Letters to the Editor


References

Separate or combined disk agar diffusion techniques in cotrimoxazole sensitivity testing and use of single versus combination therapy

The report of SGB Aymes and WA Telfer Brunton in your issue of February 19811 showed data remarkably similar to ours (Table). We tested 284 bacterial isolates for sensitivity to cotrimoxazole, sulfadiazine and trimethoprim by the disk diffusion agar-overlay method.6 Antibiotic disks were commercially prepared (Mast Laboratories, England), and contained 250 μg sulfadiazine, 23-75 μg sulfamethoxazole plus 1-25 μg trimethoprim (cotrimoxazole) or 1-25 μg trimethoprim.

Of the strains sensitive to cotrimoxazole, 72% were sensitive to sulfadiazine alone, 87% to trimethoprim alone and only 1% to the combination alone. Of the 173 isolates of Escherichia coli and Klebsiella pneumoniae which were susceptible to cotrimoxazole, 98% were sensitive to trimethoprim alone. Although we did not study synergistic effects in great detail, we did observe that with organisms sensitive to cotrimoxazole, resistant to sulfadiazine and sensitive to trimethoprim, the zone diameters of inhibition around the cotrimoxazole and trimethoprim disks were identical.

In view of our findings, and those of Aymes and Telfer Brunton, there is certainly a place for the laboratory testing of sulfamethoxazole and trimethoprim sensitivities singly. Since most organisms are sensitive to either sulfadiazine or trimethoprim, a case could certainly be made for using single drug therapy in different clinical situations.

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In vitro susceptibility of bacterial strains to cotrimoxazole, sulfanilamide and trimethoprim

<table>
<thead>
<tr>
<th>Organism</th>
<th>Strains tested</th>
<th>Strains (%) sensitive to cotrimoxazole, sulfamethoxazole and trimethoprim</th>
<th>Strains (%) sensitive to cotrimoxazole and trimethoprim, resistant to sulfonamide</th>
<th>Strains (%) sensitive to cotrimoxazole, resistant to sulfanilamide and trimethoprim</th>
<th>Strains (%) resistant to cotrimoxazole, sulfamethoxazole and trimethoprim</th>
<th>Strains (%) resistant to cotrimoxazole, resistant to sulfonamide and trimethoprim</th>
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</thead>
<tbody>
<tr>
<td>Escherichia coli</td>
<td>146</td>
<td>77 (53)</td>
<td>0 (0)</td>
<td>43 (29)</td>
<td>0 (0)</td>
<td>26 (18)</td>
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<td>Klebsiella pneumoniae</td>
<td>71</td>
<td>39 (55)</td>
<td>4 (6)</td>
<td>10 (14)</td>
<td>0 (0)</td>
<td>18 (25)</td>
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<tr>
<td>Enterobacter spp</td>
<td>22</td>
<td>16 (22)</td>
<td>4 (18)</td>
<td>1 (5)</td>
<td>0 (0)</td>
<td>1 (5)</td>
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<td>Proteus mirabilis</td>
<td>24</td>
<td>21 (4)</td>
<td>3 (30)</td>
<td>0 (0)</td>
<td>8 (67)</td>
<td>0 (0)</td>
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<tr>
<td>Proteus spp</td>
<td>10</td>
<td>3 (30)</td>
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<td>3 (30)</td>
<td>1 (10)</td>
<td>3 (10)</td>
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<td>Shigella spp</td>
<td>12</td>
<td>4 (33)</td>
<td>0 (0)</td>
<td>8 (67)</td>
<td>0 (0)</td>
<td>0 (0)</td>
</tr>
<tr>
<td>Total</td>
<td>285</td>
<td>141 (50)</td>
<td>27 (10)</td>
<td>63 (22)</td>
<td>3 (1)</td>
<td>51 (18)</td>
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