the early months of the pandemic to later months of 2020, more participants are resuming in-person sex, and willingness to have sex with new partners also rose.

P212 STANDARDISING PHARYNGEAL SAMPLING FOR CLINICIAN-TAKEN GONORRHOEA CULTURE SPECIMENS

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Introduction The pharynx is an important site with respect to transmission and development of antimicrobial resistance (AMR) to gonorrhoea particularly in men who have sex with men. Maintaining culture-based sensitivity testing is important as part of wider efforts to prevent transmission of high level AMR strains of gonorrhoea. The sensitivity of gonorrhoea culture at the pharynx is low and is dependent on several factors including sampling technique by clinicians. There is no consensus on the length of time taken to sample the pharynx for culture. We aimed to explore knowledge of pharyngeal sampling among sexual health clinicians to gain a consensus on optimal time for pharyngeal sampling for gonorrhoea culture specimens.

Method An online anonymous survey was sent to clinicians in our local sexual health network. We included pictorial diagrams of the pharynx and asked clinicians which sites in the pharynx they sample and to estimate how long for when taking gonorrhoea culture specimens.

Result 110 clinicians responded to the survey of whom 98 regularly take pharyngeal gonorrhoea cultures specimens: 54 (55%) had more than 10-years of experience in sexual health. 82(84%) sample the tonsils, 75(77%) sample the posterior pharyngeal wall and 94(96%) sample either the tonsils or the posterior pharyngeal wall. 30(31%) always attempt to elicit the gag reflex and 52(53%) do not. The average time taken sampling the pharynx was 4.63(SD±2.04) seconds. There was no significant difference in time taken to sample the pharynx according to years of experience (4.7(SD±2.02)v4.6(SD±2.3), p=0.45).

Conclusion Experienced sexual health clinicians are mostly appropriately sampling the tonsils and posterior pharyngeal wall for gonorrhoea culture specimens, and the median time taken to sample the pharynx was 4.63 seconds. Standardisation of pharyngeal sampling for the pharynx for gonorrhoea culture specimens could improve the sensitivity of culture and educational tools for clinic staff to support this are needed.

P213 IDENTIFICATION OF TRICHOMONAS VAGINALIS 5-NITROIMIDAZOLE RESISTANCE TARGETS TO INFORM FUTURE DRUG DEVELOPMENT

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Background *Trichomonas vaginalis* is the most common non-viral sexually transmitted infection. 5-nitroimidazoles (i.e.,

metronidazole [MTZ] and tinidazole) are the only FDA-approved medications. Resistance to 5-nitroimidazoles has been observed in 5–10% of cases, but may be rising. MTZ was first introduced in the early 1960s to treat *T. vaginalis* infections, and resistance to MTZ developed rapidly within a couple of years. This observation suggests that the potential for MTZ resistance is likely encoded in the genome of *T. vaginalis*. We aimed to analyze gene-expression patterns of MTZ-resistant and MTZ-sensitive *T. vaginalis* isolates to gain insight into resistance mechanisms.

Methods *T. vaginalis* isolates (4 MTZ-resistant [minimal lethal concentration; MLC > 50µg/ml] and 4 MTZ-sensitive [MLC < 25µg/ml]) were grown in triplicate in Diamond's TYM medium. MTZ susceptibility testing confirmed MTZ MLCs of *T. vaginalis* isolates. RNA sequencing (RNAseq) and bioinformatics analyses were used to identify differentially expressed genes (DEGs) in MTZ-resistant vs. sensitive isolates. Subsequent qPCR was used to confirm and extend RNAseq data and gene targets related to 5-nitroimidazole resistance.

Results RNAseq identified DEGs in MTZ-resistant vs. sensitive isolates. DEGs from MTZ-resistant isolates included those involved in metabolic pathways relevant to 5-nitroimidazole resistance such as energy production, drug activation, and oxygen-scavenging. Other DEGs included those encoding transcription factors, ribosomal proteins, and other metabolic enzymes. RT-qPCR experiments confirmed reduced expression of genes encoding ferredoxin (Fdx) and flavin reductase 1 (FR1) in MTZ-resistant *T. vaginalis* isolates as compared to MTZ-sensitive isolates.

Conclusion In this study, we identified several DEGs in *T. vaginalis* isolates resistant to MTZ. Further studies with large number of isolates representing a broad range of MTZ-susceptibility patterns are needed to identify genes that may represent new targets for future drug development.

P215 EFFECTIVENESS OF COMMUNITY-BASED HEALTH PROMOTION CAMPAIGN METHODS ON CHLAMYDIA SCREENING UPTAKE IN YOUNG PEOPLE: A MIXED-METHODS SYSTEMATIC REVIEW

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Background The UK National Chlamydia Screening Programme uses an opportunistic approach. Many programmes use campaigns to raise awareness of chlamydia screening in young people. This review aimed to assess the effectiveness of campaigns on uptake of chlamydia screening in young people.

Methods We conducted a mixed-methods systematic review of articles assessing the outcomes of community-based health-promotion campaigns to increase chlamydia screening in young people, their experiences of the campaigns and other facilitators and barriers to the conduct of the campaigns. We searched 4 databases for quantitative and qualitative studies with no language restrictions.

Main Results From screening 10,329 records, 100 full text articles assessed in detail leading to 20 studies included in the review; 14 quantitative, 2 qualitative and 3 mixed-methods. All studies with quantitative outcomes were before-after study designs or interrupted time series. Relative change