Body Fluid Exposure

Infection risk factors

- Source infection status – ↑risk if: known to be +ve, gay, IVDU, African, or sex worker
- Body fluid type – blood highest risk, lower risk in HIV for semen, vaginal fluid, breast milk. (Negligible risk for tears, saliva or urine)
- Method of transmission – IV>deep IM>SC>superficial>mucosal>intact skin
- Volume of inoculum, high viral load, and presence of active STD also increase risk

Occupational infection risk post-needlestick with needle from an **infected** source is:

- ~0.3% for HIV (NB mucosal splash: 0.1% if blood, <0.1% if non-blood fluid)
  [Cf Non-occupational: anal sex 0.83% (receiver) 0.1% (inserter or vaginal), IVDU 0.67%]
- 3% for HCV & up to 50% become chronic
- 5-40% for HBV (higher end of range if Hep e +ve) & 10% become chronic

Prevention

- Avoid two handed needle recapping
- Sharps disposal bins
- Gloves (reduces inoculum volume by up to 50%)
- Avoidance of risk population, risk-taking behaviours e.g. IVDU

Management

- Triage category 2 (definite HIV exposure) or 3 (uncertain exposure)
- Allow bleeding & wash: soap & water/chlorhexidine 2%, or rinse eyes/mouth with water
- Treat any significant wound/soft tissue injury
- Detailed documentation & follow local protocol
- Obtain Med.Hx, risk factors & blood test consent from source & exposed individuals
  - Source: HIV1,2 Abs, HepC, HepB (HBsAg)
  - Exposed: HIV Abs, HepC, HepB (HBsAg, anti-HBc, anti-HBsAg), LFT, UEC, βhCG
  - Retest at 3mo (all) and 6mo (HepB, HepC)
- Tetanus prophylaxis, post-coital contraception, STD Rx/referral if indicated
- Post exposure prophylaxis if applicable (do not wait for test results)
- Exposed instructions: safe sex for 3mo, avoid preg/BF, don't donate blood, GP r/v if ↑T
- Counselling and follow up with Staff Health/GP

Post-exposure Prophylaxis (PEP)

Hepatitis B

- HBIg 400IU IM within 72hr:
  - If source HBsAg & eAg +ve or unknown, and exposed is anti-HBsAg & HBsAg -ve
- HBV immunisation if never immunised and non-immune

Hepatitis C

- If become anti-HCV +ve & LFTs stay abnormal after 3mo refer for ?interferon

HIV

- If exposed HIV –ve:
  - PEP recommended: if source +ve/↑HIV risk and percutaneous inoculation of blood
  - PEP offered: Percutaneous inoculation of other at-risk body fluid, or blood exposure to mucosa or broken skin, whatever source HIV status.
  - PEP not offered: percutaneous/mucosa/skin exposure to tears, saliva or urine.
- PEP=**zidovudine**+**lamivudine** x 4wk ± **indinavir** or **nevirapine** if high risk. Best started <1hr (up to 72hr). Full course often not tolerated (**SE:** nausea, headache, rash, fatigue).