



Perspective of Iranian Vaccine-Preventable Diseases Surveillance System in the Era of Newly Introduced Pentavalent Vaccine: Possibility of Implementing a Sentinel Hospital-Based Surveillance System

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Dear Editor-in-Chief

Haemophilus influenzae (Hib) conjugates vaccine (HibCV) using a pentavalent formulation was introduced to Iranian routine immunization program from November 2014. Iran is preparing to include pneumococcal conjugate vaccines (PCVs) as well. Assessing the impact of HibCV to provide evidences regarding sustained administration of this vaccine is necessary. There are different methods and study designs to measuring impact of new vaccine, which ranges from population based active surveillance systems to vaccine effectiveness studies (1, 2).

One of the most feasible methods for monitoring trends in Hib related diseases e.g. meningitis introduced by WHO, is a 3-tiered approach that utilizes sentinel hospitals. Results of unpublished work (3), which utilized both WHO guidelines and expert opinions highlighted superiority of sentinel hospital-based surveillance system in Iran. As proposed by WHO, children less than 5 yr of age who meet clinical manifestation of meningitis, pneumonia and sepsis might be enrolled. Cerebrospinal fluid specimens and blood cultures should

be tested for Hib, *Streptococcus pneumoniae* and *Neisseria meningitides*. Moreover, to accurate better the detection of cases using such sentinel surveillance, all children referred to outpatient clinics and health centers having the inclusion criteria can be recruited to study.

Finally, to monitor indirect effects of PCV vaccine, implementing periodic surveys on epidemiological patterns of nasopharyngeal carriage following PCV introduction is recommended.

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