

tetracycline, penicillin and ciprofloxacin. The extracts showed presence of saponins, steroids, glycosides, flavonoids, terpenes, alkanoids, phenolics and tannins.

Conclusion The demonstrated antibacterial activity of *Securidaca longipedunculata* against *Neisseria gonorrhoeae* provides a scientific basis for the traditional use in treating venereal diseases in Kenya. This investigation and further studies will pave way for use of this plant in antibacterial drug development for alleviating human suffering and open u reseach in discovery of new antimicrobial a gents.

Disclosure No significant relationships.

P683 RACIAL AND ETHNIC DISPARITIES RELATED TO *NEISSERIA GONORRHOEAE* AMONG U.S. MILITARY ACTIVE DUTY SERVICE MEMBERS

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10.1136/sextrans-2019-sti.749

Background *Neisseria gonorrhoeae* is the second most common reportable infection in the United States, which if undiagnosed and untreated, can lead to severe long-term sequelae. Active duty U.S. Military service members are risk-taking young adults; however, military service offers some inherent control for social determinants often associated with increased risk of sexually-transmitted infections. Even in the absence of disparities in income and education, increased burden of disease among racial and ethnicity minorities may still exist. Herein, we describe the association between race/ethnicity and gonorrhea among active duty service members.

Methods This study was conducted among symptomatic and high risk patients enrolled at military infectious disease clinics from 2012 to 2017. Outcome variables were based on nucleic acid amplification test results extracted from medical records. The magnitude of association was assessed using adjusted odds ratios and 95% confidence intervals.

Results Data from 488 active duty participants were analyzed. The crude prevalence of gonorrhea and chlamydia among this clinic population was 17% and 25%, respectively. After adjusting for sex and age, non-Hispanic black service members had 3.5 times greater odds ($p=0.000$) and Hispanic service members had 2.9 times greater odds ($p=0.009$) of gonorrhea compared to non-Hispanic white service members. This phenomenon was not observed when comparing odds of chlamydia among blacks or Hispanics to whites.

Conclusion Despite similarities in income and education, black and Hispanic service members still bear a disproportionate burden of gonorrhea illness. Service members of color may have unique risk factors that predispose them to gonorrhea. Findings suggest that interventions aimed at reducing gonorrhea should be targeted towards persons of color to ensure disparities in disease burden are effectively addressed. Future studies should examine sexual behaviors among black and

Hispanic service members that may be contributing to increased odds of gonorrhea within the military population.

Disclosure No significant relationships.

P684 GONORRHEA SEQUENCE TYPES IN NON-CULTURED SPECIMENS FROM A PROVINCIALLY REPRESENTATIVE SAMPLE IN BRITISH COLUMBIA CANADA, 2018

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10.1136/sextrans-2019-sti.750

Background In British Columbia (BC), Canada, enhanced gonorrhea surveillance to monitor sequence types (STs) is based on cultures which are typically performed on symptomatic individuals, at extra-genital sites, and at clinics in the Greater Vancouver Area (GVA), leaving certain subpopulations under-represented. We sought to describe *Neisseria gonorrhoeae* multi-antigen sequence types (NG-MASTs) in a provincially representative sample using remnant nucleic acid amplification tests (NAATs).

Methods A sample of gonorrhea positive NAATs diagnosed at the BC Centre for Disease Control Public Health Laboratory from March 1 to September 31, 2018 were sent to the National Microbiology Laboratory for sequence typing using the NG-MAST method. Samples were selected to be representative of the distribution of gonorrhea in BC by sex and geography. NG-MAST was linked to case information from the provincial sexually transmitted infections surveillance database. Associations were tested using Chi-square or Fisher's exact test.

Results There were 261 NAAT-positive gonorrhea specimens selected: 129 (49%) from urine, 71 (27%) from rectal, 35 (13%) from vaginal, 19 from cervical (7.3%) and 7 (2.7%) from urethral sites. Males represented 60% of the sample (156/261) and 21% (55/261) were from outside GVA. Mean age was higher in males than females (33 vs 28 years, $p<0.01$). Co-infection with chlamydia was more common among females than males (16% vs 5%, $p<0.01$). To date, results were available for 186 (71%) of the sample. The most common NG-MASTs were ST-7638 (11/186, 5.9%), ST-4207 (10/186, 5.4%), ST-12302 (9/186, 4.8%), ST-15246 (9/186, 4.8%) and ST-5985 (9/186, 4.8%). ST-12302 and ST-5985 were more common outside GVA ($p<0.01$ and $p=0.03$, respectively).

Conclusion We were able to use remnant NAAT specimens from a provincially representative sample to identify STs not routinely found using culture-based surveillance (e.g. ST7638, ST-4207). Moreover, some STs were more common outside GVA supporting the need for molecular methods to improve representativeness for gonorrhea surveillance.

Disclosure No significant relationships.