Variation in prescriber adherence to antimicrobial treatment guidelines, and in the timeliness of treatment; a comprehensive audit of all adult patients with gonorrhoea in Auckland, New Zealand.

Rose Forster,1 Diana Ng,2 Arlo Upton,3 Rick Franklin,1 Mark Thomas,2,4

Background

The high prevalence of multidrug resistance in Neisseria gonorrhoeae has raised concern about the potential for the emergence of untreatable strains. In response to this threat, since 2012, the treatment recommended by the New Zealand Sexual Health Service, for most patients with gonorrhea in New Zealand, has been ceftriaxone 500mg IM plus azithromycin 1 g orally. Recent studies elsewhere have shown only modest levels of compliance with similar treatment guidelines.

Methods

With New Zealand Ministry of Health ethics committee approval, we obtained from the four Auckland microbiology laboratories, information on all patients aged ≥15 years, diagnosed with gonorrhea, in the Auckland region, between 1st January and 30th June 2015. We obtained treatment information for these episodes of gonorrhea by contacting the relevant family doctor or other community care-provider, and by searching the medical records of the four sexual health clinics and the four public hospitals in Auckland.

Results

The four Auckland clinical microbiology laboratories reported a total of 1417 positive test results for N. gonorrhoeae in samples collected from 746 episodes of gonorrhoea in Auckland during the first six months of 2015. The annual incidence of gonorrhoea in adults aged ≥15 years was 133/100,000 population. Information about the treatment given for each episode of gonorrhoea was available for 706/716 (99%) first episodes of gonorrhoea. (Figure 1) 429/706 (61%) episodes occurred in males, and 454/706 (64%) in people aged <30 years.

Conclusions

The incidence of gonorrhoea in Auckland was high - 133/100,000 adult population
Overall 57% of episodes were diagnosed in general practice or by other community providers
Overall 65% of episodes were treated with a guideline adherent regimen (GP:52%, SHS:89%, Hosp: 56%)
Overall 7% of episodes were not treated with an antimicrobial by the diagnosing service (GP:8%, SHS:2%, Hosp: 21%)
Treatment was given on the same day as presentation in 40% episodes (GP:31%, SHS:54%, Hosp: 46%)
Improving adherence to treatment guidelines and increasing the proportion of patients treated on the day of presentation may contribute to reducing the incidence of gonorrhoea in Auckland.