Hepatitis A cases in Syria

In recent time, the Ministry of Health of Syria has reported an increasing number of acute jaundice syndrome cases from different governorates of the country. Laboratory tests performed in Damascus has identified hepatitis A virus (HAV) as the causative organism of this high number of acute jaundice syndrome cases.

Editorial note

A total of 627 suspected cases of HAV were reported from eight governorates in Syria between 1 December 2014 and 27 March 2015 (Figure 1). The geographical distribution patterns showed the highest occurrence levels in Deir Ezzor governorate (56%) followed by Rural Damascus (18%) and Damascus (12%) governorates. The epidemic curve (Figure 1) shows multiple peaks, a feature suggestive of person-to-person transmission as the main mode of spread of in the disease among the at-risk population.

The age distribution pattern of the reported cases showed that most of transmission occurred among children under 15 years of age (71%). Even though children accounted for the majority of the cases, the high proportion of cases among the older population (29%) remains a cause for concern. Further more in Damascus governorate, the older population accounted for unprecedented 80% of the reported cases.

Syria is regarded as one of HAV endemic countries in the region. In such settings HAV infections typically occur in early childhood before children acquire immunity. Once infected immunity is life long and HAV infection is rare among adults. The observed unusual pattern of large proportion of HAV cases among adults in the current context suggest that epidemiological transition was probably underway in Syria with improvement in water and sanitation and reduced childhood exposure to the disease. Damascus appears to have witnessed the biggest improvement in water and sanitation standard before the current war broke out, and as a results accumulation of a large pool of non-immune older population, given the large number of cases among adults observed during the current surge.

The current increase in HAV cases is occurring in Syria against a back drop of ongoing conflict and humanitarian crisis with over a million internally displaced persons population without access to adequate water and sanitation due to destruction of water and sanitation infrastructure in the county. This situation is likely to have contributed to the outbreak of water born diseases such as viral hepatitis caused by HAV.

The higher number of cases of HAV among adults has implication for prevention and control. Targeted vaccination maybe considered for unprotected older population, given the accumulation of a large pool of non-immune older population, given the large number of cases among adults observed during the current surge.

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Table 1. Epidemiological characteristics of the reported cases of AJS caused by HAV

<table>
<thead>
<tr>
<th>Age group</th>
<th>Distribution</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Number</td>
</tr>
<tr>
<td>Less than 5</td>
<td>218</td>
</tr>
<tr>
<td>5-14 years</td>
<td>228</td>
</tr>
<tr>
<td>More than 14 years</td>
<td>181</td>
</tr>
<tr>
<td>Total</td>
<td>627</td>
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</tbody>
</table>

Update on outbreaks in the Eastern Mediterranean Region

Avian Influenza: 2006-2015

Egypt (A/H5N1) [336 (114), 24%]
Egypt (A/H9N2) [10(0), 0%]

MERS-CoV: 2012-2015

Saudi Arabia [957 (376), 39.3%]
Jordan [12 (6), 50%]
Oman [5 (3), 60%]
UAE [71 (9), 12.7%]
Kuwait [3 (1), 33.3%]
Tunisia [3 (1), 33.3%]
Qatar [11 (4), 36.5%]
Yemen [1 (1), 100%]
Egypt [1 (0), 0%]
Lebanon [1 (0), 0%]
Iran [5 (2), 40%]


Guinea [3515 (2333), 66.3%]
Liberia [9862 (4408), 44.6%]
Sierra Leone [12138 (3831), 31.5%]
UK [10(0), 0%]
Nigeria [20 (8), 40%]
Senegal [100(0), 0%]
Spain [10(0), 0%]
USA [41 (25), 61.25%]
Mali [86 (0), 0%]


Pakistan [325 (8), 0%]
Afghanistan [29 (0), 0%]