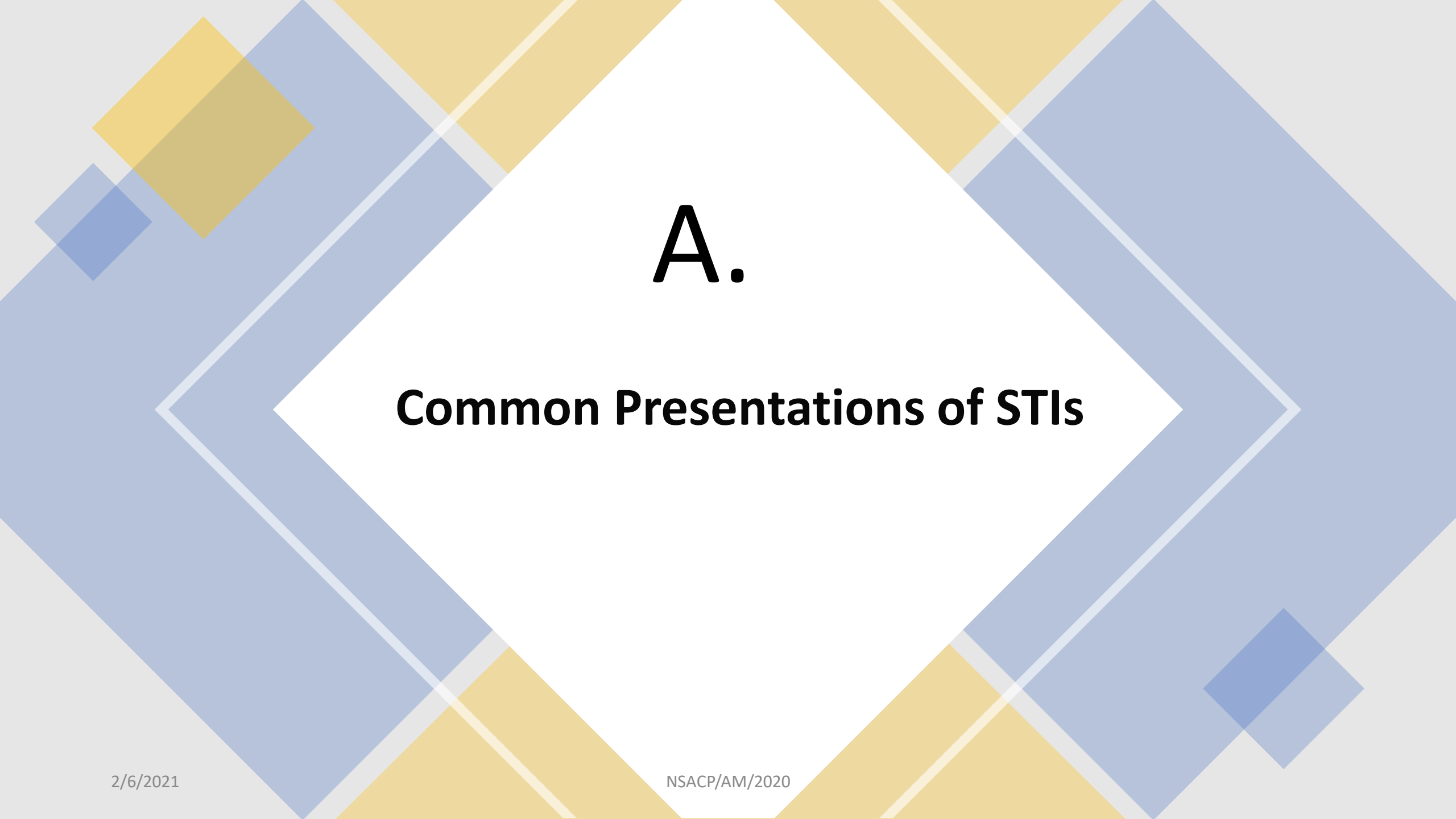


# Issues related to STD and HIV in the Emergency Department

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**Consultant Venereologist**  
**National STD/AIDS Control Programme**

# Contents

- A. Common presentations of **STDs**
- B. Ethical issues related to **HIV**
- C. Patients subjected to **sexual harassment**
- D. Use of **emergency contraceptives**
- E. Management of **needle prick injuries**



A.

## **Common Presentations of STIs**

# Common presentations of STIs

1. **Genital ulceration** (G. herpes, syphilis)
2. **Urethral discharge in men**  
(GC, NGI, chlamydia)
3. **Vaginal discharge** (trichomoniasis)
4. **Lumps in genitals** (G. warts, Molluscum)
5. **Lower abd. pain in women PID** (GC, chlamydia)
6. **Swelling of scrotum** (GC, chlamydia)

# STIs causing genital ulcers

1. Genital herpes
2. Syphilis (primary stage)

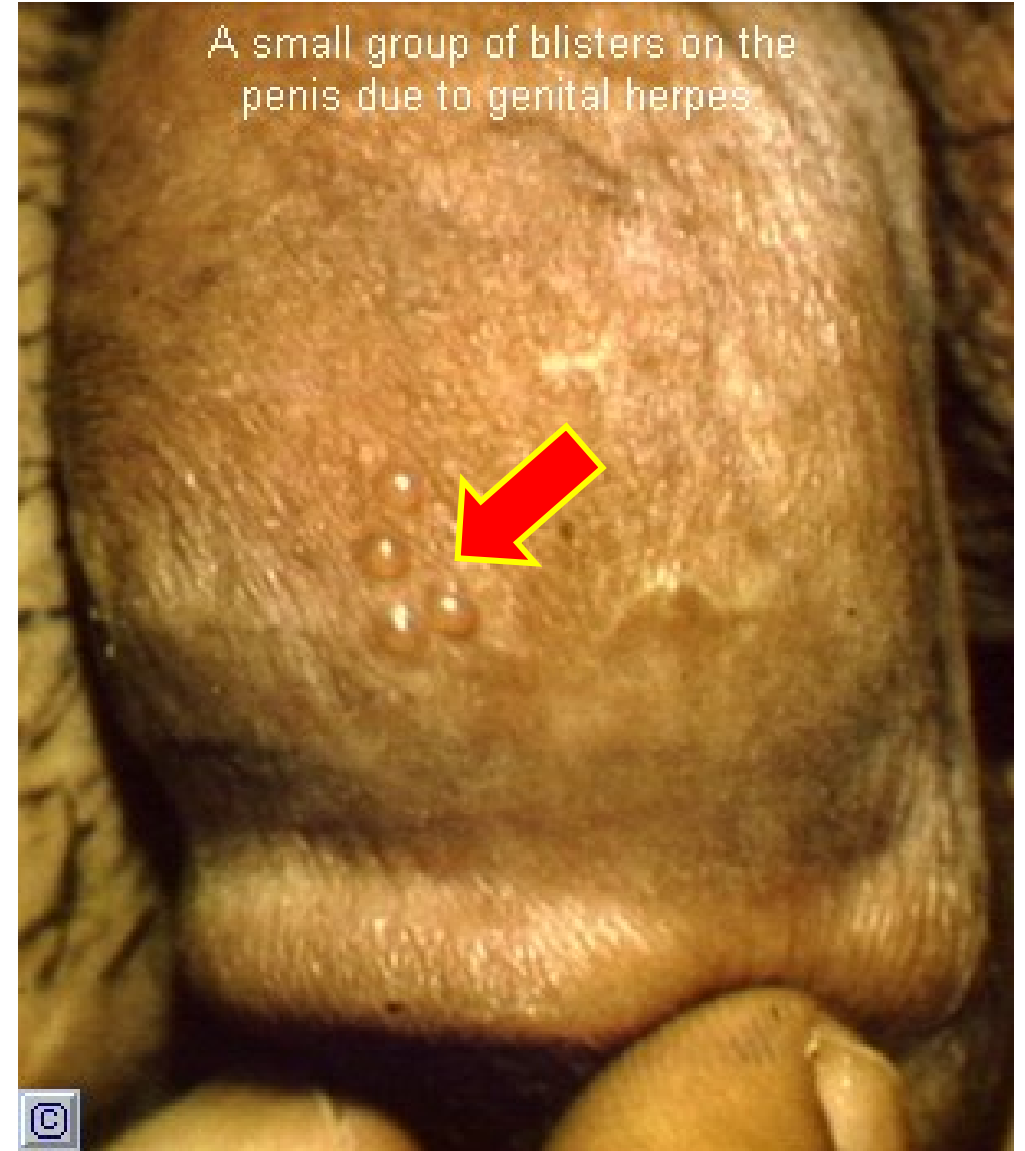
# Genital herpes

- **Caused by Herpes simplex virus (HSV)**
  - Type I
  - Type II
- **Lifelong infection with**
  - Latency
  - Reactivation



# Genital herpes

# Recurrent Herpes Infection





# Recurrent Herpes Infection- (extra genital site)

2/6/2021



NSACP/AM/2020

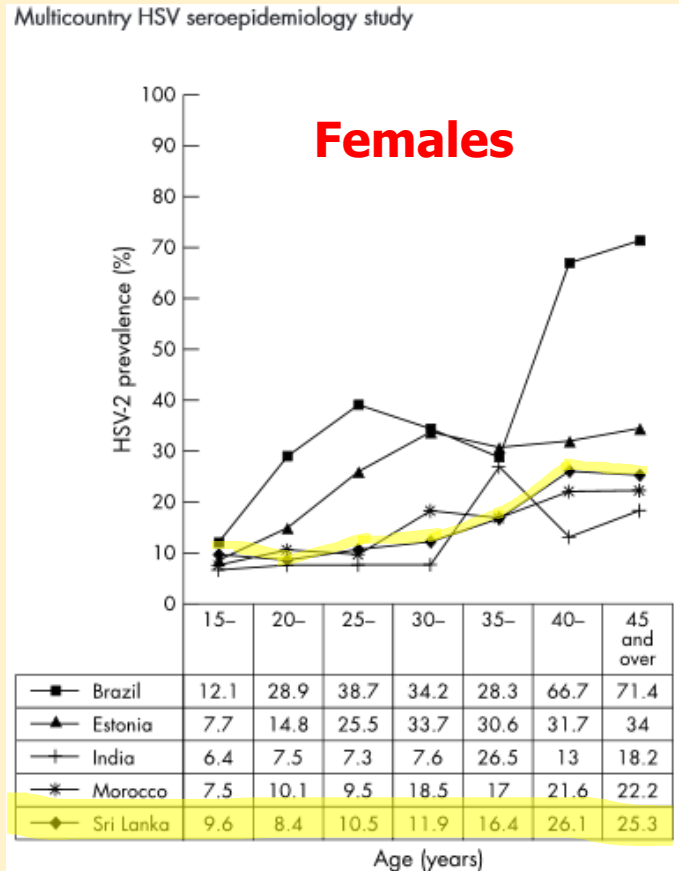
# Cold Sores



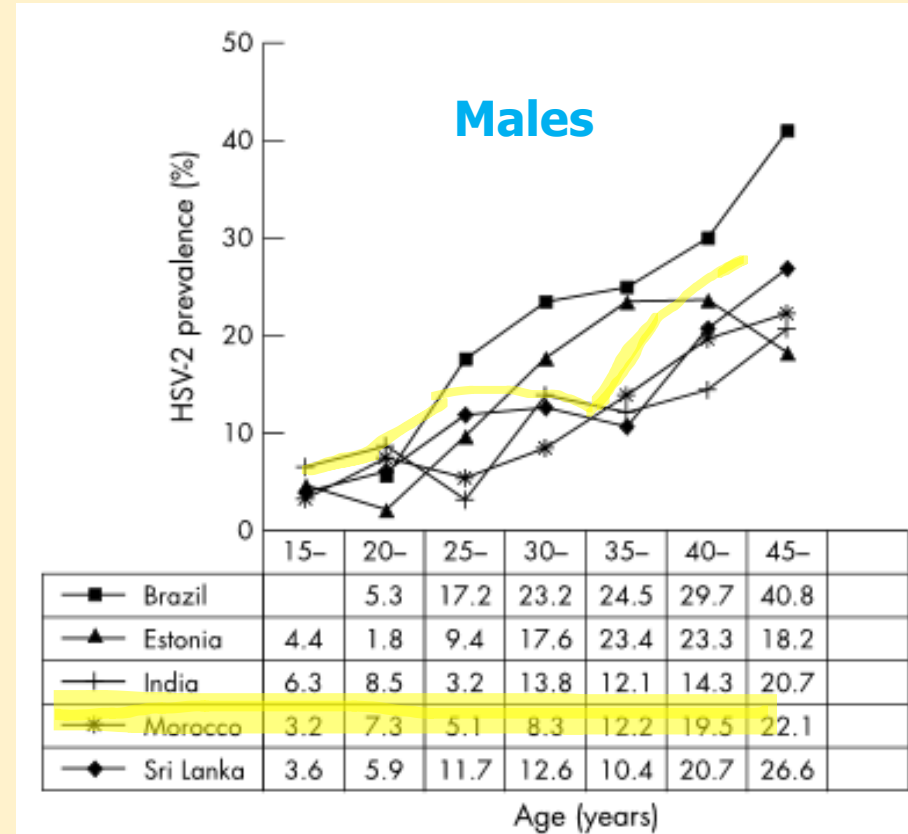


# Herpetic whitlow

# HSV-2 Prevalence in Sri Lanka (2001)



**Figure 2** HSV-2 seroprevalence (%) among adult females by age and country (excluding STD clinic attendees).



**Figure 3** HSV-2 seroprevalence (%) among adult males by age and country (excluding STD clinic attendees).

# Management of herpes

---

- **Psychological support**
- **Saline washes**
- **Keep ulcers clean and dry**
- **Analgesics**
- **Aciclovir (Acyclovir) 400 mg tds orally**

# Syphilis

## Stages of syphilis

### 1. Early syphilis

- I. Primary
- II. Secondary
- III. Early latent

### 2. Late syphilis

### 3. Congenital syphilis

- I. Early cong. syphilis
- II. Late cong. syphilis



Causative agent *Treponema pallidum* demonstrated by Dark field microscopy

# Early syphilis

**Primary syphilis** (Primary chancre)



# Early syphilis

## Secondary syphilis



**Condylomata lata**



**Rash in palms**



# Treatment - Syphilis

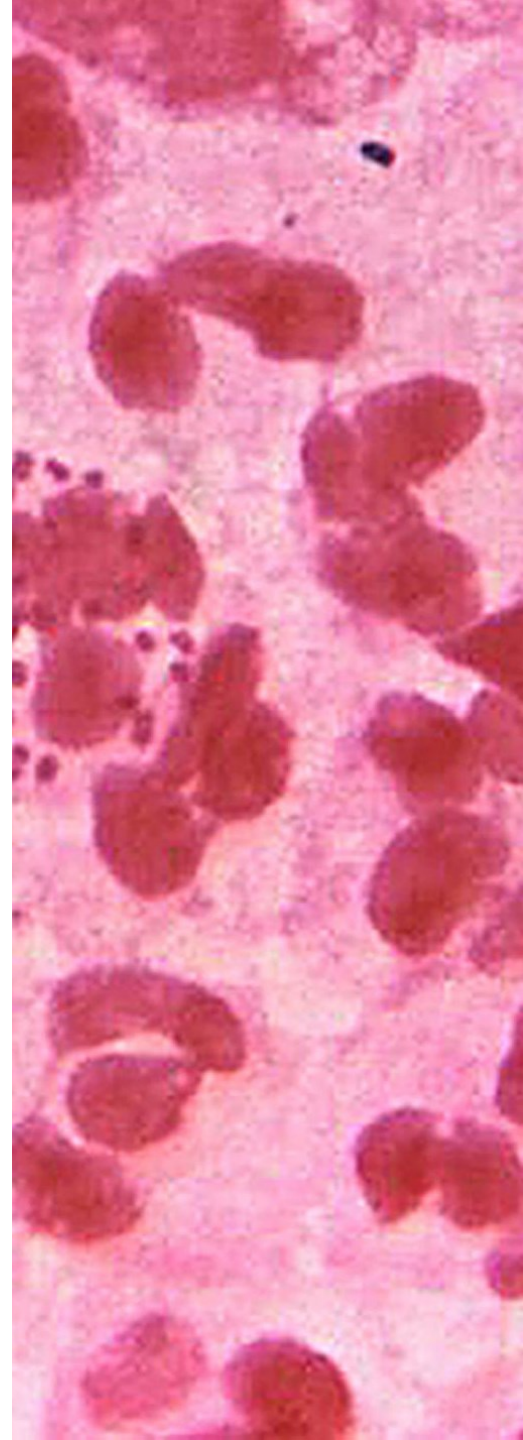
- **Early (primary, secondary, early latent)**
  - Benzathine penicillin 2.4 MU IM single dose
  - Doxycycline 100mg BD for 14 days
  - Erythromycin 500mg 6H for 14 days





# STIs causing urethral discharge in men

1. **Gonorrhoea**
  2. **Chlamydia**
- 



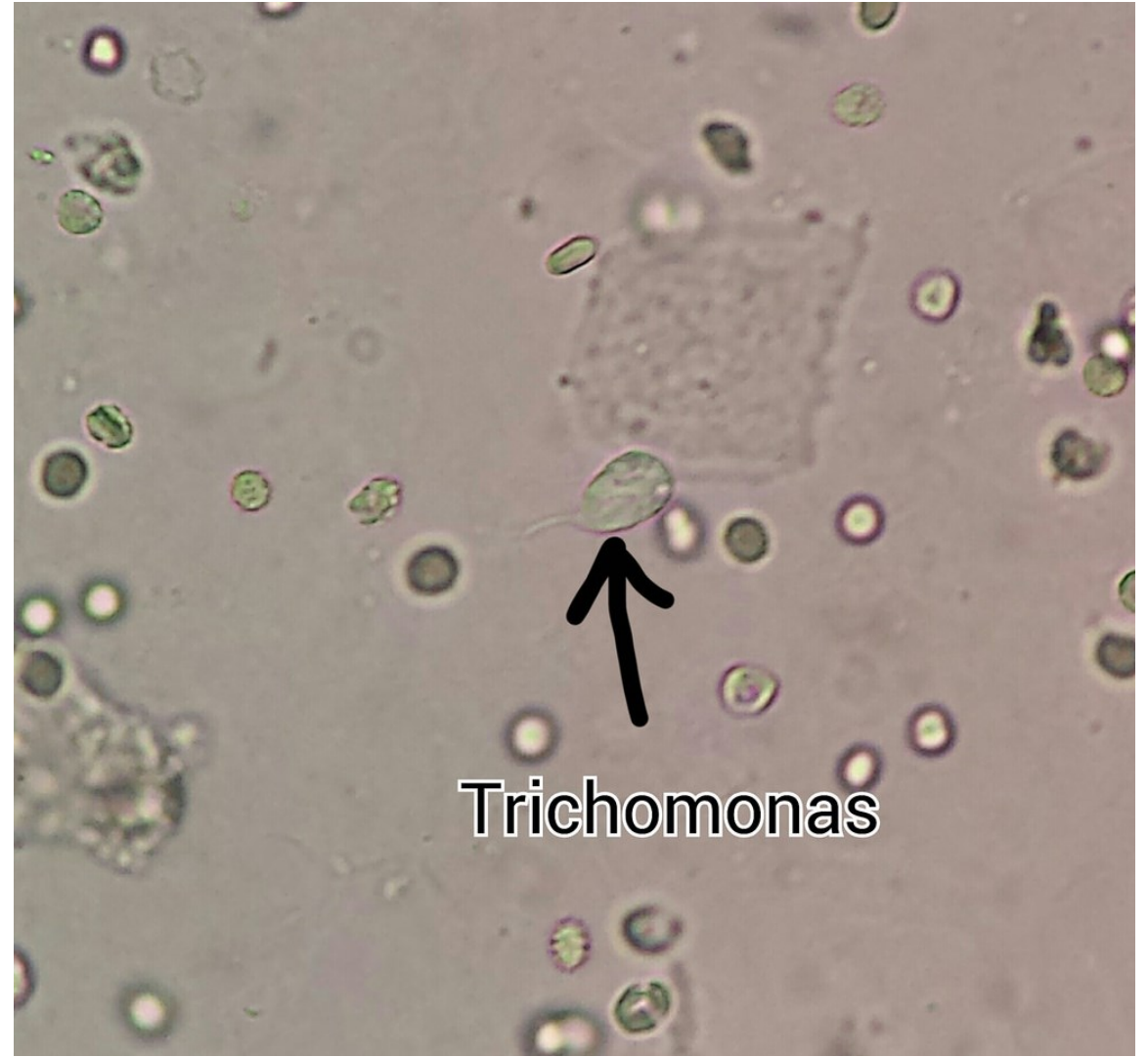
# Management of urethral discharge

- **Gonorrhoea – Cefixime 400 mg orally stat**
- **Chlamydia - Azithromycin 1g orally stat**

# STIs causing vaginal discharge

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1. Candidiasis
2. Bacterial vaginosis
- 3. Trichomoniasis**

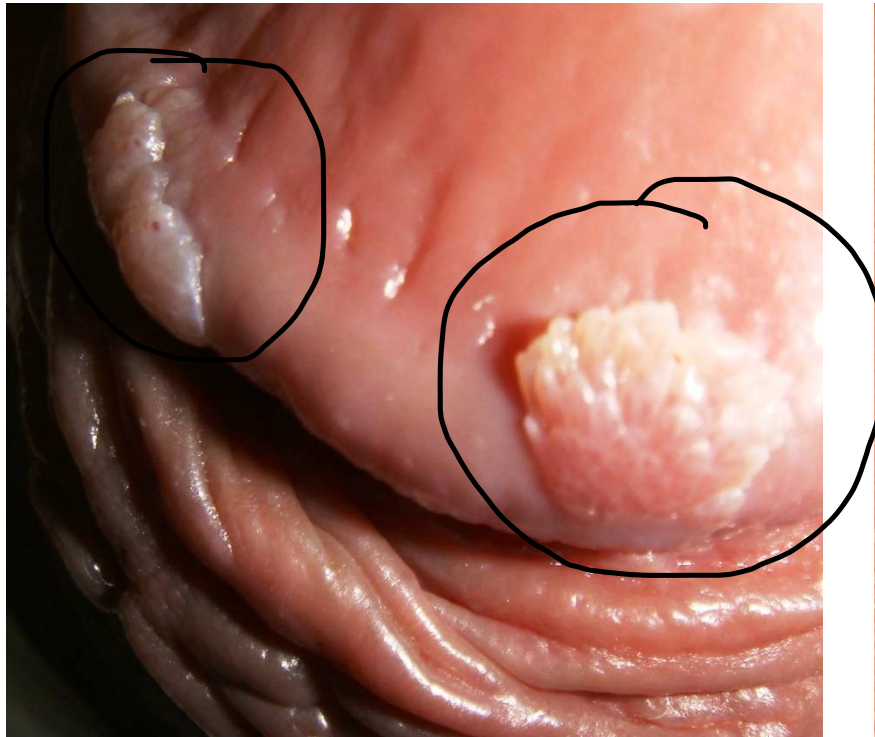


# Management of trichomoniasis

- **Metronidazole 2 g orally stat**

# STIs causing genital lumps

Genital warts



Molluscum contagiosum



# General advice

- **Make a note in the BHT to “Refer to a STD clinic”**

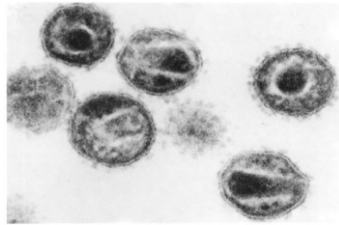
**B.**

**Ethical issues related to HIV**



Nearly 50% of HIV infected persons  
develop AIDS in 8-10 yrs.

**HIV**



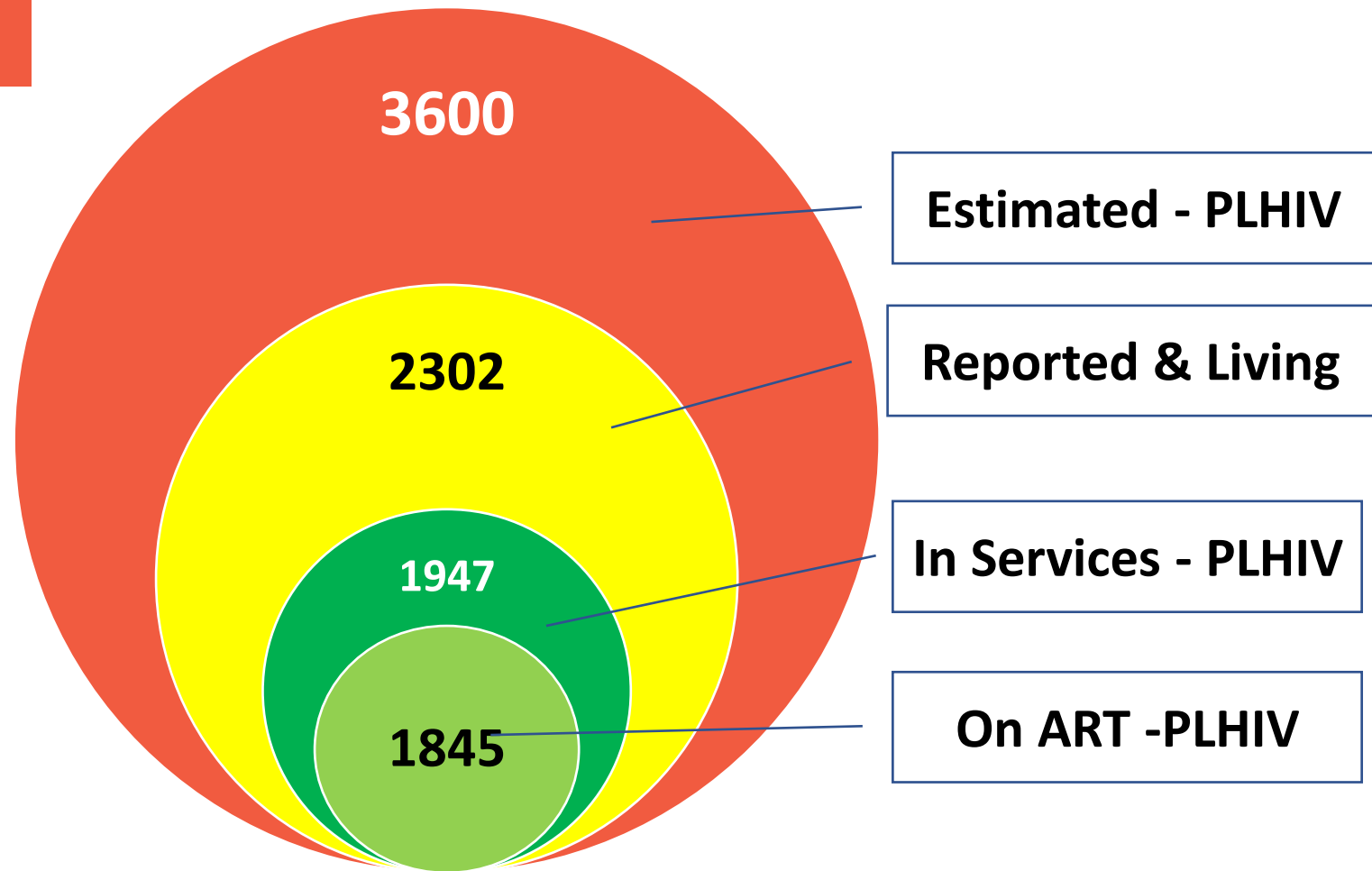
Nearly 10 Years

ARV Drugs

**AIDS**



# Summary of HIV epidemic in Sri Lanka by end 2019



2/6/2021



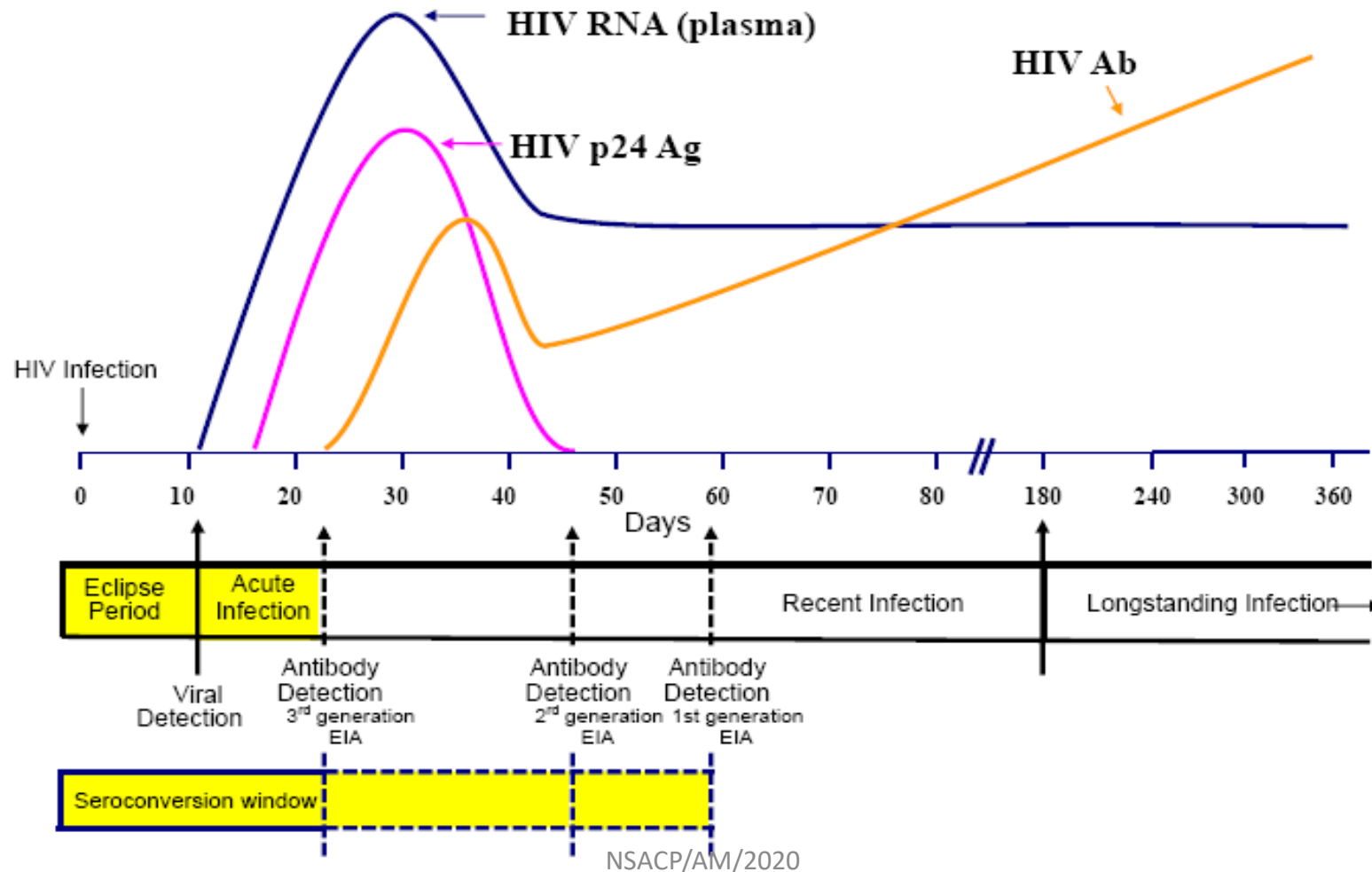
NSACP/AM/2020



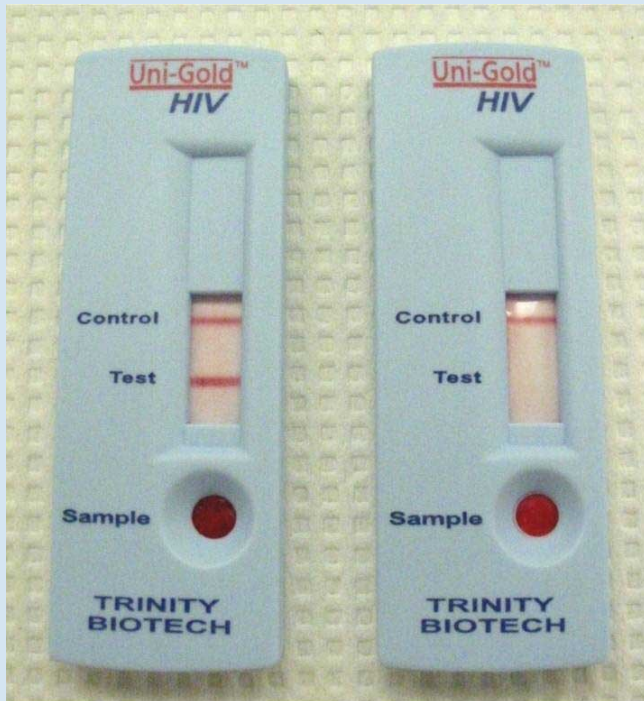
# Tests for HIV

- **Screening Tests available in Sri Lanka**
  - ELISA
  - Rapid HIV test (RDT)
  - Particle agglutination

# What is the Window Period?

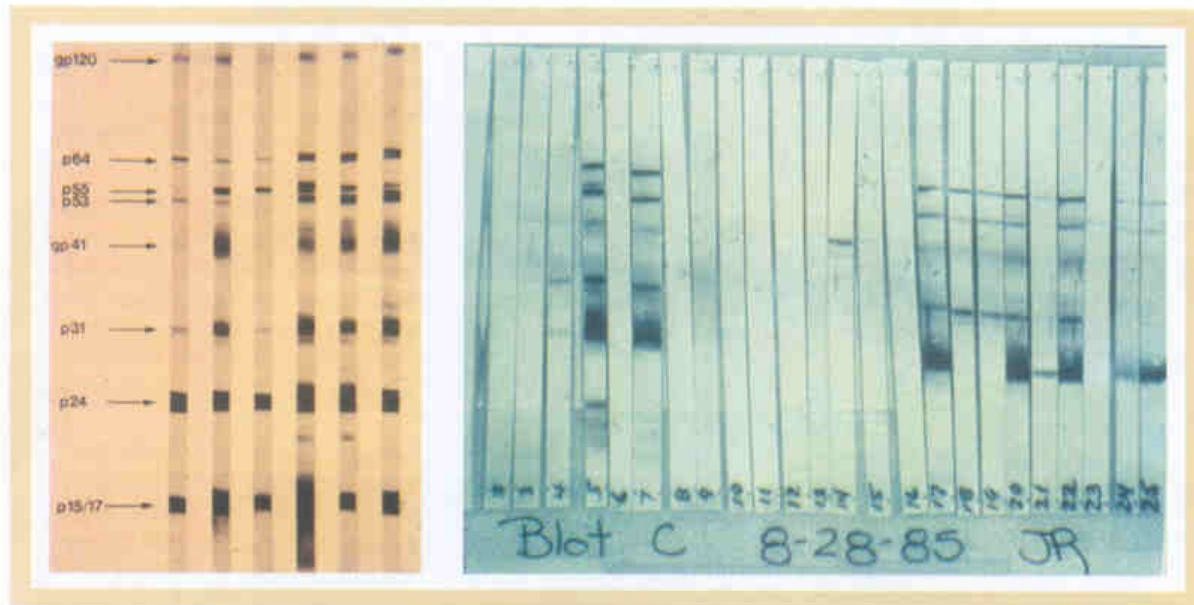


# HIV Rapid tests



- Takes 20 minute
- Important when the result is urgently required

# Confirmatory HIV Tests



a) Standard band pattern indicating antibody positivity to 'gag', 'pol' and 'env' antigens.

b) Laboratory collection of western blot positive, negative and indeterminate results.

- Western blot
- Window period 3 months



# ART

Antiretroviral treatment



U = U

**Undetectable** viral load means HIV is **Untransmittable**

# **Ethical related to HIV in ED**

- **Should we test for HIV?**
- **Do we need written consent?**
- **If the patient is unconscious?**
- **Do we need to share the results with others?**
- **How should we document it in the BHT?**
- **What are the issues in confidentiality?**
- **Where should we refer the patient ?**

# STD clinics in Sri Lanka



**C.**

**Patients subjected to sexual  
harassment**

# Definition of Rape | **Article 363 of the penal code**

1. Sexual intercourse without the woman's consent
2. Sexual intercourse through intimidation, threat or force
3. When consent is invalid (unsound mind or state of intoxication)
4. When consented believing that she was married to the man
5. If the woman was under **16 years** of age

# Unnatural offences & Grave sexual abuse (Article 365 of the penal code)

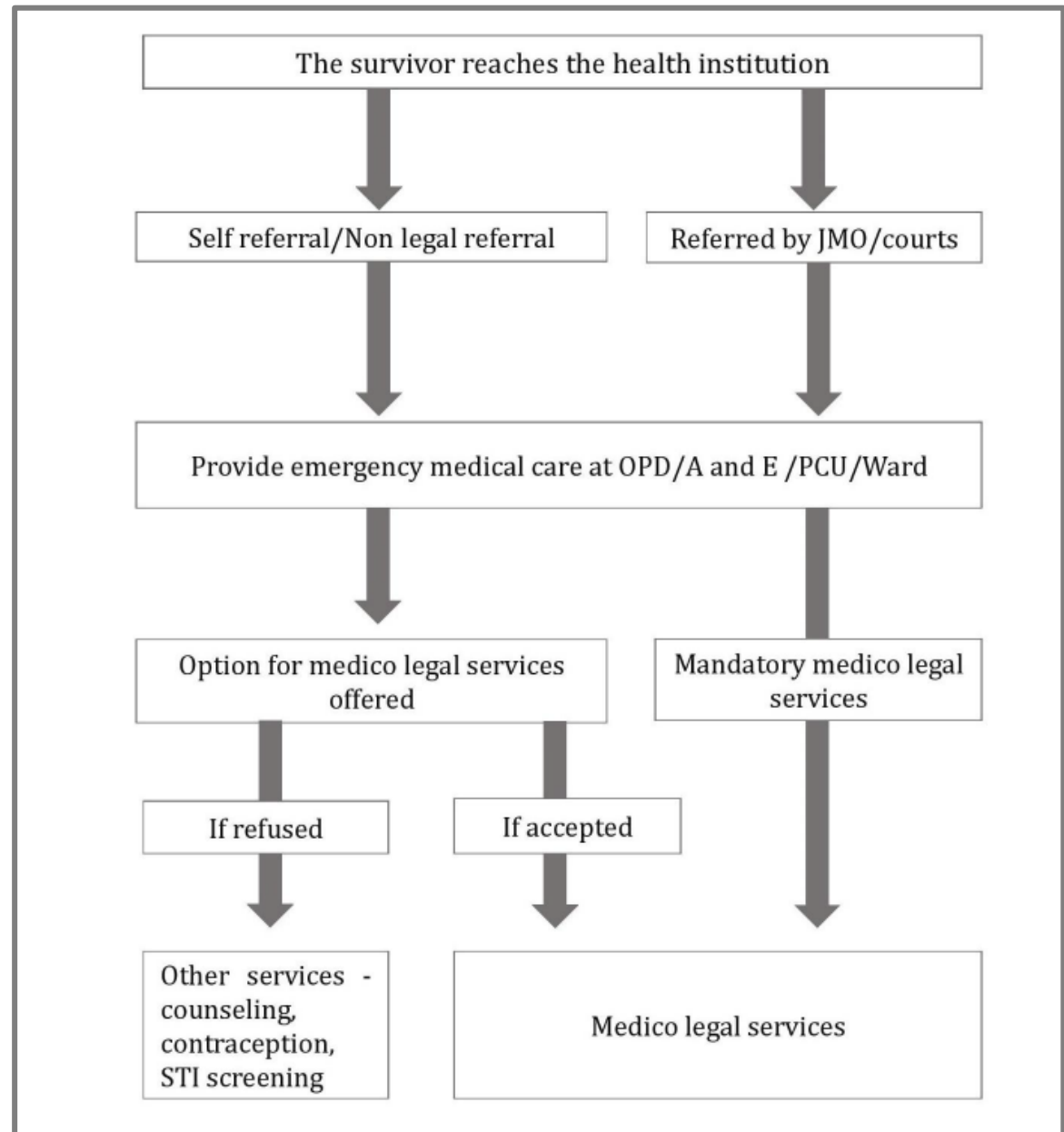
## 1. Unnatural offences

(when an individual voluntarily have carnal intercourse against the order of nature with any man, woman or animal)

## 2. Grave sexual abuse

(for sexual gratification doing any act by the use of genitals or any other part of the human body or any instrument on any orifice or part of the body on any other person)

# Management of sexually abused survivors for medico legal purposes







**Proper documentation  
of history and  
examination findings is  
important.**

# History

- **A brief history of the assault should be taken**
  - **date, time, location, number of perpetrators, perpetrator characteristics, physical violence, presence of injuries, sexual acts (oral, anal, vaginal), whether ejaculation occurred and use of condoms.**



# Examination

- **Examination should be carried out maintaining privacy and respecting patient's wishes**
- **Look for injuries and evidence of infection**
  - **Genitals**
  - **Perianal region**
  - **Oral cavity**



# Investigations

- **Nucleic acid amplification tests (NAATs) for Chlamydia and gonorrhoea**
- **VDRL/TPPA/HIV/Hepatitis B and C screening**



# Management

- **Prophylaxis for STIs**
  - Chlamydia, gonorrhoea and trichomoniasis
  - Hepatitis B (Vaccination or HBIG)
- **Post exposure prophylaxis for HIV**
  - Should be given within 72 hours
- **Pregnancy prevention**



**D.**

**Emergency contraception**

# **Emergency contraception**

**All refer to  
contraceptive  
measures taken after  
sex to prevent  
pregnancy**



# Emergency contraception methods

- **Oral levonorgestrel (LNG) 1.5 mg (single dose)**  
It is effective if taken within 72 hours (3 days). Ineffective if taken more than 96 hours (4 days).
- **Copper IUD (Intrauterine devices)**  
Effective within 5 days.



**E.**

**Needle prick injuries**

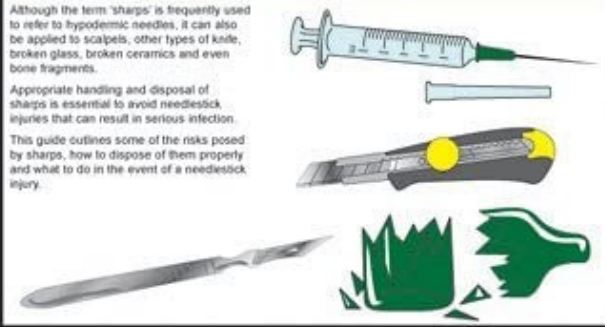
# Sharps Disposal & Needlestick Injuries

## WHAT ARE SHARPS?

Although the term 'sharps' is frequently used to refer to hypodermic needles, it can also be applied to scalpels, other types of knife, broken glass, broken ceramics and even bone fragments.

Appropriate handling and disposal of sharps is essential to avoid needlestick injuries that can result in serious infection.

This guide outlines some of the risks posed by sharps, how to dispose of them properly and what to do in the event of a needlestick injury.



## WHAT ARE THE DANGERS?

Unfortunately needlestick injuries are no longer limited solely to medical environments. As the presence of sharps in our everyday environments increases, so does the risk of infection. The most serious infections stemming from needlestick injuries are all transmitted through blood or bodily fluid and include:

### HEPATITIS B

Hepatitis B is a virus that infects the liver and is one of the more common infections to stem from needlestick injuries.

Many people infected with hepatitis B have no symptoms and frequently do not know that they are infected. Occasionally flu like symptoms may develop as well as a slight yellowing of the skin around the eyes (jaundice).

It is possible to protect oneself against possible Hepatitis B infection through a course of vaccines. Speak to your doctor or Occupational Health nurse about these vaccines if you regularly come into contact with sharps at your place of work.

### HEPATITIS C

Hepatitis C also infects the liver but unlike hepatitis B, there is no vaccine to protect against infection.

Although signs and symptoms of infection can vary and are often uncommon, they may include:

1. Aching muscles and high temperature
2. Fatigue
3. Nausea & loss of appetite
4. Weight loss
5. Depression
6. Liver pain
7. Mild jaundice
8. Joint pains
9. Poor memory

Your doctor can perform a blood test to find out whether you are infected with Hepatitis C.

Courses of drug therapy are available that can clear the virus in around 50% of cases.

If you do become infected with hepatitis C, it is essential to limit alcohol intake or cut out alcohol altogether.

### HIV

Human Immunodeficiency Virus (HIV) is the virus that causes AIDS, a fatal disease.

There is no vaccine to protect against HIV infection although there are drugs that can reduce the onset of AIDS in some cases.

Although there are some symptoms associated with HIV infection, many people who become infected with the virus do not display any symptoms for many years.

**The only way to determine whether you are infected is to be tested by a doctor.**



## SAFE HANDLING & DISPOSAL OF SHARPS

The majority of needlestick injuries occur as a result of inappropriate use of sharps and the methods used to dispose of them. When handling sharps the following rules should always apply:

1. Always wear gloves when handling sharps. Wear two pairs of gloves if necessary. (Fig. 1)
2. Never pass sharps directly from hand to hand.
3. Handling should be kept to a minimum. Forceps and grabbing devices should be used wherever possible. (Fig. 2)
4. Never re-sheath needles by hand. (Fig. 3)
5. Always dispose of sharps at the point of use.



## DEALING WITH CONTAMINATED SHARPS IN PUBLIC AREAS

Cases of sharps being disposed of 'maliciously' have increased greatly over recent years. This is particularly so with hypodermic needles that are often left in public places and, on occasion, placed deliberately where they will cause injury. This has vastly increased the dangers of needlestick injury to those involved in tasks such as cleaning and building maintenance in public areas.

The previously outlined guidelines for disposing of sharps can also be applied to contaminated sharps found in public areas.

Precautions should centre on minimising contact with the contaminated object and safe disposal.

1. Specialist kits complete with gloves, disinfectant materials and sharps disposal containers should be made available to individuals who may come into contact with contaminated (Fig. 1) sharps in their every day work.
2. Reinforced 'sharps disposal' gauntlets should always be used when there is a risk that sharps have been deliberately placed where they will cause injury. Common locations where this might occur include underneath banister rails and on top of poster/picture frames. (Fig. 2)



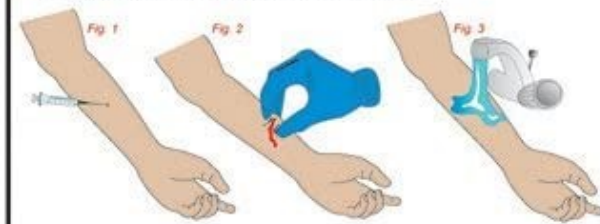
## WHAT TO DO IN THE EVENT OF A NEEDLESTICK INJURY?

In the vast majority of needlestick injuries, it is not known whether the person who used the needle had an infection. The chances of infection from a contaminated needle depend upon a number of factors. These include:

1. The number of needle users in the area who have an infection.
2. How long the needle was left on the ground.
3. Whether the needle caused a deep injury or a scratch.
4. Whether there was a syringe attached to the needle.
5. Whether the injured party has been vaccinated against possible infection.

If you should receive a needlestick injury (Fig. 1) take the following actions:

1. Gently squeeze the area around the puncture to encourage it to bleed. **DO NOT SUCK THE WOUND** (Fig. 2)
2. Hold the wound under running water for at least 5 minutes. Wash the area with soap and cover with a washproof plaster. (Fig. 3)
3. Always visit your Doctor or Accident & Emergency Department immediately. They will be able to advise you on the relevant immunisations.





2/6/2021

# What is Post exposure prophylaxis?

- **Giving antiretroviral medicine following possible recent exposure to HIV in order to prevent HIV infection**
- **PEP reduced the risk of HIV transmission by 81%**





# Non-infectious

- Urine
- Saliva
- Tears
- Sweat
- Feces

(in the absence of visible blood)

# Risk of Occupational Transmission of HIV

- **Percutaneous injury** - 0.3%
- **Mucous membrane** - 0.09%
- **Non-intact skin** - risk not quantified

# What increase the risk of transmission?

- Exposure to a larger quantity of blood
- Needle being placed directly in a vein or artery
- Hollow bore needle
- A deep injury
- Source persons with terminal illness or acute sero-conversion
- Glove use
  - 50% decrease in volume of blood transmitted

# When should PEP be started and completed



**Continue for  
28 days**

PEP should be initiated as soon as possible, preferably within hours rather than days of exposure



# Steps in management of occupational injury

1. **Wound management**
2. **Assessment of the risk**
3. **Counseling for the HCW**
4. **Prescription of PEP**
5. **Follow-up**
6. **Reporting**

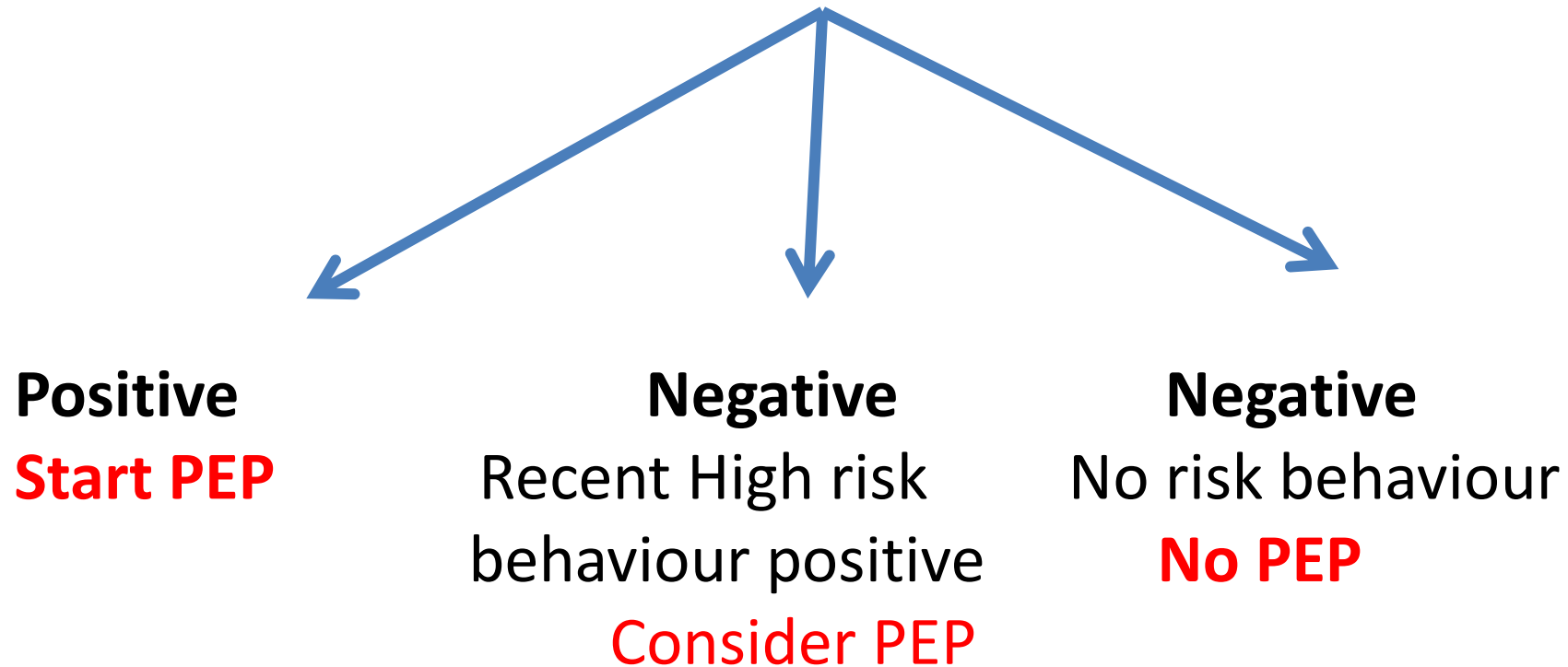
## Wound management

- **Gently wash wounds with soap and water (don't scrub vigorously)**
- **Allow wounds to bleed freely- don't squeeze**
- **No evidence of benefit of application of antiseptics or disinfectants**
- **Irrigate exposed mucosal surfaces with saline or clean water**

## Documentation

- **Documentation of the exposure is essential**
- **Inform to the Infection control unit**
- **Documentation at STD clinic**

# Rapid HIV test of source pt.



## When source patient is not available

- **Consider**
  - severity of exposure
  - epidemiologic factors of HIV
- **Starter pack** can be initiated.
- **Decision of continuation of ART** made on case by case basis.

# Recommended PEP regimens

**TDF 300mg daily**

**FTC 200mg daily**

**+**

**LPV/r 400mg/100mg 12hrly or ATV/r  
300mg /100 mg daily**

**(Venereologist could decide on  
alternative regimens when necessary)**



## Counseling

### HIV-exposed workers should be educated and counseled on

- Use of **condoms** to prevent potential sexual transmission
- Avoiding **pregnancy** and **breastfeeding**
- **Refraining from donating** blood, plasma, organs, tissue or semen
- Identifying **symptoms of primary HIV infection** and report as soon as possible

# Follow- up

	Baseline	Week 1	Week 2	Week 3	Week 4	Week 10	Week 16
Clinic visits	√	√	√	√	√		
Pregnancy test	√						
LFT, RFT, FBC*	√		√		√		
HIV testing	√					√	√

- **FBC\*-Follow-up FBC is indicated only for those receiving a zidovudine-containing regime.**
- **Week 10 , 16 HIV testing should be done by using ELISA**
- **HIV testing recommended for the healthcare worker who are not on PEP at baseline, week 6 and 12 from the exposure date.**





Time for  
questions.....