First line dual therapy for gonorrhoea to limit the spread of antimicrobial resistance

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There is an outbreak of *Neisseria gonorrhoeae* with high-level resistance to azithromycin in England.[1] Since publication of this news article in the *BMJ* in April 2016,[2] an additional 22 cases have been identified, with a total of 56 confirmed cases by October 2016.[3]

Most gonorrhoea diagnoses in England are made in specialist sexual health clinics (SHCs), but around 5% are made in general practice (GP).[4] The national treatment guideline recommends dual therapy of 500mg ceftriaxone (intramuscularly) and 1g azithromycin (orally) as first-line, to help extend the useful life of cephalosporins. [5] While over 90% of cases treated at SHCs receive the recommended first-line therapy, [3, 5] only 9% of cases treated by GPs between 2011 and 2014 did so. [4]

The national guideline allows for azithromycin monotherapy as an alternative regimen where it is difficult to provide an intramuscular injection (for ceftriaxone); [5] from 2011 to 2014, 19% of cases treated by GPs received azithromycin monotherapy, but at 1g, rather than the recommended 2g dose.

In the context of increasing resistance to azithromycin, the use of azithromycin monotherapy to treat gonorrhoea, especially with a suboptimal dosage, increases both the likelihood of treatment failure and the selection pressure for the development of ceftriaxone resistance.

GPs are encouraged to refer cases of gonorrhoea to SHCs but should treat patients deemed likely to be lost to follow-up. [6] However, to limit the spread of antimicrobial resistance and ensure gonorrhoea remains a treatable infection, use of first-line therapy in all settings is strongly recommended.

Word count: 250 (limit: 250)

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