Conclusion. Novel solutions that aim to reduce empiric therapy, or shorten the interval to treatment success, are critical for both diagnostic and antibiotic stewardship. Through parallel or sequential testing algorithms, panel testing schemes on either the cobs® 4800 and 6800 Systems allow for more accurate discrimination between &ETs that may help address the re-emergence of Syphilis in the USA.

Disclosures. All authors: No reported disclosures.

433. Implementation of an Emergency Department Syphilis Screening Program Taselem Chechi, MPH1; Allyson C. Sage, RN, MPH, CCRP2; Nam Tran, PhD3; Sarah Waldman, MD4 and Larissa S. May, MD, MSPH, MSHS5; UC Davis Medical Center - Emergency Medicine, Sacramento, California; UC Davis Health, Sacramento, California; University of California, Davis, Sacramento, California; University of California Davis, Sacramento, California

Session: 50. Sexually Transmitted Infections
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Background. Syphilis incidence across all regions of California increased by 22% compared with 2016 cases; with the largest number of chlamydia, gonorrhea, syphilis, and congenital syphilis cases among all states (CDC 2017). The USPSTF recommends targeted syphilis screening in patients at increased risk. However, in emergency department (ED) targeted syphilis screening is not routinely performed even when patients present for concerns of a sexually transmitted infection (STI). The purpose of this program was to implement routine syphilis screening among ED patients being tested for chlamydia and gonorrhea (CT/GC) through the use of an EHR enhancement to maximize the number of new syphilis diagnoses.

Methods. From November 27, 2017 to March 31, 2019, EHR-based syphilis screening was implemented in a quaternary care ED in Northern California serving urban and rural populations. EMR best practice alerts (BPA) were developed and populated on patients requiring STI testing. Syphilis testing employed a reverse search algorithm, which is suggested for high prevalence settings and provides rapid turnaround time. Patients were excluded if they opted out of testing. We determined the proportion of all CT/GC tested patients who underwent syphilis screening and the prevalence of syphilis among this group.

Results. During a four-month period, 649 ED patients with suspected STI received a BPA to screen for syphilis. Of those, 425 patients (65.5%) were screened for syphilis, 22 had a reactive IgG/IgM and RPR, while 5 patients had a reactive IgG/IgM and a nonreactive RPR which required a TPPA test to detect their infection. Fourteen of the 22 patients with a reactive RPR had titers of 1:32 or higher. Nine (32%) of those with a positive CT/GC test resulted positive for syphilis.

Implementation. A syphilis screening program in patients undergoing testing for other STIs yielded 28 new diagnoses compared to those tested prior to our program. In 2018, we introduced an automated EHR-based syphilis screening program as an effective method to maximize syphilis screening in all ED patients seeking treatment for STIs. The screening data suggest that the majority of patients undergoing STI testing in our ED are not screened for syphilis, yet the prevalence of infection in those screened is substantial.

Disclosures. All authors: No reported disclosures.

434. Concurrent Gonococcal Infections with Differing Susceptibility Results from the Enhanced Gonococcal Isolate Surveillance Project (eGISP) Sancta St. Cry, MD, MPH; Laura Quiliter, MD, MPH; Cau D. Pharm, PhD; Elizabeth Torrome, RN, MSN, STI; Richard H. Ostbye, MD, MPH, Centers for Disease Control and Prevention, Atlanta, Georgia

Session: 50. Sexually Transmitted Infections
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Background. Concurrent gonococcal infections could impact treatment success in cases of anatomic site-specific strains with different antimicrobial susceptibilities; however, little is known about same-patient differences in susceptibility as most antibiotic resistance surveillance is based on only male urethral isolates.

Methods. In August 2017, the enhanced Gonococcal Isolate Surveillance Project (eGISP) began collecting male and female genital and extragenital gonococcal isolates from patients in 12 STD clinics. Minimum Inhibitory Concentrations (MICs) for penicillin, tetracycline, ciprofloxacin, gentamicin, ceftriaxone, cefixime and azithromycin were determined from all identified patients with isolates from multiple anatomic sites of infection collected during the same clinic visit. Isolate categories were categorized as either single or multiple sites based on the number of positive anatomic sites. We identified same-patient isolate sets with differing MICs categorized as pairs or triplets based on the number of culture positive anatomic sites.

Results. The outpatient clinic received 40 thousand back pain cases during a one-year study. Only 14 patients were diagnosed as IPA. The age ranged 19–65years (mean 37years) and 57% were male. 44.4% patients had primary IPA while 55.5% patients had secondary IPA. All patients had limping and flank pain, backache or both. Fever was common 90% of patients. Leukocytosis was found in 55.5% of patients, ESR was elevated and CRP was positive in all patients. Z.N stain for AFB was negative in all patients. Aspiration fluid was negative for AFB, S.aureus and Mycobacteria. All patients were treated by antibiotics, surgical drainage and appropriate antibiotics. The confirmed patients were diagnosed as having posos or iliac collection and subjected to: full history taking, full laboratory workup, screening for tuberculosis, radiological studies and ultrasound-guided needle aspiration of the abscess. The aspirate samples were microbiologically tested by culture (aerobic, anaerobic and MGIT) and PCR technique. Follow-up US was done within 7 days from the first aspiration.

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Conclusion. Although IPA is rare, the appropriate diagnosis by US is needed. S.aureus is the commonest pathogen but Mycobacterial tuberculosis could be a cause for recurrence.

Disclosures. All authors: No reported disclosures.

436. Skin and Soft-tissue Infections Are a Common Reason for Potentially Inappropriate Antimicrobial Use among Inpatients in Sri Lanka Tianchen Sheng, MSc1; Gaya B. Wijayarathne, MBBS MD2; Thushani M. Dabera, MBBS MD3; Ajith Nagahawatte, MBBS MD3; Champa C. Bodinayake, MBBS MD4; Rivini Kurukulasooriya, MSc2; Kristin J. Nagaro, MD3; Cherin De Silva, MBBS3; Hasini Ranawakaarachchi, MBBS3; Arambegada Thushita Sudarshana, MBBS3; Devick J. Anderson, MD, MPH1; Richard H. Drew, PharmD MS6; Richard H. Drew, PharmD MS7; Truls Ostbye, MD, PhD,1; Chris W. Woods, MD8 and L. Gayani Tillekeratne, MD, MSc9; 1Duke University Medical Center, Durham, North Carolina; 2University of Ruhuna, Galle, Southern Province, Sri Lanka; 3Sri Lanka Ministry of Health, Colombo, Western Province, Sri Lanka; 4Duke University, Durham, North Carolina; 5Duke Center for Antimicrobial Stewardship and Infection Prevention, Durham, North Carolina; 6Duke University Hospital, Durham, North Carolina; 7Duke University School of Medicine, Durham, North Carolina

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Background. Skin and soft-tissue infections (SSTI) are a common reason for antimicrobial use in the outpatient and inpatient settings. Inappropriate antimicrobial