To the Editors:

Salmonella typhi and chloramphenicol resistance

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Typhoid fever is a systemic bacteraemic infection with gastrointestinal portal of entry and important intestinal and systemic complications. It is caused by Salmonella typhi.

Chloramphenicol has been the treatment of choice for typhoid fever since its introduction in 1948 (1). It remains the standard drug with which the other agents are compared (2). But recently attention has been focused in treatment with other drugs due to the emergence of multidrug resistant isolates.

The following table shows the antibiotic resistance pattern of Salmonella typhi isolated from blood, clot and stool cultures for the years 1998 and 1999, performed in the department of bacteriology, Medical Research Institute, Colombo.


<table>
<thead>
<tr>
<th>Year</th>
<th>Number of tests</th>
<th>Chlor</th>
<th>Cipro</th>
<th>Ceftri</th>
<th>Fura</th>
<th>Amp</th>
<th>Cotrim</th>
</tr>
</thead>
<tbody>
<tr>
<td>1998</td>
<td>72</td>
<td>31</td>
<td>0</td>
<td>6</td>
<td>28</td>
<td>39</td>
<td></td>
</tr>
<tr>
<td>1999</td>
<td>77</td>
<td>27</td>
<td>0</td>
<td>3</td>
<td>35</td>
<td>36</td>
<td></td>
</tr>
</tbody>
</table>

Chlor - chloramphenical, Cipro - ciprofloxacin, Ceftri - cerfriazone, Fura - furazolidone, Amp - ampicillin, Cotrim - cotrimoxazole

Of chloramphenicol resistant strains, 93% were resistant to ampicillin, and all were resistant to trimoxazole. These multiresistant S. typhi are currently causing problems in India, Pakistan and Bangladesh (3). All chloramphenicol resistant strains were sensitive to ciprofloxacin and cefriazone. Majority of multidrug resistant strains were sensitive to furazolidone as well. Therefore, though chloramphenicol remains as the agent of first choice in typhoid fever when the organism is susceptible, fluoroquinolone, cephalosporin or furazolidone are now frequently indicated because of problems of drug resistance.

References