concern. While macrolide AMR is increasing globally, ESC AMR is low and extensive drug-resistance (XDR) rare.

Methods We report the clinical management and microbiology of two recent cases of XDR NG in the UK.

Results Case A (female) presented to a sexual health clinic (SHC) in October 2018 with urinary symptoms. She cleared the infection following treatment with ceftriaxone 500 mg plus azithromycin 1g. She had recently had vaginal intercourse with ≥ 1 male partner in Ibiza, Spain. Case B (female) presented to a SHC elsewhere in England in November 2018 with anal and genital symptoms. She had recently had unprotected vaginal, oral and anal sex with an asymptomatic man who had been in Ibiza and had links with the same sexual network as case A. He tested NG NAAT-negative in December without treatment. Case B initially responded clinically to treatment with ceftriaxone 1g, but symptoms relapsed and she remained culture-positive 2 weeks later. She failed subsequent treatment with gentamicin 240 mg plus azithromycin 2g but cleared the infection with 3 days of IV ertapenem. Both isolates were resistant to ceftriaxone (MIC 1.0 mg/L), cefixime, penicillin, ciprofloxacin and tetracycline, had intermediate susceptibility to azithromycin (MIC 0.5 mg/L), and were susceptible to spectinomycin. Whole genome sequencing indicated that both isolates were from the FC428 clone, which has been reported sporadically globally, usually with epidemiological links to the Asia-Pacific region.

Conclusion These FC428 clone isolates are able to cause both asymptomatic and symptomatic infection with a variable response to ceftriaxone and azithromycin treatment. This clone is likely to increase over time in Europe and threatens the effectiveness of gonorrhoea treatment. Surveillance of AMR, test-of-cure, extra-genital sampling and partner notification are vital to maintain effective treatment and prevent spread.

Disclosure No significant relationships.

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AZITHROMYCIN RESISTANCE AMONG *NEISSERIA GONORRHOEAE* CASES IN KING COUNTY, WASHINGTON, USA, 2017–2018

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Background Public Health – Seattle & King County (PHSKC) participates in Strengthening the U.S. Response to Resistant Gonorrhea (SURRG), funded by the Centers for Disease Control and Prevention, to enhance surveillance of antimicrobial resistance in *Neisseria gonorrhoeae* (GC). We aimed to identify predictors of azithromycin-resistant GC.

Methods GC culture specimens were collected from patients with GC infection who attended the PHSKC STD Clinic or one of five King County, Washington, medical clinics during 2017–2018. Positive culture isolates underwent azithromycin susceptibility testing with Etest; azithromycin resistance (AZI-R) was defined as minimum inhibitory concentration ≥ 2.0 μ g/mL. Clinical and sociobehavioral data was obtained from medical records and partner services interviews; we compared

characteristics of cases with and without AZI-R and evaluated statistical significance with chi-square and Fisher's exact tests.

Results During 2017–2018, 1,164 GC isolates from 1,048 unique cases underwent azithromycin Etest susceptibility testing. Overall, 6.5% of isolates and 6.8% of cases had AZI-R. Prevalence was higher in rectal isolates (8.3% of 373) than urethral (5.0% of 496, $p=0.05$) and similar to pharyngeal (7.4% of 270, $p=0.68$). AZI-R was more common in men who have sex with men (MSM) than heterosexuals (8% vs 3%, $p=0.04$), and in Hispanics vs. non-Hispanics (12% vs 6%, $p<0.01$). Age, GC history, number of sex partners, HIV-status, PrEP-status, and diagnosing facility type were not associated with AZI-R. Most (95%) AZI-R cases were treated with an azithromycin-containing regimen (dual therapy with ceftriaxone (92%) or gentamicin (4%)). Nearly all (96%) had a documented negative test of cure (culture and/or NAAT); no treatment failures were observed.

Conclusion AZI-R was identified in 6.8% of GC cases in King County, Washington. While more common in MSM and Hispanic persons, AZI-R was not strongly associated with other characteristics we evaluated. Health care providers should be aware of the potential for AZI-R in patients with GC.

Disclosure No significant relationships.

P677

PRESCRIBED TREATMENTS FOR *NEISSERIA GONORRHOEAE* INFECTIONS AND TREATMENT FAILURES IN THE QUEBEC SENTINEL NETWORK, 2015–2017

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Background *Neisseria gonorrhoeae* is becoming increasingly resistant to the antibiotics used and many countries reported therapeutic failures. The WHO published a global action plan on antimicrobial resistance. Several measures were undertaken in Québec including the use of a dual therapy. Since 2015, the provincial sentinel network aims to 1) maintain sufficient cultures for the surveillance of antimicrobial resistance 2) complement the reference laboratory antimicrobial surveillance by providing epidemiological and clinical information and 3) complement the surveillance of treatment failures.

Methods Two clinics specialized in STBBIs and several general practitioners, located in three regions (Montreal, Montérégie, Nunavik) are enrolled. Epidemiological and clinical data (including reasons for visits, laboratory samples and treatments prescribed) of gonococcal infections are collected on a centralized secured web application. Cases are classified as retained treatment failures (presence of all predefined criteria) or suspected treatment failures.

Results From September 2015 to December 2017, 1240 episodes in 1115 individuals were recorded (111 women, 1000 men, 3 transgender, 1 unknown sex). At least 83% of the