2267. The Effect of Opportunistic Infection (OI) Prophylaxis on the Gastrointestinal Microbiome (GIM) and Immune Reconstitution (IR) in Veterans With HIV and AIDS
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Methods. Blood and stool specimens from 16 controls, 4 new dx and 3 resumers were obtained at 3 visits, as well as clinical and virological data. PCR electrospary ionization mass spectrometry (ESI-MS) was performed on blood samples to detect bacteria, virions and their inhibitors and gut microbiome (deep sequencing bacterial 16S rRNA) was done on stool.
Results. There was no relation between CD4 count, log CFU TMP-SMX-resistant Gram-negative bacteria (GNRs) or total anaerobes. Except for 2 control patients with a decrease in CD4 count <200, none took TMP-SMX. One of these control patients started TMP-SMX, while the other took atovaquone. Neither had TMP-SMX R GNRs in stool, despite low CD4/TMP-SMX. Major stool phyla in controls were Bacteroidetes (37% ± 19%), Firmicutes (37% ± 14%), Proteobacteria (15% ± 14%); while resumers had 54 ± 3% Firmicutes, 33 ± 12% Firmicutes and 7 ± 5% Proteobacteria. Only one new dx individual had CD4 count <200 at dx and took doxycycline initially for hidradenitis suppurativa. Dapsone was initiated due to ultrasound imaging. He was also diagnosed with lung cancer, treated with resection/XT and received cetzafolin. His VL became undetectable but CD4 <200. He had persistence of TMP-SMX-resistant GNRs despite dapsone and a shift in his GIM was observed over the first 6 months of care, i.e., Bacteroides decreased from 61.5% to 29.5% and Firmcutes increased from 30.6% to 53.3%.
Conclusion. Of prophylaxis does not affect the GIM of stable HIV VA patients on ART. TMP-SMX-resistant GNRs in stool are unrelated to TMP-SMX exposure or CD4 count. Other antibiotics such as doxycycline can alter GI microbiota and may affect immune reconstitution.
Disclosures. All authors: No reported disclosures.

2269. HIV-Positive Individuals Who Report Being in Care Are Less Likely to Be Co-Infected With an STI, An Analysis of “Network Testing,” A Service Program Offering HIV and STI Testing Services to Individuals at Risk for HIV
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Methods. We analyzed data from our “Network Testing” service program, which was designed to expand HIV/STI testing services to high-risk individuals including gay, bisexual, and other men who have sex with men (MSM) in Chicago’s South side, a high HIV prevalent area. This program provides incentivized testing to participants and up to six referred individuals within their social network. The prevalence of selected STIs, including syphilis, gonorrhea, or chlamydia infection, among HIV-positive individuals was evaluated. Bivariate and multivariable logistic regression analyses were used to assess sociodemographic, testing history, and risk factors significantly associated with HIV/STI co-infection.
Results. Of the 295 HIV-positive individuals, 110 (37%) tested positive for at least one STI with 90 (32%) positive for syphilis, 23 (16%) for gonorrhea, and 12 (8%) for chlamydia. The median age was 27 years old and 91% of clients were MSM. In multivariable analyses, individuals who reported being in care were less likely to be co-infected (aOR=6.10, 95% CI: 1.87–19.90). We found no association with co-infection and other risk factors including multiple partners and condomless sex.
Conclusion. Of the 295 HIV-positive individuals, 110 (37%) tested positive for at least one STI with 90 (32%) positive for syphilis, 23 (16%) for gonorrhea, and 12 (8%) for chlamydia. The median age was 27 years old and 91% of clients were MSM. In multivariable analyses, individuals who reported being in care were less likely to be co-infected (aOR=6.10, 95% CI: 1.87–19.90). We found no association with co-infection and other risk factors including multiple partners and condomless sex.
Conclusion. CD4 count, log CFU TMP-SMX-resistant GNRs in stool, despite low CD4/TMP-SMX. Major stool phyla in controls were Bacteroidetes (37% ± 19%), Firmicutes (37% ± 14%), Proteobacteria (15% ± 14%); while resumers had 54 ± 3% Firmicutes, 33 ± 12% Firmicutes and 7 ± 5% Proteobacteria. Only one new dx individual had CD4 count <200 at dx and took doxycycline initially for hidradenitis suppurativa. Dapsone was initiated due to ultrasound imaging. He was also diagnosed with lung cancer, treated with resection/XT and received cetizafolin. His VL became undetectable but CD4 <200. He had persistence of TMP-SMX-resistant GNRs despite dapsone and a shift in his GIM was observed over the first 6 months of care, i.e., Bacteroides decreased from 61.5% to 29.5% and Firmicutes increased from 30.6% to 53.3%.
Conclusion. Of prophylaxis does not affect the GIM of stable HIV VA patients on ART. TMP-SMX-resistant GNRs in stool are unrelated to TMP-SMX exposure or CD4 count. Other antibiotics such as doxycycline can alter GI microbiota and may affect immune reconstitution.
Disclosures. All authors: No reported disclosures.

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Background. Mycobacterium haemophilum has emerged as one of non tuberculous mycobacteria which caused localized and disseminated infections in immunocompromised patients. Infections caused by this pathogen were rarely diagnosed and reported because it can grow only in heme supplemented culture media.
Methods. We performed a case–control study at Siriraj hospital, the biggest tertiary care hospital in Thailand, to determine the clinical difference and treatment outcome of this infection between HIV-infected and non-HIV-infected individuals.
Results. From January 2012 to December 2017, there were 21 patients diagnosed with Mycobacterium haemophilum infections. Eight of them were HIV infected. Rest of the patients were non-HIV immunocompromised which SLE was the most common comorbidities (autoimmune diseases 6 patients, anti-IFN gamma auto Ab 2 patients, kidney transplant recipients 2 patients, diabetes mellitus 2 patients and nephrotic syndrome 1 patient). The most common clinical manifestation was cutaneous involvement (13 patients, 61.9%). The result revealed that HIV-infected patients were more younger in comparison with non-HIV infected patients (mean age 39 ± 10 VS. 52 ± 14 years; P = 0.025). Disseminated infection was more common in HIV-infected patients (37.5% vs. 15.4%, P = 0.325) and three of eight HIV-infected patients (37.5%) had central nervous system involvement whereas none of non-HIV infected patients had it (P = 0.042). The prognosis was slightly worse in HIV-infected individuals (Unfavorable prognosis 27.3% in HIV-infected VS. 15.4% in non-HIV-infected patients; P = 0.325).
Conclusion. HIV infection is the most common immunocompromised condition related with Mycobacterium haemophilum infection. Central nervous system involvement is more common in HIV-infected patients.
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