Conclusion Neisseria gonorrhoeae is able to rapidly acquire high level macrolide resistance in the presence of both DNA of AZM highly resistant NG strains and AZM.

Disclosure No significant relationships.

Background Ceftriaxone has been used to treat gonorrhoea in China for more than one decade, but an increasing level of decreased susceptibility or clinical resistance to ceftriaxone has been found. Moreover, the international spread ceftriaxone-resistant clones has been recognized as a threat to effective control of gonorrhoea. We now describe an imported ceftriaxone-resistant N. gonorrhoeae strain isolated in China, 2016.

Methods The isolate was collected in 2016. The antimicrobial susceptibility to ceftriaxone (CRO), cefixime (CFM), azithromycin (AZM), spectinomycin (SPT) and ciprofloxacin (CIP) was determined using the agar dilution method in reference lab at National Center for STD Control. A combination of molecular epidemiological methods including N. gonorrhoeae multiantigen sequence typing (NG-MAST), multi-locus sequence typing (MLST) and N. gonorrhoeae sequence typing for antimicrobial resistance (NG-STAR) was used to determine characteristics and resistant determinants of this isolate.

Results The strain was resistant to CRO (MIC 0.5 mg/L), CFM (MIC 1 mg/L), TET (4 mg/L) and CIP (≥32 mg/L), but susceptible to AZM (0.25 mg/L) and SPT (16 mg/L). The MLST type was ST1903, and NG-MAST type was ST3435. The NG-STAR type was ST233, which contains a type 60 mosaic penA allele, –3A5 Del in the mtrR promoter, G120K, A121D in PorB, L421P in PonA, S91F-D95A in GyrA, S87R in ParC, and wild-type 23srRNA.

Conclusion We identified a ceftriaxone-resistant N. gonorrhoeae strain which has sustainably transmitted worldwide for more than 3 years. The epidemiological and molecular typing data drew an integral transmission chain of this clone from Japan to China, and then disseminated globally. These findings indicate an imported risk of resistant clones in China and also call for an enhanced global gonococcal antimicrobial surveillance to track the emergence and dissemination of resistant strains for timely control and spread.

Disclosure No significant relationships.

Background The widespread antimicrobial resistance (AMR) of Neisseria gonorrhoeae (NG) is a serious problem for the treatment of gonorrhoea. Because NG infections are not reportable in Germany, only limited data on disease epidemiology and antimicrobial susceptibility patterns are available. The Gonococcal Resistance Network (GORENET) monitors trends of NG AMR in Germany and links this to epidemiological data and NG multiantigen sequence typing (NG-MAST) data to guide treatment algorithms and target future prevention strategies.

Methods Between April 2014 and December 2018, NG isolates and data on patient-related information were collected from laboratories nationwide and centralized susceptibility testing using E-test was performed. Susceptibility results for