Resistance to Ampicillin

We have read with interest the paper by Slocombe and Sutherland (J. clin. Path., 1969, 22, 649) who report results which 'show no evidence of increased resistance to ampicillin among Gram-negative bacilli after six years' clinical usage'. The cultures examined by them were unselected fresh clinical isolates from four hospital laboratories in the London area.

Ampicillin has been extensively used in this hospital since 1960 and, since then, all strains of Enterobacteriaceae isolated from urine, pus, and sputum have been immediately tested for sensitivity to ampicillin by methods similar to those reported earlier (Holt and Stewart). Since 1964 the final inoculum concentration has been standardized at between 0.5 and $1 \times 10^6$ orgs. per ml. Some faecal strains were similarly tested.

The results of this survey are as follows:

<table>
<thead>
<tr>
<th>Year</th>
<th>No. of Strains with MIC (&gt; 100 µg/ml ampicillin)</th>
<th>No. of Strains with MIC (&lt; 500 µg/ml benzylpenicillin)</th>
</tr>
</thead>
<tbody>
<tr>
<td>1961</td>
<td>62/167 (37%)</td>
<td>14/17</td>
</tr>
<tr>
<td>1962</td>
<td>87/259 (33%)</td>
<td>40/51</td>
</tr>
<tr>
<td>1963</td>
<td>70/188 (37%)</td>
<td>44/57</td>
</tr>
<tr>
<td>1964</td>
<td>90/242 (37%)</td>
<td>48/66</td>
</tr>
<tr>
<td>1965</td>
<td>116/304 (38%)</td>
<td>68/101</td>
</tr>
<tr>
<td>1966</td>
<td>161/241 (67%)</td>
<td>39/60</td>
</tr>
<tr>
<td>1967</td>
<td>130/201 (65%)</td>
<td>52/63</td>
</tr>
<tr>
<td>1968</td>
<td>141/221 (64%)</td>
<td>56/72</td>
</tr>
</tbody>
</table>

Resistance of Enterobacteriaceae to ampicillin and benzylpenicillin over period 1961-1968

It will be seen that the percentage of Escherichia and Proteus strains resistant to ampicillin has approximately doubled during the eight years from 1961. The proportion of resistant Klebsiella strains shows little change over this period.

Davis, Lilly, and Lowbury report in the same volume of J. clin. Path. (page 634) that a very high proportion of E. coli (93.7%) and of Proteus mirabilis (95%) recovered by them from burns was resistant to ampicillin.

We have, however, no doubt of the value of ampicillin in the treatment of many severe infections, especially those caused by capsulated haemophilus and faecal streptococci; for these purposes we regard it as the drug of choice. There appears to be no evidence of emerging resistance of these organisms to ampicillin.

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Reference

False-positive Reactions to Syphilis Tests

In the February 1970 issue of the Journal of Clinical Pathology, in the article 'The biological false positive reaction to serological tests for syphilis', by M. F. Garner, is the statement: 'biological false positive reactions in blood donors are of interest,'

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Chemical Pathology in Relation to Clinical Medicine

The next symposium organized by the Chemical Pathology Committee of the Association of Clinical Pathologists in the series on chemical pathology in relation to clinical medicine will be on 'Enzyme assays in medicine.' It is to be held at the Royal Society of Medicine, London, on Monday 23 and Tuesday 24 November 1970 under the Chairmanship of Professor D. N. Baron.

Overseas Tutor Scheme in Medical Laboratory Technology

This year will see the first of a new series of courses for the training of senior laboratory technicians from overseas as tutors at the Royal Free Hospital, London.

The aim of this scheme is to give a six months' course of training to experienced, qualified technicians, in order to 'teach them to teach' medical laboratory technology. It is felt that if experienced overseas technicians were trained as tutors, they could either form the nucleus of new training centres or add to those already in existence. It should be understood that the aim is not to produce a 'super technician', or to give necessarily an extra qualification, but rather to train in this subject. Eighteen experienced technicians will not have had less than (about) five years' experience following qualification and the latter will be the qualification awarded locally or its overseas equivalent. Technicians will not be close to retiring age, and will not necessarily be the chief technician of the service or the centre. The trainees on this pioneer course are mainly supported financially by the Ministry of Overseas Development who also are meeting the capital and recurrent costs.

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doi: 10.1136/jcp.23.6.552-a

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