Ministry of Health

Standard Operational Procedures (SOP) for syphilis screening among pregnant women in Kingdom of Cambodia

July 2008

National Center for HIV/AIDS, Dermatology and STIs

National Maternal and Child Health Center

H.E. Professor ENG HUOT
Secretary-General of Health
Ministry of Health

Dear Excellency,

The National Center for HIV/AIDS, Dermatology and STIs (NCHADS) and the National Maternal and Child Health (NMCHC) in collaboration with other partners for health development, especially non-governmental organizations (NGOs), have developed a draft of Standard Operating Procedures (SOP) for syphilis screening among pregnant women in the Kingdom of Cambodia. This SOP will be used as a standard guide for both national centers on effectively implementing the National Strategy for Reproductive and Sexual Health in Cambodia to prevent mother-to-child transmission of syphilis, in an effort to eliminate congenital syphilis among newborns in the near future.

We would like Excellency Secretary-General to consider this request and to inform us of your decision.

Yours faithfully,

Dr. Mean Chhi Vun
Director of NCHADS

Prof. Kum Kanal
Director of NMCHC

Preface

The Ministry of Health of Cambodia recognizes that the prevention of mother-to-child transmission of syphilis is one of the main priorities in the National Strategy for Reproductive and Sexual Health in Cambodia, 2006-2010. The implementation of this strategy is dependent on acceptance of Standard Operating Procedures (SOP) and development of a comprehensible mechanism to guide effective implementation of the strategy at public health services including NGO health clinics, appropriated to the current framework of existing health facilities in Cambodia.

The Ministry of Health believes that the SOP for syphilis screening among pregnant women in Cambodia is a useful document for health care providers working in reproductive and sexual health services, particularly those working in antenatal care services at health centers and referral hospitals and for NGO reproductive health clinics; the document will serve as a background guide, contributing to prevention of mother-to-child transmission of syphilis in an effort to eliminate congenital syphilis among newborns in near future.

At this moment, I would like to express appreciation for the collaboration of both national centers and all partners for health development for their efforts to develop this practical SOP.

Phnom Penh, 05 November 2008

Prof. ENG HUOT

Secretary of State for Health

Acknowledgement

The National Center for HIV/AIDS, Dermatology and STIs (NCHADS) and the National Maternal and Child Health Center (NMCHC) would like to acknowledge all members of STI/RTI Technical Working Group from NCHADS, NMCHC, NIPH, Social Health Clinic, RHAC, RACHA, FHI, PSF, PSI, MEC, Marie Stopes, US-CDC, UNFPA, WHO, CHAI, UNICEF and ITM for their valuable contribution to the development of an SOP for syphilis screening among pregnant women in Cambodia.

This SOP is a standard and useful document for use in the quality and effective implementation of the above strategy.

Phnom Penh, 03.November...2008

Dr. Mean Chhi Vun
Director of NCHADS

1. Rationale

Despite widely available and affordable technology for diagnosing and treating infections in pregnant women, syphilis remains a significant public health issues especially leading causes of perinatal morbidity and mortality among newborns in many parts of the world. Among pregnant women in the early stages of syphilis who are not treated, an estimated two-thirds of pregnancies end in abortion, stillbirth, or neonatal infection.

The estimated prevalence of syphilis infection in Cambodia (detected by RPR test and confirmed by TPHA) among women visiting antenatal care services (STI Sentinel Surveillance: SSS) in 1996 and 2001 were 4.0% and 0.7%, respectively. There has been no information to date about congenital syphilis cases reported through the health information system of the Ministry of Health, so it is difficult to ascertain the degree to which congenital syphilis is a problem in Cambodia. However congenital syphilis can be devastating for the pregnancy and newborn and is relatively easily prevented through quick and effective STI case management, which is feasible in Cambodia.

The National Policy and Strategies on STI/RTI Prevention and Care in Cambodia, 2006-2010 (Policy No. 8, page 14-15), included a strategy for the Ministry of Health to give more consideration pregnant women who are vulnerable to STI/RTIs and their newborns. Similarly, the national Strategies on Sexual and Reproductive Health, 2006-2010, also described RTIs (including STIs) as one of the main components of reproductive health.

2. Goal

The goal is to eliminate congenital syphilis among newborns in Cambodia.

3. Main objective

The main objective is to prevent mother-to-child transmission of syphilis.

Specific objectives:

In order to achieve the main objective above, the specific objectives are focused on:

1. Diagnosis of positive serology in the pregnant woman
2. Treatment of the pregnant woman (mother) and her partner to reduce transmission
3. Treatment and follow up the baby.

This standard operational procedures also includes follow up to ensure effective treatment of the mother.

4. Strategies

4.1. Diagnosis of positive serology in the pregnant women

- Screening for syphilis at least once during pregnancy should be initiated by health care providers at antenatal care service of health center or referral hospital and NGO clinics. All pregnant women should be screened for syphilis at the first antenatal visit or as early as possible during the pregnancy. If they are not tested during pregnancy, the test should be performed at delivery.
- Treponema-specific rapid diagnosis test "Bioline" is recommended for using as the *"screening test"* for syphilis among pregnant women especially at antenatal care service because it can be performed easier and faster by health care providers.
- However, the rapid test does not distinguish old or new syphilis infection nor from treated or untreated infection. Therefore, qualitative RPR test should be performed as *"confirmation test"* on the sera of patients found to be positive by the rapid test by sending a sample of blood to the laboratory. This can confirm new and/or untreated infection that needs to be treated.
- All women with a positive syphilis result by any test should be advised to have voluntary counseling and confidential testing (VCCT) for HIV at VCCT center or by sending her blood sample for HIV testing.

4.1.1. Steps of syphilis screening for pregnant women at antenatal care service *(annex 1)*

4.1.1.1. Step 1:

- Pregnant women come to the first visit at antenatal care (ANC) service.
- Provide information about the advantage of syphilis testing.
- Look for any genital ulcer or sore:
  - If it is present, use appropriate flowchart for genital ulcer or sore for diagnosis and treatment (see annex 8 and the National Guidelines on STI/RTI case management).
  - If it is not present, move to step 2 for screening syphilis by rapid test.
- Note: If the woman has tested positive to the Treponema-specific rapid diagnosis test (RDT) "Bioline" in the past, then proceed directly to Step 3.

4.1.1.2. Step 2:

- Take blood from the finger prick.
- Use Treponema-specific rapid diagnosis test (RDT) "Bioline" for syphilis testing *(annex 3)*:

- If test result is negative, and the patient has no genital ulcer, it is very unlikely that the patient is infected by syphilis. Educate and counsel the client, promote condom use as dual method of protection of HIV/STI and pregnancy, and provide condoms, finally, promote HIV counseling and testing.
- If the test is positive, move to step 3 for qualitative RPR testing.

- Note: the result of rapid testing should be filled in the "Antenatal register" *(annex 4)*.

4.1.1.3. Step 3:

- Collect a sample of 5cc of venous blood and put in a dry sterile test tube with stopper, then send it to the laboratory for qualitative RPR testing. The test result should be made available as soon as possible on the same day before the women leaves the clinic.
    - If the qualitative test result is negative, syphilis infection detected by rapid test has probably been treated in the past. Educate and counsel the client, promote condom use as dual method of protection of HIV/STI and pregnancy, manage the partner, and finally, promote HIV counseling and testing.
    - If the qualitative test result is positive, the infection is probably more recent and might not be treated, so:
        - TREAT FOR SYPHILIS (annex 1), educate and counsel the client, promote condom use as dual method of protection of HIV/STI and pregnancy, treat the partner for syphilis, and finally, promote HIV counseling and testing.

- Note: if RPR testing is not available, it is best to treat the patient for syphilis anyway.
- Note: the result of RPR testing should be filled in the "Antenatal register" *(annex 4)*.

4.1.2. Syphilis screening for pregnant women at delivery service

- All pregnant women should be tested for syphilis at the delivery service if they are not tested during pregnancy and the women is not yet in labor.
- The process of management of syphilis is as same as during antenatal care visit.

4.2. Treatment for the mother and her partner to reduce transmission

4.2.1. Mother

4.2.1.1. Time for treatment

- Treatment should be given to infected women as soon as possible after the confirmatory test by qualitative RPR test is positive. This should be done by health care providers especially at ANC service.
- History of Penicillin allergy must be asked to the patient before providing treatment *(annex 8)*.

4.2.1.2. Medicines for the treatment

- Benzathine penicillin G 2.4 million units IM single dose is recommended to all asymptomatic pregnant women found to have positive rapid and RPR tests. It is also use to treat pregnant women with primary syphilis (present genital ulcer) and secondary syphilis.

Penicillin-allergic

- In case of Penicillin allergic, give Erythromycin 500mg, orally four times daily for 14 days.

Note:

- HIV positive women: Some experts recommend that HIV-infected persons should be treated with Benzathine-Penicillin G 2.4 million units IM at 1-week intervals for 3 weeks at the initial presentation, and have more intensive follow up at the HIV clinic. Therefore it is important to refer all HIV positive pregnant women to an HIV Treatment site, and advise the clinic of the positive syphilis serology.

4.2.2. Partner notification and treatment

- Follow up and contact tracing should be performed to all infected pregnant women.
- The sexual partner of the women must be treated for syphilis, if possible at the same time of his spouse. Benzathine penicillin G 2.4 million units IM single dose is recommended. In case of Penicillin allergic, give Erythromycin 500mg, orally four times daily for 14 days or Doxycycline 100mg, orally two times daily for 14 days.
- The sexual partner of a woman with a any positive syphilis test should be advised to have voluntary counseling and confidential testing (VCCT) for HIV.

4.2.3. Follow up the mother

4.2.3.1. *After rapid test and qualitative RPR test are positive*

- Quantitative RPR testing should be performed after the qualitative test is found to be positive, and can be performed on the same blood sample as originally sent to the laboratory for qualitative testing. The quantitative test result (RPR titre) should be recorded in the "Antenatal Record" (annex 5) and the "Mother Health's Record Book" (annex 6) as the baseline RPR titre to be compared with when the mother returns for follow up of response to treatment.

4.2.3.2. *After treatment of syphilis is given (annex 2)*

- Make an appointment with positive patient to come back again 6 - 12 months later to follow up the response to treatment by repeating the quantitative RPR test. (this can be at the same time as the mother brings the infant for 9 month immunization and clinical follow up).
- The quantitative RPR test has to be performed again at the same laboratory as the original test. A fourfold change in titer, equivalent to a change of two dilutions (e.g., from 1:16–1:4 or from 1:8–1:32), is considered necessary to demonstrate a clinically significant difference between two nontreponemal test results that were obtained using the same serologic test.
    - If ≥ 2 titres decrease (e.g. from 1:16 to 1:4) or qualitative RPR test is negative, educate and counsel the client, promote condom use as dual method of protection of HIV/STI and pregnancy, ensure the partner has been treated, and finally, promote HIV counseling and testing if it is not done during antenatal visit or if she is at risk of HIV infection even if the previous test is negative.
    - If there is failure of RPR test titers to decline fourfold > 6 months after treatment for syphilis (i.e., compared with the maximum or baseline titer at the time of treatment), it might be indicative of treatment failure, late latent syphilis (infection for > 2 years) or re-infection, however it is not possible to tell by serology which of these has occurred. These patients should be retreated for SYPHILIS and re-tested for HIV infection. Although re-infection would usually only require a start dose of Benzathine-Penicillin G 2.4 million units IM, it is safest in this situation to give Benzathine-Penicillin G 2.4 million units IM at 1-week intervals for 3 weeks to cover treatment failure and late latent syphilis.

The RPR tests usually become nonreactive after successful treatment; however, in some patients, non-treponemal antibodies can persist at a low titer for a long period of time, sometimes for the life of the patient.

4.3. Treatment and follow up the baby *(annex 3)*

4.3.1. Diagnosis of congenital syphilis infection for newborn at delivery service

- The diagnosis of congenital syphilis is complicated by the transplacental transfer of maternal antibodies to the fetus. This transfer of antibodies makes the interpretation of reactive serologic tests for syphilis in infants difficult. Cord blood should not be tested, as it too may be contaminated by the maternal blood. Therefore, no tests are routinely used for screening for congenital syphilis, and diagnosis is dependent on clinical examination and the mother's history of infection and treatment.
- The baby should be examined at birth thoroughly for suspect signs of congenital syphilis:
    - If any sign below is present, refer the newborn to pediatric service or hospital:
        - Prematurity or low birth weight
        - Chronic nasal discharge
        - Jaundice (yellow conjunctiva)
        - Enlarged liver, spleen or lymph nodes
        - Rash-may be dry or blistering or scaling or wet, especially on hands, feet, or around mouth or anus
        - Bone deformities-abnormal shape of the nose or legs.
    - If there are none of the above signs, ALL babies who are born to mothers with a positive syphilis test have to be treated for SYPHILIS with a single dose of Benzathine-Penicillin.
- The baby should then be referred to the immunization service for routine vaccinations and also be referred to get DNA PCR testing for HIV.

4.3.2. Treatment of the baby

- Benzathine penicillin G 50,000 units/kg/dose IM in a single dose is recommended to all babies without suspected sign of congenital syphilis born to infected mother.

4.3.3. Follow up the infant

- Whilst the infant may be asymptomatic at birth, clinical signs of congenital syphilis infection can emerge at a later stage.
- At each immunization visit (6 weeks,10 weeks, 14 weeks and 9 months), the baby should be also examined for the same clinical signs of congenital syphilis that were looked for at birth: chronic nasal discharge, jaundice (yellow conjunctiva), enlarged liver, spleen or lymph nodes, rash which may be dry, blistering, scaling or wet, and located especially on hands, feet, or around mouth or anus. If any of these signs are present, it is recommended to refer the baby to the nearby pediatric service or hospital for further evaluation and more intensive treatment.
- *Note: To help ensure follow up the infant and the mothers, the health care provider at delivery service and immunization service should put a note as "**mother: RPR (+) and infant is already treated**" on the infant's immunization card for examination of the infant at each immunization visit and retest the mother for RPR titre at the 9 month visit.*

5. Logistic management

Appropriate equipment and materials for RPR test will be supplied to relevant health care settings through the National Center for HIV/AIDS, Dermatology and STI (NCHADS), the National Maternal and Child Health Center (NMCHC) or through international and non-governmental organizations (OIs and NGOs). The Ministry of Health will supply medicines, consumables and laboratory reagents (Rapid test "Bioline" and RPR test) through the system of the Central Medical Stores, to the Operational Health District stores for distribution.

An appropriate quantity of medicines, consumables and laboratory reagents are stocked at NCHADS stores for emergency supply to the relevant health care settings in case of eventual increasing needs that cause stock shortage of quarterly supplies from the Ministry of Health.

6. Information, education and communication (IEC)

After seeing the health care provider, every client receives STI and HIV education, condoms and condom demonstration, advice on compliance and advice on contact tracing.

7. Monitoring and reporting

7.1. Antenatal register *(annex 4)*

- The existing antenatal register is used as a standard register at antenatal services of health centers, referral hospitals and NGO clinics to record summary information relevant to pregnant women in each visit.
- However, in operational health district (OD) that Linked Response for Prevention, Care, and Treatment of HIV/AIDS and Sexual and Reproductive Health Issues is implementing, health care providers at ANC service should use the "register to record the women's information about VCCT of HIV" developed and distributed by NCHADS instead of "Antenatal Register".
- Four additional columns: "Syphilis testing by Rapid Test and Test result" and "Syphilis testing by RPR Test and Test result" are added in the antenatal register (annex 4) to remark whether pregnant women has been screened for syphilis and to identify the test result. If the women are tested, tick "✓" in the column of syphilis testing. The result "Positive" or "Negative" is filled in the column of test result as "+" or " – ", accordingly.
- The register is kept together at the antenatal care service. This ensures that no information is lost and that all information is easily accessible.

7.2. Antenatal record sheet *(annex 5)*

- The existing antenatal record is used as a standard record form at the antenatal service of health centers and referral hospitals to record all main information relevant to pregnant women's health.
- An additional sheet of "syphilis screening" *(annex 5)* is attached with the "antenatal record form" to record all information of syphilis testing and treatment of pregnant women.
- All records are kept together at the antenatal care service. This ensures that no information is lost and that all information is easily accessible.

7.3. Mother Health' s Record Book *(annex 6)*

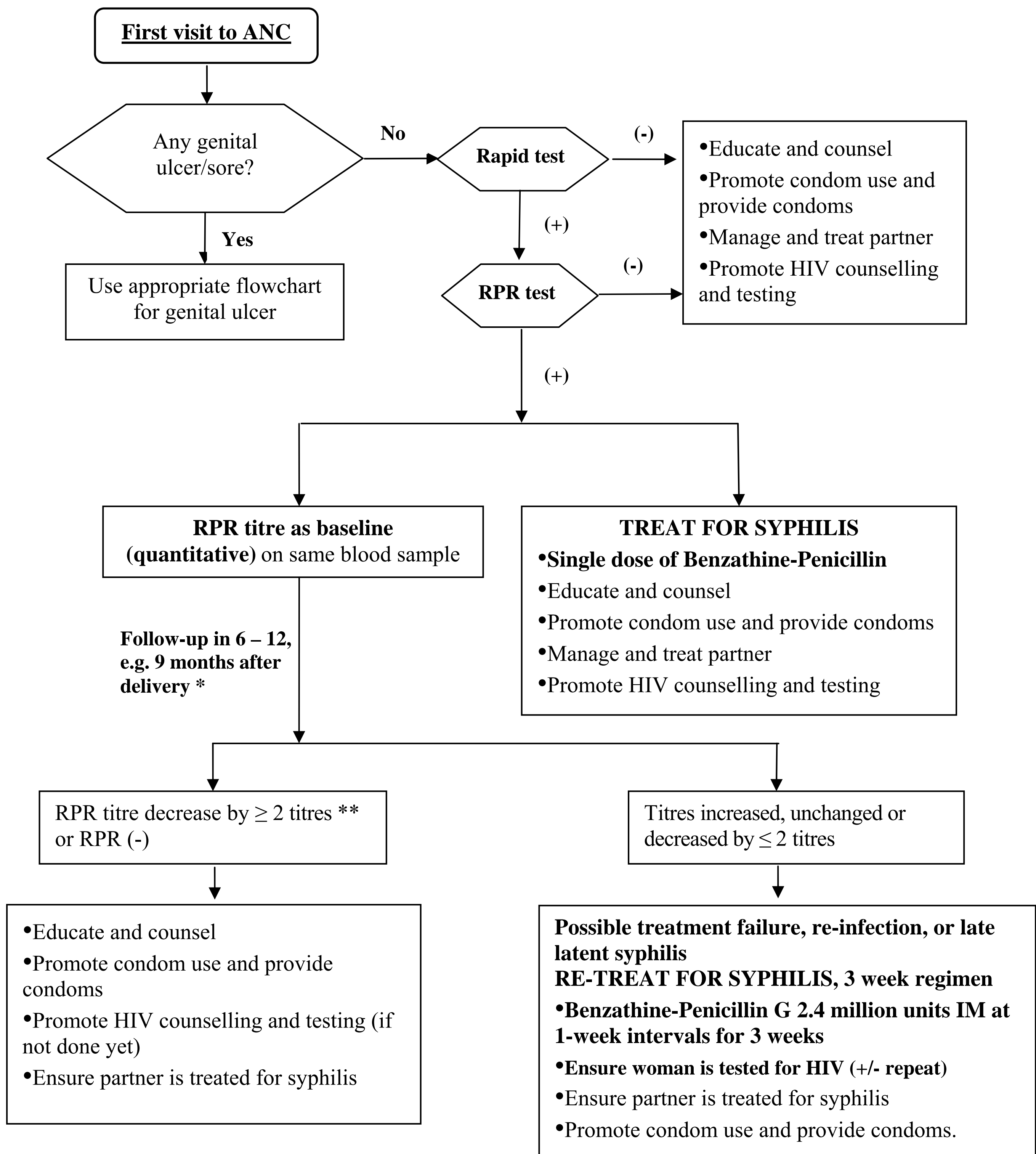
- The existing "Mother health's record book" is used as a standard record form for all pregnant women who visit at antenatal service of health centers and referral hospitals to record all main information relevant to each pregnancy.
- An additional sheet of "syphilis screening" *(annex 4)* is inserted within the "Mother health's record book" to record all information regarding syphilis testing and treatment of the pregnant woman.

- “Mother health’s record book” is kept by the women and it is brought to the antenatal care service at each visit throughout each pregnancy as well as during the delivery. This ensures that all information is easily accessible during each visit to the antenatal care service.

7.4. Reporting *(annex 7)*

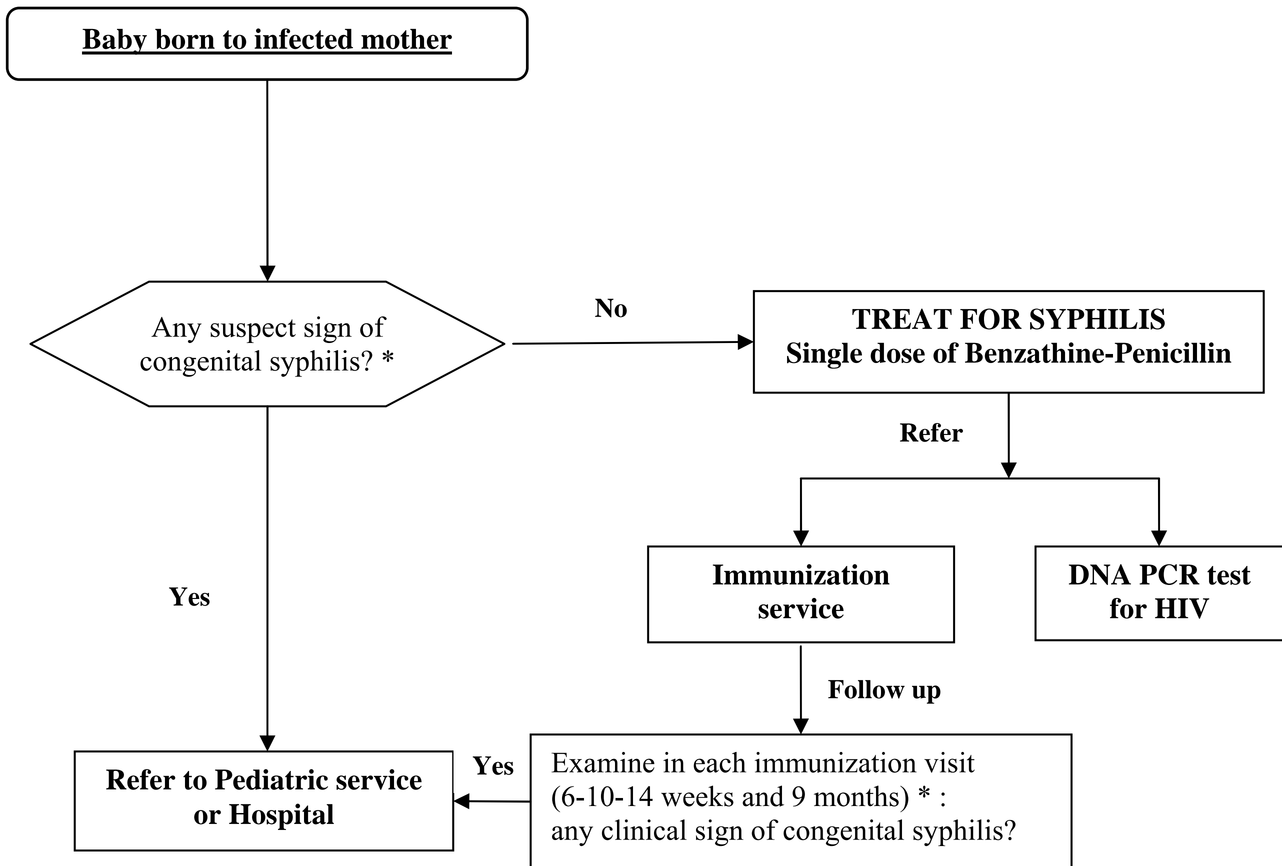
- The report of syphilis screening should be sent regularly every quarter to the data management unit of the National Center for HIV/AIDS, Dermatology and STIs (NCHADS). After compilation, it will be disseminated to all relevant partners especially the National Maternal and Child Health Center (NMCHC).
- The additional sheet of syphilis screening report *(annex 7)* is attached with the quarterly report of STI/RTI cases by the health centers or STI clinics where syphilis screening for pregnant women takes place.

Annex 1 : Syphilis screening for pregnant women



**Mother comes back to health center or referral hospital for measles immunization of infant*
***e.g. from 1:16 to 1:4*

Annex 2 : Management for newborn of syphilis infected mother



*** Clinical signs that may be due to congenital syphilis (at birth or at follow up) :**

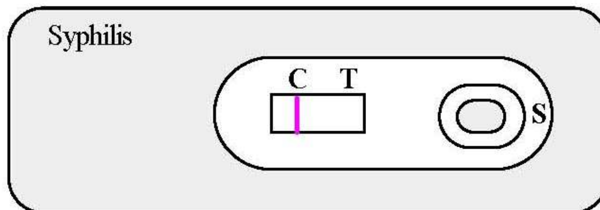
- prematurity or low birth weight
- chronic nasal discharge
- jaundice (yellow conjunctiva)
- enlarged liver, spleen or lymph nodes
- rash - may be dry or blistering or scaling or wet, especially on hands feet, or around mouth or anus
- bone deformities - abnormal shape of the nose or legs

Annex 3 : Standard SD Bioline Syphilis 3.0

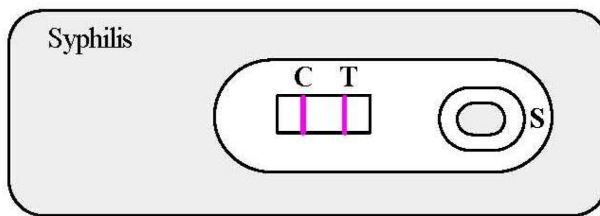
Equipment required but not supplied: micropipette and tips, volume 10 ul

SOP:

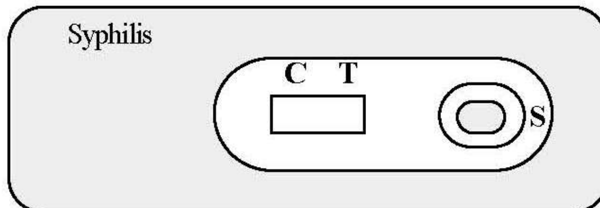
1. Remove the test from the foil pouch and place on a flat dry surface
2. Slowly add 10 µl of serum to the sample well
3. Add 3 drops of assay diluent to the sample well
4. Read the test at 5-20 minutes as follows:



Negative result
The presence of only one band within the result window indicates a negative result



Positive result
The presence of two colour bands ("T" and "C") within the result window, no matter which band appears first, indicates a positive result for TP antibodies.



Invalid result
If the purple colour band is not visible within the result window after performing the test, the result is considered invalid.

Annex 4 : Additional columns to "Antenatal Register"

Note:

- In operational health district (OD) that Linked Response for Prevention, Care, and Treatment of HIV/AIDS and Sexual and Reproductive Health Issues is implementing, health care providers at ANC service should use the "register to record the women's information about VCCT of HIV" developed and distributed by NCHADS instead of "Antenatal Register".
- All pregnant women who present to an antenatal care service have to be examined for genital ulcers and screened for syphilis infection by "Rapid test" (Treponemal test). If it is positive, it has to be confirmed by "RPR" test (Non-treponemal test).

						Syphilis screening			
						Rapid test		RPR test	
						(+)	(-)	(+)	(-)

Annex 5 : Additional sheet to "Antenatal Record"

Note: All pregnant women at antenatal care service have to be examined for genital ulcers and screened for syphilis infection by "Rapid test" (Treponemal test).

IV. Syphilis screening:			Date:	………………………………
- Genital ulcer/sore	Yes ☐	No ☐	Not exam ☐	Note:………………………… ………………………………
- Rapid test for syphilis*	(+) ☐	(-) ☐	Not done ☐	Note:………………………… ………………………………
- RPR test (qualitative)	(+) ☐	(-) ☐	Not done ☐	Note:………………………… ………………………………
- Penicillin allergy (past history)	Yes ☐	No ☐	Unknown ☐	Note:………………………… ………………………………
- Treat for syphilis	Yes ☐	No ☐		Note:………………………… ………………………………
- RPR titre (quantitative)	Baseline Follow up	….:.... ….:.... ….:.... ….:....	Not done ☐	Note:………………………… ………………………………
- Partner notified	Yes ☐	No ☐		Note:………………………… ………………………………
- Partner treated	Yes ☐	No ☐		Note:………………………… ………………………………
- Baby treated	Yes ☐	No ☐		Note:………………………… ………………………………
- Refer to PMTCT if HIV testing is not done yet.	Yes ☐	No ☐		Note:………………………… ………………………………

Next appointment (if necessary):……………………………………………………………………...

** If "Rapid test" was "positive" in the previous pregnancy, it is not necessary to do it again. Skip "Rapid test" and perform "RPR test" qualitative and quantitative at the same time.*

Annex 6 : Additional sheet to "Mother Health Record's Book"

Note : This form is attached as an additional sheet of the "Mother Health Record's Book".

Syphilis screening: Date: ………………………………

- Genital ulcer/sore	Yes ☐	No ☐	Not exam ☐	Note:………………………………
- Rapid test for syphilis*	(+) ☐	(-) ☐	Not done ☐	Note:………………………………
- RPR test (qualitative)	(+) ☐	(-) ☐	Not done ☐	Note:………………………………
- Penicillin allergy (past history)	Yes ☐	No ☐	Unknown ☐	Note:………………………………
- Treat for syphilis	Yes ☐	No ☐		Note:………………………………
- RPR titre (quantitative)	Baseline Follow up	….:..... ….:..... ….:..... ….:.....	Not done ☐	Note:………………………………
- Partner notified	Yes ☐	No ☐		Note:………………………………
- Partner treated	Yes ☐	No ☐		Note:………………………………
- Baby treated	Yes ☐	No ☐		Note:………………………………
- Refer to PMTCT if HIV testing is not done yet.	Yes ☐	No ☐		Note:………………………………

Next appointment (if necessary):………………………………………………………………………...

** If "Rapid test" was "positive" in the previous pregnancy, it is not necessary to do it again. Skip "Rapid test" and perform "RPR test" qualitative and quantitative at the same time.*

Annex 7 : Quarterly report of STI/RTI

Note : This form is an additional sheet for syphilis screening that is attached with the quarterly report of STI/RTI case from STI clinics or health centers where syphilis screening for pregnant women is available.

"Syphilis screening for pregnant women"

Month:...................... **N° of Quarter:...........** **Year: 200....**

Name of Health center or STI clinic:....................................

OD:........................... **Province:...........................**

	By age group			Total
Syphilis testing	**<15**	**15-49**	**≥ 50**	
Total of first visit of pregnant women at ANC				
Total of Rapid test				
Rapid test (+)				
Total of RPR qualitative test				
RPR test (+)				
Total number of pregnant women treated for syphilis infection				
Total of RPR quantitative test				
Titre - baseline				
Titre - follow up				
Total number of pregnant womens' partners treated for syphilis				
Total number of newborns treated for syphilis				

Annex 8 : Management of anaphylaxis

Anaphylaxis may occur in the clinic as a result of allergy to medication, it occurs without warning. Anaphylaxis is a life threatening medical emergency.

Adrenaline must be immediately at hand whenever a vaccination or parenteral antibiotic is administered.

1. Signs and symptoms of anaphylaxis

The patient may be experiencing an anaphylactic reaction in the event of the following:

- Rapid onset wheeze – difficulty breathing
- Oedema – swelling of the face, lips or tongue
- Cyanosis – blue lips and fingers
- Rapid pulse
- Low blood pressure
- Rash – itchy, of rapid onset may be associated with the above

2. Immediate management of anaphylaxis

- Lay the patient on their left side.
- Establish airway - if breathing stops or the carotid pulse is not palpable begin cardio-pulmonary resuscitation.
- Call out for help

3. Administering adrenaline

Give adrenaline by deep intramuscular injection. Use a 1 ml syringe and 23G needle.

Dose of Adrenaline = 0.01ml/kg*	
AGE/WEIGHT	**DOSE OF ADRENALINE (ml of 1:1000)**
1-2 years (approx 3 - 10 kg)	0.03 - 0.1 ml
2-3 years (approx 10 kg)	0.1 ml
4-6 years (approx 15 kg)	0.15 ml
7-10 years (approx 20 kg)	0.2 ml
11-12 years (approx 25 - 30 kg)	0.25 - 0.3 ml
12 - 14 years (approximately 40 kg)	0.4 ml
Adult	**0.5 ml**

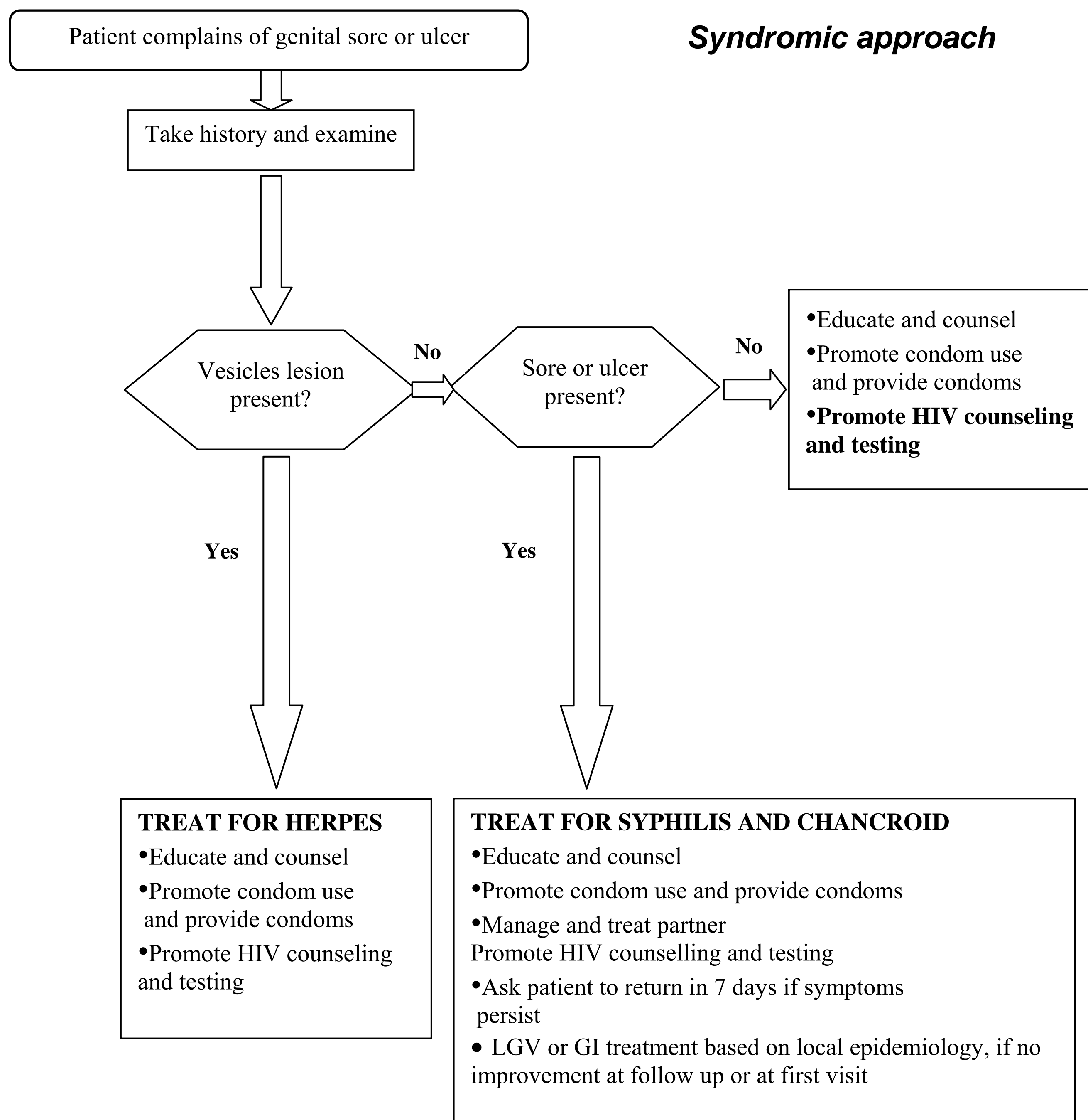
* If possible weight the child or check the previous weight in the medical record, however this should not delay urgent treatment.

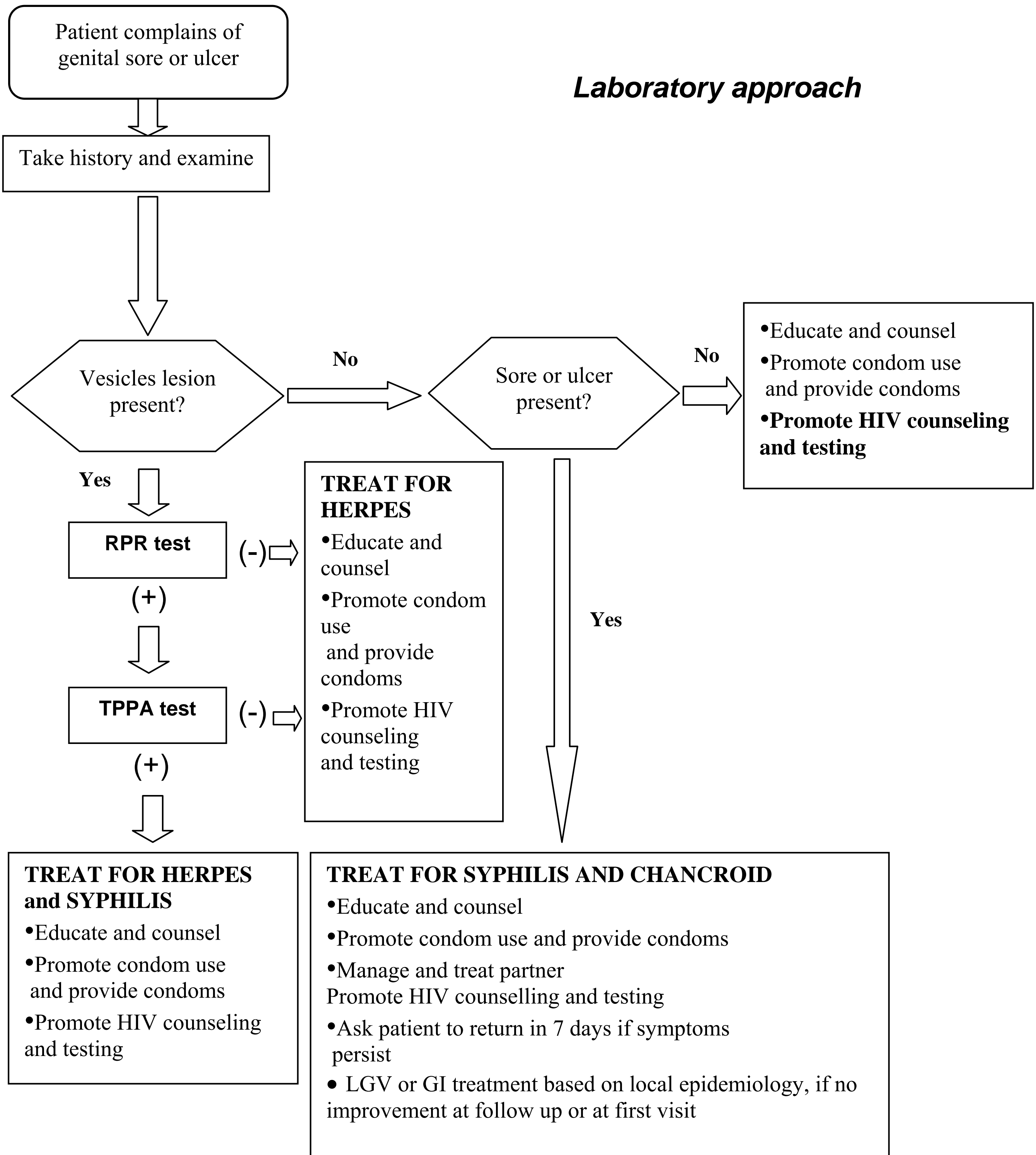
Adrenaline should be repeated at 5 minute intervals (adults) or 10 – 15 minutes for children until improvement occurs.

4. Further management after adrenaline commenced

- Start an intravenous infusion of saline
- Give 100% oxygen by face-mask at 8 litres/minute and maintain airway.
- Send for an ambulance if available. Admit to hospital for further observation and treatment.
- Monitor treatment and vital signs (BP, HR, Temp, RR, Oxygen saturation) every 10 - 15 minutes and document vital signs.

Annex 9 : MANAGEMENT OF GENITAL ULCER




Laboratory approach
Patient complains of genital sore or ulcer
Take history and examine
Vesicles lesion present?
No
Sore or ulcer present?
No
•Educate and counsel
•Promote condom use and provide condoms
•Promote HIV counseling and testing
Yes
RPR test
(-)
(+)
TPPA test
(-)
(+)
TREAT FOR HERPES
•Educate and counsel
•Promote condom use and provide condoms
•Promote HIV counseling and testing
Yes
TREAT FOR HERPES and SYPHILIS
•Educate and counsel
•Promote condom use and provide condoms
•Promote HIV counseling and testing
TREAT FOR SYPHILIS AND CHANCROID
•Educate and counsel
•Promote condom use and provide condoms
•Manage and treat partner
Promote HIV counselling and testing
•Ask patient to return in 7 days if symptoms persist
• LGV or GI treatment based on local epidemiology, if no improvement at follow up or at first visit

Annex 10 : <u>Site selection</u>

In 2008, 34 sites have been selected to perform routine syphilis screening with "rapid test" (Bioline*) among pregnant women:

<u>Existing sites (continue in 2008):</u>

1. National Maternal and Child Health Center (NMCHC)
2. Health Centers :

Province	Operational District		Health Center	Supported by
Siem Reap	Siem Reap	2	Banteay Srey	RACHA
		3	Kantraing	RACHA
		4	Mondol 1	RACHA
		5	Siem Reap	RACHA
	Angkor Chum	6	Pouk	RACHA
		7	Sorsorsdam	RACHA
	Kralanh	8	Kampong Thkov	RACHA
Pursat	Sampov Meas	9	Kandieng	RACHA
		10	Krakor	RACHA
		11	Peal Nhek	RACHA
		12	Phnom Kravanh	RACHA
	Bakan	13	Boeung Khar	RACHA
Kampot	Angkor Chey	14	Tany	RACHA
	Kampot	15	Kraing Ampil	RACHA
	Chhouk	16	Chhouk	RACHA
	Kampong Trach	17	Kampong Trach	RACHA

3. NGO clinics (RHAC) :

Province	Operational District		RH clinic	Supported by
Phnom Penh		18	Steng Mean Chey	RHAC
		19	Chak Ang Re	RHAC
		20	Tuol Sang Ke	RHAC
		21	Tek Thla	RHAC
		22	Tumnop Thmey	RHAC
		23	Psah Depot	RHAC
		24	Tuol Tom Poung	RHAC

Sihanoukville	Sihanoukville	25	Sihanoukville	RHAC
Battambang	Battambang	26	Battambang	RHAC
Kampong Cham	Kampong Cham	27	Kampong Cham	RHAC
	Choeung Prey	28	Pha Av	RHAC
	Thbong Khmum	29	Soung	RHAC
Takeo	Duon Keo	30	Takeo	RHAC
Siem Reap	Siem Reap	31	Siem Reap	RHAC
	Kralanh	32	Pouk	RHAC
Kampong Speu	Kampong Speu	33	Kampong Speu	RHAC
Svay Rieng	Chiphou	34	Bavet	RHAC

Expanding sites in 2009:

1. Health Centers :

Province	Operational District		Health Center	Supported by
Banteay Meanchey	Poi Pet	35	Poi Pet (FDH)	US-CDC
	Mongkul Borey	36	Sisophon (FDH)	US-CDC
Battambang	Battambang	37	Svay Por	US-CDC
	Sampov Loun	38	Sampov Loun RH	US-CDC
Prey Veng	Prey Veng	39	*HC Sub-satellites*	CHAI
	Neak Loeung	40	*HC Sub-satellites*	CHAI
	Preah Sdach	41	*HC Sub-satellites*	CHAI
	Kampong Trabek	42	*HC Sub-satellites*	CHAI
	Mesang	43	*HC Sub-satellites*	CHAI
Takeo	Kirivong	44	*HC Sub-satellites*	EU/ITM

2. NGO clinics :

Province	Operational District		RH clinic	Supported by
Phnom Penh		45	Chbar Ampov	Marie Stopes
Kandal	Takhmao	46	Takhmao	Marie Stopes
Koh Kong	Smach Meanchey	47	Koh Kong	Marie Stopes