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Sexually Transmitted Infections (STI)

One Day Update

February 2015

Overview

- STI Guideline Changes
- National STI Services Results Reporting
- High Transmission Areas: Key Populations



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STI Guideline Changes

February 2015

Significant Changes



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Significant Changes

- Cefixime no longer in guidelines, changed to Ceftriaxone IM
- Doxycycline no longer in guidelines for use other than for PCN allergy in syphilis and BAL, changed to Azithromycin
- Ciprofloxacin no longer in guidelines for penicillin allergy
- Ceftriaxone IM and Benzathine Benzylpenicillin IM to be dissolved in lidocaine 1% without epinephrine to assist with pain management of dosing



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Rationale for Ceftriaxone IM

- Ceftriaxone 250mg IM is highly efficacious at treating *N. gonorrhoeae* at all anatomical sites
- Increasing resistance of gonococcal strains to cefixime and ciprofloxacin
- An IM dosing improves adherence
- One previous barrier was the possible patient complaint of pain, no longer an issue when diluted with lidocaine (w/out epinephrine)



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Rationale for Azithromycin

- Effective for chlamydial infection and post-gonococcal urethritis
- Combination therapy may improve efficacy and delay emergence of resistance
- Preferred to doxycycline
 - Improved adherence
 - Higher gonococcal resistance to doxycycline



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Specific Changes by Algorithm



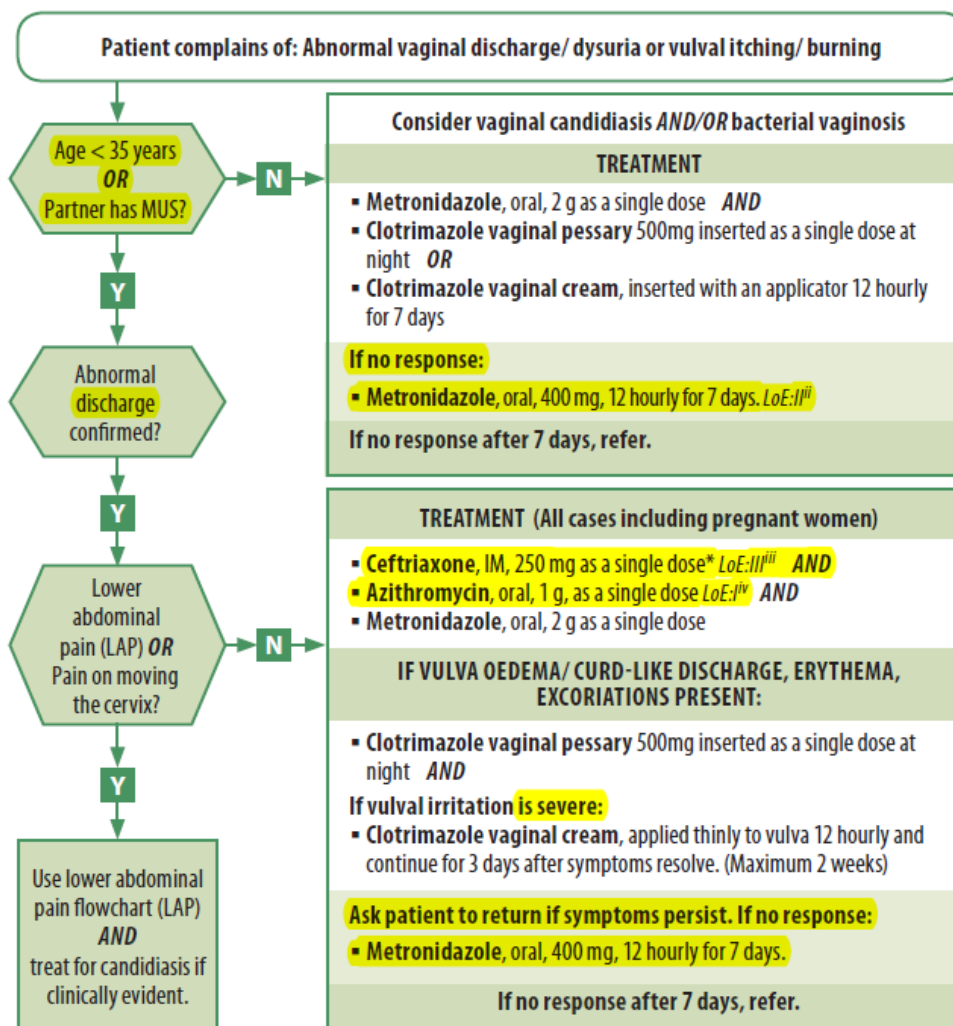
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Vaginal Discharge Syndrome (VDS)

Vaginal Discharge Syndrome (VDS)



*People who are allergic to penicillin may also react to ceftriaxone.

If severe penicillin allergy, i.e. angioedema, anaphylactic shock or bronchospasm, omit ceftriaxone and increase azithromycin dose to:

- Azithromycin, oral, 2 g, as a single dose. LoE:I^v

For ceftriaxone IM injection: Dissolve ceftriaxone 250 mg in 0.9 mL lidocaine 1% without epinephrine (adrenaline) LoE:IIIⁱⁱⁱ

Take Pap smear after treatment, if indicated according to screening guidelines.

Note: Suspected STI in children should be referred to hospital for further management.



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VDS – Specific Changes

- Age < 35 or Partner with MUS as new criteria instead of patient sexually active in past 3 months.
 - If patient does not meet either of these criteria consider vaginal candidiasis and/or bacterial vaginosis
 - If there is no response to initial treatment provide Metronidazole, oral, 400 mg, 12 hourly for 7 days
 - If patient does meet criteria, confirm abnormal DISCHARGE, no longer vulval itching or burning



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VDS – Specific Changes (2)

- Treatment for VDS has changed from Cefixime and Doxycycline to for all, including pregnant women:
 - Ceftriaxone, IM, 250 mg as a single dose AND
 - Azithromycin, oral, 1 g as a single dose AND
 - Metronidazole, oral, 2g as a single dose
 - If vulva oedema/curd-like discharge, erythema, excoriations – Clotrimazole vaginal pessary 500mg 1x
- If vulval irritation **is severe** treat with Clotrimazole vaginal cream applied 12 hourly x 3 days after symptoms resolve (maximum 2 weeks)
- If no response, Metronidazole, oral, 400 mg 12 hourly for 7 days



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Ceftriaxone IM Injection

- Ceftriaxone IM 250mg should be dissolved in 0.9 mL lidocaine 1% without epinephrine (adrenaline)
- Dissolving with lidocaine will decrease pain associated with the injection of the antibiotic
- Note this is only for IM dosing of Ceftriaxone, IV dosing should NOT be diluted with lidocaine



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VDS Specific Changes (2)

- If an allergy to penicillin omit ceftriaxone and increase azithromycin dose to 2g oral as a single dose
 - NO longer give Ciprofloxacin
- Additionally, indications are included reminding practitioners to obtain a pap smear following treatment according to screening guidelines
- A note is included to refer all suspected STIs in children to the hospital for further management

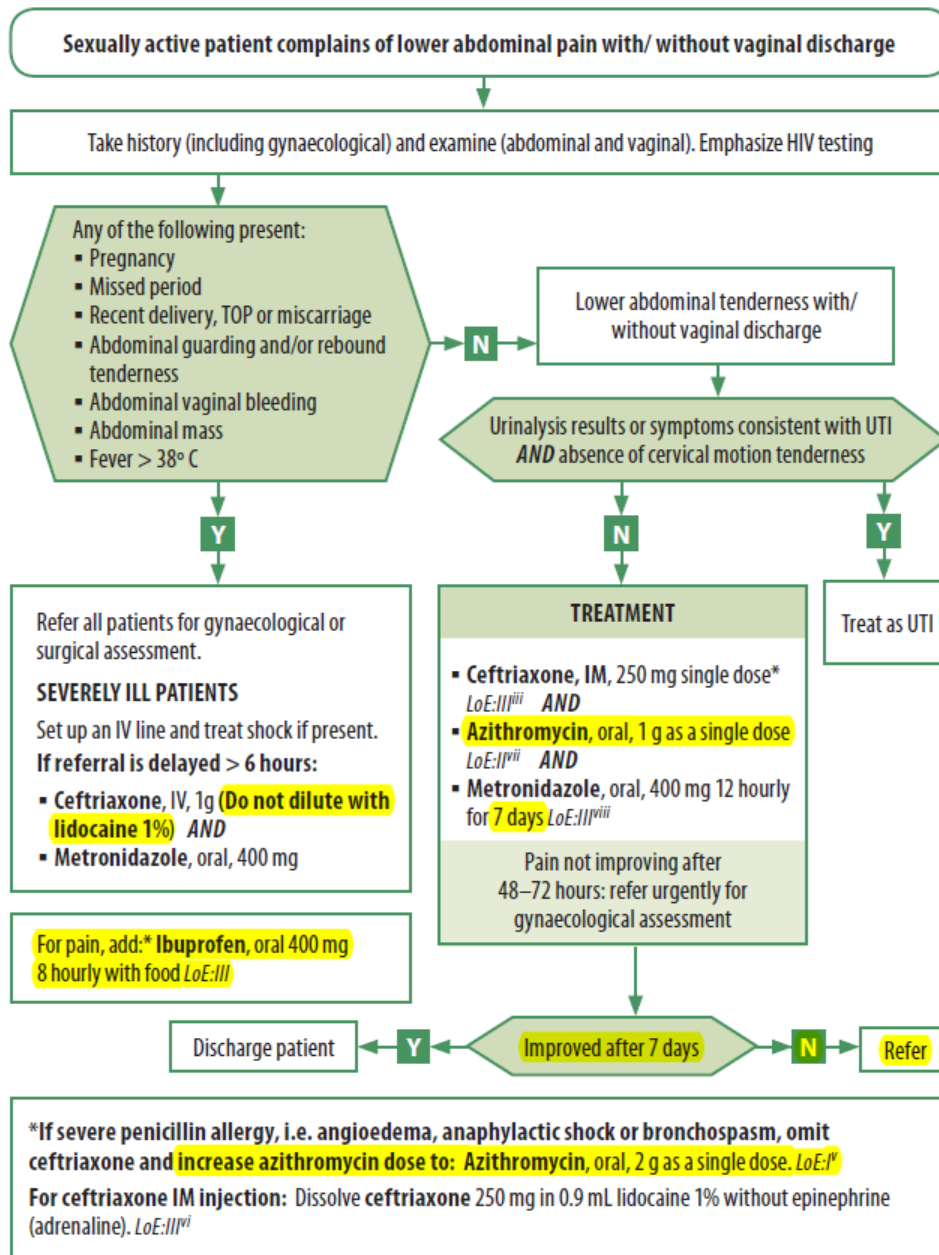


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Lower Abdominal Pain (LAP)

Lower Abdominal Pain (LAP)



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LAP Specific Changes

- Diagnostic and exclusionary criteria for LAP remain the same
 - For severely ill patients management remains primarily the same
 - However, do **NOT** dilute **IV** Ceftriaxone with lidocaine
 - Treatment for non-severely ill patients now includes the following:
 - Ceftriaxone IM 250 mg single dose AND
 - Azithromycin, oral, 1 g as a single dose AND
 - Metronidazole, oral, 400 mg 12 hourly for 7 days
- NOTE – Doxycycline is no longer part of the regimen and has been substituted with Azithromycin



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LAP Specific Changes (2)

- Treat pain with Ibuprofen, oral, 400 mg 8 hourly with food
- Follow-up at 48-72 hours remains
- Check for improvement after 7 days, including referral if no improvement has been added
 - Ensuring full improvement is essential to prevent severe complications!
- Similar to VDS, no longer give ciprofloxacin in the case of penicillin allergy, rather increase azithromycin dose to 2g orally as a single dose and omit ceftriaxone

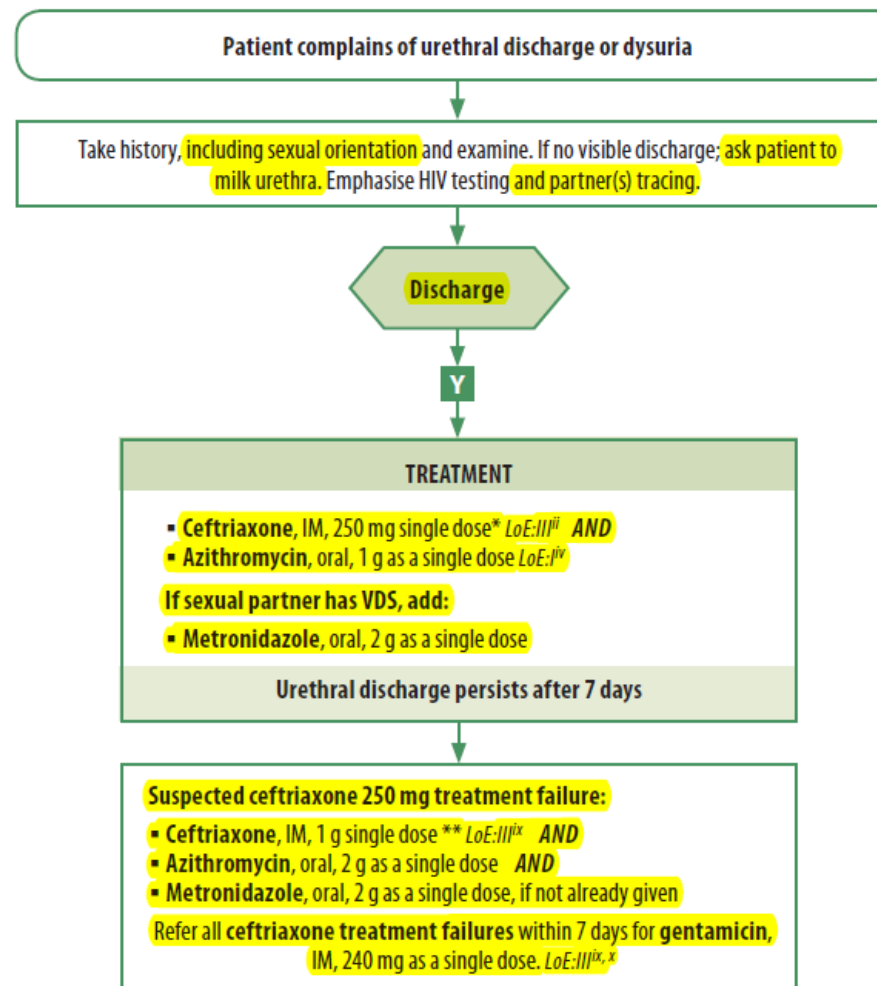


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Male Urethritis Syndrome (MUS)

Male Urethritis Syndrome (MUS)



EMPHASISE PARTNER(S) TRACING

If severe penicillin allergy, i.e. angioedema, anaphylactic shock or bronchospasm:
 *omit ceftriaxone, IM, 250 mg and increase azithromycin dose to azithromycin, oral, 2 g as a single dose LoE:IV
 **omit ceftriaxone, IM, 1 g and refer to a centre for gentamicin, IM, 240 mg as a single dose plus azithromycin, oral, 2 g as a single dose. LoE:III^x,*

For ceftriaxone IM injection:

- Dissolve ceftriaxone 250 mg in 0.9 mL lidocaine 1% without epinephrine (adrenaline).
- Dissolve ceftriaxone 1 g in 3.6 mL lidocaine 1% without epinephrine (adrenaline). LoE:III^{vi}

MUS Specific Changes

- A history of sexual orientation is included
 - MSM are more likely to develop drug resistant cases
- Partner tracing is emphasised throughout
- ONLY patients with DISCHARGE will be treated
 - Not the patients with complaints of dysuria and NO discharge or without evidence of discharge
- Still treat presumptively if partner has MUS or VDS



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MUS Specific Changes (2)

- Treatment for MUS has changed from Cefixime and Doxycycline to:
 - Ceftriaxone, IM, 250 mg as a single dose (dissolved in 0.9 mL lidocaine 1% without epinephrine) AND
 - Azithromycin, oral, 1 g as a single dose AND
 - If sexual partner has VDS, Metronidazole, oral, 2g as a single dose
- If an allergy to penicillin omit ceftriaxone and increase azithromycin dose to 2g oral as a single dose
 - NO longer give Ciprofloxacin



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MUS Specific Changes - Resistance

- If urethral discharge persists after 7 days:
 - Suspect treatment failure
- Treat with the following:
 - Ceftriaxone, IM, 1 g single dose (dissolved in 3.6mL lidocaine 1% without epinephrine) AND
 - Azithromycin, oral, 2 g as a single dose AND
 - Metronidazole, oral 2 g as a single dose (if not already given)
 - If PCN allergy omit ceftriaxone and refer for gentamicin plus azithromycin
- Refer all ceftriaxone treatment failures within 7 days for gentamicin, IM, 240 mg as a single dose



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Scrotal Swelling (SSW)

Scrotal Swelling (SSW)

Sexually active patient complains of scrotal swelling/ pain

Take history and examine. Emphasize HIV testing.

Scrotal swelling
OR
pain confirmed?

For pain add:
▪ **Ibuprofen**, oral, 400 mg 8 hourly with food
LoE:III

Y

Testes rotated and elevated
OR
History of trauma
OR
Other non-tender swelling not
thought to be due to sexual
activity?

N

TREATMENT

- **Ceftriaxone**, IM, 250 mg as a single dose*
LoE:IIIⁱⁱⁱ
- AND**
- **Azithromycin**, oral, 1 g as a single dose *LoE:IV*

Review after 7 days or earlier if necessary

Y

Refer for surgical opinion
Refer urgently if suspected torsion

Improving?

N

Complete treatment and discharge patient.

Y

*If severe penicillin allergy, i.e. angioedema, anaphylactic shock or bronchospasm, omit ceftriaxone and increase azithromycin dose to:
▪ **Azithromycin**, oral, 2 g as a single dose *LoE:I, IIIⁱⁱ*
For ceftriaxone IM injection: dissolve ceftriaxone 250 mg in 0.9 mL lidocaine 1% without epinephrine (adrenaline). *LoE:IIIⁱⁱ*



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SSW Specific Changes

- Treatment for SSW has changed from Ceftriaxone and Doxycycline to:
 - Ceftriaxone, IM, 250 mg as a single dose (dissolved in 0.9 mL lidocaine 1% without epinephrine) AND
 - Azithromycin, oral, 1 g as a single dose
 - If PCN allergy, omit ceftriaxone and increase azithromycin to 2 g orally as a single dose (no longer giving ciprofloxacin)
- If pain, Ibuprofen, oral, 400 mg 8 hourly with food may be dispensed

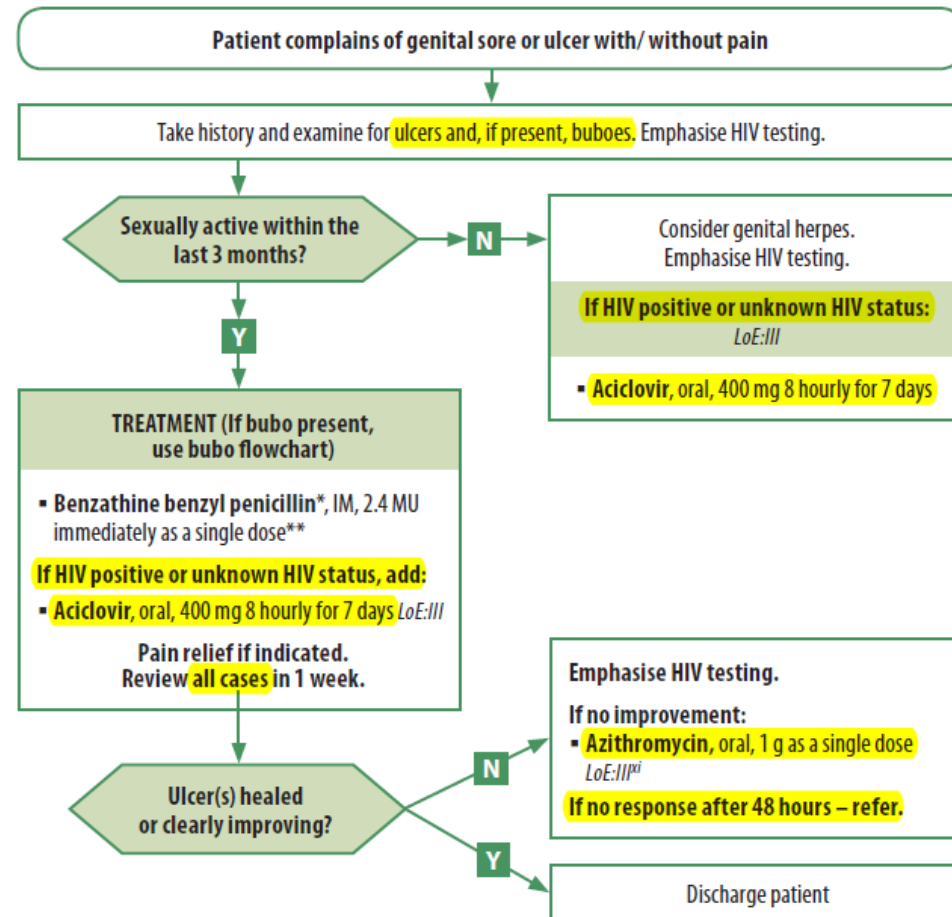


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Genital Ulcer Syndrome (GUS)

Genital Ulcer Syndrome (GUS)



Penicillin allergic men and non-pregnant women: Perform a baseline RPR and replace benzathine penicillin with:

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

Patient to return for a follow-up RPR 6 months later. *LoE:III*

***Penicillin allergic pregnant women/ breast feeding women, refer for confirmation of new syphilis infection and possible penicillin desensitisation.** *LoE:IIIⁱⁱⁱ*

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



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GUS Specific Changes

- Examination specifically mentions ulcers
 - If ulcers present, look for buboes
 - If bubo is present – use bubo flowchart
- Emphasis on HIV status directing aciclovir management
 - Requires asking HIV status and recommending testing if unknown
 - If no sexual activity, and patient is HIV positive or of unknown status treat with aciclovir, oral, 400 mg 8 hourly x 7 days
 - If no sexual activity and HIV negative – do NOT treat for HSV, consider another etiology



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Herpes Simplex Virus- 2 and HIV

- Persons living with HIV are more likely to have HSV-2
- The 2012 Antenatal HIV and HSV Survey showed an overall estimated HSV prevalence among antenatal clients in KZN, NC, GP and WC
 - 42.5% if HIV negative
 - 89.1% if HIV positive



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GUS Specific Changes (2)

- If ulcer but no bubo and sexually active within the past 3 months
 - Continue to treat with Benzathine benzylpenicillin, IM, 2.4 MU immediately as a single dose
 - Dissolve in 6 mL lidocaine 1% without epinephrine
 - If HIV+ or unknown status, add aciclovir, oral 400 mg 8 hourly for 7 days
- Review ALL cases in one week

GUS Specific Changes (3)

- If no improvement:
 - **Treat and then refer** if no response within 48 hours
 - Treat with Azithromycin, oral, 1g as a single dose
- If PCN allergy:
 - Perform baseline RPR
 - Continue to replace benzathine benzylpenicillin with doxycycline, oral, 100 mg 12 hourly x 14 days
 - Return for a follow-up RPR in 6 months or later
 - If pregnant or breastfeeding, refer for confirmation of new syphilis infection and possible penicillin desensitisation



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Bubo (BUB)

Bubo

Patient complains of hot tender inguinal swelling with surrounding erythema and/or oedema

Take history and examine.
Emphasise HIV testing.
Exclude hernia or femoral aneurysm.

Bubo
confirmed?

Y

TREATMENT

- **Azithromycin**, oral, 1 g immediately and 1 g a week later *LoE:III^{xiv}*

If bubo is fluctuant:

Aspirate pus in sterile manner.
Repeat every 72 hours, as necessary.

If no improvement after 14 days, refer.



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Bubo specific changes

- If bubo is confirmed no longer treat with Doxycycline and Ciprofloxacin, instead treat with:
 - Azithromycin, oral, 1 g immediately and 1 g a week later
- No longer provide additional treatment if also an ulcer
- Refer if no improvement after 14 days

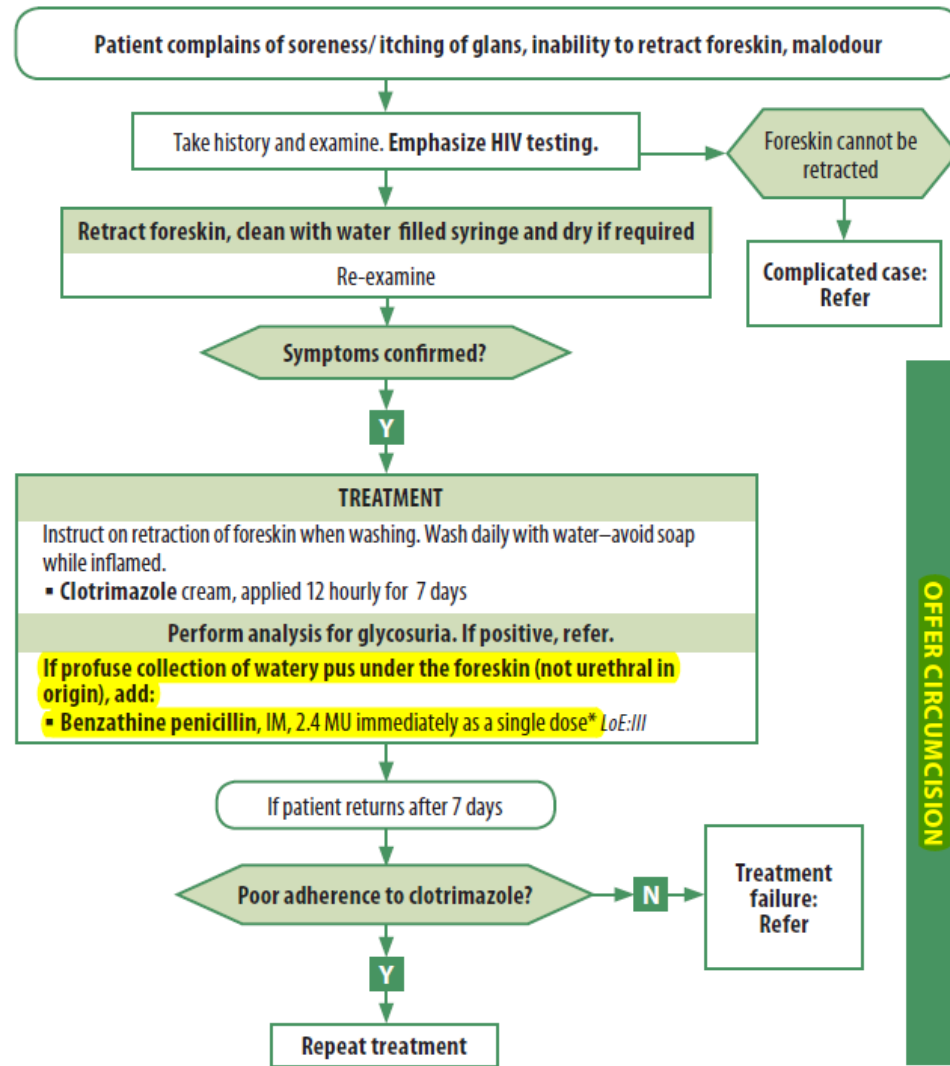


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Balanitis/ Balano- posthitis (BAL)

Balanitis/Balanoposthitis (BAL)



*Penicillin allergic men:

- Replace benzathine penicillin with: **Doxycycline**, oral, 100 mg 12 hourly for 14 days.

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



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BAL specific changes

- In examining, note if there is a profuse collection of watery pus under the foreskin that is not coming from the urethra
 - If present, additionally treat with Benzathine benzylpenicillin, IM, 2.4 MU immediately as a single dose
 - Dissolve in 6 mL lidocaine 1% without epinephrine
 - If PCN allergic replace benzathine benzylpenicillin with Doxycycline, oral, 100 mg 12 hourly x 14 days
- Provide MMC Counselling



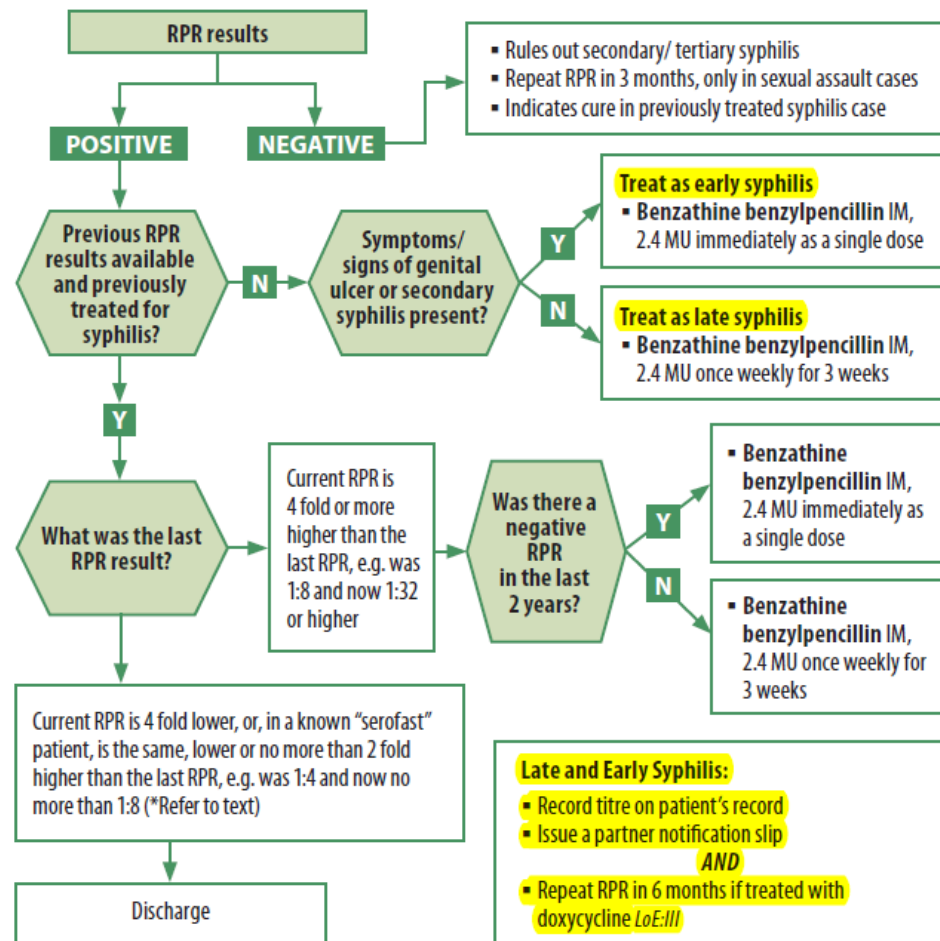
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Syphilis

Syphilis

- Perform RPR if indicated:**
- sexual assault case
 - suspected secondary syphilis
 - suspected tertiary syphilis
 - 6 month follow-up of early syphilis cases treated with doxycycline



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



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Syphilis Specific Changes

- RPR indications:
 - Indicated in 6 month follow-up of early syphilis case treated with doxycycline (see GUS algorithm)
 - No longer indicated for 3 month follow-up of recently treated early syphilis cases
- Clarification in algorithm of what is considered an early or a late syphilis case
- Dissolving benzathine benzylpenicillin 2.4MU in 6 mL lidocaine 1% without epinephrine



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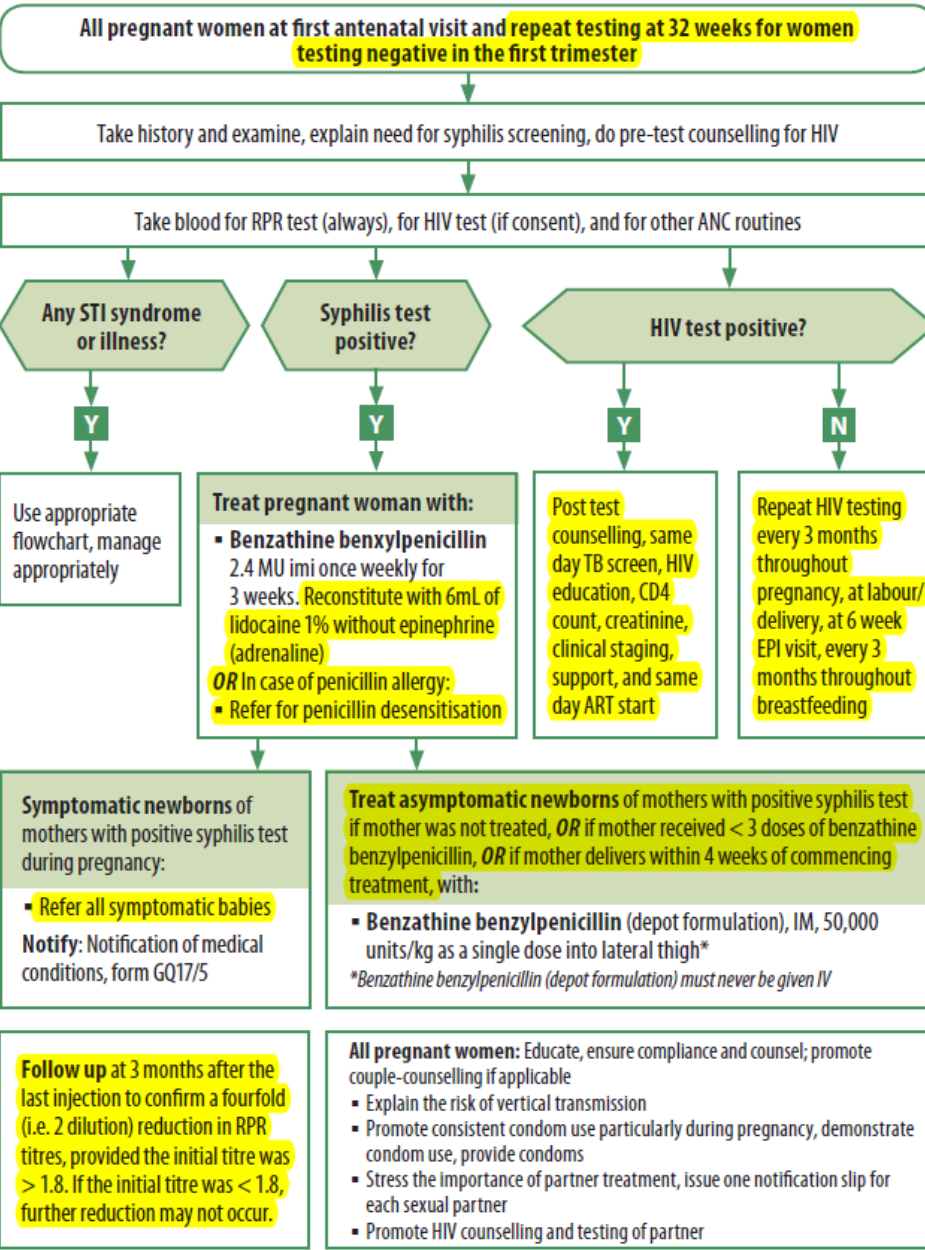
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Syphilis Specific Changes (2)

- An added emphasis on the following for early AND late syphilis:
 - Recording the titre on patient's record (as this is necessary for potential future presentations)
 - Issuing a partner notification slip
 - Repeating RPR in 6 months if treated with doxycycline

Syphilis in Pregnancy

Syphilis in Pregnancy



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Syphilis in Pregnancy

Specific Changes

- Rapid syphilis screening recommended
- Repeat screening at 32 weeks in women testing negative in first trimester
- HIV testing and result indications aligned with new ART guidelines
- Reconstitution of Benzathine benzylpenicillin with lidocaine 1% without epinephrine
- Follow-up at 3 months to confirm fourfold reduction in RPR



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Syphilis in Pregnancy

Specific Changes (2)

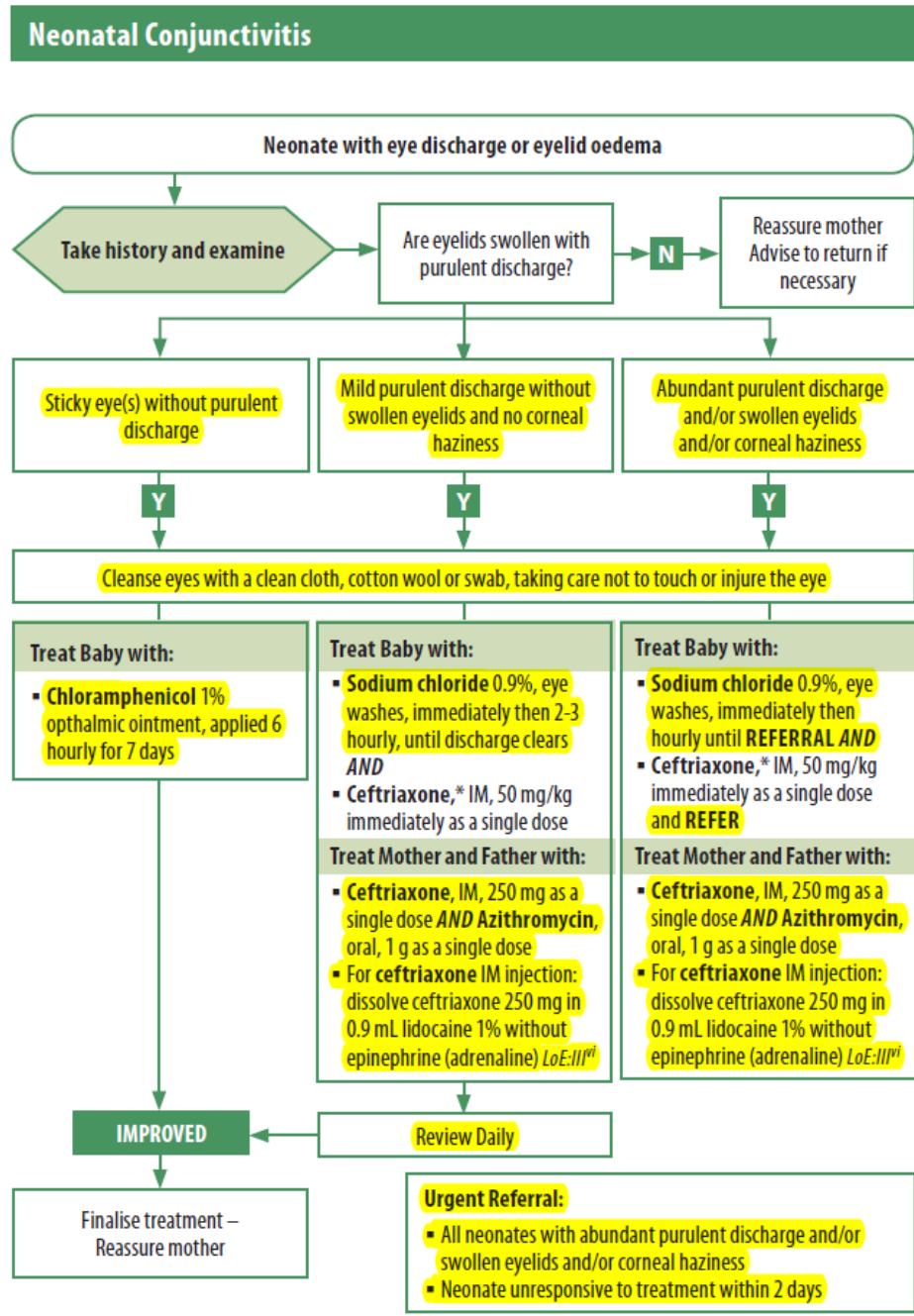
- Refer all symptomatic newborns
- Treat asymptomatic newborns of mothers with a positive syphilis test if:
 - Mother not treated
 - Mother did not receive all 3 doses
 - Mother delivers within 4 weeks of commencing treatment



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Neonatal Conjunctivitis



Neonatal Conjunctivitis

Specific Changes

- Treatment varies based on severity
- Erythromycin no longer utilised
- Chloramphenicol 1% ophthalmic ointment in non-purulent cases
- Sodium chloride 0.9% eye washes in purulent cases
 - Frequency depending on severity
- Ceftriaxone in purulent cases
- Immediate referral in purulent cases
- Maternal/Paternal treatment aligns with new MUS and VDS guidelines



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Changes to Genital Warts and Related Conditions

- Genital warts – If condyloma lata is suspected (i.e. NOT typical or ARE fleshy/wet) perform an RPR/VDRL to exclude syphilis
- Pubic Lice/Scabies – Benzyl benzoate first line treatment, permethrine generally unavailable



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Questions?



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Cases – Putting New Information into Practice



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Case 1: Siphho

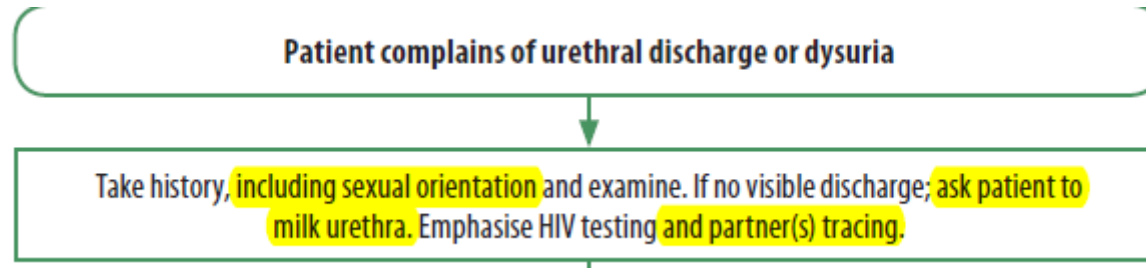
- Siphho is a 24 year old male. He comes to your clinic complaining of dysuria.
- What do you need to ensure you ask when taking a history?
- What will be part of your physical examination, including laboratory studies?



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Case 1: Sipho (2)



- Consider MUS
- Ask about sexual orientation
- Examine for:
 - Discharge, if none visible ask patient to milk the urethra
 - Any other STIs
 - HIV if status negative or unknown



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Case 1: Sipho (3)

- Sipho tells you he has experienced dysuria and discharge for the past 2 days. He does not have any other signs and symptoms. He is HIV+. He tells you he has had both male and female sexual partners in the past three months. As far as he is aware, none of his partners has had an STI recently. No drug allergies.
- On examination discharge is present. There is no evidence of ulcers, rashes, scrotal swelling or buboes

Case 1: Sipho (4)

- How will you treat Sipho?
- If Sipho had not had discharge, under what other circumstance would you still treat for MUS?



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Case 1: Sipho (5)

- Treatment should include:
 - Ceftriaxone, IM, 250 mg single dose dissolved in 0.9ML lidocaine 1% without epinephrine
 - AND Azithromycin, oral, 1 g as a single dose
 - Since he does not have a partner with VDS, you would NOT add Metronidazole

TREATMENT

- Ceftriaxone, IM, 250 mg single dose* LoE:IIIⁱⁱ AND
- Azithromycin, oral, 1 g as a single dose LoE:I^{iv}

If sexual partner has VDS, add:

- Metronidazole, oral, 2 g as a single dose

For ceftriaxone IM injection:

- Dissolve ceftriaxone 250 mg in 0.9 mL lidocaine 1% without epinephrine (adrenaline).
- Dissolve ceftriaxone 1 g in 3.6 mL lidocaine 1% without epinephrine (adrenaline). LoE:III^{vi}



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Case 1: Siphso (6)

- If Siphso returns in 7 days with persistent discharge, what will you suspect?
- What aspect of Siphso's history increases your suspicion of potential treatment resistance?
- What would you do next?



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Case 1: Sipho (7)

- Cases of treatment failure, regardless of the reason, should be treated as follows:
 - Ceftriaxone, IM, 1 g single dose, dissolved in 3.6 mL lidocaine 1% w/out epinephrine
 - AND Azithromycin, oral, 2 g as a single dose
 - AND Metronidazole, oral, 2 g as a single dose

Suspected ceftriaxone 250 mg treatment failure:

- Ceftriaxone, IM, 1 g single dose ** LoE:III^{ix} AND
- Azithromycin, oral, 2 g as a single dose AND
- Metronidazole, oral, 2 g as a single dose, if not already given

Refer all ceftriaxone treatment failures within 7 days for gentamicin, IM, 240 mg as a single dose. LoE:III^{ix}, x



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Case 2: Dikeledi

- Dikeledi is a 35 year old female. She complains of painful sores.
- In order to follow the algorithm, what two items will be key in your history taking?
- For what will you examine, including laboratory testing?

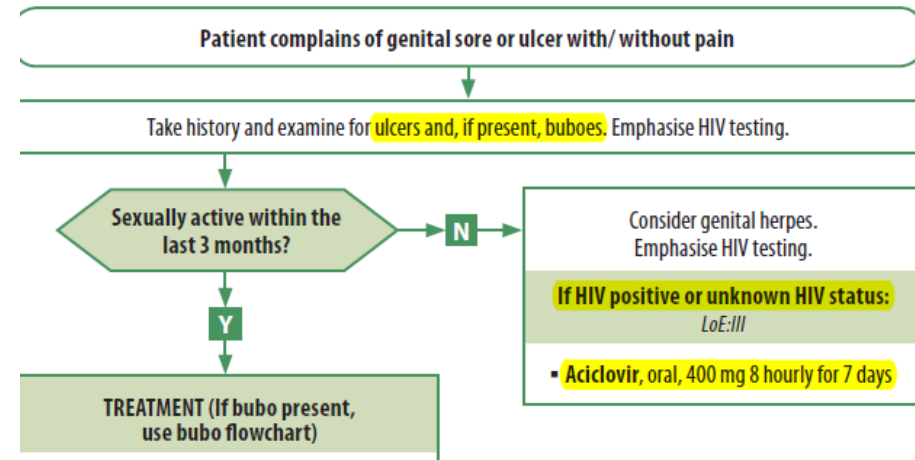


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Case 2: Dikeledi (2)

- In addition to other questions, it is key to ask about
 - HIV status and sexual activity in the past 3 months
- An examination should assess for:
 - Ulcers AND buboes
 - HIV test offer
 - Any additional STIs



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Case 2: Dikeledi (3)

- Dikeledi reports no other signs or symptoms. She is allergic to PCN. She has been sexually active with one male partner in the past 3 months. She is HIV+, not on ART. She does not know if her partner has any signs or symptoms of STIs. She is not pregnant.
- On exam, she has several small painful ulcers on her vulva. No buboes. No discharge, rashes or other signs noted.



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Case 2: Dikeledi (4)

- What will you do next?

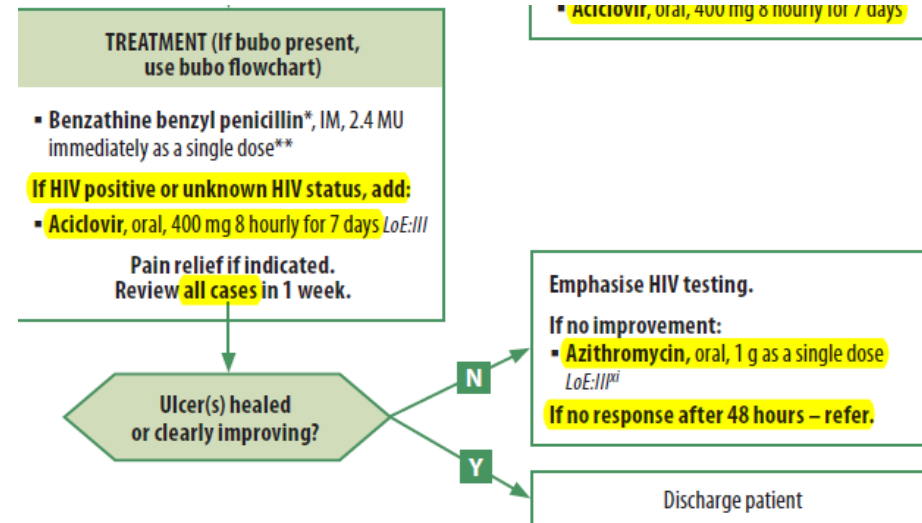


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Case 2: Dikeledi (5)

- Since PCN allergic:
 - Baseline RPR
 - Replace benzathine penicillin with doxycycline, oral, 100 mg 12 hourly for 14 days
 - Return for follow-up RPR in 6 months
- Since HIV +:
 - Aciclovir, oral, 400 mg 8 hourly for 7 days
 - Assess for ART start and engage in HIV care
- Since painful:



Penicillin allergic men and non-pregnant women: Perform a baseline RPR and replace benzathine penicillin with:

▪ Doxycycline, oral, 100 mg 12 hourly for 14 days.

Patient to return for a follow-up RPR 6 months later. LoE:III

*Penicillin allergic pregnant women/ breast feeding women, refer for confirmation of new syphilis infection and possible penicillin desensitisation. LoE:III^{vii}

**For benzathine benzylpenicillin, IM, 2.4 MU: Dissolve benzathine benzylpenicillin 2.4 MU in 6 mL lidocaine 1% without epinephrine (adrenaline). LoE:III^{viii}



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Integration of Care



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Screening for STIs

- All patients ages 15-49 should be screened for STIs regardless of clinical presentation
- Ask the following 3 questions:
 - Do you have any genital discharge?
 - Do you have any genital ulcers?
 - Has/have your partner(s) been treated for an STI in the last 8 weeks?



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The Cs

- Counselling and education, including HIV testing
- Condom promotion, provision and demonstration
- Compliance with treatment (including ART)
- Contact treatment/partner management
- Circumcision (medical) for eligible men
- Cervical cancer screening
- Contraception and conception counselling

Additionally...

- Post Exposure Prophylaxis
- HPV vaccination
- Appropriate prenatal care including syphilis and HIV screening and receipt of results in a timely manner



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Screen for STIs at every visit!

And

**Ensure the capability of
providing appropriate
treatment**



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