Hepatitis A in city of Plovdiv in 2006 – outbreak investigation and control measures

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Objective

To take account of the influence of the Stolipinovo quarter specificities on the epidemic process and to assess the effect of the post-exposure vaccination of contact persons with hepatitis A vaccine.
Materials and methods

The study includes:

1004 patients with viral hepatitis A, hospitalized in the Infectious Diseases Clinic of the Hospital St. George in Plovdiv;

5509 contacts which have been tested for aminotransferase activity;

318 contacts who have been tested for anti-HAV immunoglobulin M.

The methods used are epidemiological investigation, clinical and immunological studies for verification of viral hepatitis A.
Specific features of the Stolipinovo quarter

Stolipinovo quarter area - 62.7 ha
City area - 5000 ha
Stolipinovo population - 40 000
Plovdiv population - 341 873
Unemployment in Plovdiv - 10.94%
Unemployment in the Stolipinovo quarter - 4 times higher than that of Plovdiv
Illiteracy of quarter residents - 18.1%
Заболели от Вирусен хепатит А в гр. Пловдив - кв. Столипиново за периода от 23.06.06 г. до 31.12.06 г.

Дата на хоспитализиране

Брой заболели
## Hospitalized monthly and daily

<table>
<thead>
<tr>
<th>Month</th>
<th>Monthly</th>
<th>Daily</th>
</tr>
</thead>
<tbody>
<tr>
<td>July</td>
<td>117</td>
<td>5 – 9</td>
</tr>
<tr>
<td>August</td>
<td>234</td>
<td>10 – 20</td>
</tr>
<tr>
<td>September</td>
<td>370</td>
<td>16 – 27</td>
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</tbody>
</table>
Age structure of the cases

Age groupe

Number of cases

0 - 1 г.
1 - 4 г.
5 - 9 г.
10 - 14 г.
15 - 19 г.
20 - 24 г.
25 - 29 г.
30 - 34 г.
35 - 39 г.
40 - 44 г.
45 - 49 г.
50 - 54 г.
nad 60 г.
From 23.06.2006 to 31.12.2006 1004 cases of Viral Hepatitis A were registered - morbidity 2510 per 10 000

The epidemiological investigation found:
911 clusters with 1 case
38 clusters with 2 cases
4 clusters with 3 cases
1 cluster of 5 cases
Affected childcare facilities

6 schools with 84 cases

9 kindergartens with 72 cases - of which 46% are actively detected

318 contact children in kindergartens have been tested for anti HAV IgM, 33 of which were positive
Measures taken

Provided methodological assistance to all GPs on the implementation of the necessary measures against viral hepatitis A

Help in ensuring the distribution of disinfectants from the municipality of region "East" for final disinfection

Guidance and coordination of volunteers from NGO ROMA on the preparation of disinfectant solutions and their distribution

RIOKOZ has taken the initiative to make contact with all institutions concerned to improve sanitary conditions in the quarter
Organisational activities

Specifying the number of subjects

Providing facilities and equipment for immunization

Formation of the immunization teams

Preparation and printing of invitations to the parents of all eligible children

Giving the invitations to NGO ROMA for delivery to all homes

Informing the public through the media for the upcoming vaccination against viral hepatitis A
Имунизации срещу Хепатит А

8835 - подлежащи

7591 обхванати

1244 необхванати

- 797 неявили се
- 57 бременни
- 256 отказ
- 3 несъвместимост с др. имунизации
- 131 миграция
Morbidity before and after immunization
Conclusions

Having the specific features of the Stolipinovo quarter in mind, a fundamental role in limiting the spread of the infection is the use of the inactivated vaccine for postexposure prophylaxis of contact persons.

Without substantial changes in the living conditions and the behavior of the population it is not possible to provide better public health.

Health problems among the Roma population are not so much in the area of public health as they are social, economic and political ones. Their solution is not within the power of a ministry or municipality but of the whole society.
Thank you for your attention!