Some Issues Arising From 2018-19 IAP Immunization Recommendations

I would like to draw attention of the experts to some issues related to the recent guidelines by the Advisory Committee on Vaccines and Immunization Practices (ACVIP) of Indian Academy of Pediatrics (IAP) [1].

People belonging to low socio-economic groups are more prone to get infections because of overcrowding and poor sanitary conditions. Many of these people work as domestic helps, and carry the risk of spreading their infections to the people where they work. Thus, these are the people who should be immunized in their own and others' interest. There are two vaccine preventable diseases which need attention:

Pertussis: In year 2008, IAP Consensus Recommendations on Immunization stated that "there is no reason to believe that the disease burden of pertussis is low in adolescents in India" and thus Tdap vaccine instead of Td/TT vaccine was recommended in all children/adolescents who could afford to use the vaccine [2].

Presently there is a huge difference in the cost between Tdap and Td/TT vaccines. People belonging to low socio-economic group cannot afford the costly Tdap vaccine. There is thus a need to develop a combination vaccine of tetanus with reduced quantities of diphtheria and whole cell pertussis components.

Typhoid: IAP-ACVIP guidelines (2018-19) recommend Typhoid Conjugate Vaccine (TCV) because it has improved immunological propertis, and can be used in younger children (≥6 months) [1]. The cost of TCV is beyond reach of many families who need the vaccine. Second issue is the need for booster doses. For Polysaccharide typhoid vaccine, booster dose is recommended every 3 years. Regarding TCV, the guidelines [1] state that: "the need for revaccination with TCV is currently unclear. The protection with TCV may last for upto 5 years after administration of one dose, and natural boosting may occur in endemic areas." It is not clear why this natural boosting is not expected to occur following Polysaccharide Typhoid Vaccine?

The guidelines [1] also state that if a child has received Typhoid polysaccharide vaccine, offer one dose of TCV at least 4 weeks following the receipt of polysaccharide vaccine. How to justify the administration of TCV to a child in whom same/other doctor had administered Polysaccharide vaccine 4 weeks earlier? Unaffordability of TCV may lead to decline in typhoid vaccine coverage, and subsequent resurgence of disease in our country.

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2. Indian Academy of Pediatrics Committee on Immunization (IAPCOI). Consensus Recommendations on Immunization, 2008. Indian Pediatr. 2008;45:635-48.

AUTHORS' REPLY

We appreciate the concern of the author on the affordability of Tdap for adolescents and adults of all strata of society. The Indian Academy of Pediatrics – Advisory Committee on Vaccines and Immunization Practices (IAP-ACVIP) would urge the manufacturers to provide an affordable vaccine to prevent pertussis in adolescents and adults. One Indian manufacturer is likely to come up with a Tdap vaccine that may bring down the cost. Moreover, when vaccines (or any other drugs) are used in large quantities, their cost go down markedly. IAP-ACVIP thus recommends Tdap vaccination in all adolescents [1], and would recommend it in routine immunization program too.

Typhoid vaccine has emerged as an effective tool to control typhoid fever especially in communities with high incidence of disease. TCV is better than Typhoid Polysaccharide Vaccines (TPV) as it can be administered in children aged between 6 months and 2 years, and has longer duration of action [2]. Repeated doses of TPV do not boost immune response and natural infection does not always boost immune response to TPV. TCV has been found to have efficacy not-inferior to that of TPV in human exposure trial in adults where efficacy of TCV was 54.6% (95%CI 26.8-71.8) and that of TPV was 52.0% (95%CI 23.2-70.0) [3].

When TCV is recommended at 6 months of age there will not be any need of TPV. However, those who have received the TPV earlier can also be given TCV after a minimum of 4 weeks after TPV administration. Although no such studies are available in this regard, this interval is likely to avoid any interference with immune response to TCV.