

# Gentamicin as an alternative to ceftriaxone in the treatment of gonorrhoea: the G-TOG non-inferiority RCT

Jonathan DC Ross,<sup>1\*</sup> Jan Harding,<sup>1</sup> Lelia Duley,<sup>2</sup> Alan A Montgomery,<sup>2</sup> Trish Hepburn,<sup>2</sup> Wei Tan,<sup>2</sup> Clare Brittain,<sup>2</sup> Garry Meakin,<sup>2</sup> Kirsty Sprange,<sup>2</sup> Sukhwinder Thandi,<sup>2</sup> Louise Jackson,<sup>3</sup> Tracy Roberts,<sup>3</sup> Janet Wilson,<sup>4</sup> John White,<sup>5</sup> Claire Dewsnap,<sup>6</sup> Michelle Cole<sup>7</sup> and Tessa Lawrence<sup>1</sup> on behalf of the G-TOG Collaborative Group<sup>†</sup>

<sup>1</sup>Whittall Street Clinic, University Hospitals Birmingham NHS Foundation Trust, Birmingham, UK

<sup>2</sup>Nottingham Clinical Trials Unit, University of Nottingham, Nottingham, UK

<sup>3</sup>Health Economics Unit, University of Birmingham, Birmingham, UK

<sup>4</sup>Leeds Centre for Sexual Health, Leeds, UK

<sup>5</sup>Burrell Street Clinic, Guy's and St Thomas' NHS Foundation Trust, London, UK

<sup>6</sup>Sheffield Royal Hallamshire Hospital, Sheffield, UK

<sup>7</sup>Antimicrobial Resistance and Healthcare Associated Infections (AMRHAI), National Infection Service, Public Health England, London, UK

\*Corresponding author [jonathan.ross@uhb.nhs.uk](mailto:jonathan.ross@uhb.nhs.uk)

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## Plain English summary

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## Plain English summary

**G**onorrhoea is a common infection, spread by having sex, that causes genital pain and discomfort. In women it can lead to pelvic inflammation and infertility, and in men it can lead to swelling and pain in the testicles. Currently, an antibiotic called ceftriaxone is used to treat gonorrhoea. However, there is evidence that this is becoming less effective over time and it could stop curing patients with gonorrhoea within the next few years.

In this study, we wanted to find out if another antibiotic called gentamicin is as good as ceftriaxone in the treatment of gonorrhoea and whether or not gentamicin could be used to treat gonorrhoea if ceftriaxone stops being effective.

We recruited 720 adults with gonorrhoea and randomly allocated them (by chance) to receive treatment with an injection of either gentamicin (240 mg) or ceftriaxone (500 mg). They all also received a single dose of azithromycin (1 g) taken by mouth.

Overall, 98% of participants given ceftriaxone had their gonorrhoea cured, compared with 91% of participants given gentamicin, a difference of 7%. Therefore, it is likely that doctors will continue to use ceftriaxone (plus azithromycin) as the preferred treatment. Gentamicin did have a cure rate of 94% for genital gonorrhoea and so it might be useful when ceftriaxone is not available or appropriate to use. Cure rates using gentamicin were lower than cure rates using ceftriaxone for gonorrhoea infecting the rectum (90%) and throat (80%), so it may be less useful for patients with infections at these sites.

We also found that gentamicin is likely to cost the NHS more than ceftriaxone.

Gentamicin caused few side effects and seems to be as safe as ceftriaxone, which is reassuring.



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