Background The European Gonococcal Antimicrobial Surveillance Programme (Euro-GASP) annually investigates antimicrobial susceptibility data for Neisseria gonorrhoeae with patient epidemiological data to monitor current and emerging trends in antimicrobial resistance (AMR) across Europe. Susceptibility to ceftriaxone and azithromycin, currently recommended for combination treatment in the European management guideline, has decreased in the past; regular surveillance of AMR is crucial. We present the main Euro-GASP findings from 2017.

Methods Agar dilution and minimum inhibitory concentration (MIC) gradient strip tests were used to determine the antimicrobial susceptibility to cefixime, ceftriaxone and azithromycin (using EUCAST breakpoints) of 3248 N. gonorrhoeae isolates collected in 2017 from 27 countries across the European Union/ European Economic Area (EU/EEA). Significance of changes in resistance compared to 2016 was analysed using Z-tests.

Results There were no isolates with ceftriaxone resistance (MIC > 0.125 mg/L) (zero in 2016), 7.5% of isolates were azithromycin resistant (MIC > 0.5 mg/L) (7.5% in 2016; p = 0.93) and cefixime resistance (MIC > 0.125 mg/L) was observed in 1.9% of isolates (2.1% in 2016; p = 0.53). Seven isolates from four countries displayed high-level azithromycin resistance (MIC > 256 mg/L), which is the same number as observed in 2016, although in different countries (five countries in 2016). Ceftriaxone MICs for 28 isolates (0.9%) were 0.125 mg/L (on the resistance breakpoint) which is double the number observed in 2016 (14 isolates, 0.5%) although this increase is not statistically significant (p = 0.33). Of the 28 isolates on the ceftriaxone resistance breakpoint, four showed intermediate susceptibility to azithromycin.

Conclusion Ceftriaxone, azithromycin and cefixime resistance levels remained stable compared with 2016. However, the current azithromycin resistance rate of 7.5% and the number of isolates on the resistance breakpoint for ceftriaxone threaten the effectiveness of the currently recommended European therapeutic regimen of ceftriaxone 500 mg plus azithromycin 2 g. Continued surveillance is essential together with, ultimately, development of new effective antimicrobials.

Disclosure No significant relationships.