

Table 1 Distribution of positive samples

	"+" Pools (12)	Equivocal pools (4)*	"-" Pools (50)
"+" Samples (17)	13	4	0

\*Confirmed as positive pools.

instructions. Equivocal results analysis (>0.2 OD, <0.8 OD) was resolved by reprocessing original samples and by retesting both pooled and individual specimens by Amplicor PCR assay.

The results are summarised in table 1. The calculated prevalence was 5.2% (17/329). The dilution effect associated with the pooling strategy did not have any effect on either the sensitivity or specificity of the Amplicor PCR test (both 100%) and also solved the problem of PCR inhibitory substances in urine specimens (0% compared with 3.6% of individual testing). One FCU specimen was repeatedly inhibited and was excluded.

The choice for a 5× size pool model was based on the highest potential cost saving for the estimated prevalence of the studied population, according to Peeling *et al* and Kacena *et al.*<sup>2,3</sup> According to the number of tests required using pooling and individual testing (166 and 346, respectively) the cost saving was 52% compared with the 56% obtained using the mathematical formula. The main reason for this minor difference is that the formula does not take into account the inhibited and equivocal results requiring further sample testing.

Despite the low number of studies concerning urine pooling strategies, the results obtained so far suggest that pooling FCU samples can be useful for epidemiological studies and for screening programmes.

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### Emergence of high level ciprofloxacin resistant *Neisseria gonorrhoeae* strain in Buenos Aires, Argentina

EDITOR,—The surveillance programme of *Neisseria gonorrhoeae* (NG) antimicrobial susceptibility patterns was implemented in 1980 in the National Reference Centre for STI (NRC).

Twenty nine peripheral STI laboratories belonging to the National Network of Argentina, distributed throughout the country, routinely send their isolates to the NRC for typing, susceptibility testing, and plasmid characterisation.

The NRC was incorporated into the WHO Gonococcal Antimicrobial Susceptibility Programme (GASP) for the Americas and the Caribbean in 1993 and since then the methodology has been standardised.

From January 1993 to June 2000, the NRC determined the MICs of 1194 NG strains by the agar dilution method with the media, conditions, and controls as recommended by the NCCLS.<sup>1</sup> Ciprofloxacin range, MIC<sub>90</sub> and MIC<sub>50</sub> were 0.002-16, 0.004, and 0.016 µg/ml, respectively.

Only one NG strain, detected in 1996, showed a decrease susceptibility to ciprofloxacin. The isolate was submitted by a public hospital from Buenos Aires city. The strain was β lactamase negative by nitrocefin discs and the MICs were penicillin 0.5 µg/ml, tetracycline 4 µg/ml, ciprofloxacin 0.125 µg/ml, spectinomycin 32 µg/ml, ceftriaxone 0.004 µg/ml, and azithromycin 0.25 µg/ml. The auxotype/serogroup class<sup>2</sup> was proline requiring/WII-III.

In May 2000 the first NG strain with high level quinolone resistance (QRNG) was isolated. This strain was isolated in a private medical centre in Buenos Aires city and was submitted to the NRC; no inhibition zone was observed with a 5 µg ciprofloxacin disc.

#### CASE REPORT

The patient was a heterosexual man, aged 34 years, married, not a drug user, and he hadn't travelled abroad during the past year. However, he admitted to having had sexual intercourse with a commercial sex worker, 4 days before the onset of the symptoms. He presented with a purulent acute urethritis with dysuria and was treated with a parenteral dose of ceftriaxone 500 mg and a week's course of doxycycline. The patient became asymptomatic 36 hours after the start of the treatment. Serological tests for VDRL, HIV, and hepatitis B and C were negative.

The strain was β lactamase negative and exhibited high level ciprofloxacin resistance (MIC 16 µg/ml) and low level tetracycline resistance (MIC 4 µg/ml) and was susceptible to the other antibiotics assayed. The MICs were penicillin 1 µg/ml, spectinomycin 32 µg/ml, ceftriaxone 0.008 µg/ml, and azithromycin 0.25 µg/ml. Phenotyping demonstrated a proline requiring auxotype and a WII/III serotype.

Both NG strains mentioned above displayed the same phenotypic characteristics: MICs (except for ciprofloxacin), auxotype, and serogroup.

Pulse field gel electrophoresis (PFGE) was performed with *NheI* and *SpeI*.<sup>3</sup> There was no relation between the PFGE patterns of the

two strains and neither showed genomic similarities to four other ciprofloxacin susceptible NG isolates belonging to the auxotype/serogroup class Pro/WII-III isolated in Buenos Aires at the same time.

The epidemiological data and laboratory characterisation of this high level quinolone resistant strain suggest it might have a foreign origin.

According to the literature reviewed no QRNG strain with high level quinolone resistance was reported in Latin-American countries. We report here what we believe to be the first isolation of a strain with high level resistance to ciprofloxacin in Argentina.

Owing to the large scale use of quinolones in our country, where antibiotic use is difficult to control, a substantial increase of QRNG might be expected in the near future. If dissemination occurs, current first line therapy, a single 500 mg dose of ciprofloxacin, should be reviewed.<sup>4</sup>

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### Dorsal perforation of prepuce due to locally erosive condylomata acuminata

EDITOR,—We recently reported five patients with sexually/non-sexually transmitted ulcerative diseases complicated by perforation on the dorsal surface of the prepuce.<sup>1</sup> We could find reports of only three similar cases in the indexed literature. During screening of our STD clinic files we found record of another patient with dorsal perforation of the prepuce; however, it was not due to genital ulcer disease, but to condylomata acuminata. This patient, a 22 year old man had unprotected sexual intercourse with a commercial sex worker about 6 months before reporting to our STD clinic in January 1994. About 1 month after sexual contact, he