

STD & HIV/AIDS 2018: Determining the misuse/overuse of antibiotic in non-viral sexually transmitted infections - Subash Chandra Sonkar - Vardhman Mahavir Medical College-Safdarjung Hospital, India University of Delhi, India

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The emergence of multi-drug resistant Sexually Transmitted Infections (STIs) is causing a treatment crisis across the globe. Due to extensive usage of antibiotics in the recent past, infectious agents developed resistance to those antibiotics commonly used for treatment. As results such resistant strains becoming a public health problem in a number of countries including India. Nucleic Acid Amplification Test (NAAT) based methods are able to determine multiple misuse and/or overuse of antibiotics from a single DNA sample. By studying the specific infection causing pathogens (*Chlamydia trachomatis*, *Neisseria gonorrhoeae* and *Trichomonas vaginalis*) that enrolled in the study and recommended treatments using National AIDS Control Organization (NACO) recommended National AIDS Control Program (NACP) guidelines with infection treatments with laboratory measures. Misuse and overuse of antibiotics in 588 syndromically treated women, 46 (7.82%) women tested positive whereas 542 (92.17%) samples were

negative for these three pathogens as determined by PCR based assay. The total estimated percentage of the overuse and misuse of antibiotics in the study were 72.17% and 8.69% respectively. Correct and complete treatment estimated it compared to laboratory measures and NACP was 42/46 (91.30%). The overuse of antibiotics prevalence was estimated azithromycin and cefixime (55.90%), combination of doxycyclin, cefixime and metronidazole (31.18%) and combination of doxycyclin, cefixime, metronidazole, azithromycin (13.65%). Recommendations clearly demonstrate that the prevalence of infections is still significant among female patients visiting obstetrics and gynecology departments. The study underpins the need to conduct diagnostic assays for identification of causative pathogen before implementing antibiotic treatment to patients with vaginal discharge. It also divulges the need to review the use of syndromic case management for controlling sexually transmitted diseases.