all patients recovered without requiring immunoglobulin and/ or blood transfusions.

Conclusion: In the HAART era, the presence of chronic anaemia in HIV-infected patients should alert the physician to the possibility of B19V infection especially during epidemics. There were no apparent relationships between the infecting genotype and the clinical course and this is the first report of genotype 3b in Rio de Janeiro.

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## **ECOLOGICAL ANALYSIS OF OUTPATIENT ANTIBIOTIC** PRESCRIBING. NEISSERIA GONORRHOEAE ANTIBIOTIC SUSCEPTIBILITY, AND GEOGRAPHIC VARIABILITY IN THE UNITED STATES, 2005-2013

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Introduction To what degree population-level antibiotic use contributes to Neisseria gonorrhoeae (NG) resistance in the US is unclear. We investigated whether outpatient prescribing is associated with NG antibiotic susceptibility.

Methods Using data from the Gonococcal Isolate Surveillance Project (GISP; a US surveillance system that samples male urethral isolates) during 2005-2013, we calculated annual geometric mean minimum inhibitory concentrations (MICs) of azithromycin, cefixime, and ceftriaxone by site. We used QuintilesIMS data (captures>70% of US outpatient prescriptions and projects to 100% coverage) to calculate annual cephalosporin and macrolide rates prescribing per 1000 men by each county corresponding to a GISP site. For descriptive analyses, we calculated site-specific medians of these measures. We constructed multivariable linear mixed models for each agent with annual prescribing rates as the exposure and one-year lagged geometric mean MIC as the outcome.

Results Annual geometric mean cefixime MICs increased from 0.009 ug/ml (2005) to 0.021 (2013), ceftriaxone from 0.005 (2006) to 0.01 (2007-2013), and azithromycin from 0.171 (2011) to 0.242 (2008). Western sites had the highest median cefixime MICs (0.018-0.03 by site); Southern sites had the lowest (0.016-0.019). Northeastern (0.298), Midwestern (0.258-0.314), and Western (0.136-0.295) sites had the highest median azithromycin MICs; Southern site had the lowest (0.1-0.234). Ceftriaxone MICs demonstrated little geographic variation. Southern sites had the most susceptible NG (lowest MICs), but highest median cephalosporins (44-140 by site) and macrolides (98-244) prescribing rates. Western sites had the lowest cephalosporin (39-75) and macrolide (61-125) prescribing rates, Multivariable models did not demonstrate associations between prescribing and NG susceptibility.

Conclusion Using these data, we found no association between US antibiotic prescribing rates and NG susceptibility. Elucidation of factors contributing to resistance, including further investigation of antibiotic use, is warranted.

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## P3.194 INVESTIGATING HIV/AIDS MORTALITY IN THE STATE OF SAO PAULO (BRAZIL): A STRATEGY FOR INTERVENTION

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Introduction The response to the AIDS epidemic in the State of São Paulo contributes significantly for the positive results of the Brazilian National Program. There was a decrease of 71.6% in the State's mortality rates between the years of 1995 and 2014, when the rate reached 6.5 per 1 00 000 inhabitants/year.

Methods Since 2014 Sao Paulo State's STI/AIDS Programme has compiled investigative data on deaths of HIV-infected individuals, tracing profiles and evaluating causes of death and associated vulnerabilities.

Results From 1586 deaths investigated between 2013 and 2016, a significant ratio (66%) is under 50 years old and a considerable number (32%) of individuals survived until two years after the diagnosis. Late-diagnosis, late implementation of TARV and poor adhesion are notable among the deaths, as well as a significant ratio (29%) of substance-abusing individuals. AIDS-defining illnesses (particularly tuberculosis) rank as the highest causes of death (55%) followed by non-AIDSdefining bacterial infections (18%), which are both predominant among the deaths of those patients with therapeutic disruption and/or advanced HIV infection. Causes unrelated to HIV and bacterial infections are predominant among patients with suppression of HIV-replication and recent CD4 count above 500 cells/mm<sup>3</sup>.

Conclusion Even in light of a positive context due to the decrease of MR, the oversight of deaths of HIV-infected individuals remains a fundamental practice for identifying vulnerabilities and works as a guiding principle for interventions that may contribute to a decrease in the number of avoidabledeaths. The results indicate the relevance of actions towards early-diagnosing, monitoring of patient-enrollment and adhesion to services, timely start of antiretroviral therapy, continued oversight of patient-adhesion to medications and diagnosis as well as towards the treatment of potentially-avoidable conditions such as latent infection of tuberculosis and vaccination for pneumococo. Some groups - such as drug and alcoholabusing individuals - require a case-by-case approach.

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## PREVALENCE OF SYPHILIS AND HIV INFECTION DURING PREGNANCY IN INCARCERATED WOMEN AND THE INCIDENCE OF CONGENITAL SYPHILIS IN BIRTHS IN PRISON IN BRAZIL

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Introduction This study aimed to estimate the prevalence of syphilis and HIV infection during pregnancy, the mother to child transmission (MTCT) of syphilis and the incidence of congenital syphilis in incarcerated women in Brazil; to