

3. Population impact of Hepatitis A immunization programs

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Question: Should mass hepatitis A vaccination be used in population control of hepatitis A?

Settings: Population

Quality assessment							No of patients		Effect		Quality	Importance
No of studies	Design	Risk of bias	Inconsistency	Indirectness	Imprecision	Other considerations	Mass hepatitis A vaccination	Control	Relative (95% CI)	Absolute		
incidence of acute hepatitis A (assessed with: clinical symptoms and laboratory markers of infection)												
14 ¹	observational studies	no serious risk of bias	no serious inconsistency	no serious indirectness	no serious imprecision	none	-	-	NOTE ²	-	⊕⊕○○ LOW	CRITICAL
							NOTE ⁴			-		
HAV-related mortality (assessed with: death records)												
1 ³	observational studies	no serious risk of bias	no serious inconsistency	no serious indirectness	no serious imprecision	none	-	-	- ³	-	⊕⊕○○ LOW	CRITICAL
							NOTE ⁴			-		

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.

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