

data to support a role for acquisition of BVAB and how this process might differ among subsets of women.

S16.3 RECURRENT TV: THE POTENTIAL OF MOLECULAR TECHNIQUES TO IMPROVE CLINICAL PRACTISE

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Infection with the widespread protozoan pathogen *Trichomonas vaginalis* (TV) does not result in lasting immunity, and recurrent infections are common. Whether due to unrecognised, inadequately treated or repeatedly acquired TV infections, recurrent vaginitis in women, nongonococcal urethritis and chronic prostatitis in men are well-recognised and challenging clinical conditions. Despite increased recognition in the STI research community of the adverse consequences of trichomoniasis in women and men and the potential for TV infection to increase transmission of HIV and other STIs, *T. vaginalis* infection remains underappreciated by clinicians, public health professionals, policy makers and patients. Trichomoniasis is not a reportable STI in most countries, and TV infection is often asymptomatic, thus many infections are neither diagnosed nor treated. Symptomatic infection in women is the clinical presentation most likely to be recognised and treated, but treatment of male sexual partners of infected women is infrequent or inadequate, and testing and treatment of trichomoniasis in male patients is rare. Thus, reservoirs of infection persist.

Recent improvements in molecular diagnostics for detection of TV in women and men have the potential to improve clinical practise. Rapid antigen detection tests offer point of care testing and improved treatment options in settings where technically complex and costly nucleic acid amplification tests (NAATs) are not available, and NAATs offer highly sensitive and specific testing options for detection of TV in urogenital specimens commonly tested for other sexually transmitted pathogens including *N. gonorrhoeae* and *C. trachomatis*. With enhanced awareness, availability and application of these molecular tests, better detection and treatment of trichomoniasis in women and in their sexual partners can be achieved with eventual reduction of the adverse reproductive consequences associated with *T. vaginalis* infection.

S16.4 LYMPHOGRANULOMA VENEREUM IN MEN WHO HAVE SEX WITH MEN. AN ONGOING EPIDEMIC SINCE 10 YEARS, BUT STILL NOT TACKLED

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LGV is endemic in large parts of the tropics. Since 2003 anorectal LGV is also endemic among Men who have Sex with Men (MSM) throughout the industrialised world. Currently we see an increase in de incidence of LGV cases among MSM in Amsterdam. Occasional cases of heterosexual LGV are usually imported from endemic countries.

LGV is caused by *Chlamydia trachomatis* (Ct) biovar L. Compared to non-L biovar infections, LGV has a completely different clinical picture characterised by an invasive, lymph destructive and fibrosing inflammatory reaction. The majority of MSM with LGV are HIV co-infected (up to to 85%), and a considerable portion is hepatitis C co-infected.

LGV requires extensive treatment in contrast to non-L Ct infections, thus correct biovar identification is clinically relevant. Routinely LGV is excluded in Ct positive anal, ulcer, and bubo samples. Urethral LGV is not screened routinely. The vast majority of reported LGV cases comprise anorectal infections. Infections

residing at other locations than the rectum could form an undiagnosed and undertreated reservoir contributing to ongoing LGV transmission. We recently found concurrent urethral LGV infections in 2.1% of MSM with anorectal LGV. Moreover, 6.8% of the partners of anorectal LGV cases had a urethral LGV infection. This shows that urethral LGV is common, probably key in transmission, and missed in current routine LGV screening algorithms.

In European MSM the majority of LGV infections is caused by biovar L2b (Amsterdam variant). Based on clonal relatedness of prevalent LGV strains, there is evidence that the LGV epidemic among MSM prevailed already in the United States in the 1980s and was introduced into Europe by the end of the last century via the highly internationalised network of sexual contacts among MSM. A new LGV variant was unveiled and designated L2c.

S16.5 MANAGEMENT OF SYPHILIS IN PREGNANCY

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There are a number of clinical challenges that are specific to managing syphilis in pregnancy: Which women have the highest risk of adverse pregnancy outcome and is there anything extra we should do for them? What effect does the timing of treatment have on the pregnancy? What is the best treatment and should this be modified in the presence of HIV? What effect does the Jarisch-Herxheimer reaction have on pregnancy? What rate of adverse pregnancy outcome can be expected following successful treatment? Should all babies be treated at birth and how should the baby be monitored?

Early stage maternal infection and higher RPR increase the risk of adverse pregnancy outcome. Treatment in the third trimester is also associated with poorer outcomes. Parenteral penicillin G is the only recommended therapy for treatment of syphilis during pregnancy, and the lack of effective alternatives is why desensitisation is recommended in those who report a penicillin allergy. However, a meta-analysis concluded there is insufficient evidence to determine an optimal penicillin regimen. Adequate treatment in pregnancy significantly reduces adverse pregnancy outcomes (APOs) and congenital syphilis but APOs are still reported probably due to placental damage and effects of the fetal immune response. Some guidelines recommend treating all infants born to positive women whether or not the mother was adequately treated in pregnancy whereas others suggest this is probably not necessary. All recommend examination and serological testing of the babies every 3 months until the test/s become nonreactive.

This presentation will look at the evidence base, and the recommendations in different national guidelines, to try to provide answers to these questions.

YI - American Sexually Transmitted Diseases Association – Young Investigators Symposium: research in progress: Highlights from the American STD association developmental awards programme

YI.1 CONDOM USE & PLEASURE IN A SAMPLE OF YMSM: A CONCEPTUAL FRAMEWORK

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Purpose Little research addresses sexual pleasure in young men who have sex with men (YMSM). In this qualitative study, we developed a sexual health focused conceptual framework to explore relationships that emerged between condom use and sexual pleasure in sexual relationships among a sample of gay, bisexual, and transgender males. **Methods** 30 YMSM (ages 18–24 years) were recruited (through advertisements on social networking sites, participant referrals, and flyers posted at local venues frequented by YMSM) to complete a 90-minute, semi-structured interview seeking to better understand partner-seeking behaviours of YMSM. Interviews were transcribed verbatim. Analysis used inductive open coding such that emergent concepts were connected across interviews and major themes identified.

Results Median age was 22 years old ($M = 21.96$; $SD = 1.75$). Most ($N = 18$, 60%) of participants self-identified as White, and gay ($N = 22$, 73%). Over 90% ($N = 28$) reported having had sex with someone met on a dating website in the past 3 months. Five (17%) participants reported being HIV-positive and 12 (40%) reported a prior history of a sexually transmitted infection. Emotional effects (such as connectedness with others) and physical effects (loss of sensation and erectile difficulties) mediated the relationship between pleasure and condom use during insertive penile-anal intercourse. Specific characteristics of sexual events (e.g., use of lubricant), relationship with the partner, and of the specific sex act (including sexual position) moderated the relationship, with pleasure and satisfaction greater during receptive anal sex without a condom with emotionally intimate or regular partners.

Conclusions Our findings suggest that relationship between sexual pleasure and condom use may be mediated by both emotional and sexual factors. Prevention work with YMSM need to acknowledge the centrality of pleasure in sexual health and focus on modifiable factors that may impact pleasure among YMSM.

YI.2 TEENS, THE INTERNET, AND STD RISK: FINDINGS AND LESSONS LEARNED FROM THE COMMUNICATION, HEALTH, AND TEENS (CH@T) STUDY

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Background Few studies have examined the association between sexual health risks and online sex seeking among teenagers. The purpose of this study was to assess the associations between meeting sex partners online and a range of sexual risk behaviours and outcomes among adolescents.

Methods Participants aged 13–19 years were recruited from a publicly funded teen clinic in Florida. After obtaining informed consent/assent, 273 participants completed an audio computer-assisted self-interview (ACASI) that included questions on demographics, sexual behaviour, STD history, and online sex-seeking behaviours and experiences. Participants also provided urine samples for chlamydia and gonorrhoea testing. Data were analysed using logistic regression to identify the association between having an online sex partner and sexual behaviours/outcomes.

Results After adjusting for significant bivariate correlates, teens reporting online sex partners were more likely to be male, be multiracial, have a history of same-sex sexual activity, report a higher number of vaginal sex partners, and report a lower age at first vaginal sex. However, teens with online sex partners were no more likely to have ever had an STD or a current biological STD.

Conclusion This study is one of the first to link biological STD results to online sex-seeking data in a youth population. While meeting a sex partner online was not associated with past or current STDs, it was associated with other sexual risk behaviours. Future research is needed to examine the complex nature of online

sexual partnering among adolescents and to develop intervention approaches. In-depth qualitative interviews, currently being conducted with teens, are exploring the process and context of meeting partners online. These interview data will also be discussed in light of the ACASI and biological STD data findings.

YI.3 SEXUALLY TRANSMITTED INFECTIONS (STIS) VARY AMONG AFRICAN AMERICAN WOMEN WHO HAVE SEX WITH WOMEN BASED ON EXPOSURE TO MALE SEXUAL PARTNERS

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Introduction Little is known about partner characteristics or rates of STIs among African American women who have sex with women (AAWSW).

Methods African American women aged ≥ 16 years attending a Health Department STD clinic were enrolled in this ongoing study if they reported sexual activity with a female partner during the preceding year. Participants completed a study questionnaire and were tested for curable (trichomoniasis, Chlamydia, gonorrhoea, and syphilis) and non-curable (HSV-2, HIV) STIs.

Results Of 128 participants reporting female partners during the preceding year, 52% (67/128) also reported sex with men during the same interval (WSWM). WSW and WSWM did not differ with regards to age, lifetime number of female partners, or number of female partners during the preceding year. WSWM reported increased numbers of lifetime male partners compared to WSW ($p = 0.01$). During the 30 days preceding enrollment, WSWM reported a median of 2 sexual partners (interquartile (IQR) range 0–4) while WSW reported a median of 1 sexual partner (IQR 0–2). WSWM were significantly more likely than WSW to report new or casual female partners within 30 days preceding enrollment (46% vs. 28%; $p = 0.03$) while WSW were more likely to report regular female partners (75% vs. 34%; $p = 0.01$). Additionally, 39% (26/67) of WSWM reported new or casual male partners within 30 days preceding enrollment. Although not statistically significant, diagnosis of all curable STIs (trichomoniasis, Chlamydia, gonorrhoea, and syphilis) was more common among WSWM than WSW (30% vs. 16%; $p = 0.07$). Similarly, seropositivity for HIV and HSV-2 was more than twice as common among WSWM as WSW.

Conclusions AAWSW in this study were at high risk for STIs. AAWSWM, as a subgroup, may demonstrate heightened STI rates compared to exclusive AAWSW, perhaps influenced by partnership characteristics. Sexual health services for AAWSW should take into account partner gender heterogeneity when screening for STIs.

YI.4 GONOCOCCAL GENOMICS SHOWS IMPACT OF RECOMBINATION ON OBSCURING PHYLOGENETIC SIGNAL AND DISSEMINATING RESISTANCE LOCI

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Background Recombination plays a significant role in the plasticity of the *Neisseria gonorrhoeae* genome by generating antigenic diversity and as a mechanism of spread of antibiotic resistance elements.