Two hundred (84.7%) of 236 patients seen in follow-up received comprehensive screening compared with 183 (57.5%) of 318 patients seen in clinics. Comprehensive screening is either routine or protocolized, were more likely to perform comprehensive STI screening within the University of Colorado Health System may improve guideline adherence and improve identification of comorbid STIs in high-risk populations.

Disclosures. All authors: No reported disclosures.

1498. Sexually Transmitted Infections Among Persons Living with HIV Infection and Receiving Care in the District of Columbia: Time with Viral Load Above 1,500 as Proxy for Risk of Transmission
Alessandra Secco, MD,1; Hana Akselrod, MD, MPH,1; Jose Lucar, MD,1; Nabil Rayeed, MPH,2; Nicolas Leighton, BSc,2; David Parenti, MD, FIDSA3 and Debra Benator, MD,1

Background. The District of Columbia (DC) has one of the highest HIV infection rates among metropolitan areas in the United States, as well as recent increases in the incidence of sexually transmitted infections (STI), particularly among men who have sex with men (MSM). A previous study of the DC cohort, a longitudinal observational cohort of HIV-infected persons receiving care in DC, identified high incidence of detectable HIV viral load (VL) close to the time of STI occurrence. Studies have identified time spent with HIV VL above 1,500 copies/mL as a proxy measure for risk of sexual transmission of HIV. The present study examines percentage of time with VL above 1,500 among persons living with HIV infection (PLWH) with incident STI.

Methods. We conducted a retrospective cohort analysis measuring STI incidence including syphilis, gonorrhea, chlamydia) among all individuals enrolled in the DC Cohort from 2011 to 2015. We conducted descriptive analysis to estimate the number of days with HIV VL >1,500 copies/mL, relative to the total number of days of observa tion, among those with an incident STI during the same observation period.

Results. We analyzed data for 5,033 DC Cohort enrollees for whom STI data and at least two VL observations were available. During a median observation of 32.8 months, 4,610 individuals had no STI and 423 (8%) individuals had any incident STI. 293 had one and 130 had two or more. Of the 423 participants with an incident STI, 67.8% did not spend any time with a VL >1,500; 10.7% had VL >1,500 during >0 to <25% of the time; 7.3% had VL >1,500 during 25 to <50% of the time; 5.0% had VL >1,500 during 50 to <75% of the time; and 9.2% of participants with any incident STI had VL >1,500 during 75–100% of the time. Among participants with two or more STIs over the observation period, 17.7% spent greater than 50% of the time with a viral load >1,500.

Conclusion. Among PLWH with incident STIs, as many as one-third spent considerable time with a VL >1,500 copies/mL, placing them at increased risk of transmitting HIV to others. Public health interventions need to focus on mitigating the risk of HIV transmission in the highest-risk populations, while also seeking to reduce overall incidence of other STIs.

Disclosures. All authors: No reported disclosures.

1499. Gonorrhea and Chlamydia Infections in the Department of Veterans Affairs (VA), 2013–2017
Patricia Schirmér, MD,1; Cynthia Lucero-Obusan, MD,1; Gina Oda, MS,1 and Mark Holodny, MD, FIDSA, FSHEA,2; Public Health Surveillance and Research, Department of Veterans Affairs, Palo Alto, California, Stanford University, Stanford, California

Background. Gonorrhea (GC) and Chlamydia (CT) infections caused by Neisseria gonorrhoeae and Chlamydia trachomatis, respectively, are an ongoing public health issue. CDC guidelines suggest repeat testing 3–12 months after a positive test result (Workowski et al. MMWR 2010 and 2015). We investigated national trends and repeat testing practices for patients with GC and CT infection in VA.

Results. Of 643,030 GC and CT cases identified (January 1, 2013–December 31, 2017) using molecular laboratory testing results from VA data sources. Patients were reviewed for positive results, repeat testing and demographic characteristics.

Results. 10,587 of 641,535 (1.7%) GC results were positive; 27,306 of 648,320 (4.2%) CT results were positive. Consequence (GC+CT) was documented in 1,935 tests (1,804 unique patients). Repeat testing after a positive result ranged from 26 to 31% for GC, CT and GC+CT, respectively (table). Number of positive cases and tests performed for GC and CT increased over the last 5 years, however percent positive has been stable for CT but increasing for GC (figure). States with the highest total number of positive GC tests were California (1,363), Texas (1,219), and Florida (815), while for CT were Illinois (4,509), California (3,370), and Texas (2,805).
Conclusion. GC and CT infections increased between 2013 and 2017 in VA. Although females comprise 10% of the VA population, they proportionally had increased GC and CT positive results. VA providers could improve retesting practices 3–12 months post-infection for patients with GC and/or CT.

Table. Demographic Factors and Repeat Testing in Gonorrhea (GC) and Chlamydia (CT) Infections in VA, January 1, 2013–December 31, 2017.

| Characteristic | GC N = 641,535 | CT N = 648,320 | N = 638,361 |
|---------------|----------------|----------------|-------------|
| Unique patients tested | 414,316 | 412,841 | 407,708 |
| Total positive results | 10,587 | 27,306 | 1,935 |
| Unique positive patients | 9,149 | 24,257 | 1,804 |
| Female | 1,109,840 | 760,16,657 | 291,1,513 |
| Average frequency (range) | 40 (17–87) | 31 (13–88) | 36 (17–84) |
| Repeat testing performed (%) of total positive results | 2,702 (26) | 790 (29) | 593 (31) |

*Overall, VA population is 10% female (www.womenshealth.va.gov).

1Any GC/CT test 3–12 months after a positive result.

Figure: Five-Year Trend in Gonorrhea (GC) and Chlamydia (CT) Test Results in VA, January 1, 2013–December 31, 2017.

Disclosures. All authors: No reported disclosures.

1500. At Risk Drinking Is Common Among HIV-Infected Department of Defense (DoD) Beneficiaries but Was Not Associated With Prevalent GC/CT Infections

Anuradha Ganese, MD, MPH; Xun Wang, MS; Jason M. Blaylock, MD; Jason Okulicz, MD; Sandra Waggner, BS; Brian Johnson, BS; Nichol Kirkland, BS; Veronica Wimberly, RN, ND; Eric Gargis, MD, MPH and Robert Deess, MD, PhD.

Infectious Disease, Walter Reed National Military Medical Center, Bethesda, Maryland, Henry M. Jackson Foundation for the Advancement of Military Medicine, Inc., Bethesda, Maryland, The Henry M. Jackson Foundation for the Advancement of Military Medicine, Bethesda, Maryland, Walter Reed Military Medical Center, Bethesda, Maryland, Infectious Disease, San Antonio Military Medical Center, Fort Sam Houston, Texas, Infectious Disease Clinical Research Program, Department of Preventive Medicine, Uniformed Services University of the Health Sciences, Rockville Pike, Maryland, Infectious Disease Clinical Research Program, Department of Preventive Medicine, Uniformed Services University, Bethesda, Maryland, Infectious Disease Clinical Research Program, Department of Preventive Medicine, Uniformed Services University, Bethesda, Maryland, Infectious Disease Clinical Research Program, Department of Preventive Medicine, Uniformed Services University of the Health Sciences, Bethesda, Maryland, Infectious Diseases Clinical Research Program, Uniformed Services University, Bethesda, Maryland

Session: 149. Sexually Transmitted Infections

Friday, October 5, 2018: 12:30 PM

Background. At-risk drinking and sexually transmitted infections (STIs) are both common among HIV-infected patients. Nearly 50% of subjects in the US Military Natural History Study (NHS), a cohort of HIV-infected DoD beneficiaries, report alcohol misuse. Nonetheless, few studies have examined whether at-risk drinking, a modifiable risk factor, is associated with STIs in this population. We examined the relationship between alcohol use and prevalent gonorrhea (GC) and chlamydia (CT) infections.

Methods. Consented NHS subjects underwent genitourinary (GU) and extragenital nucleic acid amplification testing (NAAT) for GC/CT infections and responded to a behavioral survey to describe substance use and sexual risk. At-risk drinking was defined as consumption of >4 drinks/day or 14 drinks/week. Logistic regression was used to examine the association of at-risk drinking and GC/CT infections.

Results. A total of 472 men were included with a median age of 41 years (IQR 31, 51); 44% were African American. Male sexual partners were reported by 90%. At-risk drinking (54%) and having sex while drunk in the last 6 months (21%) was commonly reported. Overall, 15% (n = 70) had either GC or CT infection. With respect to anatomic site, 11% had anorectal infections (GC = 4%; CT = 7%). 5.3% had pharyngeal infection (GC = 3.8%; CT = 1.4%) and, 2.3% had GU infection (GC 0.6%; CT 1.7%). In univariate analysis, younger age, multiple male sexual partners, having sex while drunk, and concurrent partnership were associated with STI diagnosis. In the adjusted model, multiple male partners and concurrent sex remained significant (see table).

Conclusion. At-risk drinking remains common in the NHS; however, it was not associated with GC/CT infections. We observed a high prevalence of GC/CT infection, emphasizing the importance of ongoing screening of this high-risk population. Although strategies to reduce alcohol use are unlikely to reduce STIs in our population, these strategies are necessary to reduce other adverse health consequences associated with alcohol use.

Disclosures. All authors: No reported disclosures.

1501. Comparative Effectiveness of Antibiotic Therapy for the Outpatient Treatment of Urinary Tract Infections Among Otherwise Healthy, Premenopausal Women

Amy M. Butler, PhD, MS; Matthew R. Keller, MA; Michael J. Durkin, MD MPH; Vikas R. Dharmadhikari, MD, MPH and Margaret A. Olsen, PhD, MPH.

Department of Medicine, Division of Infectious Diseases, Washington University School of Medicine, St. Louis, Missouri, Department of Pediatrics, Division of Nephrology, Washington University School of Medicine, St. Louis, Missouri

Session: 150. Urinary Tract Infection

Friday, October 5, 2018: 12:30 PM

Background. The comparative effectiveness of antibiotics for empiric therapy for urinary tract infection (UTI) is not well established. We sought to estimate the risk of treatment failure by guideline-recommended agent for treatment of UTI in otherwise healthy, premenopausal women.

Methods. Using US commercial insurance claims data (2006–2015), we conducted a retrospective cohort study of nonpregnant women 18–44 years who received an outpatient diagnosis of UTI with a prescription for an antibiotic with activity against common uropathogens. For each antibiotic agent, we estimated the daily cumulative risk and 95% confidence intervals (CIs) of treatment failure defined by a subsequent UTI-related antibiotic prescription since the index prescription. Propensity-score weighting accounted for patient-, geographic-, and provider-level characteristics.

Results. Among 1,100,661 eligible women, the majority received second-line fluoroquinolones (43%), first-line trimethoprim-sulfamethoxazole (28%), or first-line nitrofurantoin (24%). Seven-day and 30-day treatment failure occurred in 8.4% (n = 92,382) and 20.5% (n = 225,746) of women, respectively. Among initiators of first-line agents, the 7-day weighted cumulative incidence estimates of treatment failure were lower for nitrofurantoin (6.0%, 95% CI, 5.9%–6.1%) vs. trimethoprim-sulfamethoxazole (8.8%, 95% CI, 8.7%–9.0%). Among initiators of second-line agents, treatment failure did not differ between fluoroquinolones (5.0%, 95% CI, 4.9%–5.1%), narrow-spectrum β-lactams (5.1%, 95% CI, 4.9%–5.4%), or broad-spectrum β-lactams (5.3%, 95% CI, 4.9%–5.7%). Among initiators of nonguideline recommended β-lactams, treatment failure was 9.6% (95% CI, 9.0%–10.3%). Results were similar for 30-day treatment failure, with the exception of lower risk for fluoroquinolones compared with other second-line agents.

Conclusion. The risk of treatment failure differs widely by antibiotic agent, with substantial differences between two first-line agents. Understanding the effectiveness of antibiotic therapy is critical to guide clinical decision making, reduce suboptimal antibiotic prescribing, and prevent antibiotic resistance and other adverse events.

Disclosures. All authors: No reported disclosures.

1502. Identifying Risk Factors for Recurrent Urinary Tract Infections Among Female Outpatients

Brittany Morgan, MPH Candidate; Gregory B. Tallman, PharmD, MS; Miriam R. Elman, MPH, MS; David T. Bearden, PharmD and Jessina C. McGovern, PhD.

Oregon Health & Science University-Portland State University School of Public Health, Portland, Oregon, Department of Pharmacy Practice, Oregon State University/Oregon Health & Science University College of Pharmacy, Portland.