

Anatomical sites of infection: behavioural considerations for STI prevention.

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Many industrialised countries have witnessed a broadening of sexual repertoires, including increases in reported heterosexual oral, and in particular, anal sex, and same-sex behaviour in women, while among MSM, oral sex remains more prevalent than anal sex. Condoms, when used correctly, are highly-effective in preventing STI transmission through penetrative sex, yet their use remains suboptimal. For MSM, this may partly reflect the effectiveness of biomedical interventions for HIV such as treatment as prevention and pre-exposure prophylaxis. For heterosexuals, pregnancy prevention often trumps STI concerns, with more reliable and less intrusive contraception used for vaginal sex, while condoms are seldom used for heterosexual anal sex, or oral sex regardless of gender.

Given these behavioural trends, it is unsurprising that a large proportion of STI transmission is thought to occur extra-genitally. Among MSM attending US sexual health clinics, more than half of GC/CT infections were not in the urethra, and most MSM with extra-genital GC/CT infections did not have concurrent urethral infections. Extra-genital infections are more often asymptomatic, a potential reservoir for transmission, and undetected antibiotic resistant strains may spread resistance. STI prevention efforts must therefore include targeting extra-genital infections.

Efforts to change sexual practice, e.g. promoting condom use for oral sex and/or sexual positioning, are unlikely to have significant impacts, but opportunities exist beyond the bedroom. Raising public awareness about the potential for, and consequences of, extra-genital infection may encourage disclosing sexual behaviour to clinicians and appropriate site-specific testing. Educating clinicians - especially non-specialists - about the importance of asking all patients about their sexual practices and testing for extra-genital STIs accordingly may also be helpful. Such endeavours could result in the greater detection of extra-genital infections but cost-effective strategies need determining. As such, a multifaceted approach including evidence-based behavioural and biomedical interventions is likely to yield the greatest health gains.

300/300 words permitted