Strategy for the Elimination of Congenital Syphilis in Sri Lanka
Strategy for the
Elimination of Congenital Syphilis
in Sri Lanka

National STD/AIDS Control Programme
Ministry of Healthcare & Nutrition
Sri Lanka
2009
Message from the Hon. Minister of Healthcare & Nutrition,

Sri Lanka, although a developing country, has been able to achieve remarkable social and health indices such as low maternal mortality rate, infant mortality rate, under five mortality rate, high literacy rate and increased life expectancy rate due to the concerted efforts of many stakeholders over the last few decades. The foundation for the achievement of these social and health indicators are the policy of free education and free health services to the entire nation, commitment by all levels of medical personnel and the existence of a strong preventive and curative health infrastructure. Similarly, in Sri Lanka, the prevalence of HIV infection is low and the rates of infectious syphilis are declining. In addition, the incidence of congenital syphilis is reported to be low. In such a backdrop, Sri Lanka has taken the challenge of eliminating congenital syphilis by 2015.

Provision of comprehensive maternal and newborn care, prevention and control of sexually transmitted infections including HIV are accorded a high priority in our health agenda. For many decades, screening pregnant women for syphilis has been a recommended intervention in Sri Lanka. Despite long standing policies and commitment there remain a few challenges in the implementation of the universal syphilis screening programme, surveillance, monitoring and evaluation. In the wake of this WHO initiative to eliminate congenital syphilis, overcoming those challenges is the responsibility of all who are committed to the health of children as the proposed interventions will also contribute in the achievement of MDG 4, 5, and 6.

I wish to reiterate here that renewed attention will be given under my guidance to this significant public health problem and steps will be taken to move this initiative up in the health agenda.

Nimal Siripala de Silva
Minister of Healthcare & Nutrition
Message from the Directors
National STD/AIDS Control Programme & Family Health Bureau,

We are pleased to be in the forefront of the programme for the elimination of congenital syphilis in Sri Lanka with other stakeholders. Over the last five decades the National STD/AIDS Control Programme and the Family Health Bureau have worked together with other stakeholders and have been able to achieve a high level of coverage of antenatal screening for syphilis, low prevalence of maternal syphilis and consequently a low incidence of congenital syphilis. The challenge for the two programmes was to devise an effective strategy based on the WHO Global/Regional strategy, aiming at high political commitment and cooperation and coordination of all stakeholders for a sustainable programme which would achieve universal coverage of antenatal screening for syphilis, simultaneous reduction of infectious syphilis in the community, treatment of mother, partner and her infant, effective surveillance, monitoring and evaluation.

We shall take all necessary steps to strengthen our synergistic role and work with the provincial health authorities, other government sectors such as the tri-forces, department of prisons, municipal health services, private sector laboratories, non-governmental organizations and civil society organizations to reach the goal and targets set for the elimination of congenital syphilis in Sri Lanka.

Last but not least, we take this opportunity to thank all those who helped in the preparation of the strategy document, particularly Dr Sujatha Samarakoon-Consultant Venereologist, Focal point-ECS/NSACP Dr Nilmini Hemachandra - Consultant Community Physician, -Focal point-ECS/FHB and Dr Sudharma Gunasekera.

Director
National STD/AIDS Control Programme

Director
Family Health Bureau
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<td>antenatal care</td>
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<tr>
<td>CS</td>
<td>congenital syphilis</td>
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<tr>
<td>CSO</td>
<td>civil society organization</td>
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<tr>
<td>ECS</td>
<td>elimination of congenital syphilis</td>
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<tr>
<td>EIA</td>
<td>enzyme immunoassay</td>
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<tr>
<td>DHS</td>
<td>Demographic and Health Survey</td>
</tr>
<tr>
<td>FHB</td>
<td>Family Health Bureau</td>
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<tr>
<td>FP</td>
<td>family planning</td>
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<tr>
<td>HCW</td>
<td>health care worker</td>
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<tr>
<td>HEB</td>
<td>Health Education Bureau</td>
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<tr>
<td>HIV</td>
<td>human immunodeficiency virus</td>
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<tr>
<td>ICS</td>
<td>immunochromatographic strip (test)</td>
</tr>
<tr>
<td>IEC</td>
<td>information, education and communication</td>
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<tr>
<td>IM</td>
<td>intra muscular</td>
</tr>
<tr>
<td>IV</td>
<td>intra venous</td>
</tr>
<tr>
<td>IgG</td>
<td>immunoglobulin G</td>
</tr>
<tr>
<td>IgM</td>
<td>immunoglobulin M</td>
</tr>
<tr>
<td>MCH</td>
<td>maternal and child health</td>
</tr>
<tr>
<td>MDG</td>
<td>Millennium Development Goals</td>
</tr>
<tr>
<td>MOH</td>
<td>Medical officer of Health</td>
</tr>
<tr>
<td>MO-MCH</td>
<td>Medical officer- Maternal and Child Health</td>
</tr>
<tr>
<td>MO-STD</td>
<td>Medical officer- Sexually Transmitted Disease (clinic)</td>
</tr>
<tr>
<td>NGO</td>
<td>nongovernmental organizations</td>
</tr>
<tr>
<td>NSACP</td>
<td>National STD/AIDS Control Programme</td>
</tr>
<tr>
<td>PDHS</td>
<td>Provincial Director Health Services</td>
</tr>
<tr>
<td>PHM</td>
<td>Public Health Midwife</td>
</tr>
<tr>
<td>PHNS</td>
<td>Public Health Nursing Sister</td>
</tr>
<tr>
<td>PHI</td>
<td>Public Health Inspector</td>
</tr>
<tr>
<td>PMTCT</td>
<td>prevention of mother to child transmission (of HIV)</td>
</tr>
<tr>
<td>POA</td>
<td>period of amenorrhea</td>
</tr>
<tr>
<td>RDHS</td>
<td>Regional Director Health Services</td>
</tr>
<tr>
<td>SL</td>
<td>Sri Lanka</td>
</tr>
<tr>
<td>STI</td>
<td>sexually transmitted infections</td>
</tr>
<tr>
<td>STD</td>
<td>sexually transmitted disease</td>
</tr>
<tr>
<td>TPHA</td>
<td>Treponema pallidum haemagglutination assay</td>
</tr>
<tr>
<td>TPPA</td>
<td>Treponema pallidum particle agglutination assay</td>
</tr>
<tr>
<td>UN</td>
<td>United Nations</td>
</tr>
<tr>
<td>VDRL</td>
<td>Venereal Disease Research Laboratory</td>
</tr>
<tr>
<td>VOG</td>
<td>visiting obstetrician &amp; gynaecologist</td>
</tr>
<tr>
<td>WHO</td>
<td>World Health Organization</td>
</tr>
<tr>
<td>WWC</td>
<td>well woman clinic</td>
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1. Introduction

Sexually transmitted infections (STI) are one of the commonest communicable diseases found in the world today. Primarily they are transmitted through unprotected sexual intercourse. Transmission can also occur through contaminated blood and blood products and from an infected untreated mother to child during pregnancy, child birth or via breast milk.

Syphilis is a sexually transmitted infection caused by the bacterium Treponema pallidum. It is estimated that globally about 12 million cases of syphilis occur annually and of them about 2 million are among pregnant women.¹ If a woman with untreated syphilis becomes pregnant, or a woman acquires syphilis during pregnancy, depending on the stage of syphilis, the infection can be transmitted to the foetus causing adverse pregnancy outcomes including congenital syphilis. Although estimates vary, adverse pregnancy outcomes occur in up to 80% of women with acute syphilis including stillbirth (40%), peri-natal death (20%) and serious neonatal infection (20%).² Such outcomes are 12 times more likely in women with syphilis than in sero-negative women.³ Early congenital is defined as syphilis from birth and within two years of life. Late congenital syphilis is when vertically acquired infection manifests from third year of life onwards.

Unlike many neonatal infections, congenital syphilis (CS) can be effectively prevented, either through prevention of maternal infection or by detection of infection early in pregnancy and provision of adequate treatment. Control of sexually transmitted infections in the community by promoting safer sex, increasing awareness about syphilis and its adverse effects on mother and infant could also help prevent maternal infection. Universal screening for syphilis during pregnancy, treatment of infected pregnant women, their partners and treatment of infants born to sero-positive women are shown to be cost effective, inexpensive and feasible in the prevention of congenital syphilis. Preventing even an occasional case is economically worthwhile. Economic analyses have shown that serological screening of pregnant women is cost effective even at very low prevalences of maternal infection. The cost of averting a case of CS is much lower than for other diseases.⁴ Yet, in this era of concern about the number of babies who are born with HIV infection, congenital syphilis receives scant attention.
The overarching goal of the present World Health Organization (WHO) initiative is the elimination of congenital syphilis (ECS) as a public health problem. This would be achieved through reduction of prevalence of syphilis in pregnant women and by the prevention of mother to child transmission of syphilis. WHO recommends four strategies for elimination of congenital syphilis 1) ensure advocacy and sustained political commitment for a successful health initiative 2) increase access to and quality of maternal and new born health services 3) screen and treat all pregnant women and partners 4) establish surveillance, monitoring and evaluation systems. The proposed interventions for elimination of congenital syphilis will contribute to the achievement of the UN Millennium Development Goals 4, 5 and 6.
2. Millennium Development Goals (MDG)

In 1948, the United Nations (UN) issued the Universal Declaration of Human Rights reflecting a sense of obligation among the member nations to provide special care and assistance to women and children. Thereafter countries adopted strategies to provide care for women and children. In year 2000, the announcement of UN Millennium Goals once again found the need to assign high priority to addressing the health of women and children. The successful implementation of a programme to eliminate congenital syphilis (ECS) as a public health problem would contribute to the following three of the United Nations Millennium Development Goals:

Goal 4: Reduce child mortality
Goal 5: Improve maternal health
Goal 6: Combat HIV/AIDS, malaria and other diseases

**MDG-4.** Mortality among children < 5 years will be reduced as a result of reduced incidence rates of low birth weight, perinatal death, and congenital infection

**MDG-5.** Maternal health will be improved as a result of adverse pregnancy outcomes such as spontaneous abortions and stillbirths. In addition, the simultaneous implementation of interventions to eliminate congenital syphilis and efforts to control STI in the population will reduce the incidence of syphilis and HIV in pregnant women.

**MDG-6.** Systematic screening of women for syphilis in PMTCT/HIV programmes will allow mothers and infants to be tested and, where necessary, treated for both HIV infection and syphilis thereby improving maternal and neonatal health. There is increasing evidence that STI including syphilis, increase women’s chances of becoming infected with HIV, thus screening and treatment for syphilis and other STI will help reduce the risk of HIV transmission.
3. Control and prevention of sexually transmitted infections and maternal and child health services in Sri Lanka

In Sri Lanka, Control and Prevention of sexually transmitted infections (STI) have been in existence since 1952. The National STD/AIDS Control Programme (NSACP) of the Ministry of Health through a network of thirty peripheral clinics is providing services with the objective of interrupting the transmission of STI including HIV and providing treatment, care and support for those infected. The National HIV/AIDS Strategic Plan (2007-2011) of the NSACP has identified control of STI as an important strategy. The Family Health Bureau (FHB) of the line Ministry of Health with the provincial health authorities is responsible for providing comprehensive maternal and child health (MCH) services for the entire country. MCH services are implemented through 305 Medical officer’s of Health (MOH) units distributed island-wide. In addition ten municipalities provide MCH services based on the health unit system. Further a network of medical institutions and health centers also provide institutional and clinic based MCH services.5 A noteworthy feature of the health system in Sri Lanka is the wide distribution of preventive and curative health facilities and services throughout the country, including the rural areas and plantations to maintain equity.5

In Sri Lanka, the successive governments have given high priority for health and education services. Free health care has been available from the government sector to the entire population over the past five decades.5 MCH service offers a comprehensive antenatal care (ANC) package to all mothers attending government health services. Demographic and Health Survey (2006/07) observes that almost 98% of pregnant mothers had accessed antenatal care services during pregnancy and 99% deliveries had taken place in a health institution attended by skilled personnel.6 In this backdrop, Sri Lanka has been able to achieve low maternal and infant mortality rates.7 Screening for syphilis is an integral component of the comprehensive antenatal care package. Venereal Research Laboratory (VDRL) test is the tool that is used for screening antenatal mothers in the government sector. Collection of blood is done by the primary health care staff. Testing is carried out in the respective STD clinics or in government hospital laboratories. The tests are subjected to quality control by the National Reference Laboratory in Colombo. The validity and reproducibility of VDRL test have been found to be high. According to FHB data, 92% of antenatal mothers were screened for syphilis in 2007. However, the coverage by the government services was less than optimal.7 Some of the reasons for the low coverage by the government sector are: inadequate staff to draw blood, lack of medical laboratory technicians for testing, lack of blood storing facilities, problems related to transportation of samples to testing centers. These constraints should be addressed to increase the coverage through the government sector. When screening
facilities are not available in antenatal clinics the alternative has been to get it done from the private sector. Coordinating with the private sector to introduce quality control checks would ensure the validity of results. Another option would be to introduce the on-site rapid treponemal test in constraint settings.

The screening test positive mothers are referred to the STD clinic and the diagnosis is confirmed by performing a specific treponemal test. A diagnosis of syphilis is made when the confirmatory test is positive. Such sero-positive mothers are then counselled and managed in the STD clinic. The partners are counseled and offered treatment. Penicillin is the treatment of choice which is inexpensive. The drug is on the Essential Drugs List. Babies born to mothers with syphilis are managed by paediatrician in consultation with STD clinic.

Screening for syphilis among STD clinic attendees has been a routine procedure since the establishment of STD services in the country. In addition screening is done among blood donors, at pre employment for certain sectors and at confirmation of service in the state sector. Since the potential for congenital transmission will remain high as long as syphilis is prevalent among adults, efforts to eliminate congenital syphilis would benefit from simultaneous prevention and control of infectious syphilis in the general population. Sustaining and expanding these programmes would help ECS. Similarly integration alongside other programmes would help reduce overall levels of syphilis in the adult population and help achieve a higher level of programmatic success. Consideration of including serological screening in the prisons, well woman and family planning clinics would complement the efforts in preventing CS.

In Sri Lanka, over the last ten years the prevalence of bacterial ST infections including adult infectious syphilis is declining. The rate of maternal syphilis is low and so is the incidence of congenital syphilis. The WHO recommended building blocks for elimination of congenital syphilis are already in place in Sri Lanka: there are policy guidelines, level of antenatal attendance is high, screening test is a component of the government antenatal service package and is available free of charge, treatment with penicillin is available to mothers with confirmed syphilis and their partners. Newborns are evaluated and treated as appropriate.
By adhering to national policies, strengthening the existing implementation process based on the WHO recommended strategies, using a multi-sectoral approach and bridging the gaps in service provision in constraint settings would help SL eliminate congenital syphilis by 2015. The districts of Anuradhapura, Polonnaruwa, Nuwara Eliya, Badulla, Puttalam and the Colombo Municipal Council area have been identified for the first phase of the ECS programme which will commence in 2009. In 2010 it will be scaled up to cover 10 more districts and the balance in 2011.

Figure -1 Reported incidence of STI in Sri Lanka

Source: National STD/AIDS Control Programme Sri Lanka
4. Maternal Syphilis

The causative bacterium, *Treponema pallidum* can be transmitted via blood of an infected mother to her developing foetus through the placenta. Haematogenous spread is dependent upon the occurrence of maternal spirochaetaemia.. The spirochetes can cross the placenta at anytime during pregnancy although occurs more commonly in the last two trimesters.

The risk of congenital infection is directly related to the stage of maternal syphilis during pregnancy and the stage of pregnancy when infection is acquired. The risk of infection to the foetus is much higher during early stages of syphilis than during late stages. The more recent the maternal infection, the more likely the foetus will be affected since the early stage of syphilis is characterized by high levels of spirochaetaemia. The probability of transmission to the fetus is nearly 100% when the mother has early syphilis. The spirochaetaemia diminishes over time and two years after acquisition of syphilis the probability of sexual transmission becomes low. However, the probability of transmission to a fetus can take place up to four years after the acquisition of infection by the mother.

Clinical manifestations of syphilis in the mother will depend on the stage of syphilis at the time of pregnancy. If the mother becomes infected late in pregnancy she may show no signs before delivery and the infected newborn may also appear normal at birth.

There are two general scenarios that need to be considered when assessing the risk of congenital syphilis. 1) an infected untreated woman becoming pregnant 2) a woman becoming infected during pregnancy. The latter tends to be associated with overall severe outcomes for the infant as it always involves the early spirochetemic stages of the disease in which the likelihood of transmission to the fetus is high.

**Outcome of Pregnancy in relation to stage of Maternal Syphilis**

<table>
<thead>
<tr>
<th>Outcome</th>
<th>Primary &amp; secondary</th>
<th>Early latent</th>
<th>Late latent</th>
<th>Normal</th>
</tr>
</thead>
<tbody>
<tr>
<td>Prematurity</td>
<td>50%</td>
<td>20%</td>
<td>9%</td>
<td>8%</td>
</tr>
<tr>
<td>Perinatal death</td>
<td>0</td>
<td>20%</td>
<td>11%</td>
<td>1%</td>
</tr>
<tr>
<td>Congenital syphilis</td>
<td>50%</td>
<td>40%</td>
<td>10%</td>
<td>0</td>
</tr>
<tr>
<td>Healthy child</td>
<td>0</td>
<td>20%</td>
<td>70%</td>
<td>90%</td>
</tr>
</tbody>
</table>

*Source - Sexually transmitted infections by King Holmes*
5. Goal for elimination of congenital syphilis in Sri Lanka

- To ensure that congenital syphilis is no longer a public health problem. The goal may be considered to have been achieved when the incidence of congenital syphilis drops to half of what has been reported in 2009, by year 2015

5.1 Specific goal

- Is to prevent transmission of syphilis from mother to child and thereby reduce the incidence of congenital syphilis.

This can be achieved by

1. Preventing maternal syphilis through promoting safer sexual practices and control of STI in the community
2. Providing early antenatal care for all pregnant women
3. Being aware of adverse pregnancy outcomes of untreated maternal syphilis and importance of screening early in pregnancy
4. Universal screening of pregnant women early in pregnancy
5. Prompt treatment of all sero-positives
6. Treatment of partners of sero-positive women
7. Education and counseling to prevent infection/re-infection and promotion of use of condoms
8. Appropriate management of all infants born to sero-positive women
6. Guiding principles for country level action

6.1 An integrated approach

Elimination of congenital syphilis will not be a vertical programme. The existing integrated antenatal screening for syphilis through the maternal health service and treatment by the STI services will be strengthened to provide maximum coverage of screening and effective treatment of mother, partner and infant. Programme success could be further enhanced by integrating elimination of congenital syphilis strategies to STI control, family planning, well woman clinics, health programmes of tri-forces, prisons, Sri Lanka Bureau of Foreign Employment.

6.2 A rights based approach

The programme would ensure that women, men and young people have the right to information enabling them to protect themselves against ST infections including HIV, information on where to seek treatment, the right to know the result of their tests, and the right to seek and receive effective treatment. The rights based approach will also include the right to high quality care which is confidential and non-judgmental.

6.3 Partnerships and collaboration

Partnership and collaboration are essential for making the best use of available resources. There shall be cross sectoral collaboration at the government level (eg Ministry of Education, Ministry of Defense, Sri Lanka Foreign Employment Bureau, and Department of Prisons) as well as with non-governmental (NGO) and other civil society organizations (CSO) working with sexual and reproductive health (SRH) and also donor agencies to achieve the goal of ECS.
7. Challenges for congenital syphilis prevention in Sri Lanka

1. There should be policy emphasis on universal screening of antenatal mothers at the first antenatal visit or preferably before 12 weeks of gestation to prevent congenital syphilis.

2. Sustaining the synergy between congenital syphilis elimination interventions and MCH services, to maximize the opportunities for achieving the goal of universal coverage of CS interventions.

3. Overcoming the low priority given by policy makers / health care professionals to antenatal screening for syphilis as the prevalence of adult syphilis is low.

4. Incorporating messages on STI including syphilis in IEC materials for antenatal mothers.

5. Achieving universal screening of antenatal mothers through the government antenatal care service package since the current coverage by the primary health care services is around 45-50% by strengthening gaps of manpower and other logistics.

6. Introducing a low cost easily applicable rapid on site specific test in constraint settings (criteria for on-site testing will be formulated).

7. Having sufficient staff for education programmes, testing, counselling.

8. Minimize stigma attached to STD in general.


10. Introducing screening for syphilis in other health care services such as well woman clinics (WWC) and family planning (FP) clinics.

11. Developing partnership with private sector laboratories to establish a quality assurance system that ensures the use of standard operating procedures in all aspects of screening for syphilis and also HIV infection.

12. Strengthening the monitoring and evaluation system.
8. The Strategy

The strategy for ECS in Sri Lanka is adapted from the four pillars of the WHO strategy. Most of the identified interventions are already in place in Sri Lanka and are being implemented. The way forward to achieve the desired goal and targets is to strengthen the existing health care delivery system with the full participation of multiple stakeholders (Ministry of Health, NSACP, FHB, HEB, Provincial Health Authorities, private sector, non-government organizations, and civil society organizations).

Strategy 1

Ensuring advocacy and sustained political commitment for a successful health initiative

Interventions

1. Mobilize political commitment and advocacy in order to give high priority to the ECS programme and allocate resources (central and provincial level/ international)
2. Raise awareness of decision makers, public health officials, health care providers on the burden of syphilis and problems related to syphilis in pregnancy and its adverse outcomes, such as stillbirths and low birth weight
3. Underline the value of linking congenital syphilis elimination to other maternal and newborn health services, PMTCT of HIV programmes and STI prevention programmes
4. Demonstrate the cost benefit of interventions to prevent congenital syphilis
5. Establish a national and district level steering committee
6. Identify roles and responsibilities of the stakeholders
Strategy 2

**Increasing access to, and quality of, maternal and newborn health services**

**Interventions**

1. Raise community awareness regarding maternal and child health, STI including congenital syphilis and HIV and availability of health services

2. Increase the percentage of pregnant women attending maternal and newborn health services early in pregnancy by incorporating clear messages regarding benefits of seeking antenatal services early in pregnancy through community awareness

3. Ensure all antenatal mothers are screened for syphilis at the first booking visit preferably before 16 weeks and results are given without delay.

4. At delivery, test mothers who have not been screened for syphilis during pregnancy or have no documented evidence of treatment

5. All mothers testing positive (treponemal/non-treponemal test) should be referred to the STD clinic for management

6. Ensure all sero positive mothers and their partners are treated adequately

7. All babies born to mothers with syphilis (treated/untreated) should be examined by a paediatrician or a senior registrar

8. Improve detection of other STI and establish a referral system which is non stigmatizing

9. Increase the quality of syphilis testing in both government and private sector by training laboratory staff, ensuring a continuous supply of equipment and reagents and establishing quality control systems

10. Integrate ECS to other health services (WWC/FP) and also when screening for HIV and malaria

11. Establish a referral system for women found positive for HIV and malaria for further management

12. Establish partnerships with private and other government sectors (Dept of Prisons/Tr-Forces/plantation) to promote screening

13. Train health care workers (HCW) in counseling and relevant skills in communication

14. Ensure that women who are found un-infected during pregnancy remain same through health education and counseling
Strategy-3

Screening pregnant women and treating seropositive women, their partners, and newborns

Interventions

1. Screen all antenatal mothers for syphilis at the first booking visit preferably before 12 weeks and results are given within 4 weeks.

2. Confirm the diagnosis of syphilis and determine the stage of syphilis in the pregnant mother and manage according to national guidelines (annex 1, 3)
   - Treat with penicillin according to stage of syphilis (annex-3)
   - Counsel mother of the importance of continuing therapy, follow up, partner referral, and treatment of baby
   - Screen mother for other STI and treat accordingly
   - Counsel on safer sexual practices
   - Counsel for HIV testing when appropriate
   - Make plans for management of baby at birth (share the plan with VOG/MOH/Paediatrician)

3. Screen mother’s sexual partners for syphilis and treat appropriately (annex-3)

4. Screen partners for other STI and treat if necessary

5. Document test results, stage of syphilis, and treatment status of mother and partner

6. Ensure sero positive mothers will continue routine follow up at both the registered antenatal clinic and at the STD clinic until delivery

7. Infants born to mothers with syphilis diagnosed in the current pregnancy should be evaluated by a paediatrician and managed in consultation with the STD clinic.
   a. Treat symptomatic babies with IV penicillin for 10 days (annex-6) and follow up every three months for one year
   b. Babies born to mothers who were treated with penicillin < 4 weeks before delivery, inadequately treated with penicillin during pregnancy, or treated with non-penicillin (erythromycin) should be given IV penicillin for 10 days (annex-6) and followed up every three months for one year
   c. All asymptomatic babies but whose VDRL is 4 fold higher or IgM antibodies positive should be treated with IV penicillin for 10 days (annex-6) and followed up for every three months for one year
d. All asymptomatic babies born to mothers who were adequately treated with penicillin for maternal syphilis before 4 weeks of delivery should be given prophylactic penicillin (annex-6)

The above categories of babies should be followed up in every three months for the first year in the STD clinic

8. Screen mothers who have no documentary evidence of test results at the time of delivery and treat confirmed cases with one single dose of 2.4 million IU of benzathine benzyl penicillin intramuscularly and refer to STD clinic after partus. Babies born to such mothers should be treated with IV crystalline benzyl penicillin for 10 days and followed up once in three months for one year

9. Refer mothers who have symptoms/signs of other STI to STD clinic or manage using syndromic approach

10. Refer mothers tested positive for HIV infection to the STD clinic

11. Re-treatment is unnecessary for mothers who have documented evidence of treatment during previous pregnancies and are not re-infected during the current pregnancy. Babies born to such mothers do not require treatment.

12. Screen all patients attending STI clinics for syphilis

**Strategy-4**

**Strengthen surveillance, monitoring and evaluation systems**

**Interventions**

1. Ensure collection of baseline data on maternal and congenital syphilis, services structure including private sector starting from district level

2. Ensure the availability of protocols for prevention, screening, testing, referral at all levels

3. Develop data collection formats where necessary

4. Develop indicators for input, process, output and outcome

5. Identify and assign roles and responsibilities to improve accountability for the elimination of CS

6. Strengthen the M&E
   - Antenatal screening performance will be included as an agenda item at monthly MOH review meetings
   - Quarterly review by RDHS
   - Quarterly review by NSACP and FHB
9. Targets and indicators

9.1 Targets for ECS in Sri Lanka

1. Proportion of pregnant women seeking ANC by 12 weeks of gestation >95%
   Proportion of pregnant women screened for syphilis during pregnancy > 98%
3. Proportion of sero positive women treated >98%
4. Proportion of partners of sero-positive pregnant women treated >90%
5. Proportion of newborns of sero positive women treated >95%
6. Prevalence rate of maternal syphilis - half of the existing rate

9.2 Indicators

Input indicators                                      Source of data

1. Existence of national policy and                  Circular from Secretary Healthcare &
guidelines on ECS.                                    Nutrition, Strategy for ECS in SL
2. Number of ANC clinics able to draw                Baseline report and quarterly review
   blood for VDRL testing                                reports
3. Proportion of ANC where on-site                   ......do........
screening for syphilis is available.
4. Proportion of antenatal clinics with              ......do........
   skilled staff to perform on-site screening
5. No. of institutions with laboratory               ......do........
   facilities to perform VDRL test
6. No. of institutions with laboratory               ......do........
   facilities to conduct syphilis
   confirmatory test (TPPA)
7. No. of institutions with facilities to treat diagnosed cases 
   .....do....... 
8. Number of rapid test kits provided to each center 
   NSACP lab register 

Output indicators 

1. Proportion of pregnant women screened for syphilis (at 12 weeks POA) 
   H509 – FHB M&E 
2. Proportion of positive pregnant women treated appropriately 
   STD clinic data 
3. Proportion of partners of positive pregnant women treated 
   STD Clinic data 
   STD clinic data 
5. Proportion of symptomatic babies treated 
   STD clinic data 

Outcome indicator 

Source of data 

- Prevalence of maternal syphilis; 
  H509 
- Incidence of congenital syphilis 
  STD clinic data
10. Roles and responsibilities of health staff in elimination of congenital syphilis programme

FHB & NSACP

1. Identify the goal and objectives for elimination of congenital syphilis
2. Develop the strategy for elimination of congenital syphilis
3. Identify the geographic locations for the initiation of elimination of congenital syphilis and scale up for island wide coverage thereafter
4. Coordinate with NSACP for development/revision of guidelines on syphilis screening and management
5. Develop indicators and appropriate data collection formats
6. Organize advocacy for provincial directorate and provincial teams of the selected geographic locations
7. Identify roles and responsibilities of provincial team
8. Support provincial teams to develop activity plans
9. Coordinate with HEB for development of IEC material
10. Monitor and evaluate the Syphilis screening programme of the country
11. Arrange necessary training programmes for MO-MCH/ MOH/ PHNS PHI PHM
12. Organize training for MLT of government and non-government institutions
13. Provide technical expertise to private sector laboratories to improve quality of services

HEB

1. Support NSACP and FHB in planning and developing health education, behavior change communication interventions

PDHS & RDHS

1. Leadership & supervision of the overall programme
2. Review progress at MOH monthly review, quarterly reviews and take action
MO-MCH

1. Support FHB and NSACP in the development of objectives and strategy
2. Support development of activity plan for the district
3. Ensure availability of equipments and commodities for syphilis screening
4. Coordinate with STD clinic and MO/STD to make arrangement for VDRL testing at the field level
5. Supervision of the field level screening activities
6. Monitor and evaluate the Syphilis screening programme of the district jointly with the MO/STD and give a feed back to the MOH
7. Review performance at MCH meeting

MOH

1. Support MO-MCH to develop district activity plan
2. Ensure screening of all pregnant mothers for syphilis at the booking visit or at least before 16 weeks of POA
3. Ensure the VDRL testing facilities are available in all clinic centers
4. Ensure blood is drawn and stored and transported as per guidelines
5. Review VDRL testing results and act accordingly (trace VDRL positive mothers immediately and refer them to STD clinic – annex-7 )
6. Enter positive syphilis test results and biological false positive results in the H 512 form
7. Liaise with MO-STD and ensure mothers follow instructions given at STD clinic
8. Ensure sero positive mothers follow both the routine antenatal services and STD clinic
9. Ensure proper record keeping and reporting (pregnancy records, monthly returns and quarterly returns)
10. Monitoring and evaluation of syphilis screening program in the area
11. Ensure male participation for general health education programmes conducted (parent craft classes)
12. Educate pregnant mothers and their partners on importance of preventing STI including HIV, condom use, syphilis screening and voluntary counseling and testing for HIV
13. Supervise health education/counseling carried out by PHNS/PHI/PHM
14. Discuss strengths and weaknesses at the monthly MOH meeting
MO-STD
1. Support MO-MCH in developing district activity plan
2. Coordinate with MOH and field staff and support when required.
3. Ensure quality control of tests by liaising with the Central Referral STD Laboratory
4. Ensure test results are conveyed to the MOH immediately
5. Make arrangements for syphilis screening in constraint settings
6. Assist MO-MCH to make available equipments and commodities for syphilis screening
7. Management of mothers diagnosed with syphilis according to guidelines (annex 1,3)
8. Partner tracing and management
9. Follow up of mother and partner
10. Maintain confidentiality of information
11. Ensure referral letters are given to VOG and MOH with management plan of the baby (annex)
12. Ensure baby is evaluated by paediatrician and prophylactic/treatment given as per guidelines (annex-6)
13. Enter babies diagnosis as per case definitions (annex-5)
14. Follow up babies every three months for the first year of life
15. Ensure proper record keeping and reporting
16. Attend monthly MOH conference and discuss strengths and weaknesses

MLT
1. Ensure all tests are done according to guidelines
2. Ensure positive test results are conveyed to the MO-STD immediately
3. Assist MO-STD in making sure test kits and other reagents are available

PHNS
1. Include the importance of reducing mother to child transmission of STI during pregnancy in the general health education programme
2. Supervise the syphilis screening programme at the field level
3. Ensure blood drawing is carried out in all antenatal clinics
4. Ensure proper record keeping and reporting
PHM
1. Ensure pregnant women are registered as early as possible preferably by 8 weeks of gestation
2. Motivate mothers for early registration for antenatal care and ensure VDRL testing of all mothers before POA of 12 weeks at the antenatal clinic.
3. Educate mothers and their partners regarding importance of prevention of STI including HIV, syphilis screening and voluntary counseling and testing for HIV
4. Referral to ANC clinic for VDRL testing
5. Follow up of referred mothers
6. Follow up of mothers diagnosed with syphilis while maintaining confidentiality
7. Ensure the pregnancy record is completed by including the POA when VDRL test was done, where it was done (government facility or private lab) and its result
8. Support accurate data collection

PHI
1. Support MOH, MO –STD in health education programmes, promotion of condoms
2. Help trace MO STD in contact tracing while maintaining confidentiality
3. Help in collection of statistics

NGO/CBO
1. Support community mobilization for early access for antenatal care, screening, reduce stigma

Private sector laboratories
1. Liaise with STD clinics to ensure quality control of tests
2. Guide positives to attend health care services early
3. Ensure confidentiality of test results
11. References


Annex-1  Syphilis in adults

Syphilis is an infectious disease caused by the bacterium *Treponema pallidum*. It is usually transmitted through sexual contact. About thirty percent of those that come into contact with syphilis during sex will become infected.¹ It can also be caught by any direct inoculation through contact with infected lesions or through blood transfusions and from an infected mother to the child.

It is a disease of great chronicity; systemic from the outset; capable of involving practically every structure of the body in its course; distinguished by florid manifestations on the one hand and years of completely asymptomatic latency on the other; able to simulate many diseases in the field of medicine; transmissible to offspring². It is preventable and easily diagnosed with a quick and cheap screening test and treatable with penicillin to the point of presumptive cure

Syphilis has three stages³²

Primary stage: The tissue reaction to the inoculation of treponemes is termed the primary stage. The incubation period vary between 9 and 90 days. Approximately 3 to 4 weeks after the treponemes have gained entrance into a new host, there develops at the portal of entry a primary lesion called the chancre. Thus it takes about 3-4 weeks for the first signs to appear. A chancre will develop at the specific site of contact. If untreated it heals spontaneously within 3-8 weeks. Thereafter the disease will now progress to secondary stage.

Secondary stage: A variety of symptoms accompany secondary syphilis. Six to eight weeks after the initial sore disappears the patient may experience symptoms such as headache, fever, enlarge lymph nodes, sore throat, and rash. These symptoms can last for over three months, and sometimes as long as six months.

Latency stage: Following healing of the early lesions there ensues a quiescent or latent stage during which there are no clinical signs and symptoms. During the latent stages the diagnosis is made by serological tests. The latency stage is the time when the spirochete is lodging itself into the tissue of its host. The bacteria infest the bone marrow, lymph glands, vital organs and the central nervous system. The latency period is subdivided into early and late stages. The first two years of the asymptomatic stage following exposure is called the early latent period. The late latency period begins somewhat arbitrarily 2 years after the initial exposure. It has been found
that fifty to seventy percent of patients in this stage live out the rest of their lives without the disease progressing to the tertiary phase. The risk of infecting sexual partners is highest during the first two years, then virtually ceases, although the risk of maternal fetal transmission continues.

Tertiary stage: occurs several years to several decades after the initial infection, and takes the form of neurosyphilis (in which the brain and spinal cord is affected), cardiovascular syphilis (involving the aorta and heart) or gummatous syphilis (involving skin, mucus membranes, subcutaneous and sub mucus tissues and supporting structures such as bones, joints, muscles and ligaments). Tertiary stage is no longer infectious. These complications will develop in about 40% of people with latent infection, in the absence of adequate antibiotic therapy. However, today with the availability of effective treatment especially penicillin, tertiary syphilis is rare.
Annex-2 Diagnosis of maternal syphilis

Traditionally laboratory diagnosis in adults is based on initial use of a non-treponemal screening test. These tests detect antibody to reagin antigen, which is found in both *T. pallidum* and some human tissues. They are thus not specific for *T. pallidum* and could give false positive results. Examples include the Venereal Disease Research Laboratory (VDRL) test. If a non-treponemal test is positive it should be confirmed by a treponemal test using an antigen of *T. pallidum*, examples include the *T. pallidum* haemagglutination assay (TPHA) and the *T. pallidum* particle agglutination assay (TPPA). Syphilis is diagnosed when the confirmatory treponemal test is positive.

When a non treponemal test is positive in the absence of a reactive treponemal test it is called a biological false positive test. The non treponemal test becomes positive sometimes due to technical errors or due to certain physiological or pathological conditions. Acute false positive tests are found in persons suffering from many viral and bacterial infections or who have had certain vaccinations or immunizations. Chronic false positives are found in the presence of autoimmune conditions, tuberculosis, leprosy, or malaria. False positives are also found during pregnancy or even without a specific cause or a pre existing disease. Therefore a positive non-treponemal test should be confirmed by a specific treponemal serologic test.

The non treponemal tests have the advantages of being inexpensive and sensitive (especially in early infection). However, these tests cannot be done on whole blood, they require a microscope or rotator for processing, and misinterpretation is common by inexperienced laboratory technicians because reading of the results is subjective.

Treponemal tests, while theoretically more specific than non-treponemal tests may also give false positive results. Moreover, they cannot differentiate between individuals with active (untreated) syphilis and those who have previously been successfully treated for infection. In both cases, the treponemal test result will be positive. Non treponemal tests, on the other hand, can distinguish current or recent infections from old, treated infections to a certain extent based on the titre levels.

For the diagnosis of syphilis, a combination of the two tests is recommended. Traditional confirmatory assays require expensive laboratory equipment and technical expertise, and are therefore seldom available outside reference laboratories. However, these can now be replaced
by simple, rapid, point-of-care treponemal tests which use whole blood, require minimal training, no equipment or special storage conditions.

Rapid simple treponemal tests using immunochromatographic strips (ICS) which use whole blood, do not need equipment or special storage conditions and require minimal training are now available and can be used on the site including peripheral areas. Sensitivity (85-98% and specificity (92-98%) of these tests are high. The new rapid test has been estimated to cost only US $7 per each case of congenital syphilis averted. The affordability, convenience and practicality of rapid tests make them attractive tools, as on-site screening tests in primary care settings or in areas where laboratory services are not available.

However, since treponemal antibodies persist for years irrespective of treatment, a positive test will not help in distinguishing active infection from past treated infection. Treponemal tests cannot be used to monitor effectiveness of treatment.

In the event the ICS becomes positive, a second sample should be drawn from the mother and sent to STD clinic for re-confirmation.

**Case Definition of a mother with syphilis**

A pregnant mother with serologic evidence of syphilis (positive TPPA test) in the current pregnancy with or without symptoms of syphilis. A woman who has documentary evidence of having been adequately treated in the past and in whom re-infected during the current pregnancy is ruled out is excluded from this case definition.
Annex-3 Treatment of Maternal syphilis

Syphilis in adults is easily cured. If not treated in its early stages, the disease can become chronic, often with a long latent period with some clinically recognizable stages. In pregnancy, however, early treatment with penicillin is required for successful pregnancy outcomes. Treatment should be provided early in gestation before significant fetal involvement take place.\(^4\) Treating the mother with penicillin during the first and second trimester will prevent major outcomes, but later treatment or lack of treatment may result in fetal death, fetal damage or birth of an infected child\(^4\).

**Treatment of primary, secondary and early latent syphilis:**\(^5\)

A single dose of Benzathine benzyl penicillin 2.4 million units IM given after excluding allergy.

**Late latent syphilis:**\(^2\)

Benzathine benzyl penicillin 2.4 million units IM once a week for consecutive 3 weeks.

Adequate penicillin treatment will end infectivity within 24-48 hours.

There are conflicting data on whether giving a single dose of benzathine penicillin to pregnant women is sufficient to prevent adverse pregnancy outcomes or whether a course of at least three doses is better. The WHO recommends that women with early syphilis (primary, secondary and early latent) be given one dose and women with late latent should be given three weekly doses.\(^5\)

Pregnant mothers treated for early syphilis should have monthly quantitative serologies throughout pregnancy. Those who do not show a four fold drop in titre at end of 3 months or who show a 4 fold rise in titre should be re-treated.

It is not necessary to retreat mothers who have documented evidence of adequate therapy for previous syphilis so long as there is no evidence of serologic or clinical evidence of re-infection or relapse. Babies born to such mothers do not require prophylactic penicillin therapy.

If doubts exist about the adequacy of previous therapy, re-treatment should be commenced promptly.
**Allergy to penicillin**

When patient sensitivity to penicillin precludes its use, erythromycin is recommended as an alternative.³

In early syphilis (primary, secondary and early latent) give erythromycin 500mg oral 6 hourly for 15 days. In Late latent syphilis give erythromycin 500mg oral 6 hourly for 30 days.

**HIV infection**

Evidence suggests that treatment for syphilis in pregnant women who are HIV positive should be similar to that given to other pregnant women and follow up should be the same as for adults with HIV infection.⁶

**Treatment of partners**

**Sexual partners of mothers with primary, secondary, early latent syphilis**

Epidemiological treatment of sexual contacts is mandatory as these stages of syphilis are infectious. Those with reactive serology should be treated according to the stage of syphilis of the partner.⁵

**Sexual partners of mothers with late latent syphilis**

Investigate and if serology is positive or clinical evidence of syphilis is present, treat according to the stage of syphilis of the partner⁵.
Annex-4 Diagnosis of congenital syphilis

The diagnosis of congenital syphilis depends on a combination of physical, radiographic, serologic, and direct microscopic evidence.

At birth babies born to mothers with confirmed syphilis should be examined thoroughly for physical signs of congenital syphilis. Serological tests on both the mother and the baby should be done. A sample of fetal blood (5cc) should be sent to the STD clinic together with 5cc of blood from the mother. Cord blood is not suitable for testing.

**Signs and symptoms**

At birth about 50% of babies with congenital syphilis may be asymptomatic. Usually symptoms appear in the first months but the clinical manifestations may be delayed until the second year of life. The most frequent clinical signs at birth are hepatomegaly with or without splenomegaly (33-100%), blistering skin rash (40%) and bone changes seen on X-ray (75-100%). Other early signs are pseudoparesis (12-36%), bleeding (10%), fever (16%), low birth weight (10-40%), swelling of joints, oedema, abdominal distention, pallor and respiratory distress. None of these signs are pathognomonic of syphilis and are seen in other congenital infections.

**Investigations**

**Dark field microscopy**

A definitive diagnosis of syphilis is made by demonstrating the presence of *T.pallidum* by dark ground microscopy on any suspicious lesions or body fluids eg nasal discharge, skin rash. However, this procedure is cumbersome and not always possible.

**Serology**

The diagnosis of congenital syphilis is complicated by passive transfer of maternal non treponemal and treponemal IgG antibodies to the foetus. The presence of these maternal antibodies makes the interpretation of reactive serological tests for syphilis in infants difficult. When a positive test for an infant is due to passively transmitted maternal antibodies they would be catabolized and undetectable in non-infected infants by 4 months of age.
Infants born to mothers with positive serologic tests for syphilis should be evaluated by a quantitative non-treponemal serologic test at birth. It is necessary to compare the infant’s titre with maternal serologic titre using the same test. A four-fold higher titre in the infant is accepted as significant\textsuperscript{11}. Serum from the neonate is the preferred specimen, since cord blood may produce false-positive results.

The detection of Immunoglobulin M (IgM) in infant’s serum also indicates active infection because maternal IgM antibodies do not cross the placenta. IgM antibodies can be detected in more than 80\% of symptomatic infants but data on its sensitivity for asymptomatic infants are limited. Because IgM responses take time to develop in infants and may be diminished with early treatment a negative IgM result should not be used to exclude congenital syphilis. False positives also could occur\textsuperscript{6}.

**Serologic evidence of congenital syphilis:**\textsuperscript{13}

i. Serum quantitative non-treponemal serologic titre (VDRL titer) that is fourfold higher than the mother’s titer at the time of delivery or

ii. Presence of IgM antibodies in the infant (ELA test) or

iii. Rising non-treponemal antibodies in infant’s serum

Presence of non-treponemal antibodies due to other causes other than syphilis in the pregnant mother will also cross the placenta to produce a reactive serologic test which is of a false positive nature in the newborn. This titre usually reverts to non-reactive by 3 months of life\textsuperscript{12}.
Annex-5  Case definition of congenital syphilis

Case definition -1

Congenital syphilis is defined as a live born infant with clinical evidence (one major and 2 minor criteria) \(^1\) and confirmed by serologic evidence of syphilis to a mother with confirmed syphilis

<table>
<thead>
<tr>
<th>Major criteria</th>
<th>Minor criteria</th>
</tr>
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<tbody>
<tr>
<td>Swelling of joints</td>
<td>Hepatosplenomegaly</td>
</tr>
<tr>
<td>Bullous skin lesions</td>
<td>Jaundice</td>
</tr>
<tr>
<td>Snuffles</td>
<td>Anaemia</td>
</tr>
<tr>
<td></td>
<td>Radiological changes in long bones</td>
</tr>
</tbody>
</table>

Case definition -2

Congenital syphilis is defined as a live born asymptomatic infant born to a mother with confirmed syphilis and any one of the following

- Reactive non-treponemal test which is four fold higher than that of the mother’s titre at delivery
- A reactive syphilis specific IgM antibody test
- Rising non-treponemal titre
- Persistently reactive treponemal test in the infant beyond 4 months of age

An Incidence case of congenital syphilis is: an infant who fall into either case definition 1 or 2

Case definition -3

Congenital syphilis is defined as a live born asymptomatic infant, still birth, or fetal loss to a mother with syphilis where

- Mother was treated < 4 weeks prior to delivery or
- Mother was untreated, treatment status undocumented or unknown, or
- Mother not completed the recommended course of penicillin during pregnancy or

Case definition -3 is for programmatic purposes.

Note: If a baby of a mother in category-3 is symptomatic or is asymptomatic but has serologic evidence of syphilis, they will be included in case definition 1 and 2 respectively. Since some babies of the above mother would be uninfected, babies who fall to case definition -3 will be negative for specific test for syphilis beyond 4 months of age. Yet, the recommended therapy the babies born to these mothers is the IV penicillin regimen (annex-6)

A syphilitic stillbirth is defined as a fetal death occurring after 20 weeks gestation or weighing more than 500 g in which the mother had untreated or inadequate treatment for syphilis at delivery.
Annex-6 Treatment of infants

Treatment decisions must be made on the basis of:

1. Identification of syphilis in the mother,
2. Adequacy of maternal treatment
3. Presence of clinical, laboratory or radiological evidence of syphilis in infants
4. Comparison of maternal (at delivery) and infant non-treponemal serologic titres

Schedule -1

All asymptomatic babies who have no serological evidence of syphilis and are born to mothers who were adequately treated for maternal syphilis with penicillin before 4 weeks of delivery according to guidelines should be treated with a single dose of prophylactic penicillin.

IM Prophylactic treatment regimen
Benzathine benzyl penicillin G 50,000 units / kg as a single intra muscular injection.

Schedule -2

IV treatment regimen

Aqueous crystalline benzyl penicillin G 100,000-150,000 million units /kg/day intravenously. It could be given as 50,000 units /kg /dose IV every 12 hours during the first 7 days of life and thereafter every 8 hours for 3 days to complete a total of 10 days treatment.

This should be given to:

1. All symptomatic babies
2. All asymptomatic babies
   i. Whose VDRL titre is 4 fold higher than that of the mother at delivery
   ii. Having a rising non-treponemal titre
   iii. With a reactive syphilis specific IgM antibody test
   iv. born to mothers with clinical evidence of syphilis
   v. born to mothers who were treated with penicillin < 4 weeks before delivery,
   vi. born to mothers who did not complete the recommended course of penicillin during pregnancy
   vii. born to mothers whose non treponemal high titre had not dropped four fold at the time of delivery
   viii. born to mothers who were treated with non penicillin regimens (erythromycin) during pregnancy
   ix. born to mothers whose treatment status is unknown or undocumented
Steps in syphilis screening and management of pregnant women

- Pregnant women present to the antenatal clinic
  - Non treponemal test VDRL available
    - Screen for syphilis With Non-treponemal test (VDRL)
    - Negative result: No treatment required, Promote safer sex practices
  - Non treponemal test VDRL not available
    - Screen for syphilis with on-site rapid ICS test
    - Positive result: Refer to STD clinic for:
      - Confirmation of syphilis by treponemal test - TPPA
      - Treat mother
      - Counsel for partner notification, treat partner
      - Counsel for HIV test
      - Screen for other STI
      - Prepare a plan for management of baby and follow up

- Treatment of baby:
  - IV Penicillin regimen
  - IM prophylactic penicillin regimen

- MO/STD

- MOH

- PHNS

- PHNS

- Collection of:
  - Blood-PHNS
  - ICS - PHNS

- Promote early access for ANC Responsibility:
  - PHN/PHI/MOH
Protocol for Antenatal testing for syphilis in the government health system

Collect blood from mother *

Send blood to NSACP/nearest STD clinic/ testing institution

VDRL test positive. All positives should be confirmed by the specific test (TPPA) and the in charge of the laboratory/Mo-IC should inform the test results to the relevant MOH immediately. When a BFP is detected the MOH should be informed that it is not syphilis. Hard copy of the positive test results /BFP should be sent thereafter.

MOH will inform the PHM to trace the respective mother. The mother should be given a referral letter to visit the STD clinic. Confidentiality should be maintained

When the mother attend the STD clinic a second sample should be collected for re-confirmation after counseling. When 2nd sample is positive the mother will be informed of the diagnosis and a STD file should be opened

1. Detail history + clinical assessment and determine the stage of syphilis, whether the mother was treated in the past or this is a new infection during the current pregnancy
2. Screen for other STI
3. Treat according to the stage of syphilis
4. Screen spouse/partner and give epidemiological treatment/ Rx
5. Counsel on safer sex
6. Promote HIV testing of mother and partner
7. Follow up
8. Make arrangements for management of baby (Prophylaxis penicillin or IV penicillin regimen)
9. Baby should be followed up in the STD clinic at 3, 6 and 12 months

VDRL/TPPA test reports should be collected by the relevant MOH from the testing center

All VDRL negative test results should be entered in Pregnancy record (H 512 A&B) with the POA by PHM. Sero negative mothers should be informed that they are free of syphilis. BFP results and TPPA positive result should be entered by MOH
Areas selected for phase I (2009)
References


