

TAG RECOMMENDATIONS FOR MUMPS

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2011 Recommendations

Given that the MMR vaccine is used in the Region of the Americas, strategies to control mumps should be closely integrated with existing goals of measles and rubella elimination.

Vaccination

- Preventing mumps requires two doses of MMR vaccine in countries' national immunization programs, aiming at reaching coverage levels $\geq 95\%$, for all children and risk groups. The first dose should be given at 12 months of age as part of the routine immunization schedule. The second dose can be administered either through a campaign or through the routine immunization program and should be given at least one month after the first dose, optimally during the second year of life but no later than school entry.
- During all mumps vaccination activities, regardless of the vaccination strategy (routine or campaign) any of the WHO prequalified vaccines can be used, independent of the mumps strain. When responding to outbreaks, it is preferred that the Jeryl-Lynn strain (or Jeryl-Lynn-derived strains) be used among adolescents and adults.
- When using the MMR vaccine in campaigns, health authorities should monitor, investigate, and train health workers about possible vaccine-related adverse events for all vaccine components, including possible instances of aseptic meningitis (AM). Countries also need to use effective communication strategies to inform the general public about possible events supposedly attributable to vaccination or immunization (ESAVI), to maintain a high level of public trust in vaccines and vaccination programs.
- Future studies of the safety profile of the MMR vaccine in campaigns should be well designed to investigate the incidence of adverse events. Such research should use standardized case definitions and standardized quantitative indicators to assess the severity of adverse events.
- Vaccine effectiveness studies should take into consideration the thermostability of the mumps component of the MMR vaccine and evaluate practical issues, such as the need to ensure vaccine reconstitution using cold diluents.

Surveillance

- Strengthened surveillance for mumps will be decisive in building the general knowledge base of mumps epidemiology in the Region of the Americas and in accelerating vaccination activities to prevent possible outbreaks and establish a disease control goal. Such surveillance efforts should evolve with the level of epidemiological control and should be adapted to each country to match regional and country-specific program goals and objectives. Surveillance should first focus on clusters of clinical cases to identify outbreaks of mumps. After an observed decline in the incidence of mumps cases, case-based surveillance should be implemented.

- All countries that have not yet made mumps a notifiable disease should do so. Countries should also strengthen their mumps surveillance systems to rapidly detect, investigate, and respond to mumps outbreaks.
- All the countries of the Region of the Americas should standardize mumps case definitions and surveillance indicators, using adequate data elements. PAHO will develop guidelines on mumps surveillance, outbreak response and investigation, as well as for laboratory diagnosis.

Outbreaks

- Every suspected outbreak should be adequately investigated in order to identify the characteristics of the outbreak, select appropriate control measures, and determine why the outbreak occurred. While the single most important outbreak control measure is vaccination, these interventions should target only the affected populations. If the number of susceptible persons is high, a vaccination campaign should be conducted in order to increase coverage levels.
- During an outbreak, laboratory diagnosis should also be used to confirm the occurrence of a mumps outbreak and to establish causality of vaccine-related adverse events.

Laboratory

- Capacity for laboratory confirmation of mumps should be part of the Measles and Rubella Laboratory Network for the Region of the Americas. Building laboratory capacity will require development of standard protocols for laboratory testing, data management and quality control as well as training.
- Laboratory testing should be used to confirm suspected outbreaks of mumps, but not to confirm every suspected case. Samples should be collected for serologic and virological assays. Molecular characterization should be used to establish a genetic baseline for wild-type mumps.
- Laboratories with existing capacity for polymerase chain reaction (PCR) should consider establishing the mumps real time PCR (RT-PCR) assay as a diagnostic method.