

P389 DETECTION OF TREPONEMAL TP47 AND TP0548 GENES IN LESION SWABS FROM SYPHILIS PATIENTS

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Background Typical syphilis ulceration (chancre) can appear at the site of sexual contact during primary syphilis, and this lesion can be swabbed for detection of *Treponema pallidum* DNA. Two well-known gene targets for syphilis detection are tp47 and pol A with sensitivities between 60–70%. The use of *T. pallidum* PCR in primary and secondary syphilis diagnosis and confirmation are recommended in European and CDC guidelines respectively. We evaluated tp47 and tp0548 as molecular screening targets; either target, if present, would indicate the presence of *T. pallidum* in the sample.

Methods Participants with syphilis clinical diagnosis were enrolled in a cohort study in Peru in 2019 and 2020. All participants were clinically examined to determine the presence of lesions. Lesion exudate was collected with a dacron swab and stored in a vial with 500ul of lysis buffer. *T. pallidum* DNA was extracted and tested using specific primers in conventional polymerase chain reaction (PCR) to amplify tp47 and tp0548 target genes.

Results Overall, 61/162 participants presented with lesions, and 27 (43.5%) of them had *T. pallidum* DNA detected by either tp47 or tp0548 targets. The frequency of finding both targets in the same sample was 15/27 (55.6%). Only 1 sample was positive for tp47 but negative for tp0548, while 34 samples were negative for both *T. pallidum* targets. Additionally, only tp0548 was detected in 11 samples. We found tp47 in 16/61 (26.2%) samples and tp0548 in 26/61 (42.6%) samples. Adding the tp0548 screening target, increased the detection of *T. pallidum* by 69%.

Conclusion tp0548 may help as a screening target to increase the detection of *T. pallidum* in lesions. Thus both markers are necessary to increase sensitivity of detection *T. pallidum* DNA in lesions.

P392 SEXUALLY TRANSMITTED INFECTIONS IN GOMBE, NORTH-EASTERN NIGERIA

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Background Sexually Transmitted Infections (STIs) have remained major sources of social and public health concern globally with worsening indices in developing countries and especially linked to the growing menace of antimicrobial resistance and poor infection prevention and control (IPC) measures. Diagnosis and treatment of STIs in low resource settings is still sub-optimal due to limited availability and or poor laboratory support with dearth of expertise in relevant disciplines. Many sexually transmitted pathogens are either fastidious or atypical thereby making their detection/identification more demanding. Establishment of special treatment clinics

which are primarily concerned with managing STIs have been practiced with great successes across different parts of Nigeria. We for the first time present the pattern of STIs among patients attending the Special Treatment Clinic (STC) in Federal Teaching Hospital Gombe (FTHG) Nigeria.

Methods This was a hospital based cross sectional study in which sociodemographic and clinical/laboratory findings of 422 patients who presented at the STC of FTHG between 2015 and 2020 were analysed. The STC in FTHG is primarily concerned with management of STIs with in-built consulting/treatment room, side laboratory and records subunits.

Results Of the 422 patients, majority are married (73.7%) and predominantly within the sexually active age group of 21–40 years (80.7%). Female patients are more (62.3%) than males and vaginal discharge is their most common (76.7%) clinical presentation. Most common diagnoses among the patients are vulvovaginal/perineal candidiasis (24.9%) and bacterial vaginosis (19.9). Others include genital ulcer disease; GUD (12.9%), non-gonococcal urethritis; NGU (12.9%), genital warts (9.6%) and gonococcal urethritis/cervicitis (5.0%).

Conclusion Vulvovaginal/perineal candidiasis and bacterial vaginosis are the most common diagnoses at the STC in Gombe Nigeria. The STC provides a convenient and effective avenue for the management of genital tract infections while hoping for expansion and improvement for better patient care and satisfaction.

P393 FACTORS ASSOCIATED WITH INTEREST IN BACTERIAL SEXUALLY TRANSMITTED INFECTION VACCINES AMONG YOUNG HPV-VACCINATED CANADIAN WOMEN

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Background Rates of bacterial sexually transmitted infections (STIs) are increasing globally, and these infections result in a large global burden of detrimental sexual, reproductive, and maternal-child health outcomes. Currently, the only prophylactic vaccines available against STIs are those for human papillomavirus (HPV) and hepatitis B. The objective of this study was to plan for future programme implementation by exploring acceptability, perceived barriers, and attitudes towards bacterial STI vaccines among young HPV-vaccinated Canadian women.

Methods A 20-item questionnaire was available from 06/2019–06/2020 to participants of the Canadian Quadrivalent HPV Vaccine Evaluation Study (QUEST). Multivariable logistic regression models assessed interest in chlamydia, syphilis, and gonorrhoea vaccines using a priori clinically relevant variables and covariates significant at $p \leq 0.05$ in bivariate analysis.

Results Surveys from 1092 respondents were analyzed, with 82% indicating interest in receiving one or more STI vaccines. 75% of respondents identified as white/European descent, with a median age of 19.6 years (range 17.5–23.0). In adjusted analyses, intent to engage in positive health behaviors was associated with vaccine interest for syphilis