

# HIV Screening of Health Care Workers

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- Risks of occupational transmission from ***PATIENT to HEALTH CARE WORKER***
- Transmission of Infected ***HEALTH CARE WORKER to PATIENT***

# What is the risk of occupational transmission of blood borne pathogen from **patients to workers?**

Source	Risk/exposure with sharps injury
HIV	0.3%
HBV      HBsAg HBeAg	1-6%* 22-31%* *unvaccinated HCW
HCV	1.9%

- Percutaneous or needlestick injury: factors include deep injury, device visibly contaminated with source patient's blood, procedures involving a needle placed directly in the patient's vein or artery and a source patient who died from advanced HIV infection
- Mucocutaneous: insufficient data to quantify risk but risk is less than needlestick injury
- Aerosol : NO EVIDENCE OF RISK

## What is the risk of transmission of an **HIV** **infected health care worker to patients?**

- Low and is exceedingly rare
- 2.4 to 24 per million procedures
- 3 reports of possible transmission of HIV from infected HCW performing exposure prone procedures or EPP; in all 3 cases the transmission could not be established with certainty but was deemed plausible

TABLE 9. Retrospective studies of HCWs infected with HIV

Occupation	Authors and reference	No. of patients tested	No. of patients HIV positive	No. of HIV-positive patients linked to HCWs
Family physician	Danila et al. (85)	325	0	
Dentist	Dickinson et al. (92)	900	5	0
Dentist	Jaffe et al. (150)	616	28	0
Surgeon	Mishu et al. (185)	1,279	1	0
Breast surgeon	Rogers et al. (228)	468	2	0
Orthopedic surgeon	von Reyn et al. (271)	1,174	2	0

# What is EPP?

## Exposure Prone Procedure

- The situation in which BBV can be transmitted from a HCW to a patient is limited to EPP.
- EPP: invasive procedures where there is a risk that injury to the HCW may result in the exposure of the patient's open tissues to the blood of the HCW

- Where HCW's gloved hands may be in contact with sharp instruments, needle tips, or sharp tissues such as spicules of bone or teeth inside a patient's body cavity, wound or confined anatomical space where the hands or fingertips may not be completely visible at all times.



# Not considered EPP

- Procedures where the hands and fingertips of the HCWs are visible and outside the patient's body at all times and procedures where there is no possible injury to the worker's gloved hands, provided routine precautions are followed are NOT considered EPP.
- Venipuncture, setting and maintaining IV lines, minor surface suturing, incision of abscess, uncomplicated endoscopies

# “Should I get tested for HIV?”

- Regardless of professional background, it's important to know one's HIV status, why??

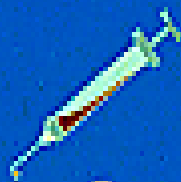
# TRANSMISSION OF HIV

## KNOWN ROUTES OF TRANSMISSION

Sex



Blood, blood products  
and other body  
components



Mother to child



## NO EVIDENCE FOR TRANSMISSION

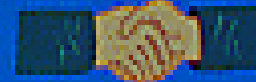
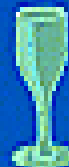
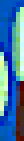
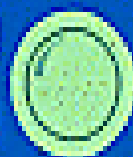
Tears



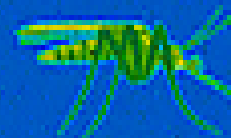
Saliva



Normal social contact



Insect vectors



- Those who are HIV negative should take steps to make sure they are negative
- Those infected, current antiretroviral treatment can greatly improve health and prolong life
- Also if one is HIV positive, one can take precautions to protect one's partner

- All HCWs are ethically obligated to minimize the risk of, if not to avoid, bringing harm to their patients, thus if they believe they have been exposed to infection with HIV, they should be tested
- If tests show they are positive, it will allow them to take reasonable measures to avoid subjecting patients to the risk of infection particularly if the scope of work is described above (EPP)
- Balance with medical confidentiality
- **Mandatory testing of ALL HCW is not recommended.**
- HIV testing of HCWs should be performed on a voluntary basis with appropriate pre and post test counseling

- To ensure confidentiality, employers are encouraged to engage a specific team or doctor to undertake the HIV testing process of their employees who wish to be voluntarily tested
- The health care policy of an institution pertaining to HIV testing and the HIV test itself should be made available and easily accessible to its employees
- It is vital to ensure confidentiality so that HCWs can confidently discuss the relevant risk factors and the consequences of the result.
- The test results should be handled exclusively by the designated team or doctor and should not be accessible to the employer

Routine and mandatory pre employment  
screening for HIV of ALL HCWs is not  
recommended

- The doctor who conducts HIV testing on a HCW has the responsibility to ensure confidentiality regardless of the test result (except when disclosure is mandated by the law)
- A HCW who is tested positive should seek medical evaluation and counseling regarding his professional duties, he must not rely on his own assessment of the risk posed to patients.



- Currently there are no anti discriminatory laws in Singapore protecting the HIV infected worker, including HCWs.
- It is generally accepted that employers should not terminate the employment of HCWs on the basis of their HIV status.
- In general, HIV infected HCW should not be disallowed from performing routine patient care

- Any decision to impose restrictions or job reassignment consequent to the knowledge of the HIV infection must be supported by reliable epidemiological data indicating a significant risk of harm to patient, and should be carried out through a fair process without breaching the medical confidentiality of the staff concerned.

- The Singapore National Employers Federation (SNEF) has previously issued the "Guidelines on Managing HIV/AIDS at the Workplace". These guidelines advocate the provision of HIV education at the workplace, as well as provide guidance on the management of HIV-infected workers at the workplace

**Thank You!**