

LB3.258 RATES OF PELVIC INFLAMMATORY DISEASE AND ECTOPIC PREGNANCY ARE NO LONGER DECLINING: AN ECOLOGICAL ANALYSIS OF AUSTRALIAN HOSPITAL ADMISSIONS AND EMERGENCY PRESENTATION DATA, 2009–2014

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Introduction Pelvic inflammatory disease (PID) and ectopic pregnancy (EP) among women are important sequelae of sexually transmissible infections (STIs). We assessed recent trends in these STI-related morbidities in three Australian states (Victoria, New South Wales, Queensland).

Methods Hospital admission and emergency presentation PID and EP rates among women 15–44 years were extracted and analysed by residential postcode for 2009–2014 using population and live birth denominators where relevant. Final data were available in 2017. Zero Inflated Poisson (ZIP) models were used to assess variation in rates by year, age, socio-economic disadvantage and area of residence. A sub-analysis of acute and/or STI-confirmed PID admissions was undertaken.

Results Admission and emergency presentation rates respectively per 1 00 000 women in 2014 were: i) 63.3 (95%CI: 60.8–65.9) and 97.0 (95%CI: 93.9–100.2) for PID; and ii) 107.8 (95%CI: 104.5–111.2) and 96.7 (95%CI: 93.6–99.9) for EP. Of all emergency cases, 68% of PID and 22% of EP were managed without admission. PID admission rates did not change by year, but acute/STI-confirmed PID admissions increased by 40% between 2009 and 2014 (Incidence rate ratio [IRR]: 1.4; 95% CI: 1.2–1.7). Emergency PID rates increased by 30% between 2009 and 2014 (IRR: 1.3; 95% CI: 1.2–1.5). PID admission and emergency rates were highest among women 15–24 years. Population based EP rates increased by 10% in emergency between 2009 and 2014 (IRR: 1.1; 95% CI: 1.1–1.2). EP rates per 1000 live births increased by 8% (IRR: 1.08; 95% CI: 1.06–1.11) for admissions and 27% (IRR: 1.27; 95% CI: 1.21–1.33) for emergency between 2009 and 2014. Increasing disadvantage and remoteness of area tended to be associated with higher PID and EP rates.

Conclusion These data show that, for the first time in two decades, STI-related sequelae diagnoses at Australian hospitals are increasing.

LB3.259 E-STI TESTING AND RESULTS SERVICE: A SINGLE BLIND RANDOMISED CONTROLLED TRIAL

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Introduction STI self-sampling accessed via the internet (e-STI testing) is recommended to expand access to services. There is limited evidence on its effectiveness. This is the first RCT to

evaluate an e-STI testing service for chlamydia, gonorrhoea, HIV and syphilis.

Methods Single-blind RCT with allocation concealment.

Eligibility: aged 16–30, resident in 2 boroughs of London, having at least one sexual partner in the last 12 months, willing to take an STI test.

Participants were randomly allocated to (1) an e-STI testing service or (2) to a website with signposting to local sexual health clinics.

Primary outcomes were: 1) diagnosis of any STI 2) completion of any STI test

All analyses were intention-to-treat. We used multivariate imputation using chained equations (MICE) for the primary analyses. We explored heterogeneity by age, gender, ethnicity, deprivation, number of sexual partners in the last 12 months, and sexuality.

Results 2072 participants were randomised. The response rate was 84%. At 6 weeks, 50.0% of the intervention group completed an STI test compared to 26.6% in the control group (RR 1.87, 95% confidence interval 1.63 to 2.15, $p < 0.0001$). 2.8% of the intervention v 1.4% in the control were diagnosed with an STI (RR 2.10, 95% confidence interval 0.94 to 4.70, $p = 0.079$). The effect on cases treated was 1.1% in the intervention v 0.7% in the control (RR 1.72, 95% confidence interval 0.71 to 4.16, $p = 0.231$).

No heterogeneity was observed in the pre-specified subgroup analyses.

Time-to-test was lower in the intervention arm compared to the control arm (28.8 days vs 36.5 days; $p < 0.0001$). No differences were observed for time-to-treatment (83.2 days vs 83.5 days; $p = 0.51$).

Data cleaning and data collection were still underway late 2016.

Conclusion e-STI testing increased testing uptake and may yield a small increase in STI diagnoses. Service innovations may be needed so that gains in testing and diagnoses translate into similar gains in cases treated. e-STI testing could be a valuable option in high prevalence contexts where expanding access is priority.

LB3.260 MULTIDRUG RESISTANT MYCOPLASMA GENITALIUM IN HIV-INFECTED MEN WHO HAVE SEX WITH MEN (MSM) IN THE UNITED STATES

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Introduction *Mycoplasma genitalium* (MG) is a common cause of urethritis in men. In the U.S., CDC recommends treatment for MG with azithromycin or moxifloxacin, but treatment success is threatened by increasing resistance to both therapies. Rectal MG infection has been described among MSM, but little is known about rectal MG prevalence and frequency of antibiotic-resistant MG in HIV-infected MSM.

Methods We retrospectively evaluated the prevalence of MG infection and antibiotic-resistant MG in 158 HIV-infected MSM who self-collected rectal and urine samples for a study at an HIV clinic in Birmingham, Alabama in 2014–2016. Eligibility criteria included receptive anal intercourse in the past 30 days and no recent antibiotic exposure (except trimethoprim-sulfamethoxazole). A real-time PCR assay was used to