ACCURACY OF SEXUALLY TRANSMITTED INFECTIONS TESTING ON SELF-COLLECTED VAGINAL SAMPLES VERSUS CERVICAL SAMPLES

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Background: Self-sampling has been shown to be a non-invasive and cost-effective method for the diagnosis and screening of sexually transmitted infections (STI). This study aims to evaluate the accuracy of detection of HPV and other STIs on self-collected vaginal samples as compared to clinician-collected cervical samples in women with a recent diagnosis of cervical dysplasia.

Methods: Self-collected vaginal (VS) and physician-administered cervical samples (CS) were collected from 130 women attending the Colposcopy Clinic, San Gerardo Hospital, Monza, Italy with a diagnosis of cervical dysplasia. VS and CS were collected using FLOQSwabs and L-Shaped FLOQSwab (Copan) respectively and transported to the Microbiology Laboratory of the University of Milano-Bicocca. Samples' nucleic acid extraction was performed using NucliSENS®easyMAG (bioMérieux). HPV and STIs detection was evaluated using Anyplex II HPV28 and STI-7 (Seegene), respectively. Sample cellularity adequacy through human CCR5 gene assessment was performed using an 'in house' Real-time PCR assay.

Results: Demonstrated a very good overall concordance for HPV and STI detection on self and clinician-collected samples (gold standard). Very good agreement for the detection of one or more HPV types was demonstrated (Kappa = 0.915) with HPV positivity rates of 75% and 72% for VS and CS respectively. Similarly very good agreement was demonstrated for the detection of one or more of the 7 STIs understudy (Kappa = 0.899). Overall a higher positivity for STIs was found in VS (48%) compared to CS (43%), with Ureaplasma parvum being most frequently detected. Adequate sample cellularity was demonstrated for all samples types; mean values of 2.07E+06 and 3.16E+06 cells/sample for VS and CS respectively.

Conclusion: Self-collected samples showed a high degree of concordance with CS for both HPV and STIs detection with comparable sample adequacy. These results are promising for the introduction of self-collected samples in sexually transmitted and cervical cancer screening programs.

Disclosure: No significant relationships.

DETECTION OF SEXUALLY TRANSMITTED PATHOGENS FROM SEDIMENT OF FIRST-VOID URINE IN PATIENTS FROM GREATER ZAGREB AREA

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Background: First-void urine (FVU) is the preferred specimen for the diagnosis of sexually transmitted (ST) infections in men. The use of the invasive and painful urethral swabs is a major barrier to screening and a key factor in male non-attendance at genitourinary medicine clinics. The aim of this study was detection of ST pathogens from sediment of FVU of 822 men, collected instead of urethral swabs.

Methods: All samples were stained, cultivated and used in multiplex polymerase chain reaction (PCR) test. The number of polymorphonuclear leukocytes (PMNL) was detected by microscopy.

Results: Urethritis was confirmed in only 72/822 (8.76%) patients by detecting a significant number of PMNL in sediment of FVU, and etiologic diagnosis was established in 68/72 men with diagnosed urethritis. Chlamydia trachomatis was detected as the most common cause of urethritis (47.22%), followed by Mycoplasma genitalium (12.50%) and Neisseria gonorrhoeae (9.72%). In patients with nongonococcal urethritis (NGU), M. genitalium was found as the second most common seeking behavior. This study is a Comparative Analysis of Facility Optimization and Community Based HIV Intervention and compares the effect of community HIV testing services (HTS) to HTS optimization at the facility-level.

Methods: This is a pre-and post-intervention study conducted in Eleme, one of the priority LGA supported by the USAID funded Strengthening Integrated Delivery of HIV/AIDS Services (SIDHAS) in Rivers State. The pre-intervention phase (PIP1) covers the period November 2015 – October 2016 while the post intervention phase is from November 2016 – Oct 2017. PIP1 involved community entry/mobilization, HIV screening in general population, referrals and linkage to care and treatment services from the community to the facility, while the PIP2 focused on optimization of HIV testing services within the facilities through multipoint/Provider Initiated Testing and Counselling (PITC), targeted testing in the communities, Sexual Network and Genealogy Testing and referrals by escort to Service Delivery Points. We reviewed HTS and ART commencement data to compare differences in positivity yield and linkage between both phases.

Results: The PIP1 had 107,813 individuals counselled, tested and received result, 1,406 tested HIV Positive and 964 linked to ART while the PIP2 had 24,078 individuals tested, 614 HIV positive and 610 linked to ART. Findings show increase in positivity yield from 1% to 3% and linkage from 87% to 99% in PIP1 and PIP2 respectively.

Conclusion: Although community outreaches create awareness, a targeted approach to HTS including sexual network/genealogy testing may be a more efficient approach. In addition, PITC in health facilities yields a higher positivity and linkage rates, maximizes use of testing resources by focusing on higher risk populations.

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