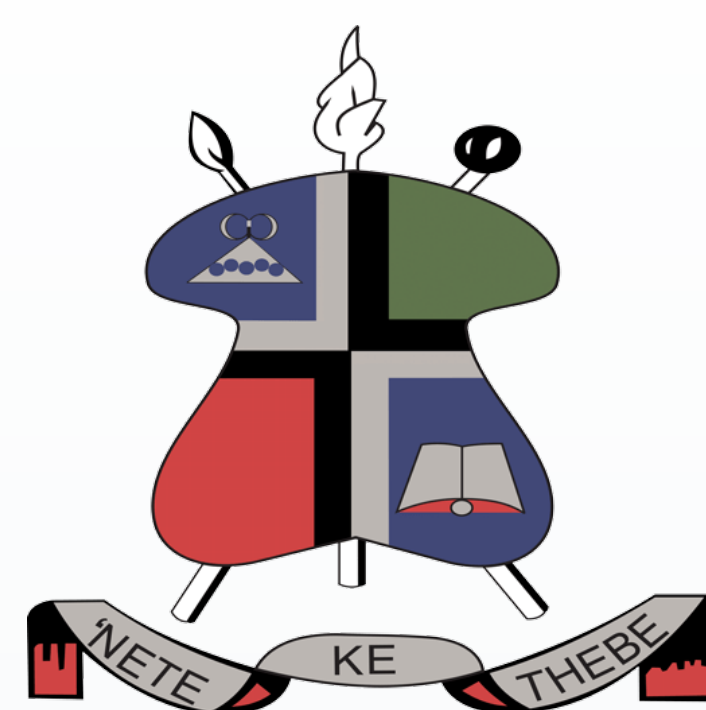


Antimicrobial Resistance of *Neisseria gonorrhoeae* in Lesotho

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Introduction

- In Lesotho, ciprofloxacin and doxycycline are used in the syndromic management of gonorrhoea.
- However, ciprofloxacin and doxycycline have been abandoned globally for treatment of gonorrhoeae due to high rates of resistance of *Neisseria gonorrhoeae*.
- There is no data about resistance of *Neisseria gonorrhoeae* in Lesotho to these drugs due to absence of routine diagnostics and lack scale of surveillance systems.
- This study aimed to determine the occurrence of antimicrobial resistance in *Neisseria gonorrhoeae* isolates in Lesotho.

Materials and Methods

- We recruited adult men presenting with urethral discharge at a primary healthcare clinic in Maseru, Lesotho.
- Urethral smear and urine specimens were obtained for microbiological analysis.
- Molecular detection of *Neisseria gonorrhoeae* and *Chlamydia trachomatis* was performed with validated commercial real-time PCR assay.
- *Neisseria gonorrhoeae* culture was performed from urethral swabs by direct inoculation of Modified Thayer-Martin medium, followed by antimicrobial susceptibility testing using the E-test with minimum inhibitory concentration, according to EUCAST criteria.
- Penicillinase-producing *Neisseria gonorrhoeae* isolates were identified using nitrocefin disks.

Acknowledgements

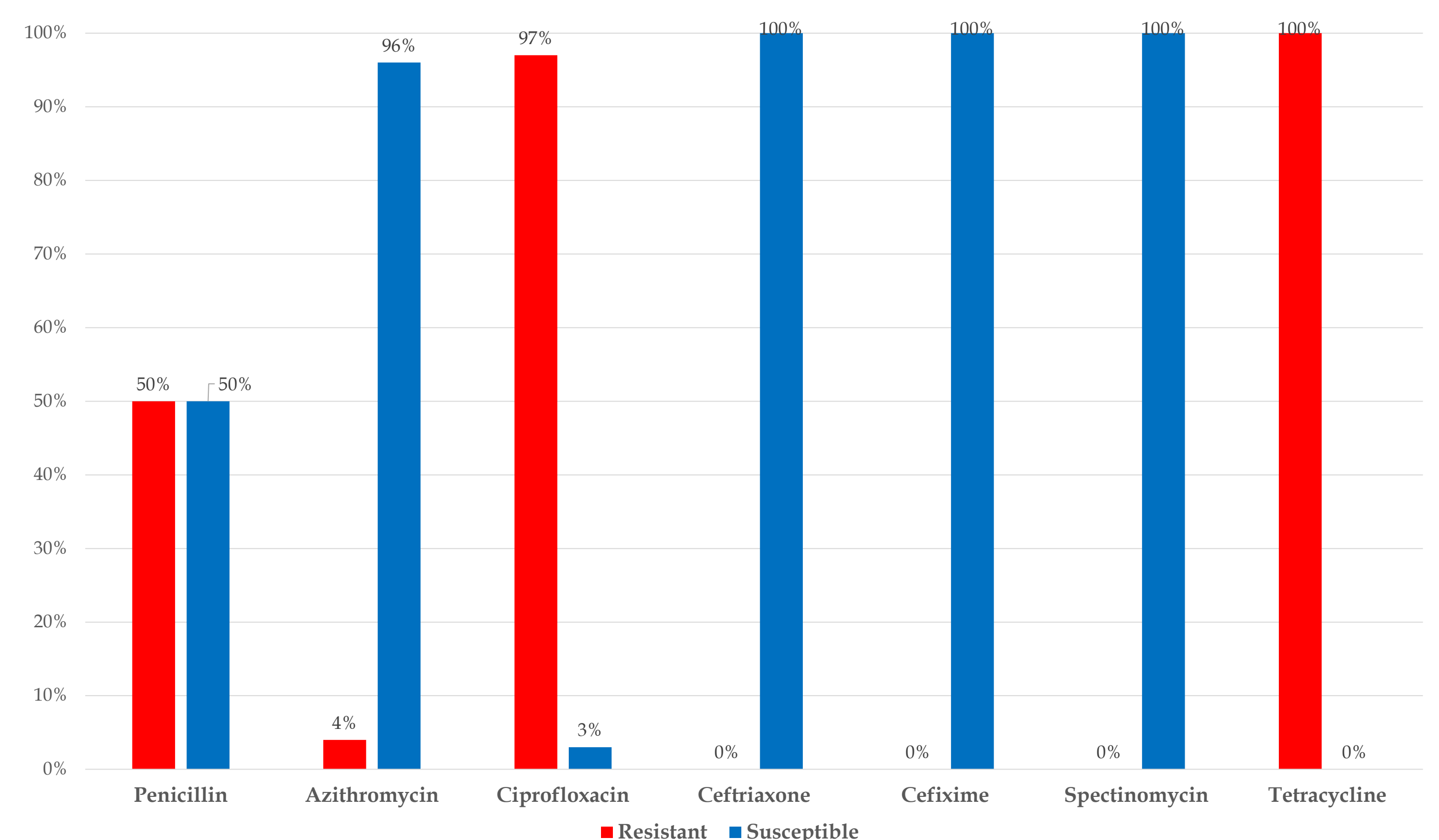
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Results

- We recruited 170 men.
- *Neisseria gonorrhoeae* (n=99; 58%) was the most common aetiology of discharge followed by *Chlamydia trachomatis* (n=20; 12%).
- Gonococcal cultures were positive for 71% (70/99) of men with *Neisseria gonorrhoeae* detected molecularly.
- Antimicrobial resistance revealed high rates of resistance to ciprofloxacin (97%) and Tetracycline (100%).
- All gonococcal isolates were susceptible to spectinomycin and cephalosporins (**Figure 1**).

Figure 1. Proportion of isolates obtained from men that are resistant to the various antimicrobial drugs



Conclusion

- The observed high prevalence of antimicrobial resistance in *Neisseria gonorrhoeae* is of great concern as it confirms that ciprofloxacin and doxycycline are not efficacious for treatment of *Neisseria gonorrhoeae* in Lesotho.
- Therefore, it is imperative to change the antimicrobial drugs in the syndromic treatment regimen, preferably to azithromycin and ceftriaxone.
- Our findings highlight the urgency to implement diagnostics for sexually transmitted infections care in Lesotho.

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