

# WEEKLY EPIDEMIOLOGICAL REPORT

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### Vol. 49 No. 11

## 12<sup>th</sup>- 18<sup>th</sup> Mar 2022

LANKA ZUZ

## **Syphilis**

Syphilis is a curable sexually transmitted disease caused by a bacteria called Treponema pallidum. It can cause serious health problems without treatment. It progresses in stages if untreated in which signs and symptoms are different. It can be transmitted through,

- Sexual contacts with infectious le-sions (vaginal, anal, or oral sex)
- Via blood transfusion
- . From a pregnant mother to her foetus

It is not transmitted by casual contact with objects such as,

Swimming pool

- Bathtubs
- Toilet sheets
- Towels or other clothes
- Utensils like mugs, plates
- Door handles
- Steering wheel

#### Four stages of syphilis and the signs and symptoms of each stage.

Primary stage (primary syphilis) - is the initial phase of syphilis and it lasts around 21 days. A solitary, hard and rounded, painless sore or multiple sores (chancre) can be seen in primary syphilis. They appear at the site of inoculation, Vagina, penis, or anal area as well as extra-genital areas. They are often unnoticed as painless. The chancre can get healed in 3 to 10 weeks spontaneously or with treatment. If untreated it leads to secondary syphilis.



Therefore, even if the chancre is healed, treatments should be taken to prevent the secondary

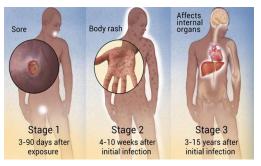
#### stage

#### 1. Chancre

Secondary stage (secondary syphilis) - is characterized by a widespread reddish rash typically on palms and soles. It may appear while healing the primary lesions or weeks later after the sore has healed. The rash is not itchy. And, whitish grey or lesions (condyloma lata) can be developed in moist areas like the labia, penis, or anus where the primary lesions reside. These lesions can be accompanied by other nonspecific symptoms such as fever, headache, sore throat, fatigue, and weight loss. Secondary lesions also could get healed spontaneously. But progresses to the latent stage if untreated.

Latent stage - no signs and symptoms can be seen in this stage. Patients continue to have syphilis in their bodies for years or decades.

Tertiary stage – most people with un-treated syphilis may not enter this stage. But if it happens, serious consequences to health could occur. The cardiovascular, neurological system, eye, and other internal organs could be affected, and death could happen.



2. Stages of syphilis

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Symptoms of neurosyphilis - Severe headache, Muscle weakness/ movement restriction, Dementia, personality problems, confusion

Symptoms of ocular syphilis - eye pain, redness, poor vision, or blindness

Symptoms of otosyphilis – hearing loss, tinnitus, vertigo, and dizziness

Congenital syphilis - mother-to-foetus transmission of syphilis can result in serious outcomes in the child if not treated in early pregnancy. Those could be stillbirth, neonatal death, premature birth, and syphilis infection in the infant. Congenital syphilis could manifest early or late. Early syphilis occurs within the first two years of life and shows rhinitis followed by a cutaneous lesion. In addition, this infection could be latent for many years and manifest after 2 years with problems in hearing vision, and language development. Facial and dental malformations may also appear.



3. Syphilis in a newborn

#### Diagnosis

- A detailed history clinical history, sexual behaviour including partners, usage of condoms,
- Physical examination need to look for typical lesions, need to examine partner or partners as well.
- Serological tests are the standard method of diagnosis. The pathogen is too small to look under the light microscope.

We approach diagnostics tests with nontreponemal tests, VDRL (venereal disease research laboratory test), and RPR (rapid plasma regain). The sensitivity of these tests for all stages of syphilis is high. Specificity may be low when an individual has other diseases like tuberculosis, malaria, and collagen tissue diseases. These tests can get positive 1 to 2 weeks after chancre formation.

- Because these tests may result in false positives, any positive or equivocal VDRL test should be followed by a treponemal test. A commonly used one is the fluorescent treponemal antibody absorption test (FTA-ABS). Other treponemal tests are microhemagglutination assay for T.Pallidum, T.pallidum particle agglutination, and Treponemal IgG and IgM.
- Radiography when the lesions are not typical.
- Slit lamp examination and ophthalmic assessment for ocular syphilis.
- CSF analysis combined with CSF- VDRL is used to diagnose neuro-syphilis.

Once a patient is diagnosed with syphilis, he should be

tested for other STDs like HIV.

#### Diagnosis in pregnant women

All pregnant women should be screened for VDRL at the first prenatal visit. If it becomes positive, they should be treated with parenteral benzathine penicillin G.

#### **Diagnosis of congenital syphilis**

All children diagnosed with syphilis should be investigated for congenital syphilis and child abuse. All infants born to syphilis mothers should be checked for VDRL and examined thoroughly for evidence of congenital syphilis. If they have lesions PCR can be done for lesions/body fluids. A pathological examination of the umbilicus is also needed to perform. CSF for VDRL, cell count and protein, FBC, and long bone radiography are also helpful. Any neonate at risk for congenital syphilis should be investigated for HIV as well.

#### Treatment

WHO recommends treating syphilis with parenteral Benzathine Penicillin G. Number of dosages depends on the stage of the disease. Doxycycline can be used for early and late latent disease if an individual is allergic to penicillin. But it should be avoided during pregnancy.

Early detection and treatment for pregnant women is the key to avoiding the adverse outcomes of preg-Azithromycin can be used for pregnant nancy. women who are allergic to penicillin. Otherwise, Benzathine Penicillin G is the treatment of choice.

Congenital syphilis is treated with aqueous crystalline penicillin G. Infants born to syphilis mothers treated in early pregnancy with adequate antibiotics with no re-infection can be monitored closely for syphilis without treatments if they are clinically normal.

#### Prevention of syphilis

The primary goal is the limitation the spread of syphilis

- Identification of risk groups, education, and counselling about the ways to prevent STD spread.
- Usage of condoms/ cervical diaphragms with the correct method, avoid multiple sexual relationships, regular check-ups,
- Empiric treatment with Benzathine Penicillin G to the sexual partners of confirmed patients with syphilis.
- Conduction of primary syphilis screening in OPD and clinic settings, especially for high-risk people
- Circumcision is proven to prevent HIV and other STDs but not syphilis
- Education of health care workers on universal prevention methods.

#### References

file:///C:/Users/Epid%20User/Downloads/9789241549806-eng.pdf https://emedicine.medscape.com/article/229461-treatment#d9 https://www.cdc.gov/std/treatment-guidelines/clinical.htmhttps:// www.who.int/health-topics/syphilis#tab=tab\_3

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## 12<sup>th</sup>–18<sup>th</sup> Mar 2022

abl	ble 1: Selected notifiable diseases reported by Medical Officers of Health											lth	0	5 <sup>th –</sup>	11 <sup>ti</sup>	י Ma	r 20	)22 (	( <b>10</b> <sup>th</sup>	י We	ek)								
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Human	¥	0	H	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	-	
Viral Hep-	В	0	0	н	4	н	0	0		0	2	0	-	0	0	0		4	0	0		0	21	12	S	2	0	56	
Viral	۲	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	7				0	ы	
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Leptospirosis	8	20	18	61	20	12	12	93	34	34	13	H	8		œ	10	21	m	25	7	54	35	52	79	170	92	m	886	
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RDHS		Colombo	Gampaha	Kalutara	Kandy	Matale	NuwaraEliya	Galle	Hambantota	Matara	Jaffna	Kilinochchi	Mannar	Vavuniya	Mullaitivu	Batticaloa	Ampara	Trincomalee	Kurunegala	Puttalam	Anuradhapui	Polonnaruwa	Badulla	Monaragala	Ratnapura	Kegalle	Kalmune	SRILANKA	

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## Table 2: Vaccine-Preventable Diseases & AFP

## 12<sup>th</sup>–18<sup>th</sup> Mar 2022

05 <sup>th</sup> - 11	1 <sup>th</sup> Mar	2022	(10 <sup>th</sup>	Week)
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Disease		N	lo. of	Case	es b	y Pro	ovino	e	Number of cases during current	Number of cases during same	Total number of cases to date in	Total num- ber of cases to date in	Difference between the number of cases to date	
	w	С	S	N	Е	NW	NC	U	Sab	week in 2022	week in 2021	2022	2021	in 2022 & 2021
AFP*	00	01	01	00	01	00	00	00	00	03	02	17	15	13.3 %
Diphtheria	00	00	00	00	00	00	00	00	00	00	00	00	00	0 %
Mumps	00	00	00	00	00	00	00	00	02	02	04	08	21	- 61.9 %
Measles	00	00	00	00	00	00	00	00	00	00	01	07	04	75 %
Rubella	00	00	00	00	00	00	00	00	00	00	00	00	00	0 %
CRS**	00	00	00	00	00	00	00	00	00	00	00	00	00	0 %
Tetanus	00	00	00	00	00	00	00	00	00	00	00	01	01	0 %
Neonatal Tetanus	00	00	00	00	00	00	00	00	00	00	00	00	00	0 %
Japanese En- cephalitis	00	00	00	00	00	00	00	00	00	00	00	01	00	0 %
Whooping Cough	00	00	00	00	00	00	00	00	00	00	00	00	00	0 %
Tuberculosis	09	00	16	09	05	08	00	05	09	61	171	1336	1208	10.5 %

#### Key to Table 1 & 2

Provinces: W: Western, C: Central, S: Southern, N: North, E: East, NC: North Central, NW: North Western, U: Uva, Sab: Sabaragamuwa.

RDHS Divisions: CB: Colombo, GM: Gampaha, KL: Kalutara, KD: Kandy, ML: Matale, NE: Nuwara Eliya, GL: Galle, HB: Hambantota, MT: Matara, JF: Jaffna,

KN: Killinochchi, MN: Mannar, VA: Vavuniya, MU: Mullaitivu, BT: Batticaloa, AM: Ampara, TR: Trincomalee, KM: Kalmunai, KR: Kurunegala, PU: Puttalam, AP: Anuradhapura, PO: Polonnaruwa, BD: Badulla, MO: Moneragala, RP: Ratnapura, KG: Kegalle.

Data Sources:

Weekly Return of Communicable Diseases: Diphtheria, Measles, Tetanus, Neonatal Tetanus, Whooping Cough, Chickenpox, Meningitis, Mumps., Rubella, CRS, Special Surveillance: AFP\* (Acute Flaccid Paralysis), Japanese Encephalitis CRS\*\* =Congenital Rubella Syndrome

NA = Not Available

## **Covid-19 Prevention & Control**

For everyone's health & safety, maintain physical distance, often wash hands, wear a face mask and stay home.

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## **ON STATE SERVICE**

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