

Table 3 - HIV Transmission risk by exposure type

Exposure		Risk per exposure (unless otherwise stated)
Needlestick	Healthcare setting, source patient (serology) known	0.1-0.36% [12, 18, 225]. Increased risk if large gauge needle, hollow needle, deep injury, visible blood on the device, needle was in patient's artery/vein, or if the source patient has AIDS (or terminal illness).
	Healthcare setting, source patient unknown or unable to test source	Risk assessment required of the type of injury and the likely infection status of the source.
	Community needlestick	Overall low risk and requires a risk assessment of the type of injury, location of the discarded needle (for example if discarded in a location where PWID are known to inject), likely age of the discarded needle and the background prevalence of HIV in the local population.
Mucous membrane exposure to blood		0.09% [225].
Intact skin exposure to blood		No risk [18].
Human bite		Very low risk [45]. Risk assessment required. Only risk if blood in the mouth of the biter, and significant injury. No risk if no blood in mouth of biter, and exposure to saliva only. Case report suggests that if source co-infected with HCV, HCV transmission more likely than HIV transmission [120].
Sexual exposure	Heterosexual exposure (general)	If source on antiretroviral therapy with suppressed viral load transmission rate = 0 (if viral load < 400 copies/ml) [41]. Increased risk if source patient has recently seroconverted, e.g. within 2.5 months of seroconversion risk of transmission is estimated to be 0.0082/coital act (95% CI 0.0039-0.015) [25].
	Receptive vaginal intercourse	Overall risk is 1 in 1000, which is increased in the presence of cervical ectopy, genital tract trauma, menstruation, genital ulcerative disease (in either partner), infectious syphilis and pregnancy [20]. Male circumcision reduces HIV acquisition [25].
	Insertive vaginal intercourse	Overall risk is 1 in 1219 [20].
	MSM unprotected receptive anal intercourse	Overall risk is 1 in 90, increased risk if there is ejaculation within the rectum [20]. The PARTNER study has demonstrated zero transmissions in HIV serodiscordant couples where the individual living with HIV is on effective antiretroviral therapy [30].
	MSM unprotected insertive anal intercourse	Overall risk is 1 in 666 [20]. The PARTNER study has demonstrated zero transmissions in HIV serodiscordant couples where the individual living with HIV is on effective antiretroviral therapy [30].

	Orogenital contact	Overall very low risk, estimated to be <1 in 10,000 for both receptive and insertive oral sex [20].
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Remember

- There are only 5 reported cases of confirmed HIV transmission from a patient to a healthcare worker in the UK [225].
- There have been no such transmissions between 2004 and 2013, in the UK [19].