanosis	 Behçet's disease
 Number	Single	Multiple	Multiple	Often single (rarely)	Single/multiple	Multiple, bipolar
 Pain	No	Yes++	Yes++	No (stage 1)	No	Yes
 Lymphadenopathy	Firm, painless	Painful, suppurative	Painful, bilateral	Inflammatory, "groove sign"	Absent (pseudo-bubo)	Absent
 Incubation period	10–90 days	4–10 days	2–14 days	3–30 days	1–4 weeks	Variable
 Diagnosis	Serology + PCR	Clinical/PCR	HSV PCR	PCR + genotype	Donovan bodies (smear/biopsy)	Clinical + pathology
 Treatment	Single dose benzathine penicillin	Single dose azithromycin	Acyclovir 5–10 days	Doxycycline 21 days	Azithromycin ≥ 3 weeks	Colchicine / immuno-modulators

Paraclinical workup for a genital ulceration

Test	Indication / objective
 Syphilis serology (treponemal + non-treponemal tests)	➔ Systematic for all genital ulcerations
 Direct examination of dark-field / <i>T. pallidum</i> PCR	➔ If active lesion accessible for sampling
 HSV-1/HSV-2 PCR	➔ Systematic — leading cause of ulceration in high-resource settings
 <i>Chlamydia trachomatis</i> PCR (+ genotyping if LGV suspected)	➔ Systematic; genotyping if inguinal-femoral lymphadenopathy suggestive of LGV
 <i>Neisseria gonorrhoeae</i> PCR	➔ Screening for associated STIs (NAAT)
 Exudate smear/culture or <i>H. ducreyi</i> PCR if available	➔ If clinical context suggestive of soft chancre (travel, endemic area)
 Smear (<i>Donovan bodies</i>)	➔ If chronic, beefy-red ulcer in an endemic setting
 HIV serology	➔ Systematic, to be offered to all patients (pre-test counseling)
 Hepatitis B and C serologies	➔ Additional STI workup
 Skin biopsy + histopathology	➔ Diagnostic uncertainty, lack of healing, suspicion of neoplasia



KEY MESSAGE

Syphilis serology, HSV PCR, Chlamydia PCR (LGV), and HIV serology: the minimal systematic workup.

First-line therapeutic algorithm



Syphilis



Benzathine penicillin G 2.4 MU IM, single dose



Soft chancre



Azithromycin 1 g PO, single dose



Genital herpes



Acyclovir 400 mg TID PO, 7–10 days (initial episode)



LGV



Doxycycline 100 mg BID PO, 21 days



Donovanosis



Azithromycin 1 g/week PO, ≥ 3 weeks



*In case of diagnostic uncertainty and for highly suggestive syphilitic ulceration: **start empirical immediate treatment**, without waiting for serology.*

First-line therapeutic algorithm

Syndromic treatment

- ✓ Simultaneous treatment of the main etiologies adapted to the **local epidemiology**
- ✓ **Multi-target** treatment since often **associated STIs**
- ✓ Simple, **Oral route**, Single dose

Treatment of syphilis + soft chancre



Review +++
after 7 days



Partner notification +
Educate/Counsel
Screen for other STIs



Benzathine penicillin G :
one intramuscular injection
of 2.4 million units,
single dose.



Azithromycin 1 g PO
single dose
or **Ceftriaxone** 250 mg IM

Symptomatic treatment and local care



Analgesics adapted to pain intensity

- Paracetamol as first-line; NSAIDs with caution in infectious context



Local care

- Twice-daily cleansing with lukewarm water and mild soap, careful drying
- Topical antiseptics in case of local superinfection, without excess to avoid delaying healing



Associated measures

- Wear loose cotton underwear, avoid local irritants (perfumes, wipes)
- Take into account frictional pain if peri-meatal lesion (urination in a warm bath)



Local hygiene advice



Gentle cleansing with lukewarm water



Mild, non-irritating soap



Careful drying



Loose cotton underwear



Avoid irritants (perfumes, wipes)



Warm bath if frictional painful urination



KEY MESSAGE

Symptomatic treatment never replaces etiological treatment — it accompanies it.

Screening and treatment of sexual partners

 Etiology	 Partner notification period	 Management
 Primary syphilis	 90 days	 Screening + presumptive treatment if last contact < 90 days
 Secondary syphilis / early latent syphilis	 6 months	 Systematic screening, treat if serology positive
 Soft chancre	 10 days	 Treat even if asymptomatic
 Genital herpes	 Current partner(s)	 Information only, no systematic treatment of asymptomatic partner
 LGV	 60 days	 Screening + presumptive treatment for chlamydia



Sexual abstinence until complete healing and end of treatment (patient and partner).



Partner notification: by the patient him/herself, or with the help of public health services according to local resources.

Complications of untreated or inadequately treated genital ulcers



Scarring

- Retractable scars, phimosis, cicatricial stenosis (meatitis, rectal stenosis in LGV)



Local infectious complications

- Bacterial superinfection, abscess formation, fistulization of lymph nodes



HIV transmission

- Risk increased 2–5 fold in the presence of an active ulcer — gateway for entry and viral shedding



Lymphatic complications

- Persistent buboes, cutaneous fistulas, genital elephantiasis (advanced LGV/donovanosis)



Obstetric complications

- Congenital syphilis (intrauterine fetal death, prematurity, neonatal multivisceral involvement); vertical transmission of herpes during delivery (neonatal herpes)



Systemic consequences

- Secondary syphilis, tertiary syphilis, neurosyphilis in the absence of treatment for primary syphilis



KEY MESSAGE

Early diagnosis and appropriate treatment prevent local, systemic and transmission-related complications.

Prevention of sexually transmitted infections



Preventive measures

Consistent and correct use — reduces but does not completely eliminate the risk (non-covered lesions)



Regular screening

HIV and STI testing for all sexually active individuals at risk, and systematically in early pregnancy



HPV vaccination

Recommended for adolescents (male and female), reduces the risk of genital lesions and HPV-related cancers



Patient education

Education about transmission, asymptomatic infection, and the importance of routine testing



Partner notification

An essential step in treatment, to organize index case consultation



HIV counseling

Systematic offering, with referral to PrEP for individuals at risk when risk factors are identified



KEY MESSAGE

Prevention combines protection, screening, vaccination and communication — never a single isolated measure.

The 10 essential messages to remember

1



Every genital ulcer is an STI
until proven otherwise.

2



The **unique–indolent–indurated triad** suggests syphilis, but atypical forms are frequent (including in HIV+).

3



Treponema pallidum spreads from the stage of chancre: treatment **must always be systematic**.

4



A negative syphilis serology early does not rule out the diagnosis (serological window period).

5



Painful + suppurative bubo suggests **soft chancre**.

6



Genital herpes is today one of the main causes of genital ulcer.

7



LGV is treated with **doxycycline 21 days**, longer than uncomplicated chlamydial infection.

8



Donovanosis is rarely accompanied by true lymphadenopathy (pseudo-buboes).

9



Minimal systematic work-up: syphilis serology, HSV PCR, Chlamydia/Gonorrhea PCR, HIV serology.

10



Treatment of **partners** and **sexual abstinence** are essential and inseparable from patient management.



KEY MESSAGE

Know, screen, treat, prevent: a comprehensive approach to break the chain of transmission.

Fact Sheet — Genital Mucosal Ulceration

Etiology	Distinctive features	Key diagnosis	First-line treatment
 Syphilis	Unique, painless, indurated	Serology + PCR	Benzathine penicillin 2.4 million IU IM ×1
 Soft chancre	Multiple, painful, fistulizing bubo	Clinical (CDC criteria)	Azithromycin 1 g PO ×1
 Genital herpes	Grouped vesicles, painful	HSV PCR	Acyclovir 400 mg TID, 7–10 days
 LGV	Painless ulcer, proctitis (MSM)	PCR + genotyping	Doxycycline 100 mg BID, 21 days
 Donovanosis	Beefy-red, bleeding, no true bubo	Donovan bodies	Azithromycin 1 g weekly, ≥ 3 weeks
 Behçet disease	Recurrent bipolar aphthosis	Clinical + pathergy test	Colchicine ± immunomodulators



Systematic approach:

1

Complete examination including decubitus and exocol

2

Syphilis serology + HSV PCR + PCR Chlamydia/gonorrhea

3

Presumptive treatment if high clinical suspicion

4

Testing and treatment of partners

5

Abstinence until complete healing



KEY MESSAGE

Know, test, treat, prevent: a comprehensive approach to break the chain of transmission.

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