

level of CSF, accompanying symptoms, clinical management and prognosis.

Results All patients were HIV negative. The total incidence of JHR in CNS was 7.14% (41/574, 95% CI: 5.23–9.65%), being the most frequent among patients with general paresis. The mean timing of JHR after the initial dose of benzylpenicillin was to start at 6 hours (range: 0.5–13), peak at 8 hours (range: 0.5–20), and subside by 17 hours (range: 10–30). Besides fever and chills, the main symptoms were hallucination, paranoia, aggressive behavior, mental depression, cognitive impairment, confusion, urinary incontinence, stupor, convulsion and seizures in descending order. The JHR was significantly related to higher CSF-VDRL titer, pleocytosis, no usage of antibiotics in the last 6 months ($p < 0.05$). The therapy was stopped with a resolution of seizures in two patients. However, benzylpenicillin was reinstated uneventfully 3 days later.

Conclusion Higher CSF-VDRL titer, pleocytosis and no recent usage of antibiotics were associated with an increased risk for JHR in CNS. Therapy of neurosyphilis can be continued with intensive surveillance.

Disclosure No significant relationships.

P771 CLINICAL TRIAL OF CEFIXIME FOR THE TREATMENT OF EARLY SYPHILIS – PRELIMINARY RESULTS

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Background Increasing incidence of syphilis in the United States and penicillin shortages internationally call for research on alternative treatment options. In this randomized, multisite, open-label, non-comparative clinical trial, we are evaluating the efficacy of cefixime as treatment of early syphilis.

Methods Eligible participants are 18 years or older, have laboratory confirmed early syphilis (new Rapid Plasma Reagin [RPR] titer $\geq 1:8$ or 4-fold titer rise in past 12 months), and no concomitant antibiotic use. Patients with HIV infection must have undetectable viral load in the past 12 months and CD4+ count ≥ 350 cells/ μ l. Participants were randomized to receive either 2.4M IU benzathine penicillin G intramuscularly once or cefixime 400 mg orally twice a day, for ten days. Participants return for follow-up at 3, 6, and 12 months post-treatment for laboratory testing. The main outcome is a 4-fold RPR titer decrease at 6 months post-treatment.

Results To date, 27 participants (15 penicillin, 12 cefixime) are enrolled. The majority of the study population is men (26/27), Latino (15/27), and HIV-infected (25/27). Eight participants completed their 3-month follow up (4 cefixime/4 penicillin). In the cefixime arm, 3/4 participants had an equal or greater than four-fold decrease in the RPR titer, and 1/4 had a two-fold decrease. In the penicillin arm, 2/4 participants had an equal or greater than 4-fold decrease in the RPR titer, 1/4 had a two-fold decrease, and 1/4 is missing data.

Conclusion Enrollment is still open and data collection ongoing. Initial results are encouraging.

Disclosure No significant relationships.

P772 GASTRIC SYPHILIS: A CASE OF GASTRIC SYPHILIS DEVELOPED INTO NEUROSYPHILIS

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Background Syphilis caused by the spirochetes *Treponema pallidum*, which transmitted mainly through sexual contact and blood transmission. The spirochetes spread from the damaged skin to bloodstream, at which point any organ may be affected included bone, central nervous system, and visceral organs-the stomach. Therefore, when treating patients with syphilis, the clinician must rule out the involvement of other organs. Gastric syphilis is a rare presentation of infection with *Treponema pallidum*, which has no-specific symptoms. Gastric syphilis may occur in any phase of syphilis, predominantly in the secondary (50%), but rarely in the third(6%). There are no standard recommendations specifically address the treatment of gastric syphilis. The general approach is to treat according to the stage of the disease. However, if the clinician does not have experience the disease will be misdiagnosed. Here, we will describe a case of a patient with gastric involvement, whose symptom repeated after conventional treatment.

Methods The patient's history, clinical examination, biology, cerebrospinal fluid, blood nest PCR findings and reatment are reported. We also discuss the profit treatment options.

Results we described a case of a patient with the complaint of epigastralgia, pyrosis, and regurgitation. The gastroscopy revealed multiple ulcerative lesions at the antrum, gastric angle and duodenal ampulla, in which suspected cancer. Mucosal biopsy revealed an inflammatory infiltrate with multiple mature plasma cells. Immunohistochemistry and a nested PCR showed the presence of *Treponema pallidum* in the gastric tissues. But, with conventional treatment, the symptom repeated.

Conclusion The patient was diagnosed as having neurosyphilis with gastric syphilis. Her epigastric pain improved on the seventh day of the treatment. Follow-up gastroscopic findings tree months after diagnosis showed improved ulcerative lesions on gastric antrum and duodenal ampulla. The CSF examination was negative.

Disclosure No significant relationships.

P773 INCREASED DETECTION RATES OF PRIMARY SYPHILIS BY PCR IN A PROVINCIAL LABORATORY

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Background North America is experiencing an exponential rise in the numbers of infectious syphilis cases. The United States of America had 9.5/100,000 cases in 2017 which is a 10.5% increase from 2016 and a 72.7% increase from 2013. This trend is no different in Canada with Alberta being particularly

afflicted as one of the provinces with higher rates. Alberta had a 250% increase in the number of infectious syphilis cases in 2018 compared with 2017 (1380 vs 535) (Figure 1). It is no surprise that the laboratories are experiencing a similar rise in the volume of syphilis tests. Polymerase chain reaction (PCR) for detection of primary syphilis is a relatively new test method in the armamentarium of diagnostic tests for syphilis and is not widely available mainly due to the lack of commercially available assays.

Methods The Laboratory for Public Health in Alberta offers an in house syphilis PCR assay. It is a multiplex assay targeting both the *tp47* and *po1A1* genes and the B2M human DNA control, using TaqMan primers and probes. The assay has been validated for testing lesion swabs.

Results In concert with the rise in infectious syphilis cases, the lab has seen a 68.6% increase in syphilis test volume in 2018 over that of 2017. The positivity rate increased by 23.8% in 2017 and 264.8% in 2018. Direct testing diagnosed 33% (456/1380) of infectious syphilis cases in 2018. The majority of test requests originate from the two STI clinics, serving the inner city populations of the two major cities in the province.

Conclusion With the technical difficulty and quality control issues of the treponemal Direct Fluorescent Antibody test (DFA) and darkfield microscopy, molecular assays can play an important role in identifying early syphilis cases, when serology has the lowest sensitivity, thereby assisting public health in their efforts to decrease transmission.

Disclosure No significant relationships.

P774

PREVALENCE OF BACTERIAL SEXUALLY TRANSMITTED INFECTIONS AND CO-INFECTION WITH HIV AMONG MSM AND TW IN TIJUANA, MEXICO

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Background Low- and middle-income countries (LMIC) continue to rely on syndromic management of syphilis, *Chlamydia trachomatis* (CT), and *Neisseria gonorrhoeae* (NG) infections, which may exacerbate HIV epidemics among men who have sex with men (MSM) and transgender women (TW) for whom these infections are frequently asymptomatic. To examine the potential for targeted STI screening to curb HIV transmission among MSM and TW in LMIC, we estimated the prevalence of syphilis and urethral, rectal, and pharyngeal CT and NG infections, as well as HIV co-infection with these STIs among MSM and TW in Tijuana, Mexico.

Methods A sample of HIV-negative (N=125) and newly diagnosed HIV-positive (N=98) MSM and TW recruited via respondent-driven and venue-based sampling for HIV testing in a parent study underwent STI testing in this study (2017–2018). Treponemal rapid tests were used at the point-of-care with positives undergoing confirmatory testing following the reverse syphilis-testing algorithm. Nucleic acid amplification testing of urine and swabs (rectal and pharyngeal) was used to detect CT/NG at three anatomic sites. We used chi-squared tests to compare STI prevalence by HIV status.

Results HIV-positive participants had a higher STI prevalence than HIV-negative participants (55.1% vs 29.0%; p-value <0.0001). Among HIV-positive participants, the prevalence of syphilis was 34.7%, CT infection was 25.5% (9 urine; 17 rectal; 4 pharyngeal), and NG infection was 24.5% (7 urine; 20 rectal; 9 pharyngeal). Among HIV-negative participants, the prevalence of syphilis was 12.0%, CT infection was 13.6% (7 urine; 9 rectal; 2 pharyngeal), and NG infection was 10.5% (3 urine; 8 rectal; 7 pharyngeal). In the absence of extragenital screening, most CT (26/42) and NG (27/37) cases would have been missed.

Conclusion The high prevalence of syphilis, CT, and NG infections among MSM and TW in Tijuana suggests STI screening that includes extragenital tests, particularly at HIV diagnosis, may help curb HIV transmission in this setting.

Disclosure No significant relationships.

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HEPATITIS C IS NOT A PROBLEM FOR FEMALE TRANSGENDERS IN GOIÂNIA, CENTRAL BRAZIL – PRELIMINARY DATA

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Background It is estimated there are 71 million HCV carriers worldwide, and about 1,032,000 live in Brazil. This infection causes acute and chronic hepatitis and is the top cause of liver cancer. The principal mode of HCV dissemination is parenteral via, though some sexual behaviors may facilitate viral transmission such as anal intercourse and unsafe sex. Many transgender women practice behaviors that may put them at risk for HCV infection. The aim of this study is to evaluate the prevalence of HCV infection among transgender women in Goiania, Central Brazil.

Methods From May to December 2018, a total of 180 transgender women were interviewed and tested for anti-HCV using a rapid test (ALERE HCV, Standard Diagnostics, Republic of Korea).

Results None were anti-HCV positive. Of the total, 34.3% reported no or irregular condom use during anal sex with a steady partner, and 34.3% continue this behavior with occasional sexual partners. Other factors: 82.6% had tattoos or piercings; 67.8% used non-injection illicit drugs; 47.8% put industrial silicone into their body; 48.9% reported previous STI, and 48.3% reported bleeding during sexual intercourse. Whereas only 6.7% reported blood transfusion, and 4.2% had a history of illicit injection drug use.

Conclusion These findings suggest hepatitis C is not a problem for transgender women in Goiânia. The low frequency of blood transfusion and illicit injection drug use play a role in HCV prevalence despite of several opportunities for viral transmission.

Disclosure No significant relationships.