Conclusions CIN2+ rates varied by catchment area, possibly reflecting differences in screening or case ascertainment. HPV16 or 18 were present in ~52% of lesions. Type-specific monitoring of CIN2+ can allow evaluation of vaccine impact on cervical disease, and may be useful in determining whether type replacement occurs.

Epidemiology oral session 3: bacterial resistance

**O1-S03.01** ANTIMICROBIAL RESISTANCE TO NEISSERIA GONORRHOEA IN A COHORT OF YOUNG MEN IN KISUMU, KENYA: 2002–2009


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Background We evaluated antimicrobial resistance in Neisseria gonorrhoeae (NG) isolated from men aged 18–24 enrolled in a randomised trial of male circumcision to prevent HIV.

Methods Urethral specimens were obtained from men with discharge. These were inoculated in modified Thayer-Martin agar and incubated at 37°C in 5% CO₂ for 24–48 h, with confirmation of NG colonies by standard procedures. Minimum inhibitory concentrations (MICs) were determined by agar dilution. Clinical Laboratory Standards Institute criteria determined resistance: MIC<2.0 μg/ml for penicillin, tetracycline, and azithromycin; ciprofloxacin MIC≥1.0 μg/ml; spectinomycin MIC≥128.0 μg/ml. Susceptibility to ceftriaxone and cefixime was MIC<0.25 μg/ml. We used PCR amplification to detect mutations in the parC and gyrA genes, associated with quinolone resistance.

Results From 2002 to 2009, 168 NG isolates were obtained from 142 men. Plasmid mediated penicillin resistance (PPNG) was found in 65%, plasmid mediated tetracycline resistance (TRNG) in 97%, and 11% were ciprofloxacin resistant (QRNG). QRNG appeared November 2007, increasing from 9.5% in 2007 to 50% in 2009 see Abstract O1-S03.01 table 1. Resistance was not detected for spectinomycin, cefixime, ceftriaxone, and azithromycin, but MICs of cefixime (p<0.018), ceftriaxone (p<0.001), and azithromycin (p=0.097) increased over time. In a random sample of 51 men gentamicin MIC was assessed: 4 μg/ml (n=1), 8 μg/ml (n=49), 16 μg/ml (n=1). Increased MICs were associated with urban residence, multiple recent sex partners, not using condoms.

Conclusions Quinolone resistance increased rapidly and alternative treatment, such as cefixime, is required for NG in this area. Systematic surveillance of antimicrobial resistance in NG is necessary for appropriate drug choice. Increases in MICs for oral cephalosporins add to growing concern for multi-drug resistant NG. The high prevalence of PPNG and TRNG suggest strong selective pressure from background antibiotic use.

Abstract O1-S03.01 Table 1

<table>
<thead>
<tr>
<th>Year</th>
<th>Quinolone resistance n/N (%)</th>
<th>95% CI</th>
</tr>
</thead>
<tbody>
<tr>
<td>2002–2006</td>
<td>0/89 (0.0)</td>
<td>–</td>
</tr>
<tr>
<td>2007</td>
<td>2/21 (9.5)</td>
<td>1.2 to 30.4</td>
</tr>
<tr>
<td>2008</td>
<td>6/22 (27.3)</td>
<td>10.7 to 50.2</td>
</tr>
<tr>
<td>2009</td>
<td>7/14 (50.0)</td>
<td>23.0 to 77.0</td>
</tr>
<tr>
<td>p Value for trend</td>
<td>0.001</td>
<td>0.25 μg/ml</td>
</tr>
</tbody>
</table>
O1-S03.02 Cephalosporin susceptibility of Neisseria gonorrhoeae isolates in the USA, 2000–2010

R Kirkcaldy, E Murray, C Del Rio, G Hall, E Hook, W Whittington, J Papp and H Weinstock

Sex Transm Infect 2011 87: A26
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