Complete Summary

GUIDELINE TITLE

Hepatitis A vaccine recommendations.

BIBLIOGRAPHIC SOURCE(S)

American Academy of Pediatrics Committee on Infectious Diseases. Hepatitis A vaccine recommendations. Pediatrics 2007 Jul;120(1):189-99. [72 references] PubMed

GUIDELINE STATUS

This is the current release of the guideline.

All policy statements from the American Academy of Pediatrics automatically expire 5 years after publication unless reaffirmed, revised, or retired at or before that time.

COMPLETE SUMMARY CONTENT

SCOPE

DISEASE/CONDITION(S)

Hepatitis A

GUIDELINE CATEGORY

Prevention

CLINICAL SPECIALTY

Family Practice
Pediatrics
Preventive Medicine

INTENDED USERS

Advanced Practice Nurses
Physician Assistants
Physicians
Public Health Departments

GUIDELINE OBJECTIVE(S)

To provide the rationale and recommendations for universal administration of hepatitis A vaccine to children living in the United States

TARGET POPULATION

Children between 1-18 years of age

INTERVENTIONS AND PRACTICES CONSIDERED

Immunization with inactivated hepatitis A vaccines

- Children
- Persons at increased risk of hepatitis A infection

MAJOR OUTCOMES CONSIDERED

- Incidence of hepatitis A infection
- Clinical efficacy of inactivated hepatitis A vaccines
- Cost effectiveness
- Adverse reactions following immunization

METHODOLOGY

METHODS USED TO COLLECT/SELECT EVIDENCE

Searches of Electronic Databases

DESCRIPTION OF METHODS USED TO COLLECT/SELECT THE EVIDENCE

Not stated

NUMBER OF SOURCE DOCUMENTS

Not stated

METHODS USED TO ASSESS THE QUALITY AND STRENGTH OF THE EVIDENCE

Not stated

RATING SCHEME FOR THE STRENGTH OF THE EVIDENCE

Not applicable

METHODS USED TO ANALYZE THE EVIDENCE

Review

DESCRIPTION OF THE METHODS USED TO ANALYZE THE EVIDENCE

Not stated

METHODS USED TO FORMULATE THE RECOMMENDATIONS

Not stated

RATING SCHEME FOR THE STRENGTH OF THE RECOMMENDATIONS

Not applicable

COST ANALYSIS

The cost-effectiveness of nationwide routine hepatitis A immunization has been evaluated. Compared with no childhood immunization against hepatitis A, routine immunization at 1 year of age would result in 183,806 fewer infections and 32 fewer deaths in each cohort. The cost-effectiveness ratio was estimated at $173,000 per life-year gained and $24,000 per quality-adjusted life-year (QALY) gained. When out-of-cohort herd immunity was considered, immunization at 1 year of age yielded a societal cost of $1000 per QALY gained. Another economic analysis that included the estimated reduction in secondary cases among household contacts of infected children yielded similar results. When these values are placed in context, the projected costs of implementation of a universal hepatitis A vaccine program is equivalent to an acellular pertussis vaccine program in adolescents and approximately 10% of the cost of the meningococcal vaccine program based on QALYs.

METHOD OF GUIDELINE VALIDATION

Peer Review

DESCRIPTION OF METHOD OF GUIDELINE VALIDATION

Not stated

RECOMMENDATIONS

MAJOR RECOMMENDATIONS

As the next step in the incremental immunization strategy to prevent hepatitis A, the following recommendations are made.

Children

1. All children who live in the United States should receive hepatitis A vaccine at 1 year of age (i.e., 12 to 23 months of age) as a 2-dose regimen. Immunization should be integrated into the routine childhood immunization schedule and completed according to the approved schedules (Table) using Havrix or Vaqta hepatitis A vaccines. Administration of 2 doses of the same hepatitis A vaccine is preferable. However, data indicate that the vaccines are interchangeable; thus, the 2-dose series may be completed with either of the vaccine preparations approved for children. (Connor, et. al, 2001)
2. States, counties, and communities with existing hepatitis A immunization programs for children 2 to 18 years of age are encouraged to maintain these programs and expand to include children who are 12 to 23 months of age. In these areas, new efforts focused on routine immunization of preschool children should enhance, not supplant or replace, ongoing programs that are directed at a broader population of children.
3. In areas without existing hepatitis A immunization programs, catch-up immunization of unimmunized children 2 to 18 years of age can be considered. Such programs might especially be warranted in the context of increasing incidence or ongoing outbreaks among children or adolescents.
4. Immunocompromising conditions are not a contraindication to receiving hepatitis A vaccine. The preparation is an inactivated virus and has not been shown to result in any increased safety risks when administered to people with primary or secondary immunodeficiencies.
5. The vaccine should not be administered to people with a hypersensitivity to any of the vaccine components such as aluminum hydroxide and phenoxyethanol.

Table. Recommended Doses and Schedules for Inactivated Hepatitis A Vaccines

Age, y	Vaccine (Manufacturer)	Dose	Volume per Dose, mL	Route of Injection	No. of Doses	Schedule, mo
1-18y	Vaqta (Merck)	25 U	0.5	IM	2	0, 6 to 18
	Havrix (GlaxoSmithKline)	720 ELU	0.5	IM	2	0, 6 to 12
≥19y	Vaqta (Merck)	50 U	1	IM	2	0, 6 to 18
	Havrix (GlaxoSmithKline)	1440 ELU	1	IM	2	0, 6 to 12
	Twinrix (GlaxoSmithKline)	720 ELU (hepatitis A), 20 microgram (hepatitis B)	1	IM	3	0, 1, 6

IM indicates intramuscular.

Persons at Increased Risk of Hepatitis A Virus Infection

1. Children not previously immunized against hepatitis A virus who will be traveling to or living in areas with intermediate or high endemicity for the infection should be immunized before departure. Areas for which hepatitis A immunization is recommended before travel can be found at http://wwwn.cdc.gov/travel/contentVaccinations.aspx. Protection is reliably present by 4 weeks after administration of the first dose of hepatitis A vaccine and may afford protection as soon as 2 weeks after immunization.
2. Both adolescent and adult males who have sex with men should be immunized against hepatitis A virus. Preimmunization serologic testing is not recommended for adolescents or young adults.
3. Immunization is recommended for users of either injectable or noninjectable illicit drugs. Again, preimmunization serologic testing is not recommended for adolescents or young adults.
4. Although changes in clotting-factor–preparation practices and donor screening have greatly reduced the risk of acquiring hepatitis A for recipients of clotting factors, susceptible individuals should be immunized against hepatitis A before administration of the clotting factors.
5. Susceptible persons who work with hepatitis A virus in a laboratory setting should be immunized against the virus.

CLINICAL ALGORITHM(S)

None provided

EVIDENCE SUPPORTING THE RECOMMENDATIONS

REFERENCES SUPPORTING THE RECOMMENDATIONS

References open in a new window

TYPE OF EVIDENCE SUPPORTING THE RECOMMENDATIONS

The type of evidence supporting each recommendation is not specifically stated.

BENEFITS/HARMS OF IMPLEMENTING THE GUIDELINE RECOMMENDATIONS

POTENTIAL BENEFITS

Routine hepatitis A immunization of infants nationwide should result in further lowering of disease incidence in the country and possibly could lead to an environment for the eventual elimination of indigenous hepatitis A infection in the United States.

POTENTIAL HARMS

- Fever, injection site reactions, and allergic reactions are the most frequent reported adverse reactions.
- No data exist about administration of the hepatitis A vaccine to pregnant women, but because it is not a live vaccine, the risk to mother and fetus should be extremely low to nonexistent.

CONTRAINDICATIONS

CONTRAINDICATIONS

The vaccine should not be administered to people with a history of severe allergic reaction to a previous dose of hepatitis A vaccine or a hypersensitivity to any of the vaccine components such as aluminum hydroxide and phenoxyethanol.

IMPLEMENTATION OF THE GUIDELINE

DESCRIPTION OF IMPLEMENTATION STRATEGY

An implementation strategy was not provided.

INSTITUTE OF MEDICINE (IOM) NATIONAL HEALTHCARE QUALITY REPORT CATEGORIES

IOM CARE NEED

Staying Healthy

IOM DOMAIN

Effectiveness

IDENTIFYING INFORMATION AND AVAILABILITY

BIBLIOGRAPHIC SOURCE(S)

American Academy of Pediatrics Committee on Infectious Diseases. Hepatitis A vaccine recommendations. Pediatrics 2007 Jul;120(1):189-99. [72 references] PubMed

ADAPTATION

Not applicable: The guideline was not adapted from another source.

DATE RELEASED

2007 Jul

GUIDELINE DEVELOPER(S)

American Academy of Pediatrics - Medical Specialty Society

SOURCE(S) OF FUNDING

American Academy of Pediatrics

GUIDELINE COMMITTEE

Committee on Infectious Diseases

COMPOSITION OF GROUP THAT AUTHORED THE GUIDELINE

Not stated

FINANCIAL DISCLOSURES/CONFLICTS OF INTEREST

Not stated

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GUIDELINE AVAILABILITY

Electronic copies: Available from the American Academy of Pediatrics (AAP) Policy Web site.

Print copies: Available from American Academy of Pediatrics, 141 Northwest Point Blvd., P.O. Box 927, Elk Grove Village, IL 60009-0927.

AVAILABILITY OF COMPANION DOCUMENTS

None available

PATIENT RESOURCES

None available

NGC STATUS

This NGC summary was completed by ECRI Institute on September 4, 2007. The information was verified by the guideline developer on September 18, 2007.

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