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

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Plain English summary

The G-TOG RCT

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Plain English summary

Gonorrhoea 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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