

## Poster presentations

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**Background** Sexually Transmitted Infections (STI) are treated and managed in approximately 445 hospitals and 2170 Primary Health Care (PHC) centres in Saudi Arabia. Syndromic approach to STI treatment was introduced in 2010 at all PHCs for strengthening the national HIV programme STI unit.

**Methodology** STI case reporting from PHC and hospitals are to their respective administrative Sectors, then to the Regional Centre, from where it is sent to the STI unit of the National AIDS Program at Riyadh, MOH. The National AIDS Program (STI unit) holds the central registry of all STI cases reported in the Kingdom. Analysis of STI data collected over 3 years (2010–2012) has been carried out.

### Results

1. A total of 116,293 cases have been treated by clinical and syndromic approach at PHC and hospitals in the last 3 years, 85.5% being Saudi nationals. Majority of the STI cases treated are amongst females (85.65%). To a large extent the clinical cases at hospitals are backed by laboratory etiological diagnosis. The incidence of STI is 150 per 100,000 population (0.15%).
2. The total number of STI cases treated has increased since the introduction of syndromic case approach, comprising 68.3% of the total STI cases.
3. The urethral discharges and non-vesicular genital ulcers comprise 29.1% of the total STI (45,260 numbers) cases treated in 2012.

**Conclusion** Urethral discharge and non-vesicular genital ulcers indicate recent infection. Presence of STI is well known to increase the risk of HIV acquisition and transmission by a factor of ten. Treatment of urethral discharge and non-vesicular genital ulcers has thus averted HIV transmission in approximately a third of STI clinic attendees. Introduction of Syndromic approach to STI treatment since 2010 as a national strategy has strengthened STI treatment services even in remote PHCs.

### P3.248 THE EVOLUTION OF SEXUALLY TRANSMITTED INFECTION IN ROMANIA

doi:10.1136/sextans-2013-051184.0704

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**Objective** to analyse the evolution of incidence of some sexually transmitted infections (STI) in Romania in the transition period.

**Methods** The study is based on data recorded at Dermato-venereological Center Bucharest. We had in view to evaluate the evolution of incidence of syphilis, gonorrhoea, *Chl. trachomatis* genital infections and HIV infection/AIDS and to identify the main factors implicated in this evolution.

**Results** In 2011 were recorded 2,209 new cases of syphilis. The incidence of syphilis has risen steadily from 7.1% in 1986 to 19.8% in 1989 and to 58.5% in 2002 and decreased to 10.34% in 2011. The incidence of congenital syphilis was also increasing, from no cases in 1986 to 423 cases in 2001 and (after introduction of new criteria in 2004) decreased to 10 cases in 2011. Paradoxically, the incidence of gonorrhoea is decreasing, from 57.4% in 1986 to 35.7% in 1989 and to 2.46% in 2011 (546 cases). In 2011 133

new cases of *Chl. trachomatis* genital infections were reported (0.62%). Since the outset of epidemic were registered 17,435 cases with HIV infection/AIDS; the prevalence of HIV infection in patients with STI tested at Dermato-venereological Centre Bucharest is around 0.51% (1.59% in 2011).

Those at greatest risk for STD are the young, economically deprived, residents of the inner city. **Comments:** STI are a public health problem of major significance in Romania. Between mains factors that promote the increasing of STI (the incidence of gonorrhoea and *Chl. trachomatis* genital infections is underestimated due the unreference of all cases) are the modification of sexual behaviour, prostitution, degradation of socioeconomic condition, and deficiencies in health behaviour.

### P3.249 FACTORS ASSOCIATED TO SYPHILIS IN PREGNANT WOMEN IN VENTANILLA-CALLAO, PERU

doi:10.1136/sextans-2013-051184.0705

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**Background** One of the main pregnancy complications in Peru is syphilis, a disease with severe complications that can be prevented through early diagnosis and treatment. The objective of this study was to estimate the factors associated with syphilis infection among pregnant women in the district of Ventanilla – Peru in 2012.

**Methods** The Project WawaRed “Getting connected for a better maternal and child health” involved the implementation of an electronic health record (EHR) for maternal health, linked to SMS messages sent to pregnant women and tailored to their health profile and gestational age. A crossover study was performed using data collected via the EHR on 2012. Clinical and laboratory data from pregnant women attending one of 16 different health centres in Ventanilla were analysed. These included test results for a rapid syphilis test carried out in their first antenatal care visit.

**Results** A total of 4915 pregnant women were included. The mean of age and age at first intercourse were 26.0 (95% CI: 25.8–26.2) and 17.3 (95% CI: 17.2–17.4) respectively. The prevalence for syphilis was 1.4 (95% CI: 1.1–1.7) and for HIV was 3.0 (95% CI: 1.4–4.6). There were 2 patients co-infected with HIV and syphilis. The factors analysed were: age, level of education, marital status, number of pregnancies, history of abortion, age at first sexual intercourse and contraceptive methods used. This study showed that pregnant women who use an intrauterine device (PR: 4.9, p = 0.02) as a contraceptive method as opposed to condom were at higher risk for syphilis, while older age at sexual debut was associated to a lower risk for syphilis (PR: 0.88, p < 0.01).

**Conclusion** Delayed sexual debut and condom use are once again identified as forms of preventing STI, and should be important components of family planning programmes.

### P3.250 EARLY DIAGNOSIS OF ACUTE HIV INFECTION IN STI CLINIC PATIENTS AND PATIENTS WITH POSITIVE SYPHILIS SEROLOGY

doi:10.1136/sextans-2013-051184.0706

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**Background** We sought to determine if pooled nucleic acid testing (pNAT) for HIV RNA would identify early HIV infections in stored samples collected in 2008 from Edmonton (Canada) patients who were: (1) Seronegative for HIV antibody (HIVAb-) at the STI clinic, and (2) Seropositive for syphilis (syphAb+) with no history of a positive HIV test.

**Methods** Using data from the Provincial Laboratory and STI clinic, an anonymized dataset with the last HIVAb- (HIVGO1/2, Abbott, AxSym +/- Western Blot) (STI clinic patients) or first syphAb+ (Architect, Abbott +/- RPR & Innolia) was constructed with: (1) All patients: age, gender, date of testing, N. gonorrhoea (NG) and C. trachomatis co-infection within 30 days of HIV/syphilis test, infectious syphilis stage, and HIV testing as of Dec 2010 and (2) STI clinic patients only: syphilis test results within 30 days of their HIVAb- test. Patients remaining HIVAb- > 180 days after the sample receipt date were excluded from HIV pNAT. The remaining samples were divided into SyphAb+ and SyphAb-subsets. Pools of 25 samples were tested using the Roche COBAS AmpliPrep/COBAS Taq-Man HIV-1 Test (pNAT). Positive pools were broken down to identify positive individuals. Percentage calculations were based on patients with pNAT.

**Results** 7954 HIVAb- patients were eligible. Of these, 2237 were retested and were HIVAb- > 180 days; 216 (10%) of this subset were SyphAb+. 5441 (95%) of the remaining patients had samples available for pNAT: 5001 were SyphAb-, 331 were SyphAb+, and 109 had no syphilis testing. Four SyphAb+ patients (0.07% of all, 1.2% of SyphAb+), all seen at STI clinic, had detectable HIV RNA using pNAT; one patient had Early Latent Syphilis and positive NG culture.

**Conclusions** pNAT testing can be used to identify acute HIV infections in high risk populations. Patients with positive syphilis serology may be an important subset for this approach.

#### P3.251 SYPHILIS AND HIV CO-INFECTION IN PATIENTS ATTENDING AN AIDS OUTPATIENT CLINIC IN VITORIA, BRAZIL

doi:10.1136/septrans-2013-051184.0707

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**Background** HIV-positive patients should be regularly screened for syphilis. Detection and treatment of syphilis can help to reduce HIV transmission.

**Objective** Our goal was to determine the prevalence of and associated factors with syphilis in HIV patients attending an AIDS outpatient clinic in Vitoria, Brazil.

**Methods** Cross-sectional study was conducted in HIV/AIDS patients. They were interviewed for demographic, behavioural and clinical characteristics and had blood collected (venipuncture and fingertick) for VDRL and treponemal tests (rapid test) after signing an informed consent.

**Results** A total of 438 patients were included in the study. Over half (55%) of the sample was male, mean age was 43 years ( $SD \pm 11$  years), and mean years of schooling was 8.1 ( $SD \pm 4.2$  years). The prevalence of syphilis was 5.3% (CI 95% 3.3%–7.3%). The treponemal test was positive in 18.9% of participants. Over one third (37.8%) of the male patients reported a history of sex with men (MSM). No women reported homosexual behaviour. More than two-thirds (70%) of the participants reported consistent condom use in the last year; 6.4% were sexworkers and 25.8% were illicit drug users. A total of 72.4% reported having had one sexual partner in the last year. In multivariate analysis, syphilis was associated with male gender [ $OR = 4.57$  (CI 95%: 1.03–20.0)], men who have sex with men [ $OR = 1.78$  (CI 95%: 1.64–4.14)], not on antiretroviral therapy [ $OR = 0.18$  (CI 95% 0.06–0.59)], and history of previously treated syphilis infection [ $OR 5.54$  (CI 95%: 1.95–15.76)].

**Conclusions** Our finding highlights the importance of preventing and promptly treating syphilis in people living with HIV/AIDS. Patients with HIV/AIDS must be screened and monitored annually for early detection of syphilis, to provide early treatment and follow-up to avoid reinfections.

#### P3.252 STI SURVEILLANCE WITHIN THE GENERAL POPULATION AND IN AIDS REFERENCE CENTRES (ARC) IN BELGIUM: CIRCUMSTANCES OF HIV TESTING IN PATIENTS DIAGNOSED WITH AN STI

doi:10.1136/septrans-2013-051184.0708

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**Background** Sentinel STI surveillance with clinicians exists since 2000. STI within HIV patients triggered STI surveillance in ARC, specialised in care of HIV patients and patients at risk. No STI-HIV screening guidelines exist. STI is a driving force for HIV epidemics.

**Methods** STI surveillance registers STI episodes, including questions on HIV serology, HIV testing and risk behaviour. HIV testing circumstances are analysed in both networks.

**Results** In 2011, 744 STI patients were registered by the network of clinicians and 250 STI coinfected HIV patients by the ARC.

HIV testing circumstances are known for 95% of the STI patients from the clinicians network. 51% was tested during STI consultation, 19% were never tested, being postponed, refused or not proposed. The remaining 30% was tested previously of whom 49% was HIV negative and not retested.

Within the clinicians network, HIV serology was reported in 79% of the cases: 21% are HIV positive of whom 14% discovered their seropositivity at STI consultation.

Within the ARC, 7% of the coinfected HIV patients discovered their HIV positivity simultaneously with the STI diagnosis. Among STI patients in the ARC with at first negative/unknown HIV status, 57% was tested for STI-HIV simultaneously: 15% were found HIV positive. 11% of the seronegative STI patients were not retested. For the other 32% of the STI patients, their HIV status remains unknown.

**Conclusions** Surveillance of STI in both networks shows that HIV testing is not always performed during STI consultation, the HIV status may remain unknown and/or patients are not retested. Nevertheless, HIV positivity and STI are regularly found simultaneously.

Knowing the HIV status of STI patients and screening HIV patients for STI is important for reducing HIV-STI transmission. National STI-HIV screening guidelines should be developed and implemented.

Besides screening, condom use remains the most important preventive factor.

#### P3.253 SERO PREVALENCE OF HIV, HEPATITIS B, HEPATITIS C AND SYPHILIS AMONG BLOOD DONORS IN KATHMANDU, NEPAL

doi:10.1136/septrans-2013-051184.0709

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**Background** Mandatory screening tests are performed for human HIV1/2, Hepatitis B and C and Syphilis by blood transfusion centres in Nepal because blood transfusion is the most efficient mode of transmission of these diseases. The study is aimed to determine the sero-prevalence of these four Transfusion transmissible infections.

**Methodology** A cross-sectional retrospective study was conducted at Tribhuvan University teaching Hospital, Maharajgunj during the period from July 1st 2007 to June 30th 2011. Total of 11160 samples from Volunteer and replacement donors were screened for Anti-HIV, Anti-HCV and HBsAg by ELISA methods. The Reactive cases were confirmed by confirmatory method as per the national algorithm.

**Results** The prevalence of HIV, HBV, HCV and syphilis were determined to be 0.17%, 0.44%, 0.71% and 0.35% respectively. HBV and HCV sero-prevalence was found to be higher among male blood donors but, Syphilis and HIV prevalence was higher in female