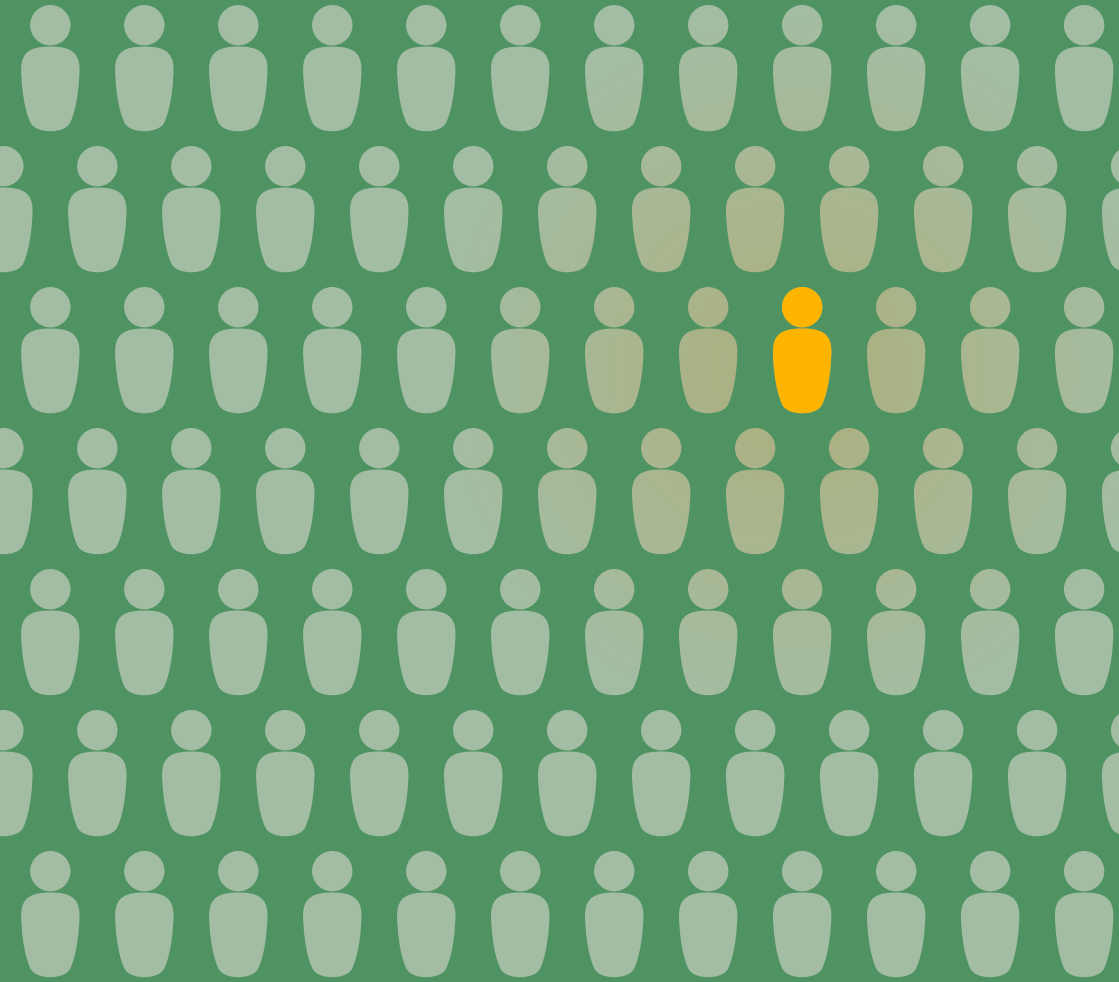


# Sexually Transmitted Infections

## MANAGEMENT GUIDELINES 2015

Adapted from: Standard Treatment Guidelines and Essential Drugs List PHC



health

Department:  
Health  
REPUBLIC OF SOUTH AFRICA



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## Sexually Transmitted Infections Diagnosis and Management

The syndromic approach to Sexually Transmitted Infection (STI) diagnosis and management is to treat the signs or symptoms (syndrome) of a group of diseases rather than treating a specific disease. This allows for the treatment of one or more conditions that often occur at the same time and has been accepted as the management of choice. This guide includes the current STI syndromic management algorithms.

STIs are preventable and many are treatable. Early access to care helps prevent further transmission to partners and from mother-to-child, acquisition of additional STIs, and decreases the risk of STI related complications. Screening for STIs at any and all health care visits, can promote STI prevention and management and provide an opportunity for additional health promotion and education. Where possible, STI screening and prevention should become routine and integrated into all health visits.

*STI screening should include the following three questions of all persons aged 15–49 years, regardless of clinical presentation:*

- *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?*

In order to perform a proper clinical assessment it is important to take a good sexual history and undertake a thorough ano-genital examination. The history should include questions concerning symptoms, recent sexual history, sexual orientation, type of sexual activity (oral, vaginal, anal sex), the possibility of pregnancy (females), use of contraceptives including condoms, recent antibiotic history, any drug allergies, and recent overseas travel.

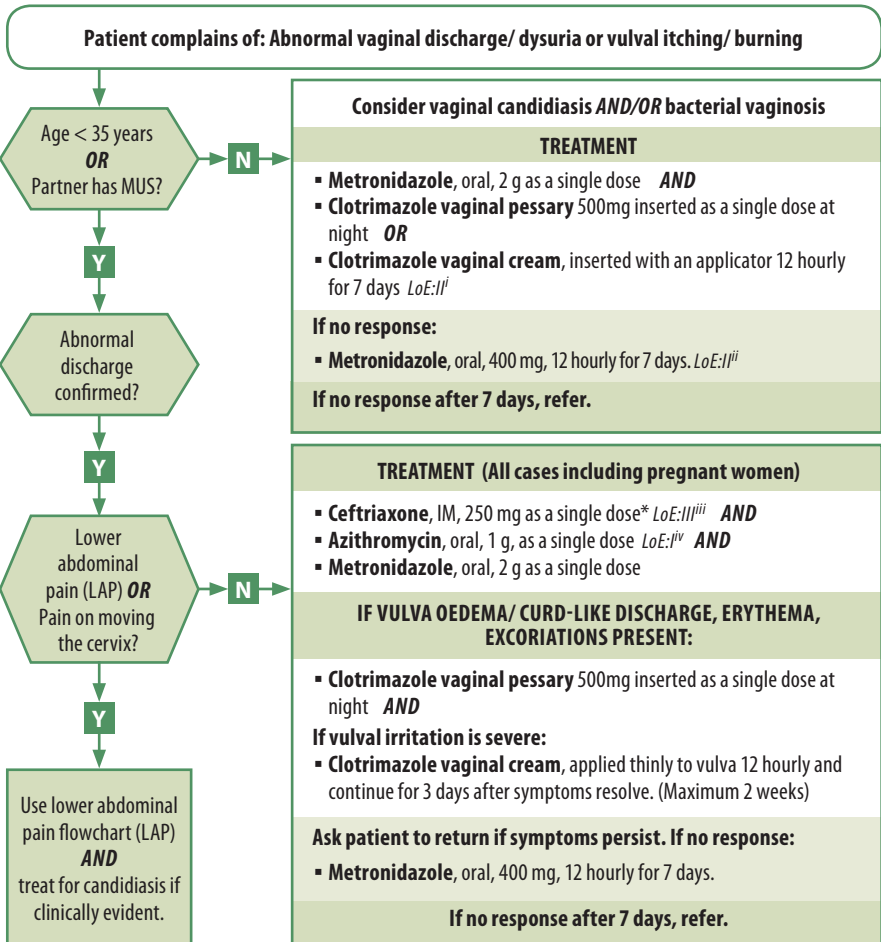
*Promote HIV counselling and testing.*

*Suspected STIs in children should be referred to the hospital for further management.*

### **General Measures**

- Counselling and education, including HIV testing
- Condom promotion, provision and demonstration to reduce the risk of STIs
- Compliance/adherence with treatment
- Contact treatment/partner management
- Circumcision promotion with appropriate counselling concerning condoms
- Contraception and conception counselling

## 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:

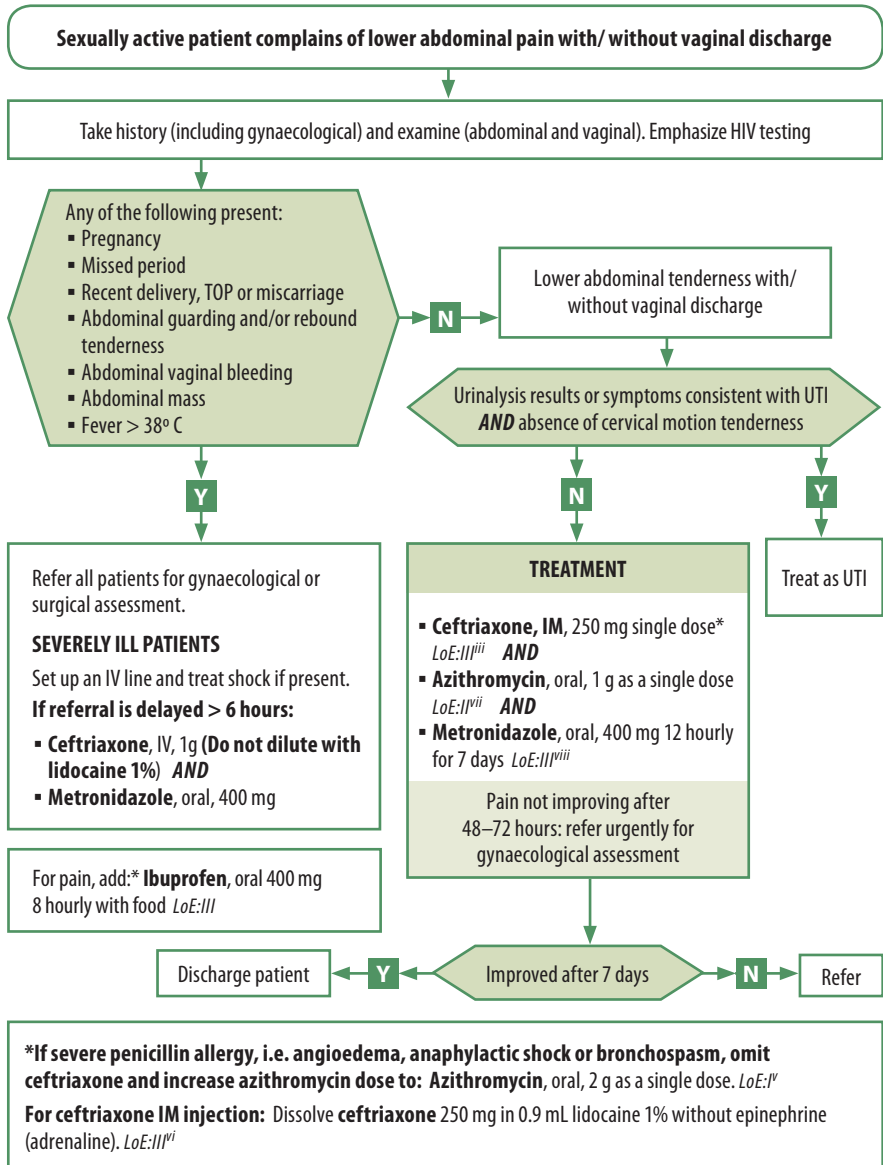
- **Azithromycin**, oral, 2 g, as a single dose. *LoE:IV<sup>v</sup>*

For ceftriaxone IM injection: Dissolve ceftriaxone 250 mg in 0.9 mL lidocaine 1% without epinephrine (adrenaline) *LoE:III<sup>vi</sup>*

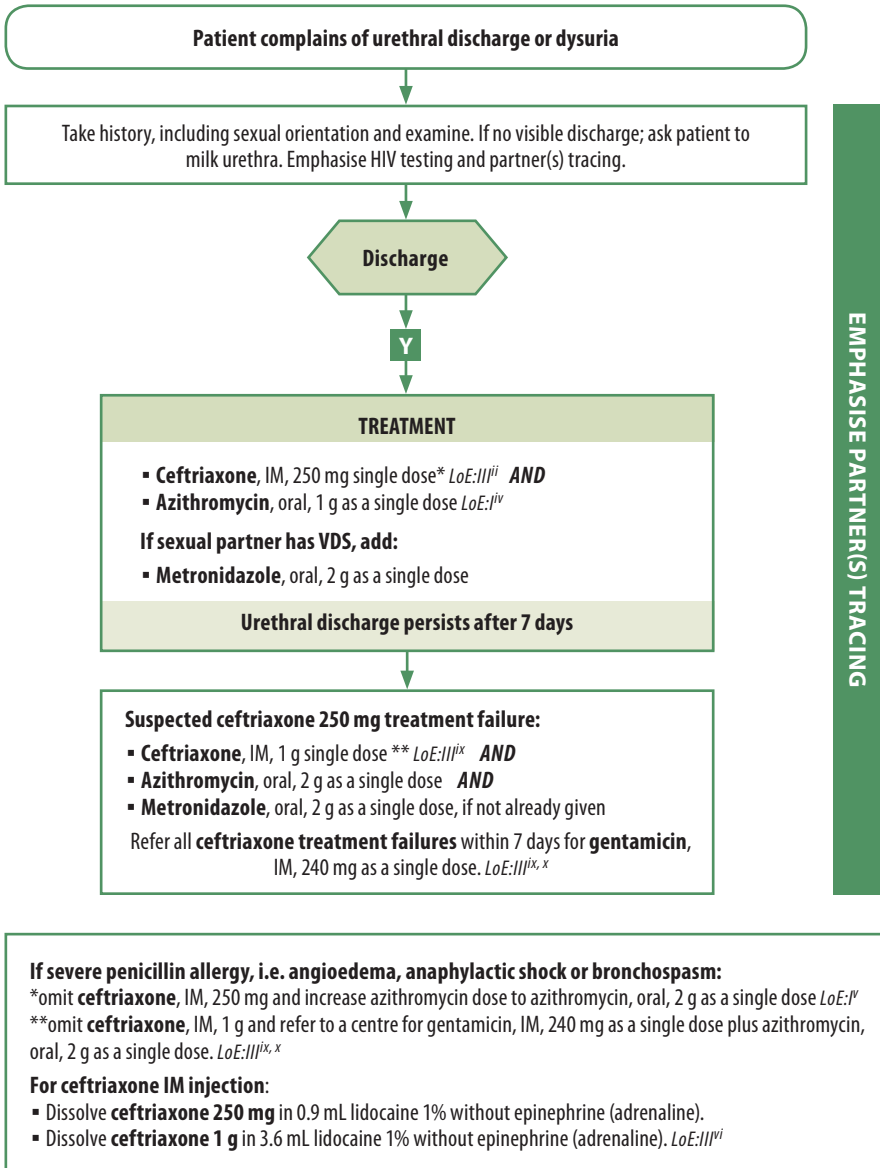
Take Pap smear after treatment, if indicated according to screening guidelines.

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

## Lower Abdominal Pain (LAP)

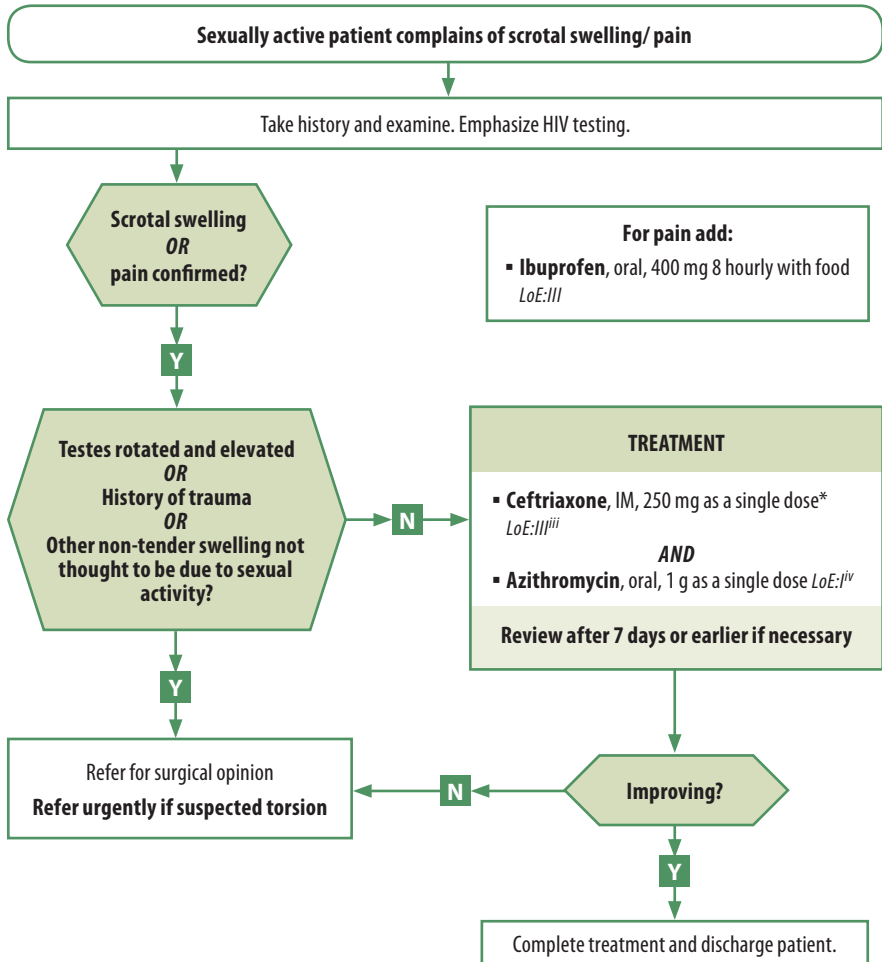


## Male Urethritis Syndrome (MUS)





## Scrotal Swelling (SSW)

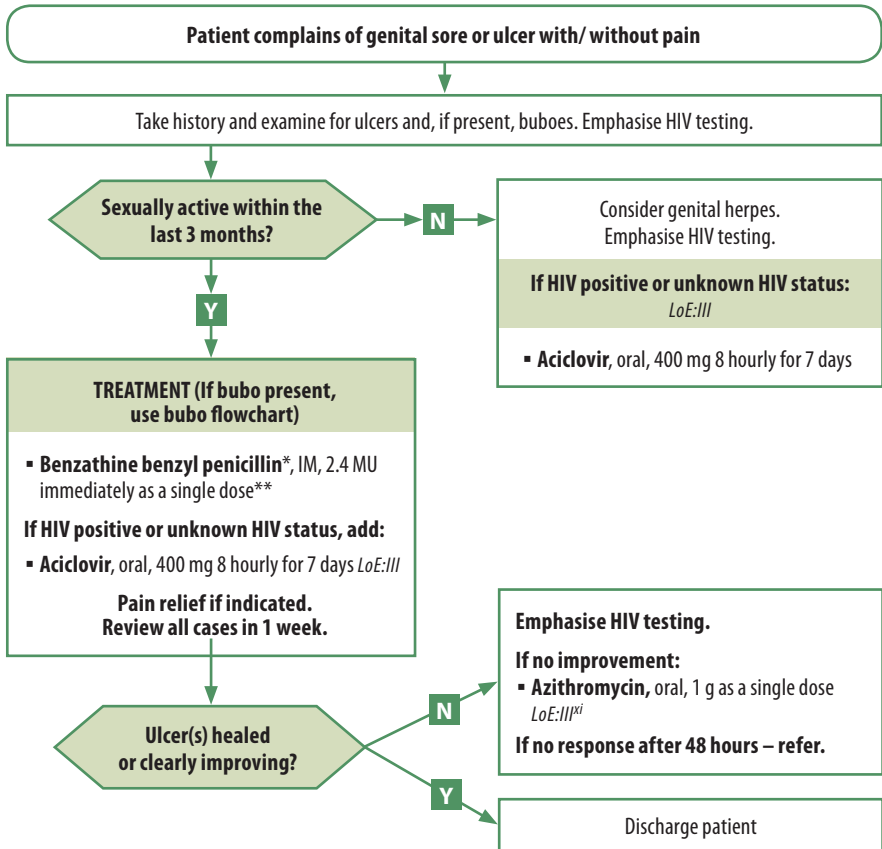


**\*If severe penicillin allergy, i.e. angioedema, anaphylactic shock or bronchospasm, omit ceftriaxone and increase azithromycin dose to:**

- **Azithromycin**, oral, 2 g as a single dose *LoE:I, III<sup>v</sup>*

**For ceftriaxone IM injection:** dissolve ceftriaxone **250 mg** in 0.9 mL lidocaine 1% without epinephrine (adrenaline). *LoE:III<sup>vi</sup>*

## 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:III<sup>xii</sup>*

**\*\*For benzathine benzylpenicillin, IM, 2.4 MU:** Dissolve benzathine benzylpenicillin **2.4 MU** in 6 mL lidocaine 1% without epinephrine (adrenaline). *LoE:III<sup>xiii</sup>*

## 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

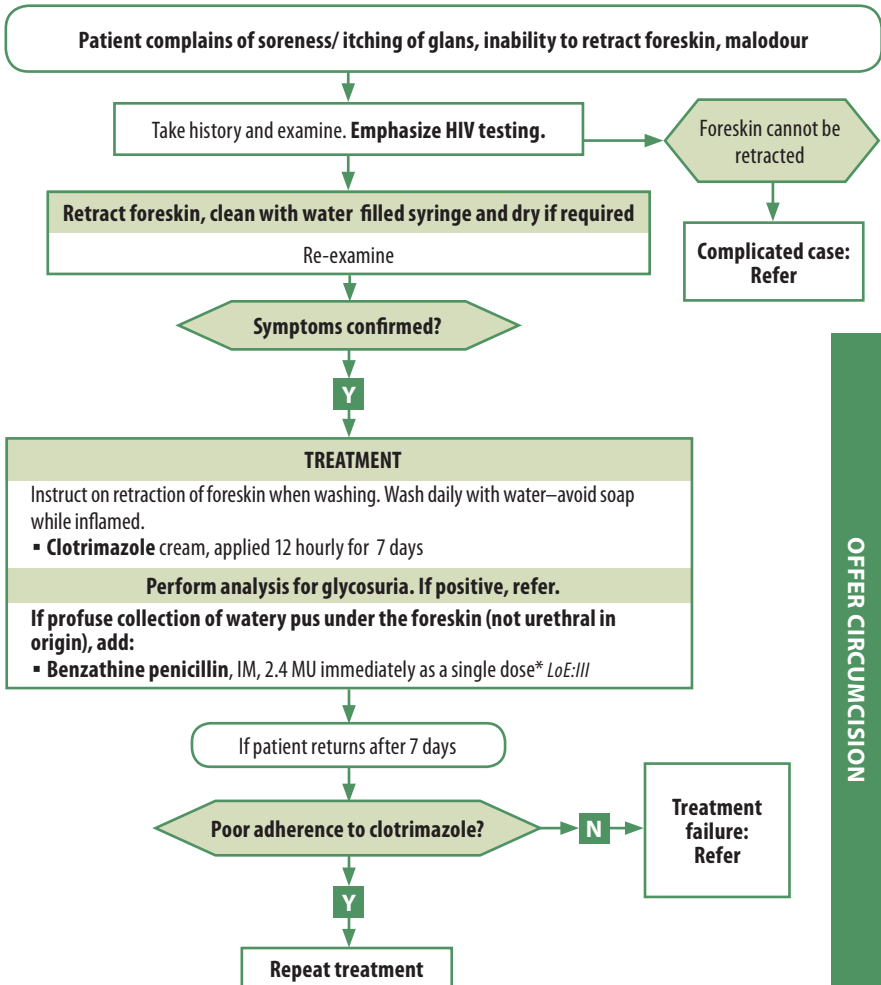
▪ **Azithromycin**, oral, 1 g immediately and 1 g a week later *LoE:III<sup>IV</sup>*

#### **If bubo is fluctuant:**

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

**If no improvement after 14 days, refer.**

## 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:III<sup>iii</sup>*

## Syphilis Serology and Treatment

### Syphilis Serology

The Rapid Plasmin Reagin (RPR) measures disease activity, but is not specific for syphilis. False RPR positive reactions may occur, notably in patients with connective tissue disorders (false positive reactions are usually low titre < 1:8). For this reason, positive RPR results should be confirmed as due to syphilis by further testing of the serum with a specific treponemal test, e.g.:

- *Treponema pallidum* haemagglutination (TPHA) assay.
- *Treponema pallidum* particle agglutination (TPPA) assay.
- Fluorescent Treponemal Antibody (FTA) assay.
- *Treponema pallidum* ELISA.
- Rapid treponemal antibody test.

Screening can also be done the other way around starting with a specific treponemal test followed by a RPR in patients who have a positive specific treponemal test. This is sometimes referred to as the “reverse algorithm”.

Once positive, specific treponemal tests generally remain positive for life.

The RPR can be used:

- To determine if the patient’s syphilis disease is active or not,
- To measure a successful response to therapy (at least a fourfold reduction in titre, e.g. 1:256 improving to 1:64), or
- To determine a new re-infection.

Some patients, even with successful treatment for syphilis, may retain life-long positive RPR results at low titres ( $\leq 1:8$ ), which do not change by more than one dilution difference (up or down) over time (so-called serofast patients).

#### Note:

- Up to 30% of primary syphilis cases, i.e. those with genital ulcers may have a negative RPR.
- The RPR is always positive in the secondary syphilis stage and remains high during the first two (infectious) years of syphilis.

## Medicine Treatment

### Early Syphilis Treatment

Check if treated at initial visit.

- Benzathine benzylpenicillin, IM, 2.4 MU immediately as a single dose.
  - Dissolve benzathine benzylpenicillin, IM, 2.4 MU in 6 mL lidocaine 1% without epinephrine (adrenaline).

In penicillin-allergic patients:

- Doxycycline, oral, 100 mg twice daily for 14 days.

If penicillin-allergic and pregnant: Refer for penicillin desensitisation.

### Late Syphilis Treatment

Check if treatment was commenced at initial visit.

- Benzathine benzylpenicillin, IM, 2.4 MU once weekly for 3 weeks.
  - Dissolve benzathine benzylpenicillin, IM, 2.4 MU in 6 mL lidocaine 1% without epinephrine (adrenaline).

If penicillin-allergic and pregnant: Refer for penicillin desensitisation.

## Syphilis in Pregnancy

Mother-to-child transmission of syphilis occurs in up to 40% of cases in untreated mothers. Untreated maternal syphilis may lead to miscarriage, stillbirth, non-immune hydrops fetalis, or congenital syphilis in the newborn. Syphilis may be asymptomatic in pregnant women with diagnosis made by positive serology, preferably with on-site rapid testing.

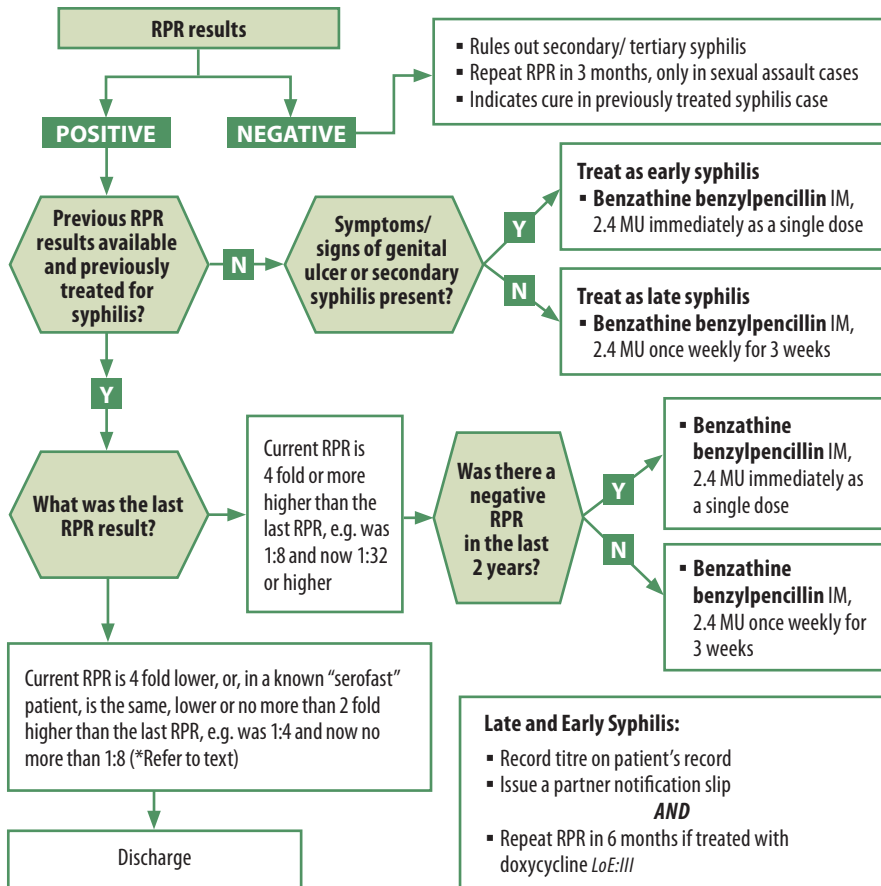
## Referral

- Neurosyphilis.
- Clinical congenital syphilis.

## Syphilis

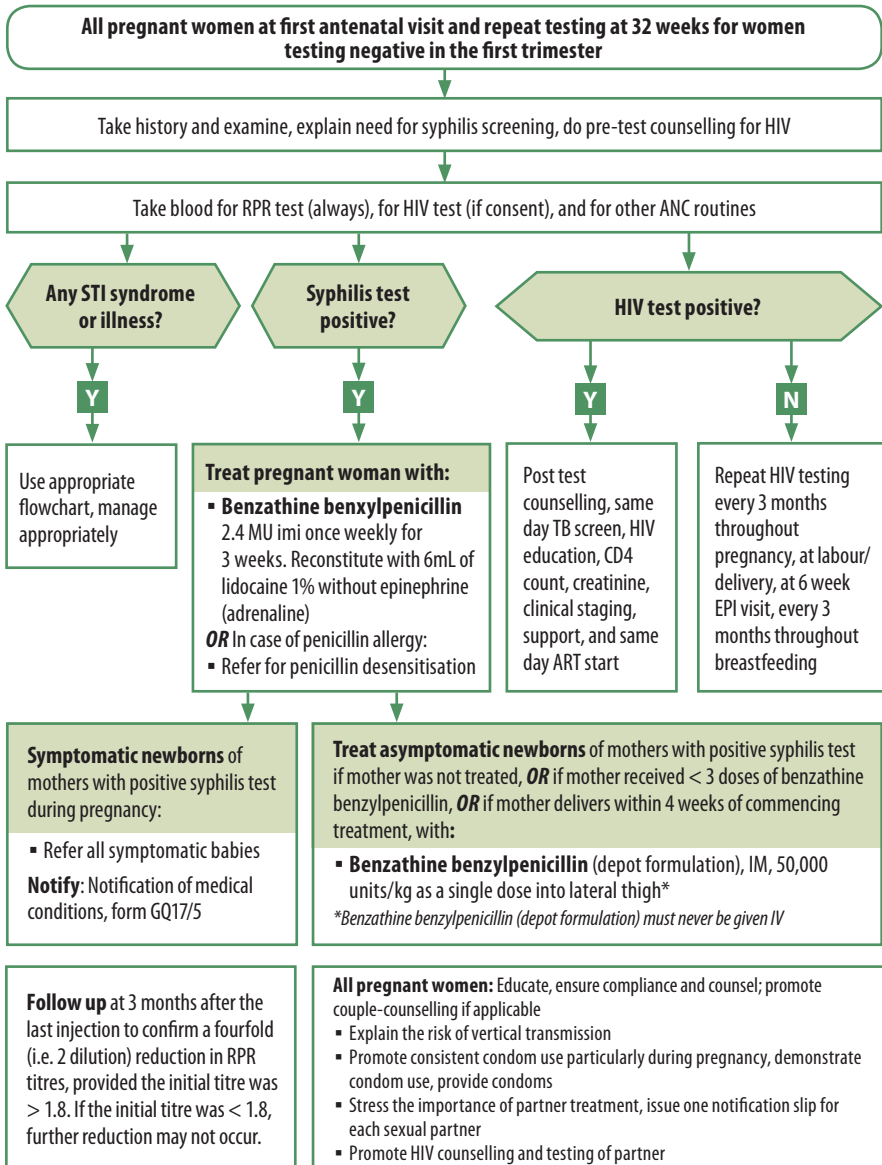
### Perform RPR if indicated:

- sexual assault case
- suspected secondary syphilis
- suspected tertiary syphilis
- 6 month follow-up of early syphilis cases treated with doxycycline



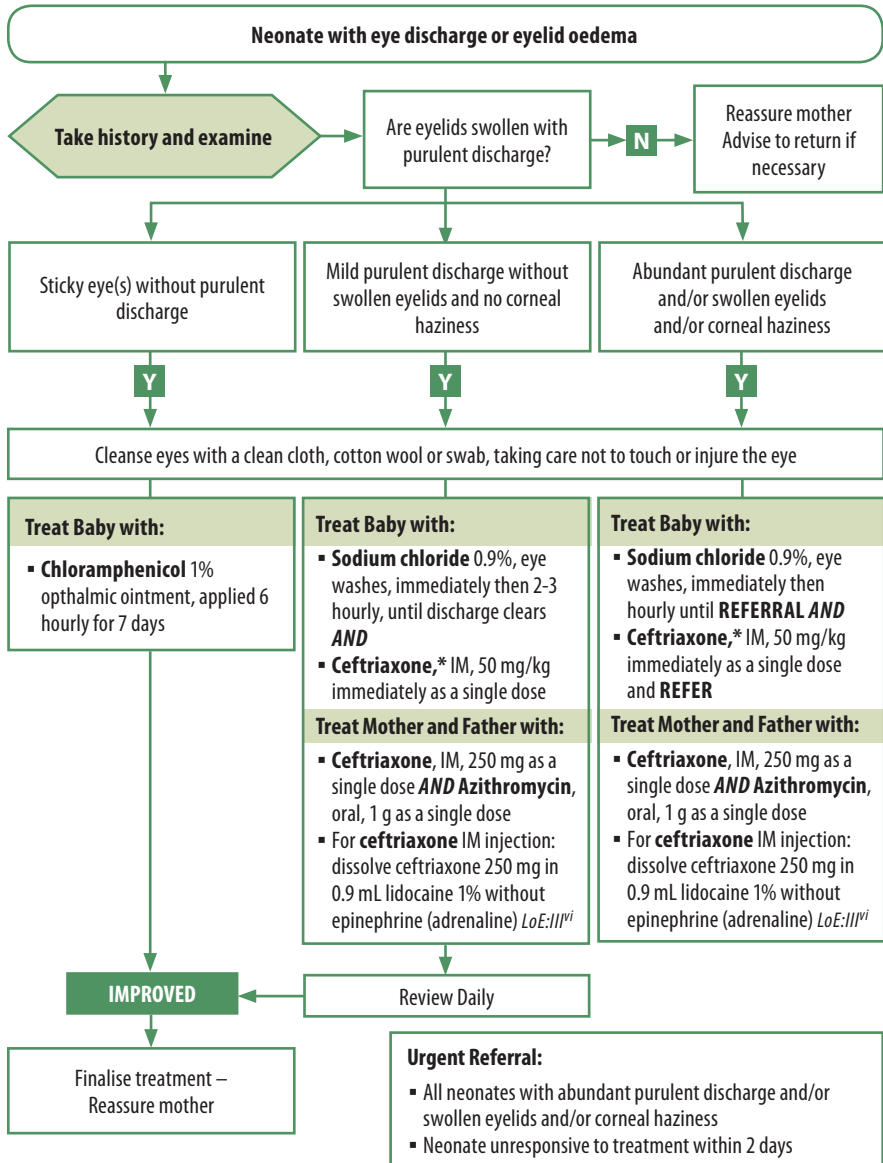
**For benzathine benzylpenicillin, IM, 2.4 MU:** Dissolve benzathine benzylpenicillin 2.4 MU in 6 mL lidocaine 1% without epinephrine (adrenaline). LoE:III<sup>xiii</sup>

## Syphilis in Pregnancy





## Neonatal Conjunctivitis



**Parents of baby with confirmed neonatal conjunctivitis:**

- Educate, ensure compliance, and counsel; promote couple-counselling if applicable.
- Promote abstinence from penetrative sex during the course of treatment.
- Promote and demonstrate condom use, retain condoms.
- Stress the importance of partner treatment and issue one notification slip for each sexual partner. Follow up partner treatment during review visit.
- Promote HIV counselling and testing. For negative results repeat test after 3 months.

**\*Infant Dosing of Ceftriaxone**

Weight kg	Dose mg	Use one of the following injections mixed with water for injection (WFI):		Age months/years
		250 mg/2 mL (250 mg diluted in 2 mL WFI)	500 mg/2 mL (500 mg diluted in 2 mL WFI)	
>2–2.5 kg	100 mg	0.8 mL	0.4 mL	>34–36 weeks
>2.5–3.5 kg	150 mg	1.2 mL	0.6 mL	>36 weeks–1 month
>3.5–5.5 kg	200 mg	1.6 mL	0.8 mL	>1–3 months

LoE: III<sup>v</sup>**CAUTION: Use of ceftriaxone in severely ill neonates and children**

**Ceftriaxone should be used in neonates that are seriously ill only, and must be given even if they are jaundiced.** In infants < 28 days of age, ceftriaxone should not be administered if a calcium containing intravenous infusion e.g. Ringer-Lactate, is given or is expected to be given. After 28 days of age, ceftriaxone and calcium containing fluids may be given but only sequentially with the giving set flushed well between the two products if given IV.

Annotate the dosage and route of administration in the referral letter.

## Treatment of More than One STI Syndrome

STI Syndromes	Treatment (new episode)
MUS + SSW	Treat according to SSW flow chart.
MUS + BAL	Treat according to MUS flow chart <b>AND</b> <ul style="list-style-type: none"> <li>▪ <b>Clotrimazole</b> cream, 12 hourly for 7 days</li> </ul>
MUS + GUS	<ul style="list-style-type: none"> <li>▪ <b>Ceftriaxone</b>, IM, 250 mg immediately as a single dose** <b>AND</b></li> <li>▪ <b>Azithromycin</b>, oral, 1 g as a single dose <b>AND</b></li> <li>▪ <b>Aciclovir</b>, oral, 400 mg 8 hourly for 7 days*</li> </ul>
VDS + LAP	Treat according to LAP flow chart <b>AND</b> Treat for candidiasis, if required (see VDS flow chart)
VDS + GUS	<ul style="list-style-type: none"> <li>▪ <b>Ceftriaxone</b>, IM, 250 mg immediately as a single dose** <b>AND</b></li> <li>▪ <b>Metronidazole</b>, oral, 2 g immediately as a single dose <b>AND</b></li> <li>▪ <b>Azithromycin</b>, oral, 1 g as a single dose <b>AND</b></li> <li>▪ <b>Aciclovir</b>, oral, 400 mg 8 hourly for 7 days* <b>AND</b></li> </ul> Treat for candidiasis, if required (see VDS flow chart)
LAP+ GUS	<ul style="list-style-type: none"> <li>▪ <b>Ceftriaxone</b>, IM, 250 mg immediately as a single dose** <b>AND</b></li> <li>▪ <b>Metronidazole</b>, oral, 400 mg 12 hourly for 7 days <b>AND</b></li> <li>▪ <b>Aciclovir</b>, oral, 400 mg 8 hourly for 7 days*.</li> </ul>
SSW+ GUS	<ul style="list-style-type: none"> <li>▪ <b>Ceftriaxone</b>, IM, 250 mg immediately as a single dose** <b>AND</b></li> <li>▪ <b>Aciclovir</b>, oral, 400 mg 8 hourly for 7 days*</li> </ul>

\*Treat with aciclovir only if HIV status is positive or unknown.

\*\*Penicillin allergic men and non-pregnant women avoid ceftriaxone and refer to relevant algorithms.

Penicillin allergic pregnant or breastfeeding women, refer for penicillin desensitisation.

## Genital Molluscum Contagiosum (MC)

### Description

This is a viral infection which can be transmitted sexually and non-sexually. It is usually self-limiting but can be progressive in an advanced stage of immunodeficiency.

- Clinical signs include papules at the genitals or other parts of the body.
- The papules usually have a central dent (umbilicated papules).

### Medicine Treatment

- Tincture of iodine BP.
  - Apply with an applicator to the core of the lesions.

## Genital Warts (GW): Condylomata Accuminata

### Description

The clinical signs include:

- Warts on the ano-genital areas, vagina, cervix, meatus or urethra.
- Warts can be soft or hard.

In most cases, warts resolve without treatment after 2 years in non-immunosuppressed patients.

### General Measures

- If warts do not look typical or are fleshy or wet, perform an RPR/VDRL test to exclude secondary syphilis, which may present with similar lesions.
- Emphasise HIV testing.

### Referral

All patients with:

- Warts > 10 mm
- Inaccessible warts, e.g. intra-vaginal or cervical warts
- Numerous warts

## Pubic Lice (PL)

### Description

Infestation of lice mostly confined to pubic and peri-anal areas, and occasionally involves eyelashes.

The bites cause intense itching, which often results in scratching with bacterial super-infection.

### General Measures

Thoroughly wash clothing and bed linen that may have been contaminated by the patient in the 2 days prior to the start of treatment in hot water and then iron.

### Medicine Treatment

- Benzyl benzoate 25%
  - Apply to affected area.
  - Leave on for 24 hours, then wash thoroughly.
  - Repeat in 7 days.

### Pediculosis of the Eyelashes or Eyebrows

- Petroleum jelly.
  - Apply to the eyelid margins (cover the eyelashes) daily for 10 days to smother lice and nits.
  - Do not apply to eyes.

### Referral

All children with lice on pubic, perianal area and eyelashes to exclude sexual abuse.

## Treatment Protocol for Asymptomatic Partner(s)

Female Patient	Male Partner	Male Patient	Female Partner
<b>VDS</b>	MUS plus metronidazole 2 g stat	<b>MUS</b>	VDS
<b>LAP</b>	MUS plus metronidazole 2 g stat	<b>SSW</b>	VDS
<b>GUS</b>	GUS	<b>GUS</b>	GUS
<b>GW</b>	GW if signs	<b>GW</b>	GW if signs
<b>PL</b>	PL	<b>PL</b>	PL
<b>MC</b>	MC if signs	<b>MC</b>	MC if signs
<b>RPR+</b>	Benzathine Benzylpenicillin 2.4mu im stat in addition RPR test	<b>RPR+</b>	Benzathine Penicillin 2.4mu im stat in addition RPR test
		<b>BAL</b>	Cotrimazole vaginal pessary 500mgs inserted stat 2
In addition: treat any symptomatic STI		In addition: treat any symptomatic STI	

**Footnotes**

i: Criteria for STI therapy in VDS: Unpublished surveillance data for VDS at Alexander Health Centre, Gauteng (2007-2012) shared by NICD: Centre for STI and HIV.

ii: Metronidazole: Swedberg J, Steiner JF, Deiss F, Steiner S, Driggers DA. Comparison of single-dose vs. one-week course of metronidazole for symptomatic bacterial vaginosis. *JAMA*. 1985 Aug 23-30;254(8):1046-9.

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Ceftriaxone: Health Protection Agency. Gonococcal Resistance to Antimicrobials Surveillance Programme (GRASP) Action Plan for England and Wales: Informing the Public Health Response. (Ed.^(Eds) (HPA, London, 2013)

Ceftriaxone: Bignell C, Fitzgerald M; Guideline Development Group; British Association for Sexual Health and HIV UK. UK national guideline for the management of gonorrhoea in adults, 2011. *Int J STD AIDS*. 2011 Oct;22(10):541-7.

Ceftriaxone: Centers for Disease Control and Prevention. Cephalosporin-resistant *Neisseria gonorrhoeae* public health response plan. (Ed.^(Eds) (CDC, Atlanta, 2012)

Ceftriaxone: Centers for Disease Control and Prevention. Update to CDC's Sexually transmitted diseases treatment guidelines, 2010: oral cephalosporins no longer a recommended treatment for gonococcal infections. *MMWR Morb Mortal Wkly Rep*. 2012;6: 590-594.

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- Azithromycin: SAMF, 2012 edition.
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