3. Population impact of Hepatitis A immunization programs

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**Date:** 2011-09-28  
**Question:** Should mass hepatitis A vaccination be used in population control of hepatitis A?  
**Settings:** Population

<table>
<thead>
<tr>
<th>Quality assessment</th>
<th>No of patients</th>
<th>Effect</th>
<th>Quality</th>
<th>Importance</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>incidence of acute hepatitis A (assessed with: clinical symptoms and laboratory markers of infection)</strong></td>
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<tr>
<td>14 (^1) observational studies</td>
<td>no serious risk of bias</td>
<td>no serious inconsistency</td>
<td>no serious indirectness</td>
<td>no serious imprecision</td>
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<td>NOTE (^2)</td>
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<td><strong>HAV-related mortality (assessed with: death records)</strong></td>
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<tr>
<td>1 (^3) observational studies</td>
<td>no serious risk of bias</td>
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<td>no serious indirectness</td>
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<td>NOTE (^4)</td>
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</table>

\(^1\) There were 14 studies that had evidence for population protection using incidence in children and/or adults as an outcome measure. These studies represented the experience of 8 countries. Other outcomes included aggregate cases, vaccine effectiveness, and the prevented fraction (not summarized in this table).

\(^2\) The overall average incidence of hepatitis A declined in all studies. Most studies found evidence for a reduction in incidence in non-vaccinated age or population groups implying herd immunity.

\(^3\) This study compared pre and post HepA-vaccination recommendation cohorts (5 years each) and calculated age-adjusted mortality rates. They found a 32% reduction (p<0.001) in HAV-related mortality in the post-HepA recommendation cohort. They also compared
mortality rates to areas that did not have a HepA-vaccination recommendation and found 45% higher reduction in states with a recommendation compared to those without. The overall reduction in mortality between the two time periods was 23% in non-HepA vaccination recommended areas which pointed to a herd effect.

4 Mass immunization programs, number of participants not provided, in some cases number of vaccines delivered provided.

References


