Background Resistance in Neisseria gonorrhoeae to all therapeutic antimicrobials has emerged. Novel antimicrobials for gonorrhoea treatment is planned in 2019. Clinical trial evaluating efficacy and safety of zoliflodacin for therapy with low resistance emergence potential. A phase III trial showed rapid rates of bacterial killing and reduced for all antimicrobial combinations. All resistant mutants contained the GyrB mutations D429N, K450T or K450N, resulting in zoliflodacin MICs of 0.5 mg/L consistent with previous results.

Results Zoliflodacin alone or in combination with all six antimicrobials showed rapid rates of in vitro bacterial killing against all examined strains in time-kill studies. Tetracycline or ceftriaxone, spectinomycin, gentamicin, tetracycline, cethromycin, and sitafloxacin in checkerboard assays, time-kill curve analysis, and induction/selection of resistance studies.

Conclusion Zoliflodacin, alone or in combination with STI therapeutic antimicrobials has a rapid and high in vitro efficacy against gonococci with low resistance emergence. Zoliflodacin remains a promising novel oral therapeutic for gonorrhoea monotherapy and as part of dual antimicrobial therapy with low resistance emergence potential. A phase III clinical trial evaluating efficacy and safety of zoliflodacin for uncomplicated gonorrhoea treatment is planned in 2019.

Disclosure No significant relationships.