Trends in Vaccination of Travelers over the Last 15 Years and the Future Outlook

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The main British Airways Immunization Service in central London, open (since 1946) to any traveler, administers about 100000 vaccinations annually. The total vaccinations given during the 1st week of 1972 and the 1st week of 1987 happen to be virtually identical (see Table 1) but the range of vaccines used was quite different and provides an illustration of the changes over the last 15 years and the likely future trend as a more complete pre-travel medical service is developing.

Comments

1. 1987: no smallpox (or typhus) vaccinations.
   1972: smallpox = 28% of total vaccinations.
2. Cholera immunizations: number reduced to almost half; have continued to fall rapidly in the year since. (Unlike some countries, cholera vaccine is still widely used in the United Kingdom and the British Airways unit is ahead of the trend.)
3. Typhoid = 78% of optional immunizations in 1972 and is still the most popular (43%), but tetanus, polio and immunoglobulin have all increased markedly (the latter probably one of the most useful pre-travel measures as hepatitis A is one of the most prevalent travel diseases, but non-A hepatitis is on the increase and it is unlikely that immunoglobulin protects). (Tetanus and polio immunizations provide good protection against extremely serious diseases but the incidence of both is very low.)
4. Pre-exposure rabies vaccine used from 1976 (introduction of French human diploid cell vaccine), use of which use has greatly increased for travel to rural developing areas. Recipients are instructed to clean wounds and boost as soon as possible. Postexposure prophylaxis is sometimes also given as few doctors in the United Kingdom are experienced in this field.
5. Meningococcal meningitis A and C vaccine and Japanese encephalitis were used by 1987, but only for known outbreak areas or longer trips to endemic zones.
6. Hepatitis B vaccine usage (introduced in the 1980s, is likely to increase beyond travelers confined to high-risk categories; now a recombinant DNA yeast cell vaccine has allowed a price reduction since the January 1987 figures illustrated above.
Table 1. Trends in vaccination of travellers over the last 15 years and the future outlook

<table>
<thead>
<tr>
<th>First week of</th>
<th>Smallpox</th>
<th>Yellow fever</th>
<th>Cholera</th>
<th>Typhoid</th>
<th>Tetanus</th>
<th>Polio</th>
<th>2 ml immunoglobulin</th>
<th>5 ml immunoglobulin</th>
</tr>
</thead>
<tbody>
<tr>
<td>1972</td>
<td>542</td>
<td>282</td>
<td>856</td>
<td>203</td>
<td>32</td>
<td>6</td>
<td>11</td>
<td>–</td>
</tr>
<tr>
<td>1987</td>
<td>–</td>
<td>238</td>
<td>448</td>
<td>526</td>
<td>145</td>
<td>135</td>
<td>204</td>
<td>62</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>First week of</th>
<th>Pre-exp. rabies</th>
<th>Plague</th>
<th>Men. meningitis</th>
<th>Jap. encephalitis</th>
<th>Hepatitis B</th>
<th>E. European tick encephalitis</th>
<th>Diphteria</th>
<th>Typhus</th>
<th>Total number given</th>
</tr>
</thead>
<tbody>
<tr>
<td>1972</td>
<td>–</td>
<td>2</td>
<td>–</td>
<td>–</td>
<td>–</td>
<td>–</td>
<td>–</td>
<td>4</td>
<td>1938</td>
</tr>
<tr>
<td>1987</td>
<td>139</td>
<td>–</td>
<td>14</td>
<td>11</td>
<td>10</td>
<td>–</td>
<td>4</td>
<td>1936</td>
<td></td>
</tr>
</tbody>
</table>

1972
\{ Smallpox, yellow fever and cholera = mandatory vaccinations for certificates = 87%
Remaining vaccinations = advised = 13%
Indicative of the pre-occupation with international certificate requirements

1987
\{ Only yellow fever and a few of the cholera = mandatory vaccinations for certificates = approx 13%
Remaining vaccinations = advised = approx 87%
The proportion of mandatory as compared to advised vaccinations is almost entirely reversed