## Pneumococcal Vaccine in India

It was interesting and learning experience to read an editorial(1) and following correspondence(2,3) on the introduction of pneumococcal vaccine in Universal Immunisation Program (UIP) in India.

While the editorial vociferously argued for the inclusion of Pneumococcal Conjugate Vaccine (PCV) in UIP in India, the following letters were in the equally strong disagreement(2,3). Unfortunately, at the end the debate gave an impression that PCV is not a priority in India(3). The experts agreed that the burden of childhood pneumonia may be reasonably high and that Streptococcus pneumoniae is an important contributor; however, the actual burden of disease in India is not known. Secondly, currently available seven-valent conjugate vaccine (PCV-7) covers strains attributable to approximately 50% burden of S. pneumoniae in India. While Levin, et al.(1) use the absence of actual burden of disease studies and the evidence from neighbouring countries as a reason for assuming high burden for advocating PCV in UIP; for the similar reason Mishra, et al.(2) say that PCV is not a priority in India. Unfortunately, there appears no immediate mechanism or agency to conduct similar studies on the burden of disease due to S. pneumoniae in India; neither any such study is going on.

Besides, in India, the policy level implementation always uses the longest path for decision making. The classic example of hepatitis B vaccination is a proof that research and policy are two totally dissociated areas in India. The known burden of hepatitis B, availability of an efficacious and cost effective vaccine is evidence that research and available studies does not always lead to policy change in our country. Dr Mathew rightly outlines a number of activities in this direction and rightly recommends that a clear message should be delivered to the policymakers(2).

However, the experts have not deliberated on an important issue of timeline for the introduction of PCV in India. No new vaccine has been introduced

in UIP in India since 1985. This provides both an opportunity and a challenge. While the challenge is that doing anything new in India is very difficult. Opportunity, as it may be easier to introduce new vaccine because such a long time has passed. However, for PCV, It is suggested that government of India needs to set a timeline for inclusion of these vaccines in UIP. The steps needed may be (*i*) the burden of disease studies for *S. pneumoniae*; (*ii*) evidence generation and cost effective analysis studies for vaccine; (*iii*) the support and advocacy for vaccine research to incorporate strains which are prevalent in India; and (*iv*) the preparation of a decision making tool to introduce new vaccines in UIP.

If this is not done, it may be very difficult process to include PCV even if a 10 or 13-valent PCV becomes available and even if the researchers have evidence about its cost effectiveness and efficacy.

To conclude, at present, there are gaps in knowledge, which demand that in time bound manner, to co-ordinate such studies and to advocate for appropriate strains to be included in PCV, so when evidence is available, a decision for (or against) the inclusion of PCV in UIP may be taken. I hope that three or five years down the line, the government finds some definitive and conclusive evidence to make a decision in this direction.

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