emergency department (ED) as a primary source of medical care. In late 2018, the University of Chicago Medical Center (UMC) began a quality improvement project directing providers to screen ED patients for syphilis regardless of presenting complaint. The objective of this study is to evaluate the potential utility of ED screening for syphilis.

**Methods** A retrospective chart review was performed of all patients with positive syphilis antibody testing from October through December of 2018, and all patients with positive rapid plasma reagin (RPR) or *Treponema pallidum* particle agglutination (TP-PA) testing were included as cases.

**Results** In the last three months of 2018, a total of 727 patients (average of 242 patients per month) were screened for syphilis in the ED. Of these, 61 (8.4%) tested positive for syphilis, 37 (60.1%) of whom had evidence of active infection, and 24 (39.3%) were late or unknown stage. 40.9% of patients testing positive for syphilis had presented with complaints other than abdominal pain, rash, or genitourinary symptoms. Two (3%) of patients testing positive for syphilis were also newly found to be pregnant and both were referred for antibiotic treatment in the first trimester.

**Conclusion** Early data suggests that screening of patients for syphilis in the ED regardless of presenting complaint yields high positive rates. ED screening may represent an effective way of combating the syphilis epidemic, particularly in the most vulnerable populations. In the near future, we plan to hold a provider awareness initiative combined with an update to the electronic medical record system with automated ordering reminders to increase the numbers of patients screened.

**Disclosure** No significant relationships.

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**P741 DETECTION OF TREPONEMA PALLIDUM DNA AT VARIOUS BODY LOCATIONS**

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**Background** Syphilis is routinely diagnosed based on clinical findings and serological tests. Syphilis may be asymptomatic and in the early stages of infection serology may be false negative. This poses challenges in the diagnosis; missed infections may lead to onward transmission and late sequelae. The aim of this study is to assess the added value of testing various anatomical sites for DNA of *Treponema pallidum* (TP).

**Methods** The study is conducted at the STI clinic in Amsterdam. Eligible are men who have sex with men (MSM), 18 years or older with clinical signs or symptoms suggestive of syphilis stage 1 or stage 2, and those with serologically demonstrated early latent syphilis. Swabs taken from anus and pharynx, a urine sample, and a venous blood sample were tested using a validated in-house PCR targeting the polA gene (Tp-PCR). We intend to include 285 participants, with similar numbers of stage 1, stage 2, early latent syphilis, and patients without syphilis.

**Results** Between November 2018 and January 2019 we included 45 MSM. Eleven participants had syphilis stage 1, 10 stage 2, 11 early latent syphilis, and 13 did not have syphilis. Among the 11 stage 1 patients, 1 blood sample, 2 pharyngeal samples, 4 rectal samples and 3 urine samples were Tp-PCR positive. Among the 10 stage 2 patients, 2 blood samples, 8 pharyngeal samples, 6 rectal samples and 3 urine samples were Tp-PCR positive. Among the 11 early latent syphilis patients, 1 blood sample, 4 pharyngeal samples, 4 rectal samples and no urine samples were Tp-PCR positive. None of the samples of clients without syphilis were Tp-PCR positive.

**Conclusion** DNA of *T. pallidum* was frequently detected in various body compartments of 32 MSM diagnosed with syphilis. Tp-PCR on samples from various body locations might have a role in the diagnosis of early syphilis.

**Disclosure** No significant relationships.
Background Patients with neurosyphilis have been increasingly reported from clinics in China. Symptomatic neurosyphilis is more common among HIV-positive than HIV-negative patients. Clinical data of neurosyphilis among HIV-negative patients are limited.

Methods Socio-demographic and clinical data of the patients diagnosed with neurosyphilis and hospitalized at the Suzhou 5th People’s Hospital in China during January 2012 to November 2018 were collected and clinical and laboratory characteristics of these patients were analysed.

Results Of the 58 patients enrolled into the analysis, majority (84.5%) were males. Two cases (3.4%) were diagnosed with asymptomatic neurosyphilis by evidence of only increases of protein and white blood cell count in their cerebrospinal fluids (CSF). The clinical characteristics were presented to be meningeal vascular type (defined as presentation of hemiplegia, headache, tinnitus, or epileptic attack) among 6, paralytic meningitis (defined as paralysis, paresis, or sensory loss) among 30, tabes dorsalis (defined as having manifestations such as walking instability of lower limbs, lightning pain, numbness, abnormal urination, or Arrow pupil) among 8, and ocular syphilis (defined as chorioiditis,iritis, retinitis, or optic atrophy) among 12 patients, respectively. Most of the patients (84.5%) had serum RPR titers of ≥ 1:8 and two-thirds (75.9%) were positive for RPR in CSF (ranging 1:1 to 1:16). Additional CSF evaluations indicated an elevated protein in 55 and leukopenia in 57 patients. Among 30 patients with paralytic dementia, 16 (53.3%) shown a multiple lacunar foci in their brain CT or MRI, and 7 (23.3%) had cerebral atrophy.

Conclusion Symptomatic neurosyphilis is common among HIV-negative patients and clinical features characterized majorly as neurological, psychiatric or phthalmic symptoms have call for attention of the relevant departments to detect these patients for interventions timely.

Disclosure No significant relationships.