SEXUALLY TRANSMITTED DISEASES (STDS) (Venereal diseases)

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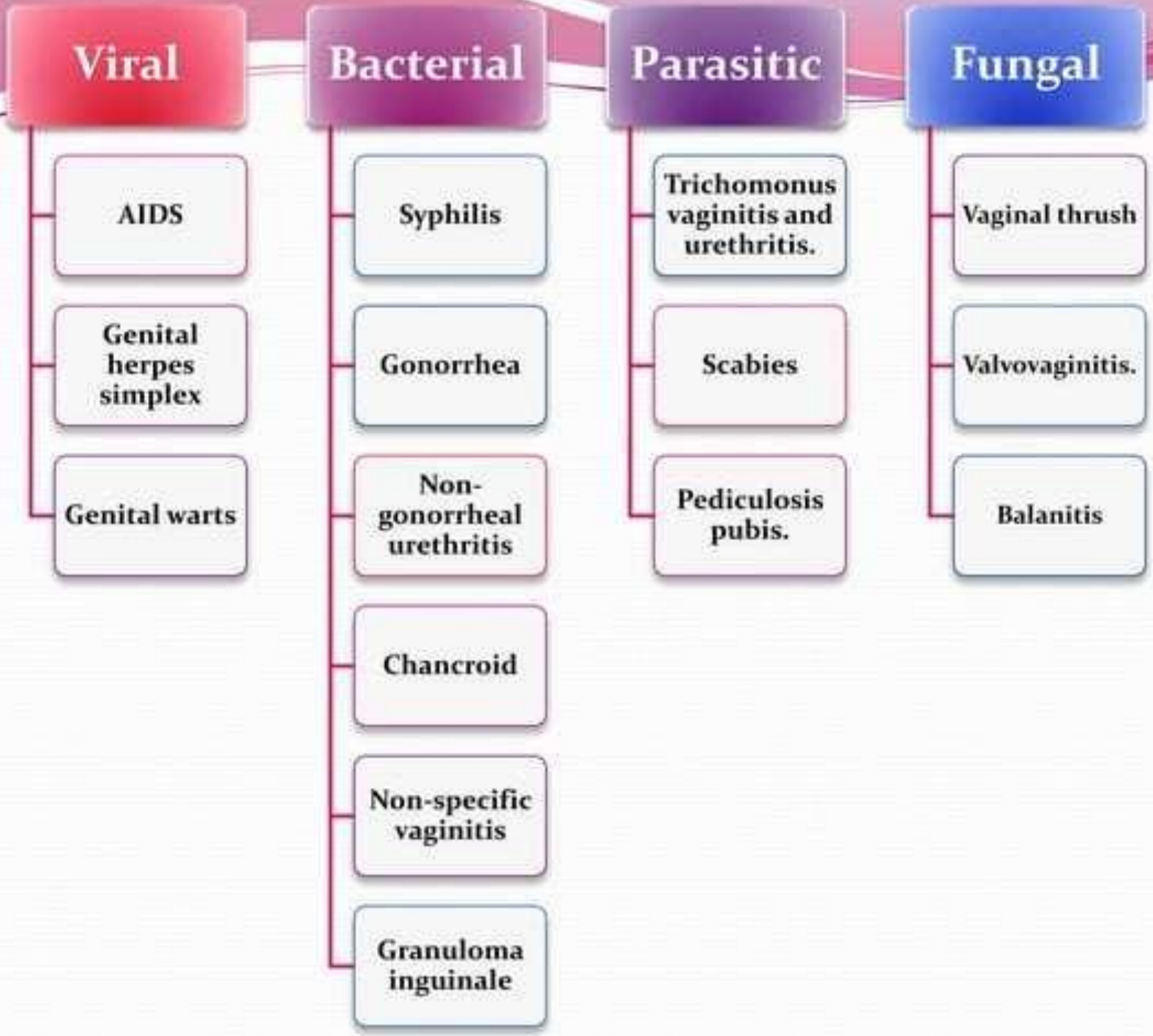
Group of communicable diseases in which sexual contact is the most important mode of transmission.

Importance:

1. Increasing incidence worldwide.
2. The cost and difficulties in the treatment of the diseases and their complications.
3. It is a socioeconomic problem as well as behavioral one since it is linked to addiction, low level of religious values, increase age of marriage, etc.


Viral
AIDS
Genital herpes simplex
Genital warts
Bacterial
Syphilis
Gonorrhea
Non-gonorrheal urethritis
Chancroid
Non-specific vaginitis
Granuloma inguinale
Parasitic
Trichomonus vaginitis and urethritis.
Scabies
Pediculosis pubis.
Fungal
Vaginal thrush
Valvovaginitis.
Balanitis


Syphilis

- It is a worldwide disease affecting mainly the age group from 15-39

- Recently it was found to be increasing.

Causative organism

- Spirochaete, treponema pallidum.
- It is delicate and is rapidly killed by drying, high temperature, disinfectants, and soap & water.

Reservoir: Man: untreated case is infectious during the 1ry & 2ry stages of disease, usually for 2-4 years.

Exit:

- exudates of skin & mucous membranes.
- blood & body fluids (semen, saliva, vaginal & cervical discharge).

IP: About 3 weeks

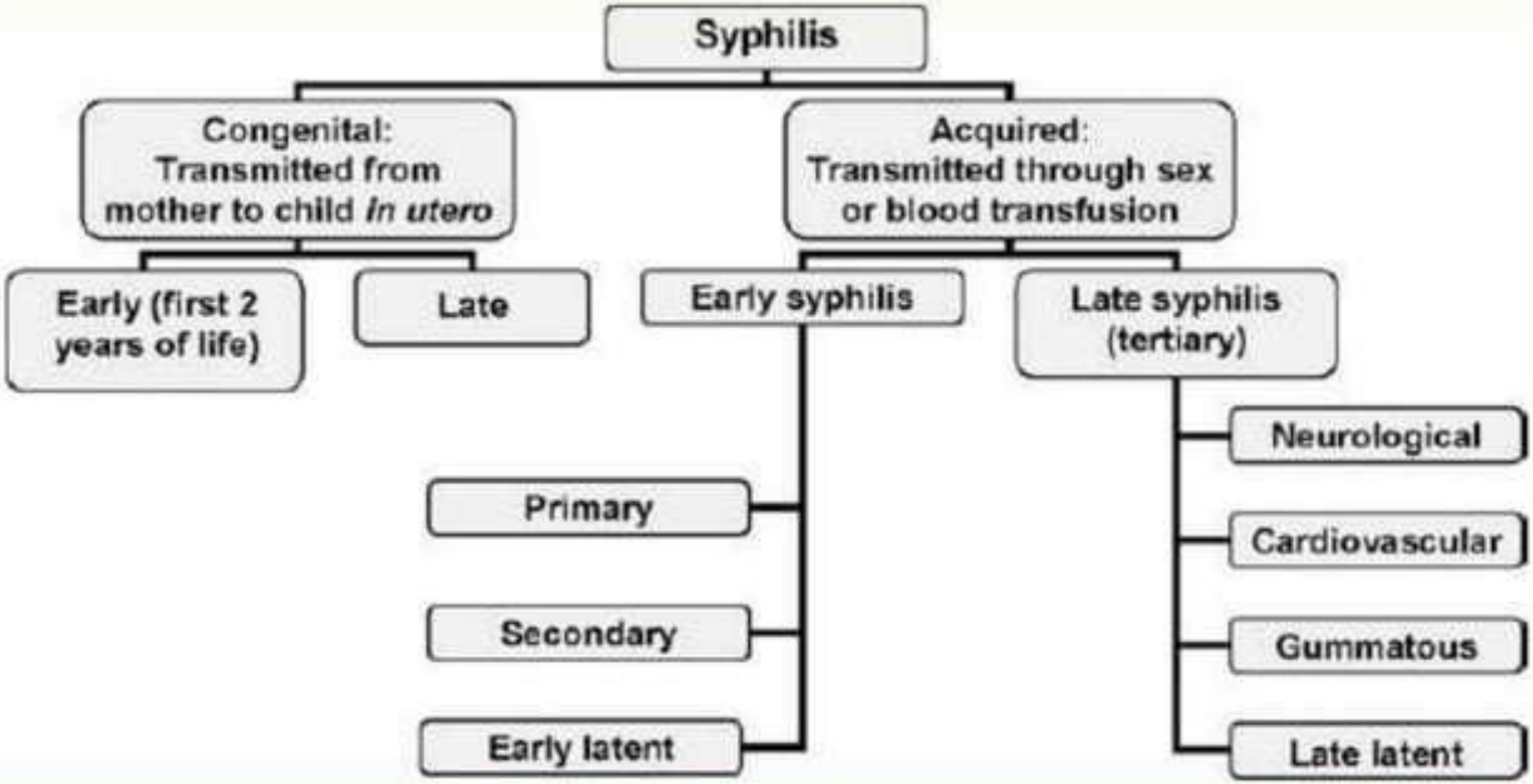
Transmission

1. Contact with open lesion:

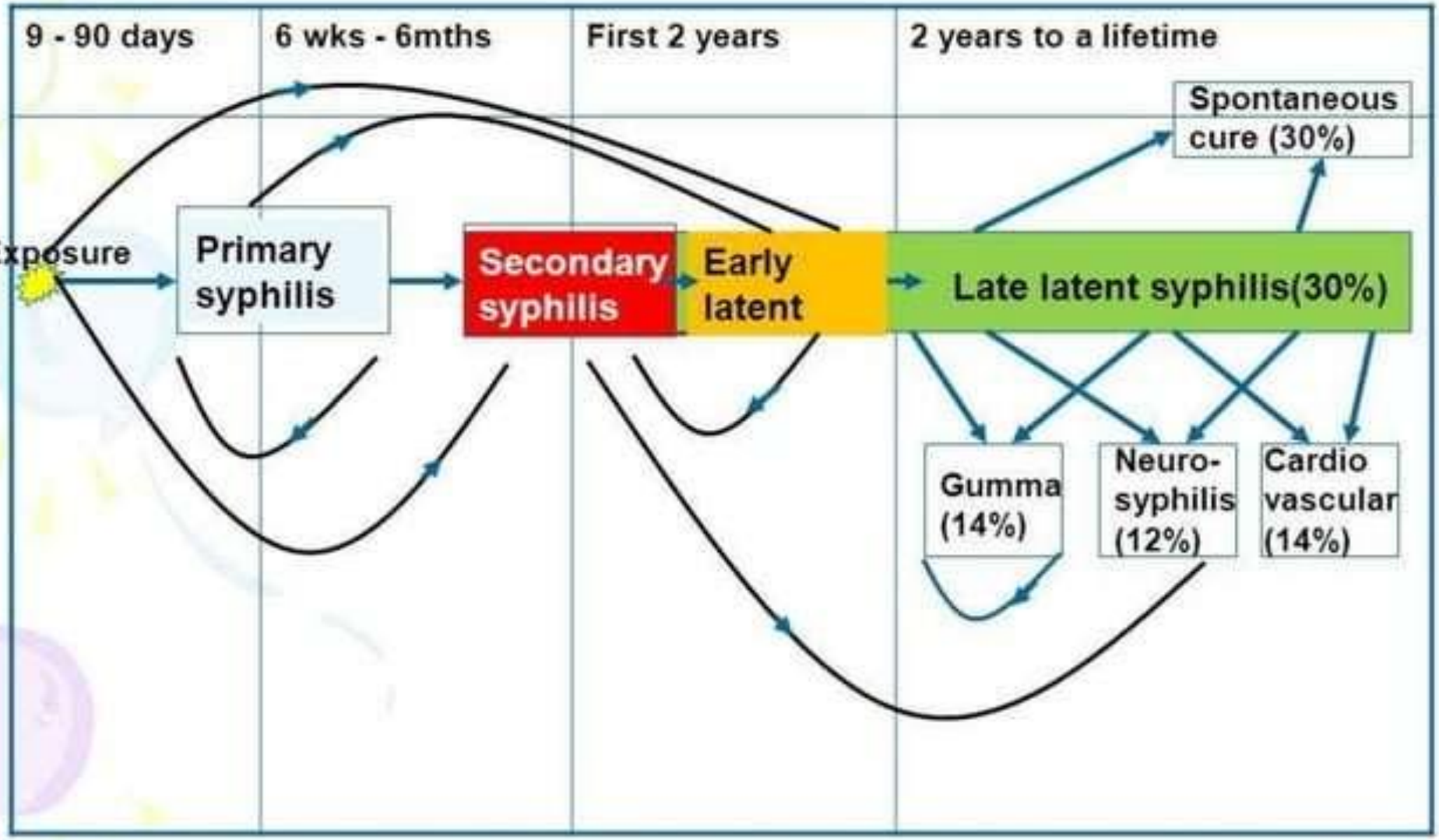
- Sexual contact (most important mode).
- Kissing.
- Contact with baby having congenital syphilis.
- Contact with contaminated articles.

2. Congenital infection: transplacental from the 4th month till delivery (not before because treponema cannot pass the placental barrier).

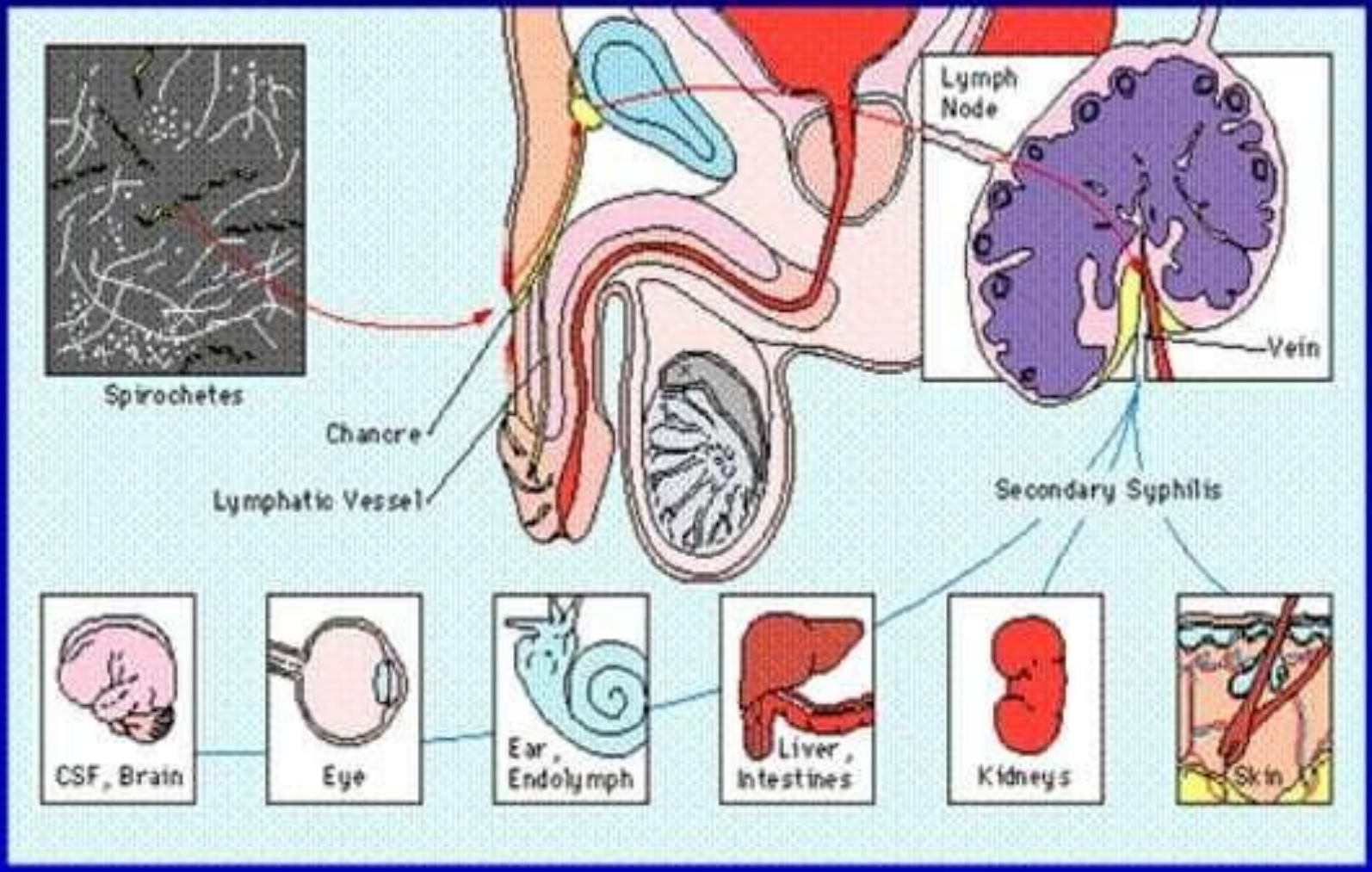
3. Inoculation infection: contaminated blood & body fluids (contaminated syringes & needles & blood transfusion).



Natural history of syphilis
(Course of untreated syphilis)

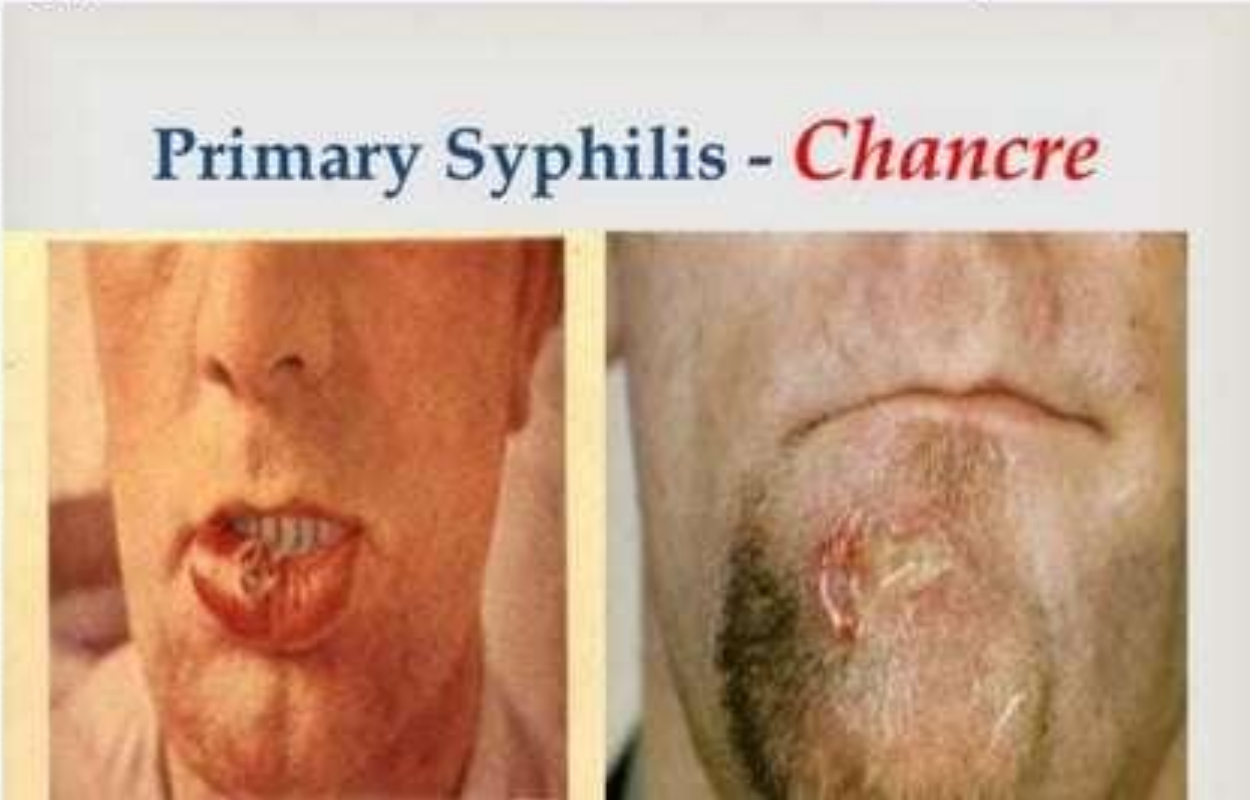


Syphilis
Distribution of the Organism



Primary syphilis:

- Chancre at the portal of entry: firm, indurate, painless & highly infectious ulcer.
- Enlarged lymph nodes.
- Spontaneously disappears without treatment after 4-6 weeks.

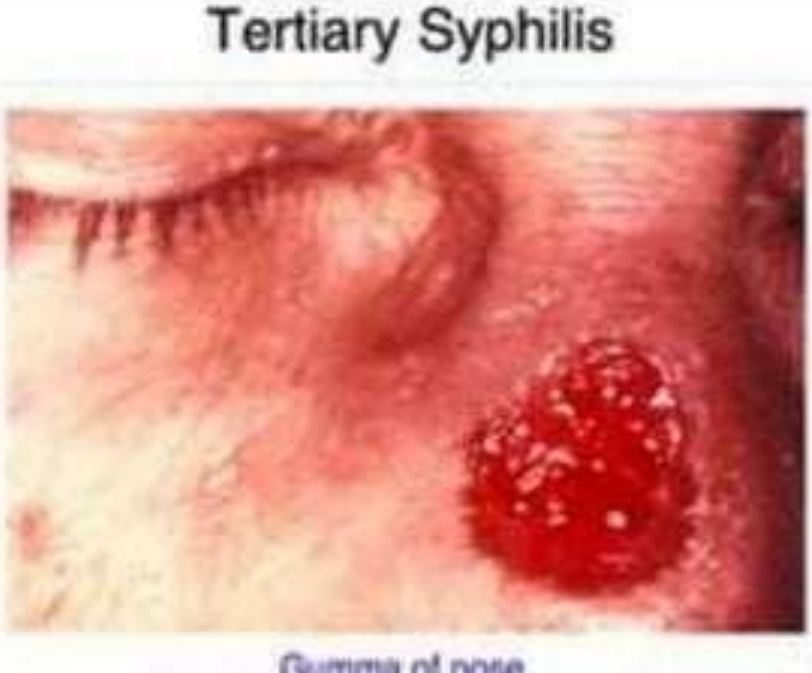


Secondary:

- Generalized skin rash "Patchy lesions of mucous membranes especially the mouth".
- Involvement of the other parts of the body.
- Spontaneously disappears within weeks or months followed after a latent period (years) by the 3rd stage.

Late symptomatic syphilis:

- Reappearance of symptoms.
- Characterized by the occurrence of neuro & cardiovascular syphilis and of the characteristic lesions involving different parts of the body.



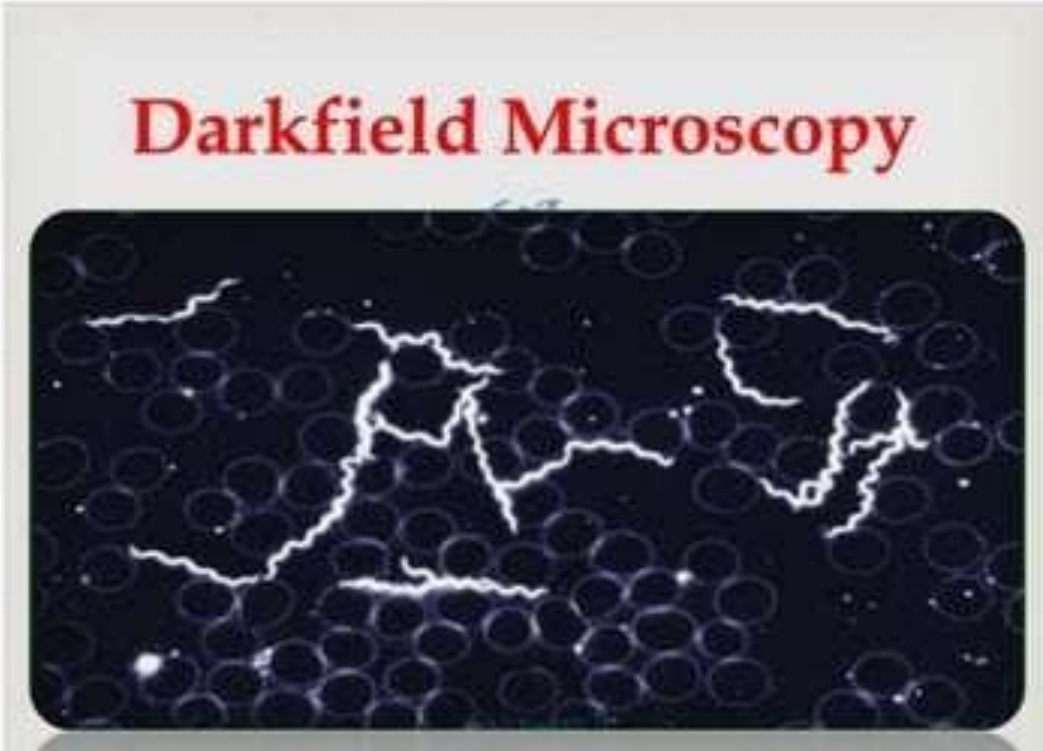
Gumma of nose

Diagnosis

1. History & clinical picture.

2. Lab investigations:

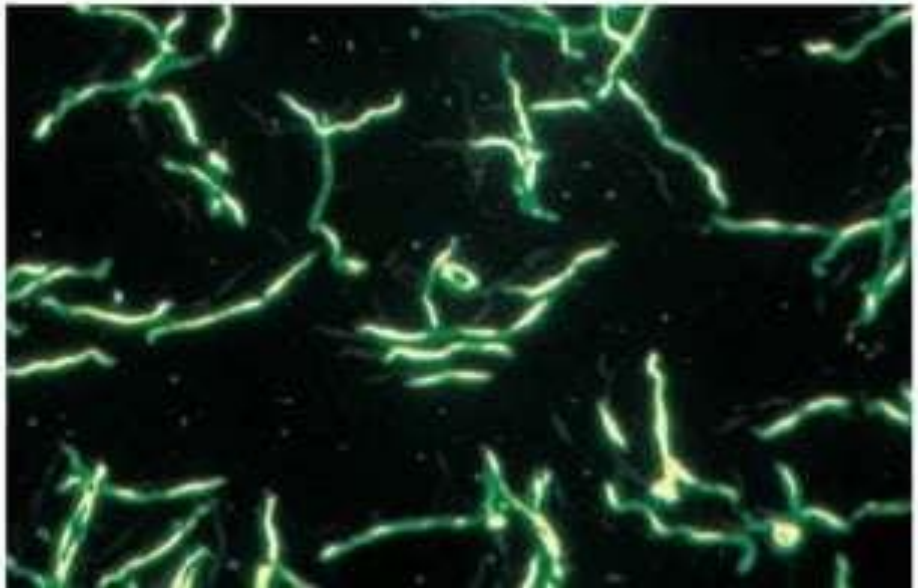
A. Demonstration of organism in exudates of lesions by dark field microscopic exam.



B. Serologic testing:

- Non-treponemal test (non-specific): used for screening e.g. Wassermann Reaction (WR) & Venereal Disease Research Laboratory test (VDRL) {high false +ve; so, +ves should be confirmed by specific tests}.

- Treponemal tests (specific test): Use treponema antigens e.g. fluorescent treponema antibody absorption test.



Prevention

A. General measures:

1. Avoidance of sexual promiscuity.
2. Health education to increase awareness.
3. Religious and social guidance especially of youth.
4. Convenient family life and supervision of youth.
5. Suitable places for leisure time and development of hobbies and talents.
6. Socioeconomic development and provide facility for marriage.

B. Specific: Chemoprophylaxis: one dose of 2.4 million units of long acting penicillin I.M. soon after exposure.

A. Cases:

1. Early case finding: during survey & on health appraisal:

- Premarital & prenatal examination.
- Exam of food handlers, blood donors, army recruits, child nurses.
- Suspected attendants of medical services.
- Diagnosis of congenital syphilis when the mother is syphilitic.

2. Measures for cases:

- Notification confidentially to local health authority.
- Isolation: not needed but avoid sexual contact till elimination of infectivity.
- Disinfection: non but precautions with blood and body fluids.

Specific treatment:

- Long acting penicillin 2.4 million units in a single dose I.M.
- Penicillin sensitive patients: doxycycline 100 mg twice daily for 14 days.
- Re-examination after treatment.

B. Contacts:

- Tracing and enlistment.
- Examination.
- Health education.
- Surveillance.
- Chemoprophylaxis: one dose of 2.4 million units of long acting penicillin I.M.

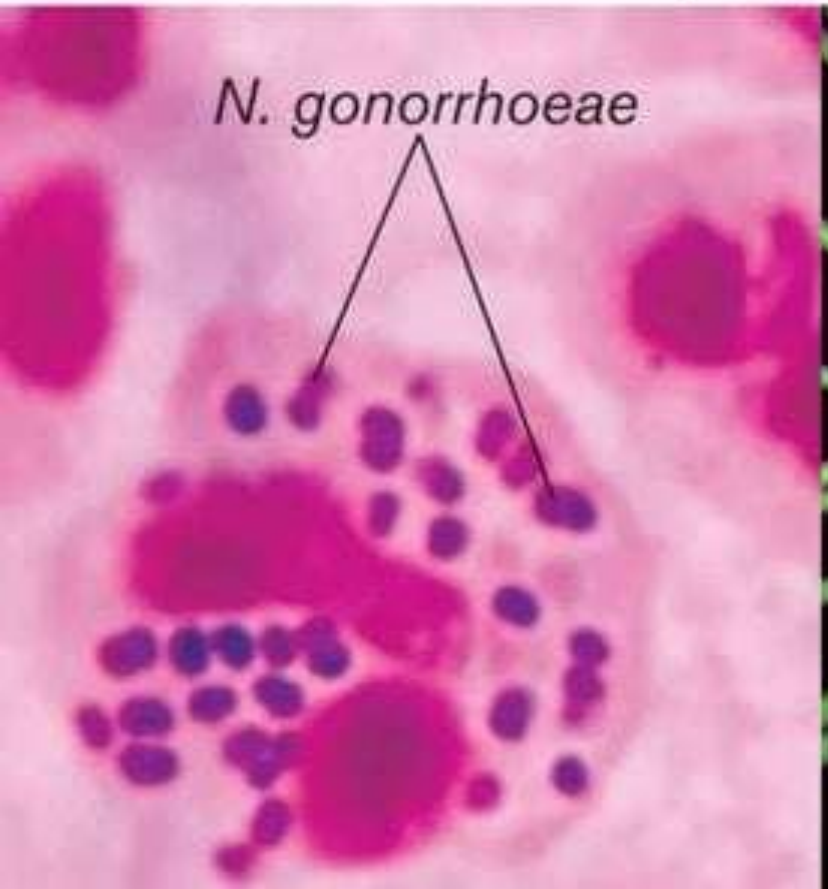
C. Congenital syphilis:

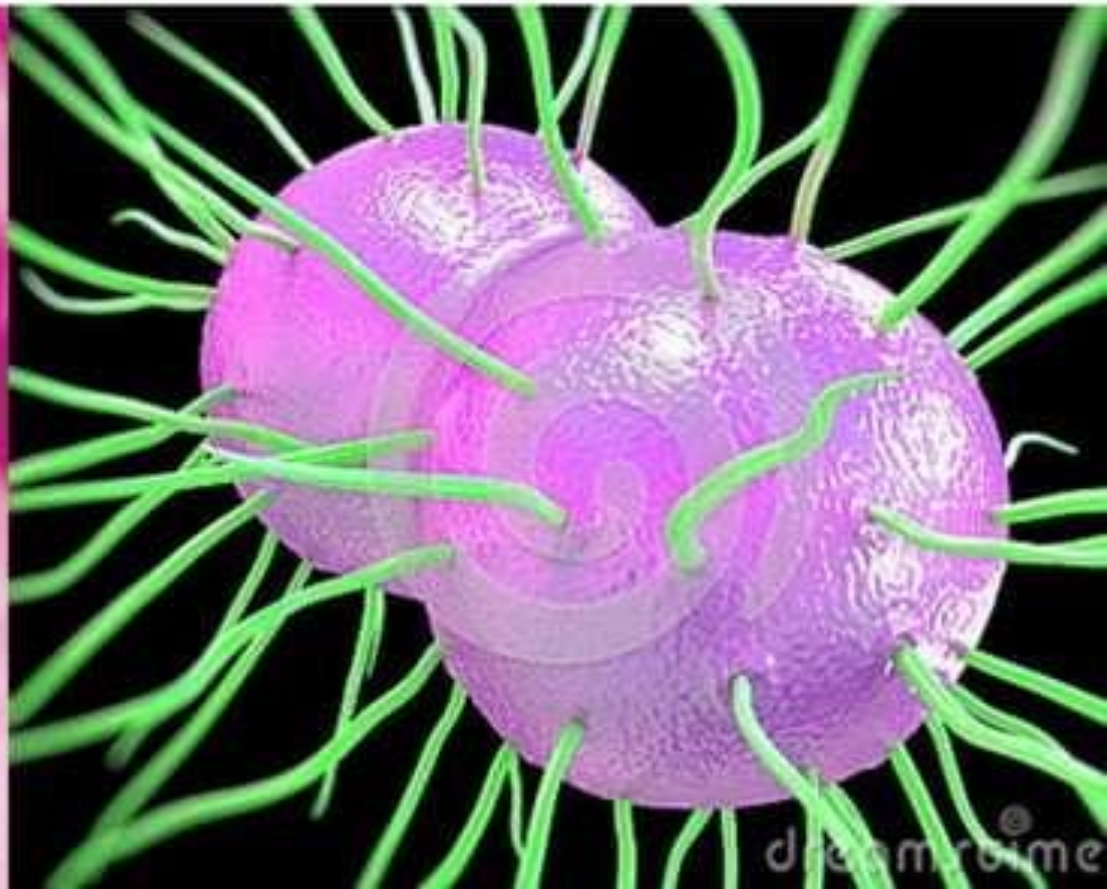
- Serologic testing and treatment.
- Proper handling of baby with congenital syphilis with caution to avoid infection.


Gonorrhea

Acute infectious STD which can become chronic if neglected.

- Neisseria gonorrhea (Gonococcus)
- Delicate Gram -ve, intracellular diplococcus that perishes rapidly outside the body.





- Reservoir: Man: case who is infectious for months or years if not treated, while treatment eliminates the infection within days.
- Exit: Discharges of infected mucous membranes.
- Transmission: Direct sexual contact only.
- IP.: 3-4 days

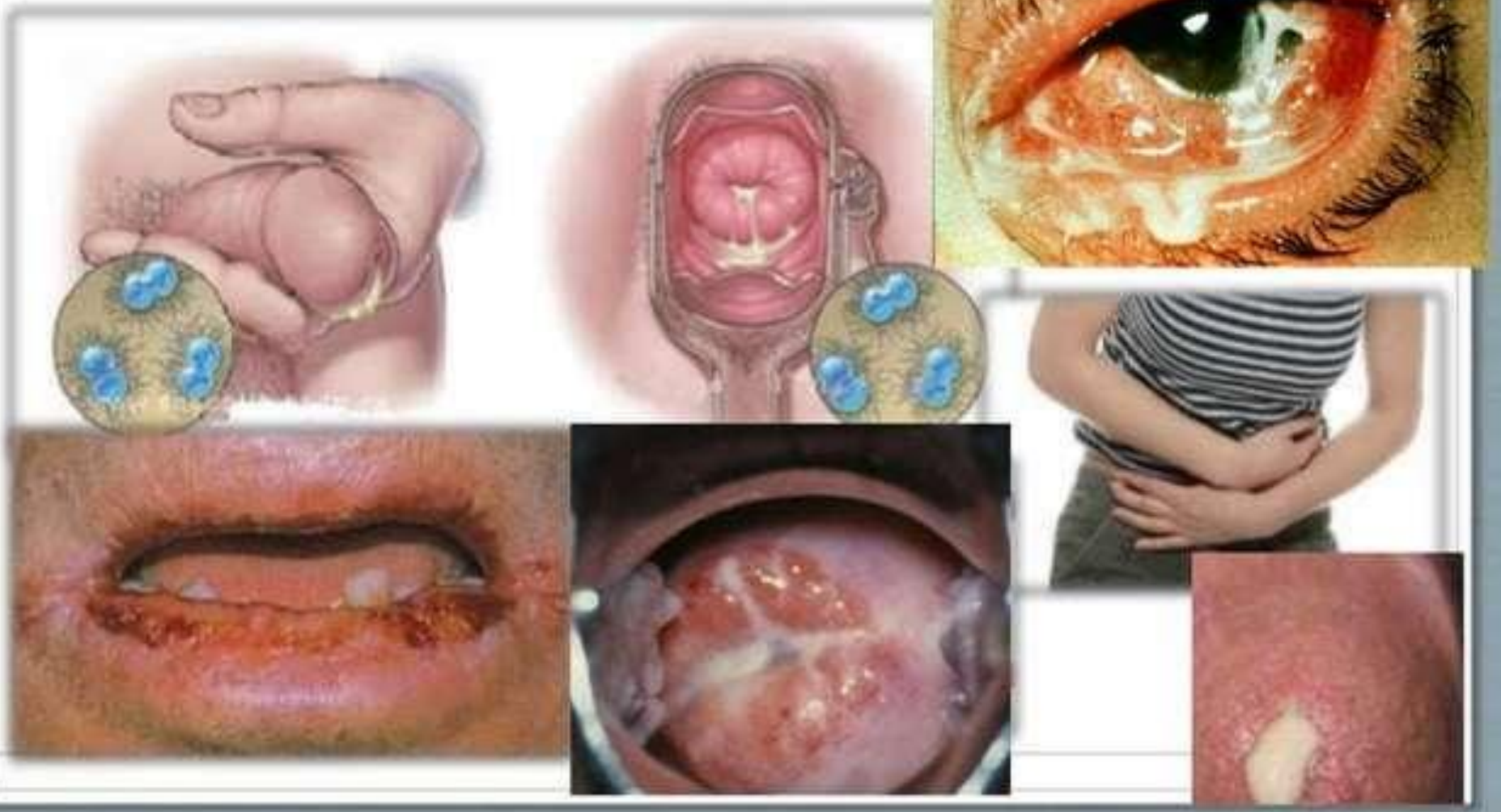
Clinical picture

It starts as an acute infection and if not properly treated it becomes chronic.

- In males: urethritis with purulent discharges.
- In females: urethritis and/or cervicitis with discharges.

- Arthritis, pharyngitis, rectal infection, septicaemia, endocarditis or meningitis may occur in both sexes.

What Are The Symptoms?



Diagnosis

1. History and clinical picture.

2. Lab investigations:

Acute case: demonstration of causative organism from film of pus taken from cervix or urethra.

Chronic case: serologic test such as complement fixation test.

Prevention

- Oral penicillin 400,000 I.U. just before or after sexual exposure.

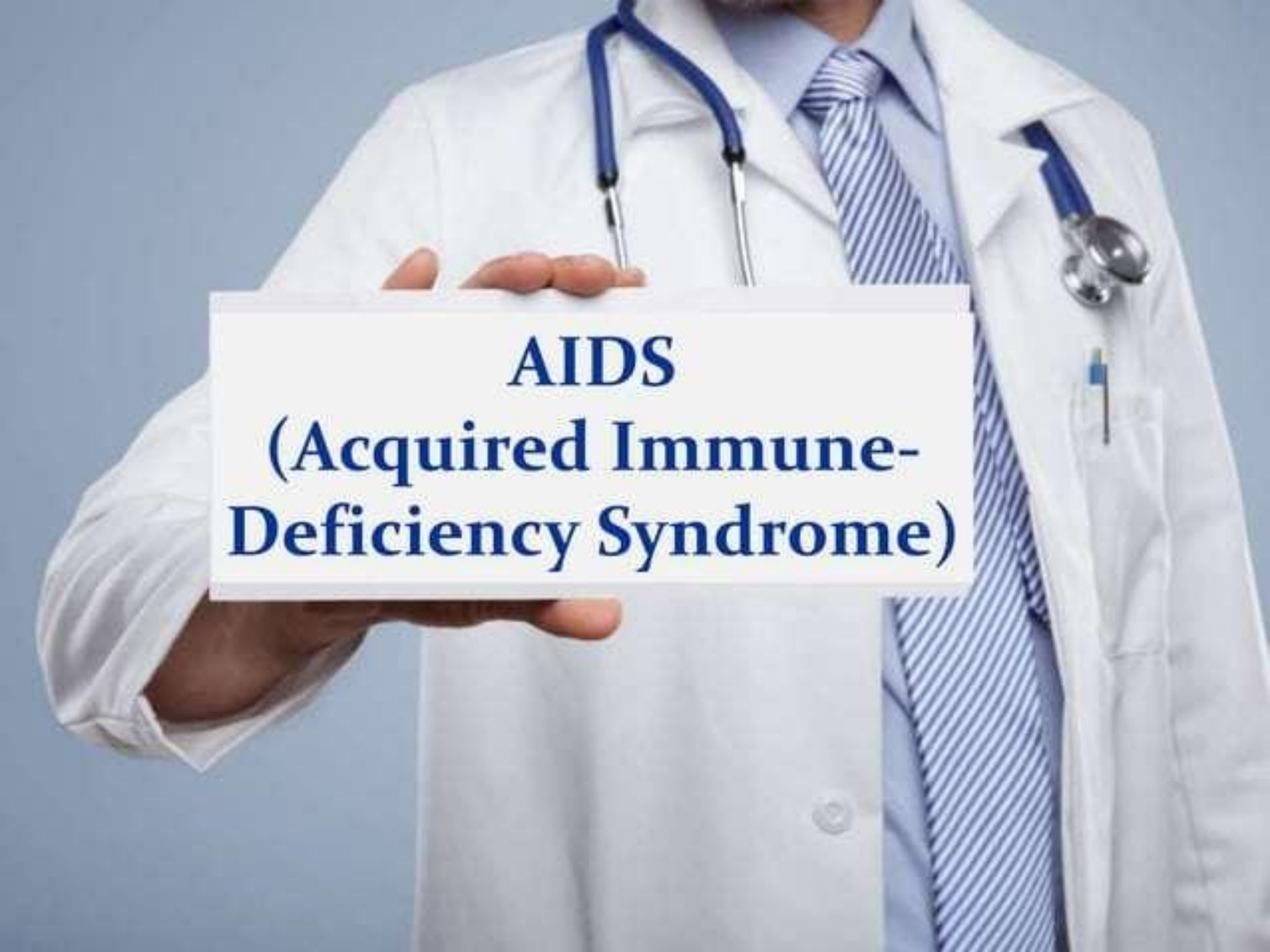
Treatment

Cases:

- Amoxicillin 3 gm orally as a single dose.
- Penicillin resistant strains: ceftrioxone 250 mg as a single dose.
- Re-examination after treatment.

Contacts:

Oral penicillin 400,000 I.U.

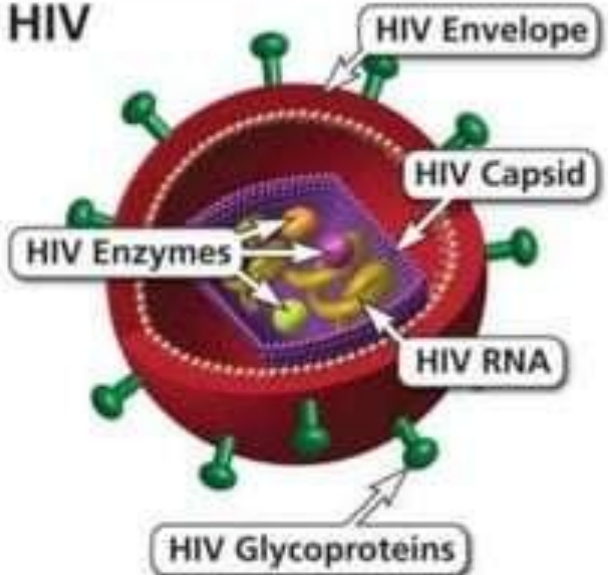

AIDS
(Acquired Immune-
Deficiency Syndrome)

It is a life threatening clinical condition that represent the late clinical stage of infection with HIV which results in progressive damage to the immune & other organ systems specially CNS.

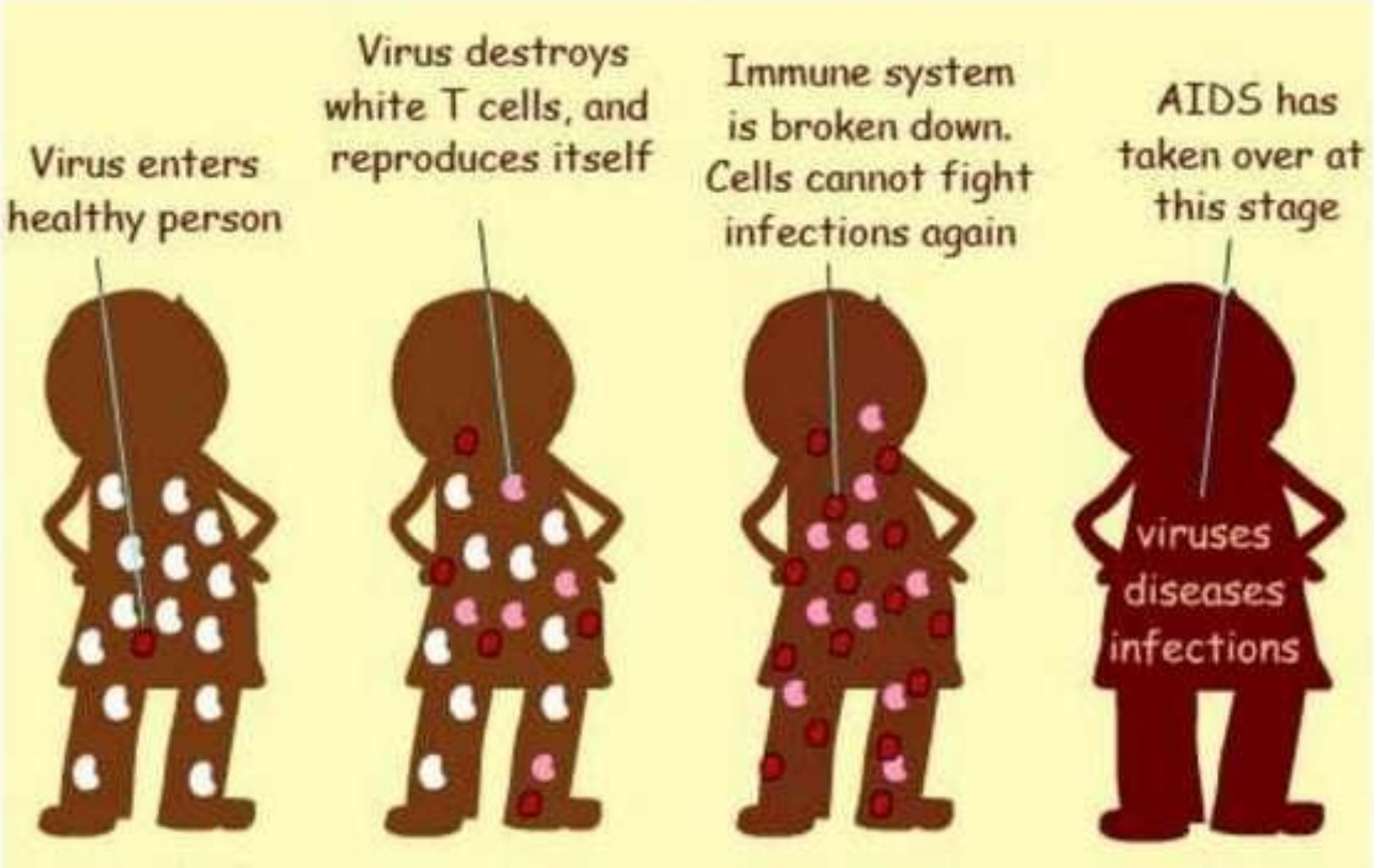
Causative agent:

Human immune deficiency virus (HIV) which is RNA retrovirus.

- 2 serologically & geographically distinct types with similar epidemiological characteristics:
- HIV-1 is found in America, Europe and Subsaharan Africa.
- HIV-2 is found mainly in West Africa.



Has specific affinity to T-helper lymphocyte cells causing their depletion.



- **Reservoir:** man
- **Exit:** in blood and body fluids e.g. semen, vaginal secretion, saliva and tears.
- **Period of communicability:** so long the infected person is alive.
- **IP.:** variable, but 50% of those infected develop AIDS about 10 years after infection.

Modes of infection:

1-Sexual contact: most important mode especially homosexual and bisexual.

2-Parenteral infection:

- Contaminated syringes & needles especially by i.v. drug abusers.
- Contaminated blood transfusion.

3-Perinatal transmission: 25-35% of infants born to infected mothers are infected before, during or shortly after birth.

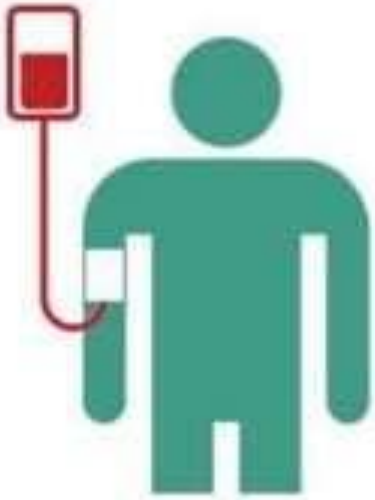
YOU CAN GET HIV VIA...

Unprotected sex

Pregnancy, childbirth & breastfeeding

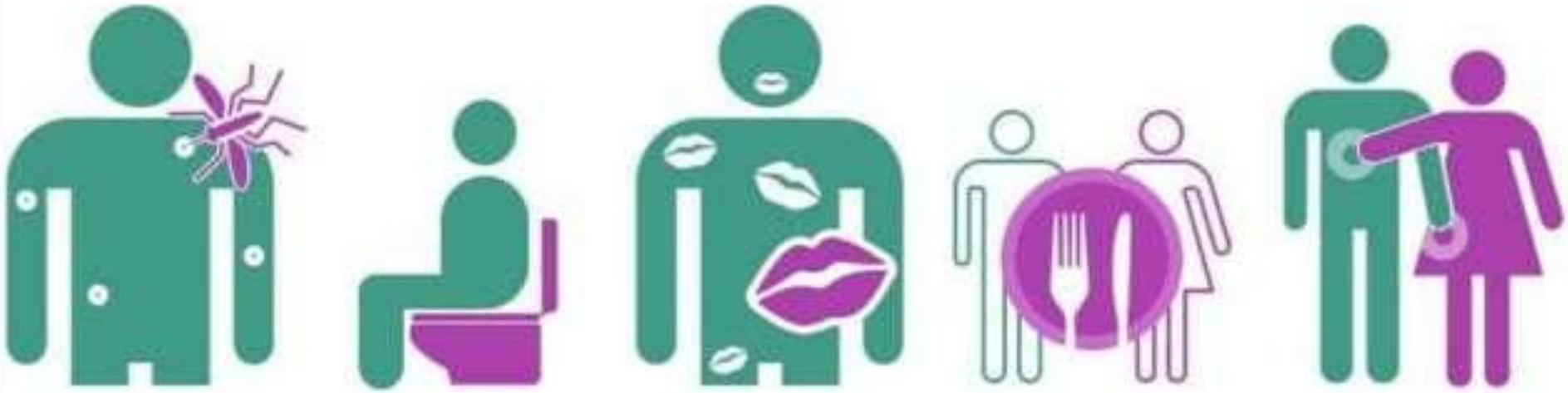
Injecting drugs

Working in healthcare

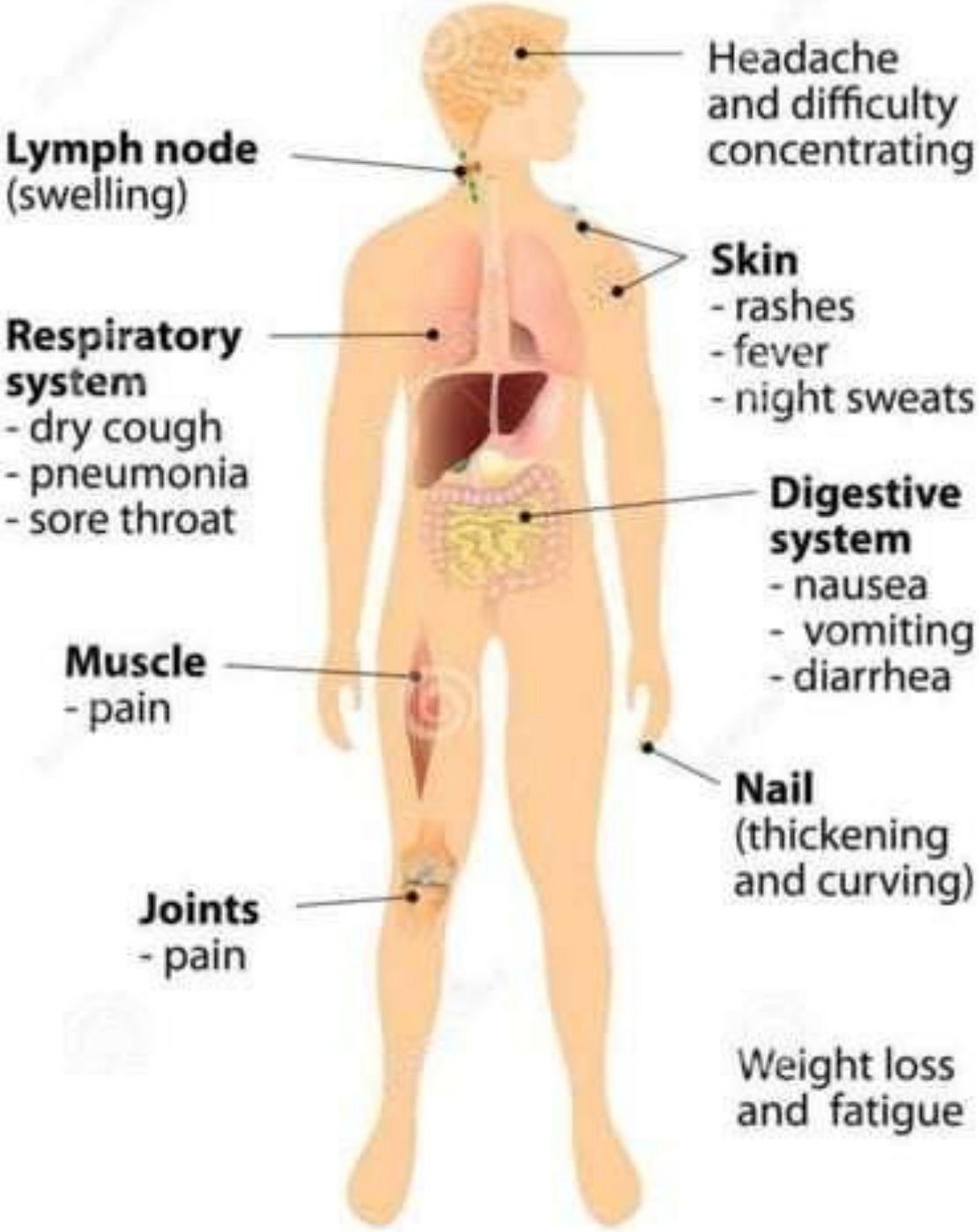


Blood transfusions & organ/tissue transplants

HIV IS NOT TRANSMITTED BY...



Non-specific manifestations



Specific indicator diseases:

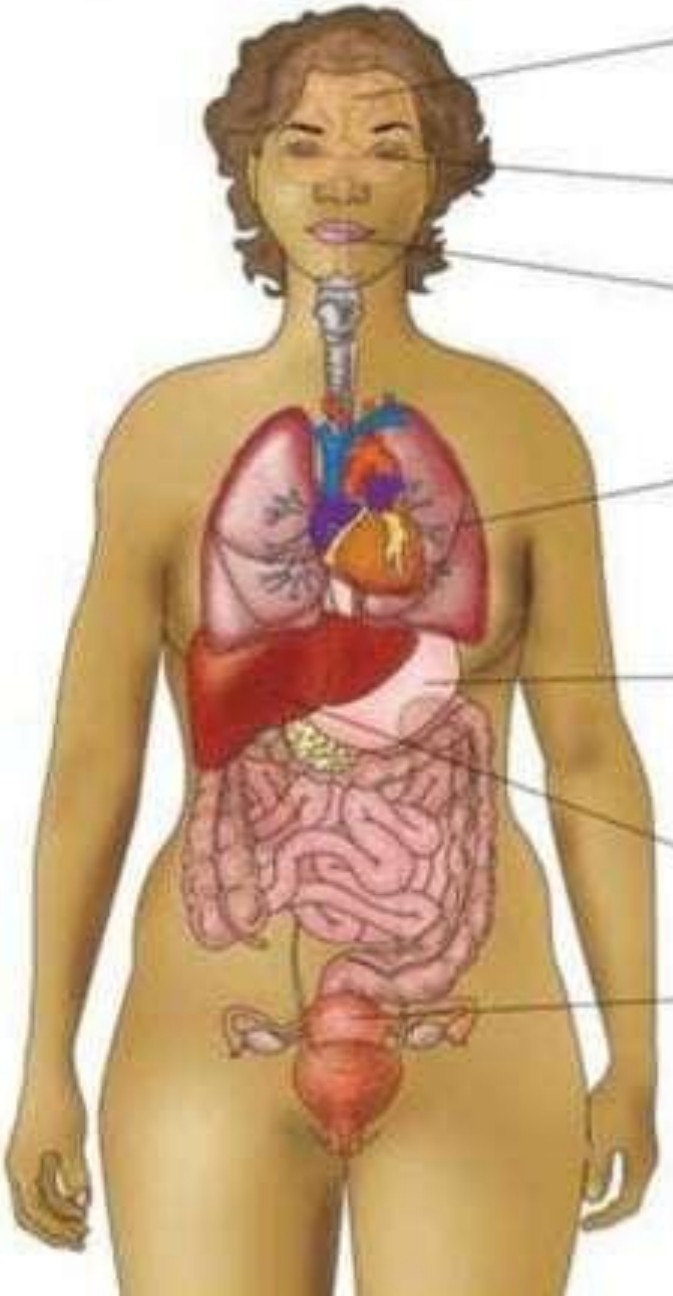
(a) **Opportunistic infections:** pneumocystitis carenii pneumonia, chronic cryptosporidiosis, CNS toxoplasmosis.

(b) **Neurologic diseases:** dementia or sensory neuropathy.

(c) **Cancers:** Kaposi sarcoma and Hodgkin's lymphoma.

(d) **Others** e.g. pulmonary or extra-pulmonary T.B.

Opportunistic Infections



Brain
Cryptococcal Meningitis
Toxo (toxoplasmosis)

Eyes
CMV (cytomegalovirus)

Mouth and Throat
Cold sores and ulcers
Thrush (candidiasis)

Lungs
Histoplasmosis
PCP (pneumocystis carinii pneumonia)
TB (tuberculosis)

Stomach
CMV (cytomegalovirus)
Crypto (cryptosporidiosis)
MAC (mycobacterium avium complex)

Liver
HCV (hepatitis C virus)

Reproductive system
Genital Ulcers
HPV (human papillomavirus) and cervical cancer
Menstrual Problems
PID (pelvic inflammatory disease)
UTI (urinary tract infections)
Vaginal Yeast Infections (candidiasis)

Diagnosis:

1 - Clinical picture.

2 - Laboratory diagnosis:

- Serologic tests for HIV antibodies e.g. ELISA, Western blot, Indirect Immunofluorescence Assay.

- PCR test to detect HIV antigen.

Control:

A. Preventive measures:

1- Health education of youth about the disease & its modes of transmission.

2- Increase religion roots to avoid illegal sexual intercourse.

3- Use disposable syringes & needles.

4- Control of drug abuse.

5- Testing blood donors for AIDS & only screened blood & blood derivatives should be used.

6- Proper sterilization of instruments & sharp objects.

7- Care in handling, using & disposing needles & other sharp objects.

8- No tattooing or acupuncture.

N.B.: No vaccination or chemoprophylaxis is available yet.

B. Measures for cases:

1- Case finding: screening of high risk groups e.g. male homosexuals, i.v. drug abusers, sexual partners of infected persons, patients taking repeated blood transfusion as haemophilics.

2- Notification: is obligatory to local health authority & WHO.

3- Isolation: Isolation of HIV+ive person is unnecessary, ineffective and unjustified.

4- Concurrent disinfection: of equipment contaminated with blood or body fluids and with excretions & secretions visibly contaminated with blood & body fluids.

5 - Treatment:

- ttt of opportunistic diseases that complicated HIV infection.
- Antiretroviral ttt: it is complex, involving a combination of drugs as resistance will rapidly appear if a single drug is used. The drugs are toxic & ttt must be lifelong. A successful ttt is not a cure, although it results in suppression of viral replication.

HIV - PEP (Post Exposure Prophylaxis)

To be effective PEP should begin as soon as possible and to be effective it should begun within 3 days or 72 hour or exposure!

PEP consists of taking 2-3 drugs for 28 days, they may be available as single pill regime

To start PEP consult your nearest HIV clinic

PEP medications may have serious side effects in some people hence may be difficult to finish complete course

PEP is not 100% effective, so there are no guarantees that after PEP you will not become HIV positive

Taking **antiretroviral** medications within **72 hours** after an HIV exposure may **reduce** the risk of HIV infection by **>80%**

PEP
Post-Exposure Prophylaxis

PEP treatment can be accessed through your doctor, emergency room, urgent care clinic, or HIV clinic.

Start PEP treatment within 72 hrs of being exposed.

Follow prescribed treatment for 28-days.

Check back with your doctor after treatment and get tested regularly.

N.B.:

Patients & their sexual partners should not donate blood, plasma, organs for transplantation, tissues, cells, semen for artificial insemination or breast milk for human milk banks.

C. Measures for contacts:

1- Notification of contacts and source of infection: The infected patient should ensure notification of sexual and needle sharing partners whenever possible.

2- Screening of contacts for HIV infection.

3- Health education.

4- No vaccination or chemoprophylaxis.

N.B.:

WHO recommends immunization of asymptomatic HIV infected children with the EPI (Expanded program Immunization) vaccines; those who are symptomatic **should not receive BCG vaccine**.

Live Measles-Mumps-Rubella (**MMR**) **and polio vaccines are recommended for all HIV-infected**


Thank You!