

Therapeutic & Prevention Clinic

Resource Book

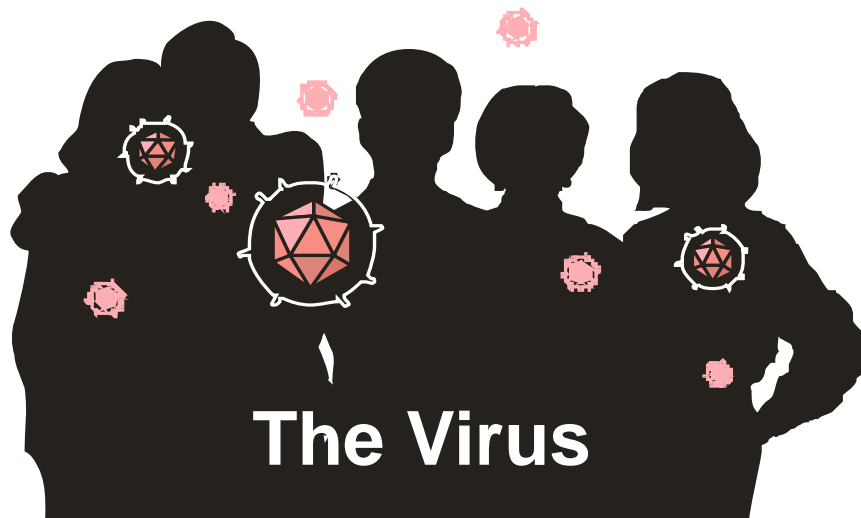
Revised 2008
Special Preventive Programme,
Department of Health

Therapeutic & Prevention Clinic



Provides post-exposure management on HIV, HBV and HCV after needlestick injury or mucosal contact to blood or body fluid

Blood Borne Infection



- * **Large** amount of **HIV & HBV** is found in the body fluids of an infected patient, mainly in
 - blood
 - semen
 - vaginal fluid
- * **Minimal** amount of **HIV & HBV** is found in: - sweat, urine, tear, saliva
- * **Hepatitis C** infection is mainly blood-borne

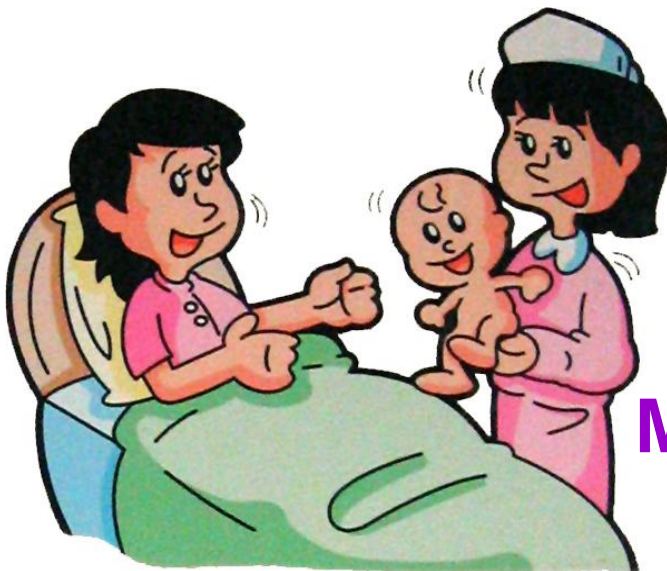
The Major Routes of Transmission



Sexual contact



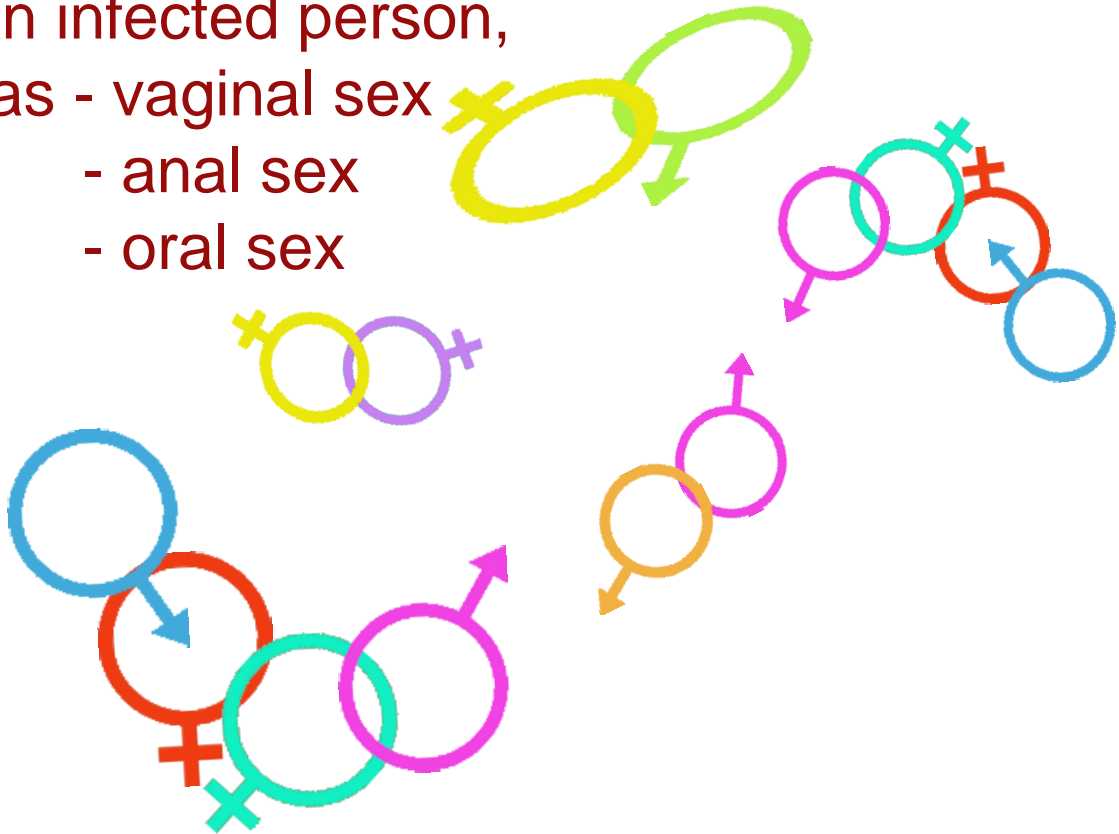
Blood contact



**Mother-to-child
transmission**

Sexual Contact

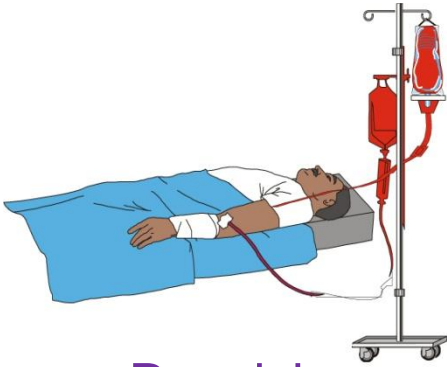
- * Both homosexual and heterosexual contact with an infected person, such as - vaginal sex
 - anal sex
 - oral sex



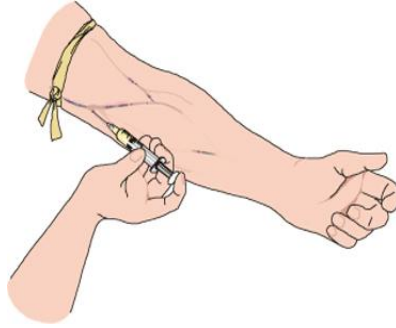
In Hong Kong, around **80%** of HIV infection are transmitted by sexual contact

★★★ Presence of the following risk factors increase the chance of HIV transmission

- multiple sexual partners
- contact of blood or body fluid during sex
- presence of genital ulcer or sexually transmitted infections



Receiving
contaminated
blood or blood
products



Sharing
injection
equipment



Needlestick
injury

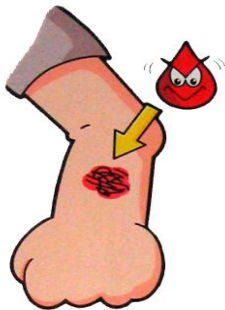


Mucosal
contact

Blood Contact



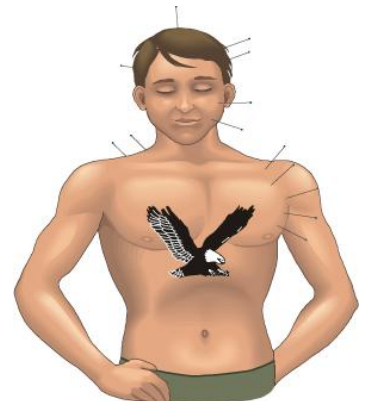
Human
bite



Contact with
deep body fluid or
blood of a carrier



Ear
piercing

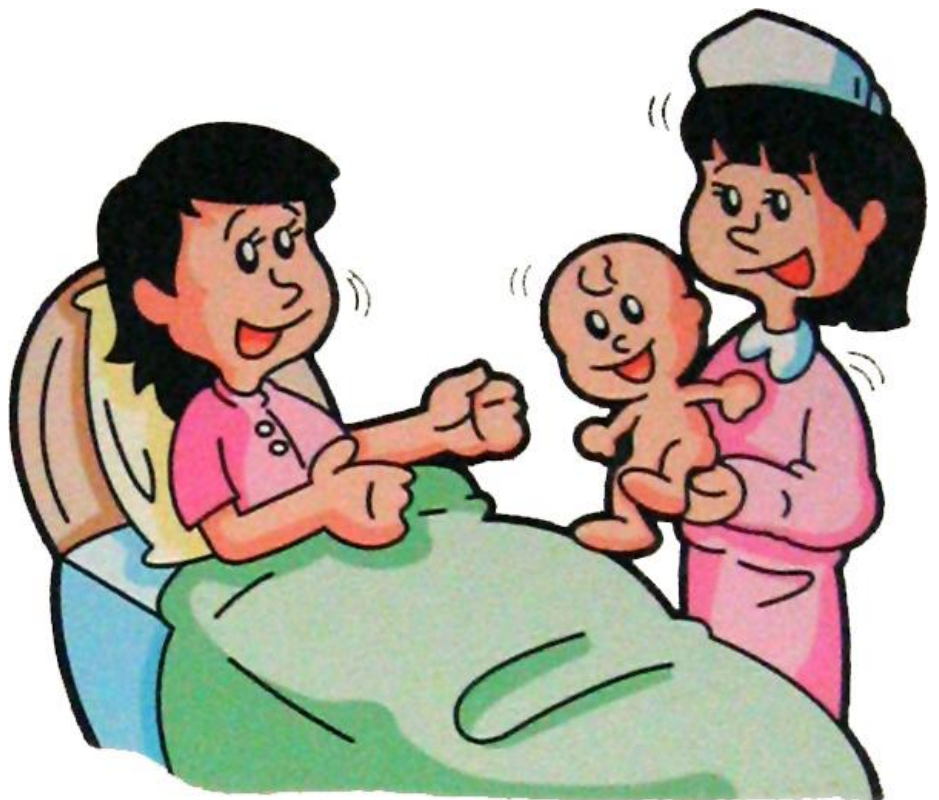


Acupuncture /
tattoo

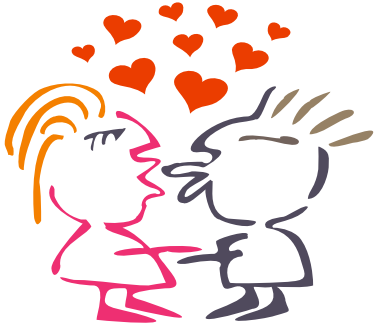
Mother-to-child Transmission

The transmission of virus from an infected mother to her baby occurs :

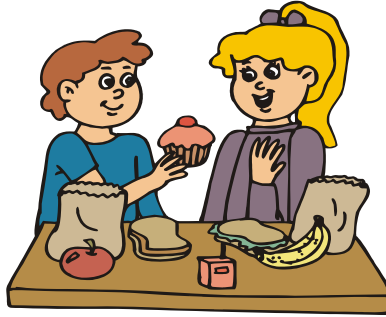
- ◆ during **delivery** for most of the **HBV** infections
- Ⓢ during **pregnancy, delivery** or **breast-feeding** for **HIV** infections



You will not get HIV,HBV,HCV from social contact



Kissing



Food sharing



Hugging



Working together



Coughing / sneezing



Shake hands



Sharing toilet



Swimming

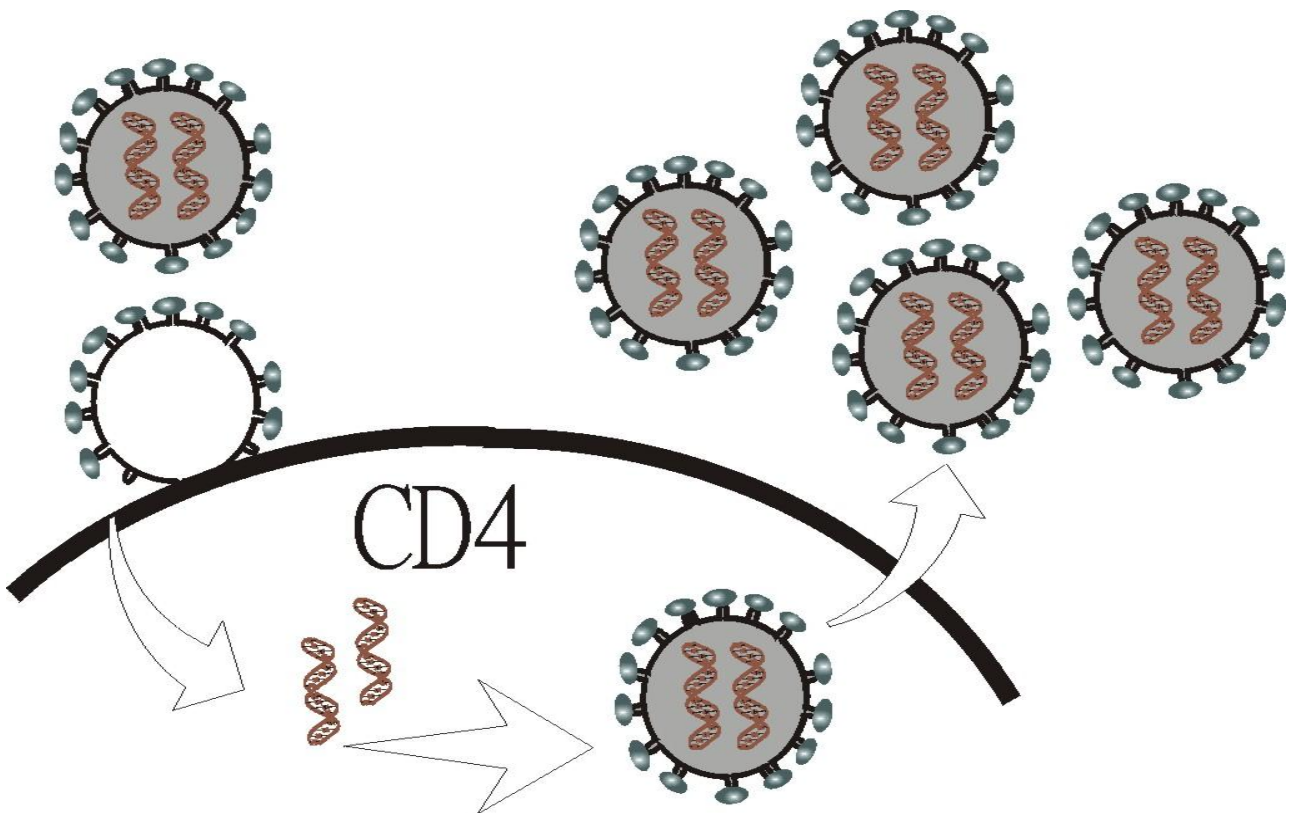


Insect bites

What is AIDS ?

AIDS is a disease caused by **HIV** (**H**uman **I**mmunodeficiency **V**irus)

HIV attacks CD4 (white blood cells) and replicated enormously inside them



Epidemiology of HIV in Hong Kong

The prevalence of HIV infection in Hong Kong is below 0.1% of the population



Risk of HIV transmission through needlestick injury is:

HIV contaminated needle	General setting
0 – 0.46% #	0.0004%



The risk of getting HIV infection is lower for mucous membrane or non-intact skin exposure

Risk Assessment

Risk depends on the followings:-

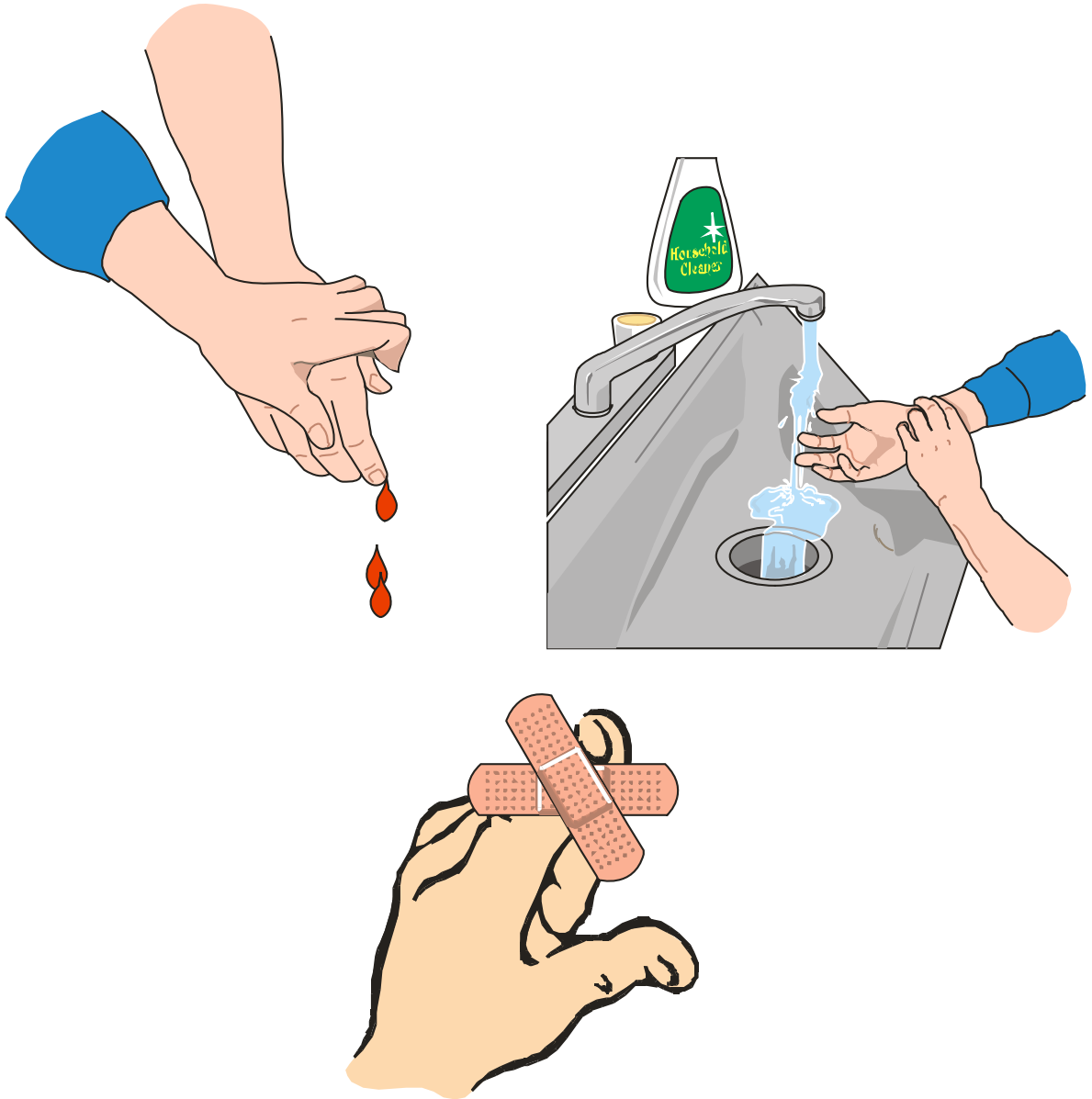


- the depth of penetration
- the needle or equipment is contaminated with blood or body fluid
- the size and type of the needle used
- the volume of blood or body fluid involved
- the amount of virus in the source
- the infectivity of the source
- wound management after the incident

Factors that increase the risk :

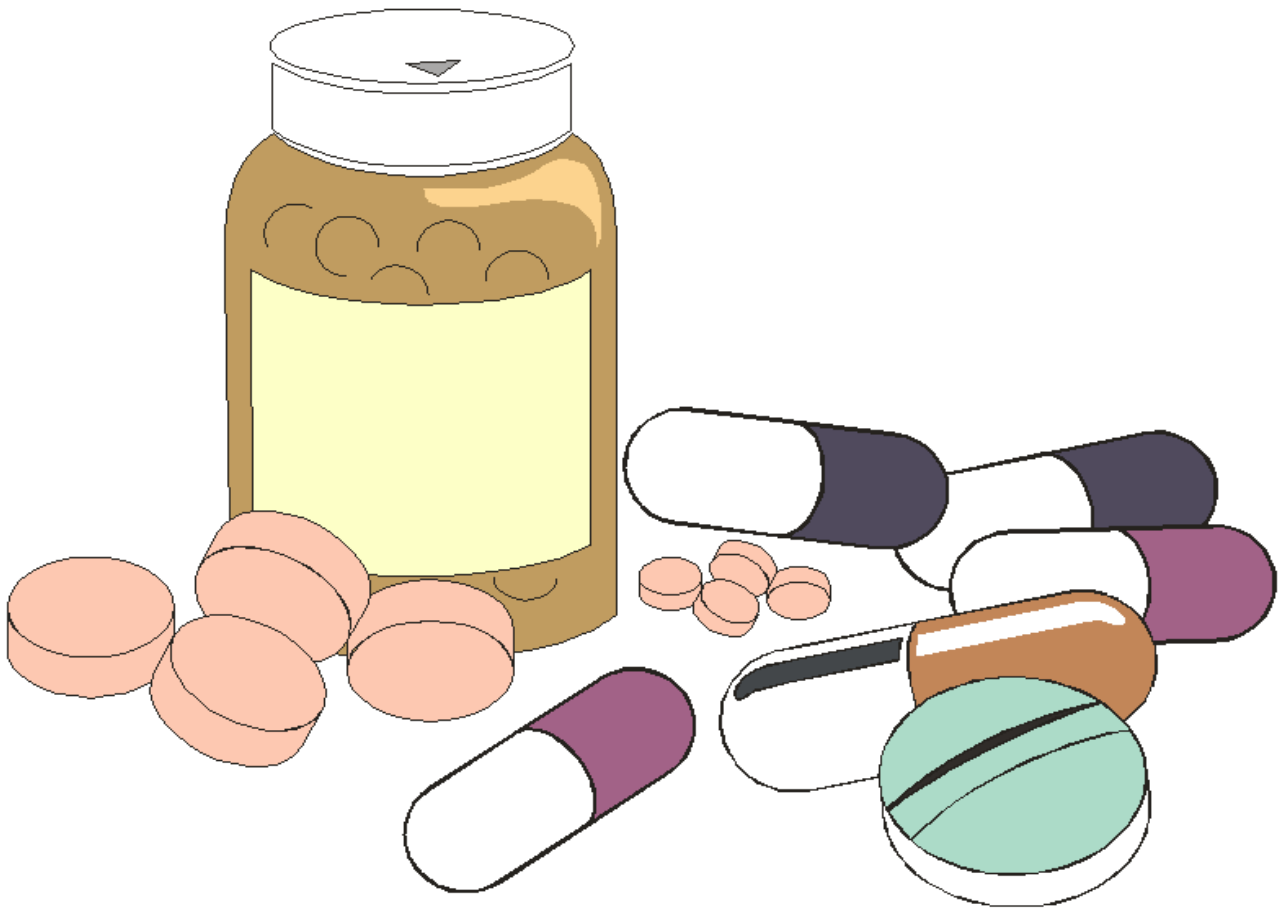
- deep and extensive injury
- visible blood on device
- procedure involving needle placed directly into a vein or an artery
- advance HIV infection in source patient

Wound management after needlestick injuries



★★★ Go to the nearest A&E department for counselling and blood testing.

Post-exposure prophylactic measures to reduce the risk of HIV infection



Post-exposure antiretroviral therapy may reduce the risk of infection by **79%**

★★★ Therapy should be initiated as soon as possible within **72 hours**

Points to note for Post-exposure prophylactic treatment



- | |
|--|
| <ul style="list-style-type: none">• The post-exposure prophylactic treatment may cause severe side-effects |
| <ul style="list-style-type: none">• The course of treatment will last for 4 weeks |
| <ul style="list-style-type: none">• Require regular follow up |

Possible side-effects of antiretroviral drugs

- tiredness
- dizziness, headache
- muscle pain
- numbness of finger tips
- nausea & vomiting
- loin pain
- kidney stone
- dysuria
- pancreatitis (upper abdominal pain)



Seroconversion illness

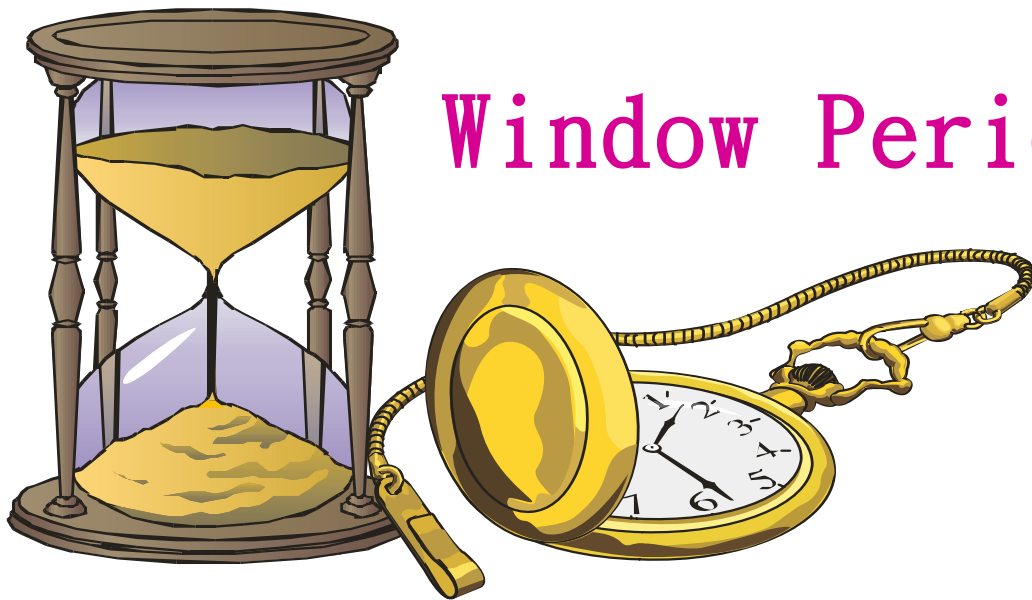
HIV seroconversion illness typically occurs 2 to 6 weeks after infection. Common symptoms are :-

- fever
- swollen lymph nodes
- sore throat
- skin rash
- ulcers in mouth



HIV antibody test

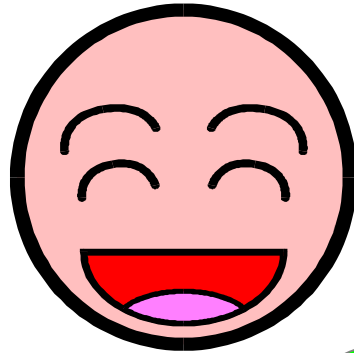
HIV antibody test should be performed **3 months** after the suspected contact



“Window Period” refers to the 3 months period after the infection when the body have not yet produced enough antibodies to be detected by the test.

HIV antibody test

➤ Negative Result



-ve

- Not infected by HIV
- If the test was done within the window period, to recheck 3 months after the exposure is recommended.

HIV antibody test

➤ Positive Result



+ve

- You are infected with HIV
- The antibodies are not protective in nature
- You should take precautions against spreading the infection
- Without specific HIV treatment, about 50% of the infected people will develop into AIDS within 10 years time

Types of hepatitis

Non-infectious



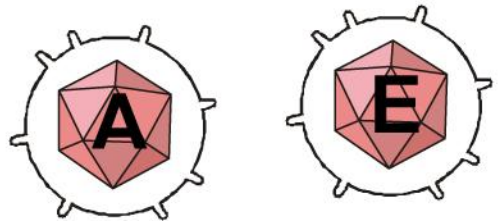
Toxin or drug
related hepatitis



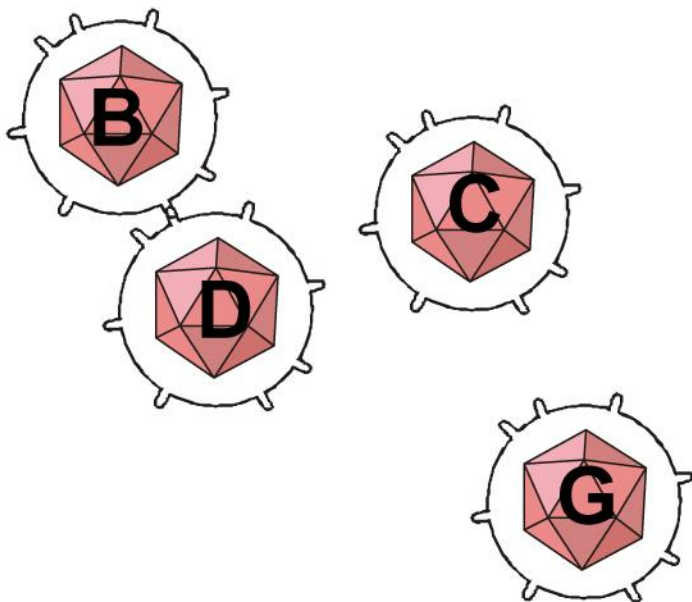
Alcoholic liver disease

Infectious

Viral hepatitis
Oral–faecal route



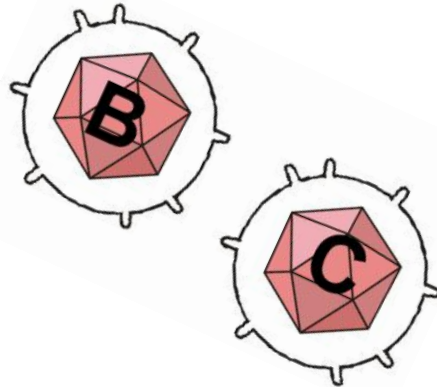
Blood-borne



Risk of viral hepatitis infection after needlestick injury[#]

Hepatitis B

- ◆ About half of the adult population above 40 years of age have been infected with HBV, 8% of the population are carriers
- ◆ Risk of contracting HBV infection in health care setting through occupational exposure ranges from 18% to 30%



Hepatitis C

- HCV is not transmitted as efficiently as HBV
- Estimated risk of contracting hepatitis C in health care setting through NSI involving HCV-infected blood is 1.8% (0-7%)

[#] Recommendations on the Postexposure Management and Prophylaxis of Needlestick Injury or Mucosal Contact to HBV, HCV and HIV – Sep 2007 (page 2 & 3) Scientific Committee on AIDS and STI (SCAS), and Infection Control Branch, Centre for Health Protection Department of Health

Result of Hepatitis B Antigen & Antibody Test

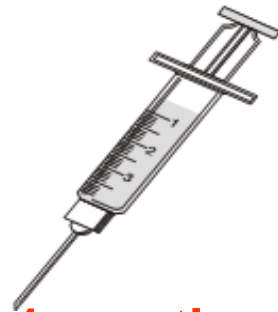
Hepatitis B antigen	Hepatitis B antibody	Hepatitis B vaccination	Interpretation
Negative (-)	Negative (-)	May consider	Not infected by hepatitis B virus
Negative (-)	Positive (+)	No need	Acquired immunization against hepatitis B virus
Positive (+)	Negative (-)	No need	You are infected with hepatitis B virus

Post-exposure Prophylaxis Against HBV Infection

Hepatitis B Immunoglobulin



A&E department



1 month

Hepatitis B Vaccine



post exposure



0



1



6 months

Symptoms of Hepatitis



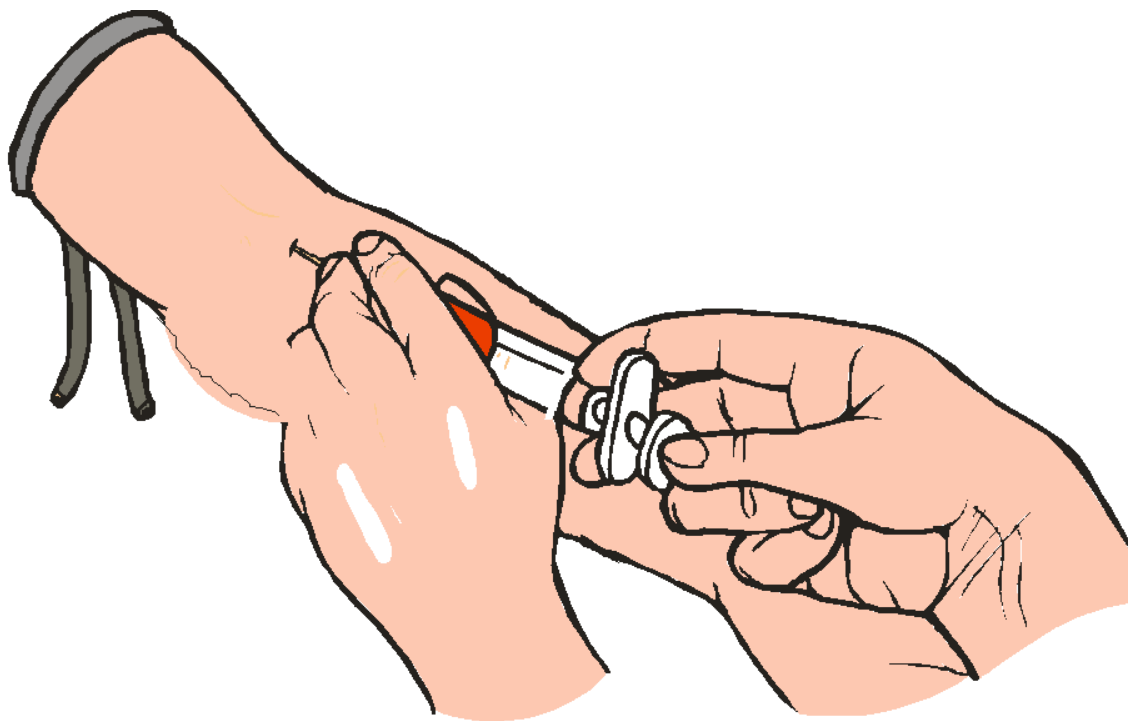
- mild fever
- profound malaise
- muscle pain
- headache
- anorexia
- nausea & vomiting



- tea coloured urine
- jaundice



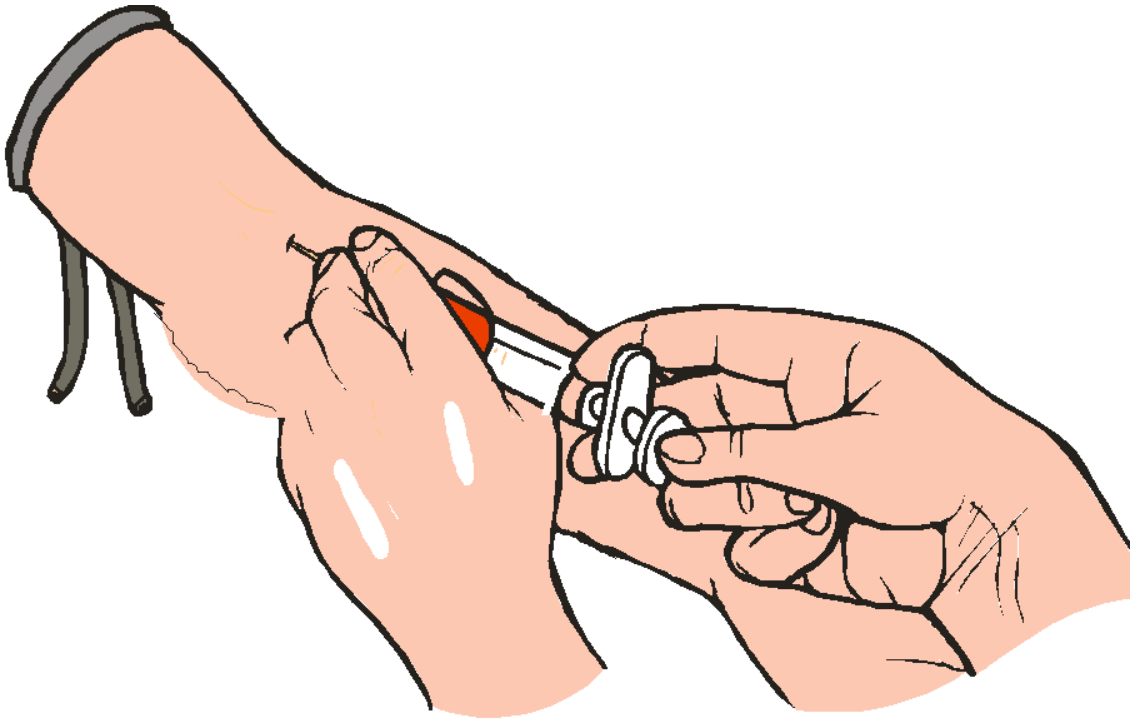
Baseline blood taking



- HIVAb
- HBsAg & HBsAb
- \pm AntiHCV

***repeat after the window period**

Follow Up Schedule

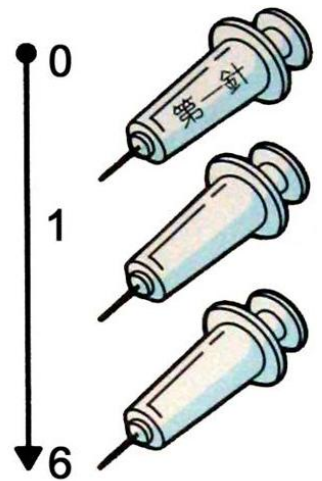


- HIVAb
- \pm HBsAg & HBsAb
- \pm AntiHCV

Preventive Measures

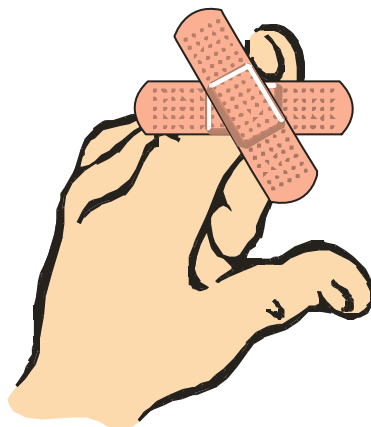


Practice safer sex & proper use of condom



month

Hepatitis B vaccination



**Cover wound
with dressing**

Do not donate blood, semen & organs

Preventive Measures

Items contaminated with blood should be disinfected with **bleach**



Put on **gloves** whenever you come in contact with blood & body fluid

Do not share of personal items which have high risk of blood contamination, such as toothbrush, razor and nail scissors etc.



Avoid acupuncture & tattoo