

Retreatment rates for uncomplicated gonorrhea infection: comparing ceftriaxone and azithromycin versus ceftriaxone and doxycycline.

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Abstract

BACKGROUND:

The current recommended first-line regimen to treat gonorrhea is ceftriaxone in combination with either azithromycin or doxycycline. Azithromycin is the preferred second agent. We retrospectively measured and compared gonorrhea retreatment rates between patients receiving ceftriaxone plus azithromycin and those receiving ceftriaxone plus doxycycline.

METHODS:

Using data from public sexually transmitted disease clinics for patients treated for gonorrhea in Baltimore, Maryland, between January 2004 and December 2011, we measured time to retreatment from the date the ceftriaxone regimen was received. Censoring occurred on the earlier of 2 years posttreatment or March 31, 2012. Survival analysis methods were used to compare retreatment rates.

RESULTS:

One tenth (9.9%; n = 4457) of patients were retreated within 2 years. Treatment regimen was not related to time to retreatment (adjusted hazard ratio [aHR], 0.88; 95% confidence interval, 0.69-1.12). Patients receiving expedited partner therapy (EPT) were 45% less likely to be retreated (aHR, 0.55 [0.31-0.96]) compared with patients treated before EPT became available. A subanalysis among patients retested for gonorrhea within 90 and 30 days found retreatment rates of 18.8% (n = 91/485) and 13.5% (n = 19/140), respectively. The 90-day cohort showed no association with treatment regimen (aHR, 0.95 [0.55-1.65]); however, all of the retreated patients in the 30-day cohort had received the doxycycline regimen.

CONCLUSIONS:

Gonorrhea retreatment was common, highlighting the need for rescreening and better partner therapies. The protective effect of EPT further underscores the need for effective oral therapies. Azithromycin may be preferable as the second agent to treat gonorrhea, although doxycycline seems to be a reasonable alternative.