

## 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 properties, and can be used in younger children ( $\geq 6$  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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### REFERENCES

1. Balasubramanian S, Shah A, Pemde HK, Chatterjee P, Shivananda S, Guduru VK, *et al.* Indian Academy of Pediatrics (IAP) Advisory Committee on Vaccines and Immunization Practices (ACVIP) Recommended Immunization Schedule (2018-19) and Update on Immunization for Children Aged 0 through 18 years. *Indian Pediatr.* 2018;55:1066-74.
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.

Benefits of vaccines should not be denied to any individual for lack of resources and the need of the affordable vaccines cannot be over emphasized in the current time. New recommendation on TCV is not likely to reduce the coverage as only single dose is recommended as of now whereas TPV needs to be given every 3 years. Moreover, TPV cannot be used to provide protection in children up to 2 years of age. Rather, the number of people receiving typhoid vaccine will become higher as new recipients (children up to 2 years of age) will receive TCV. Typhoid vaccination is also expected to serve as an important tool to curb antimicrobial resistance. Large-scale, more aggressive typhoid vaccination programs in children up to 15 years of age have the potential to reduce the overuse of antimicrobials, thereby reducing antimicrobial, resistance in many bacterial pathogens [4].

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## REFERENCES

1. Balasubramanian S, Shah A, Pemde HK, Chatterjee P, Shivananda S, Guduru VK, *et al.* Indian Academy of Pediatrics (IAP) Advisory Committee on Vaccines and Immunization Practices (ACVIP) Recommended Immunization Schedule (2018-19) and Update on Immunization for Children Aged 0 through 18 years. *Indian Pediatr.* 2018;55:1066-74.
2. Michel R, Garnotel E, Spiegel A, Morillon M, Saliou P, Boutin JP. Outbreak of typhoid fever in vaccinated members of the French Armed Forces in the Ivory Coast. *Eur J Epidemiol.* 2005;20:635-42.
3. Jin C, Gibani MM, Moore M, Juel HB, Jones E, Meiring J, *et al.* Efficacy and immunogenicity of a Vi-tetanus toxoid conjugate vaccine in the prevention of typhoid fever using a controlled human infection model of Salmonella Typhi: a randomised controlled, phase 2b trial. *Lancet.* 2017;390(10111):2472-80.
4. Andrews JR, Baker S, Marks F, Alsan M, Garrett D, Gellin BG, *et al.* Typhoid conjugate vaccines: a new tool in the fight against antimicrobial resistance. *Lancet Infect Dis.* 2019;19:e26-30.

## Facilitating Behavior Modification of 'Problem Resident': A Paradigm Shift in Approach

We read with keen interest the recently published article in *Indian Pediatrics* about 'problem resident' [1].

The insights and ideas given in the article can be enriched by further understanding following perspectives on human behavior and its modification, in general:

1. The deviant behaviour that causes problems in patient care is not just because of individual but also majorly due to group culture, norms, resources and leadership, including behaviour of other residents/faculty, and leadership style. Hence remedy will lie in dealing with group behavior besides individual behavior. The entire focus of the article [1] seems to be on rectifying the individual. Some research needs to be done where one should examine whether certain departments recurrently have more 'problem students' than other departments. This research will prove or disprove our hypothesis that group dynamics also creates 'problem students'.

2. Behavior change and modification, both at individual and group level, requires professional expertise, and

cannot be managed by doctors alone: hence, without professional help it may not succeed.

3. Public shaming process may happen when group consensus technique mentioned for recognition of problem resident will be used, besides violating confidentiality. It contradicts the later mention of confidentiality requirement in the paper.

4. If real long-term solution is sought, behavioral competencies like taking responsibility, and learning attitude, emotional intelligence, self-discipline *etc.* should be formally taught using experiential methodology during undergraduate and postgraduate training. It should be incorporated by Education Council if Medical Council of India wants to get doctors as per their expectations (mentioned in paper at the beginning) in terms of human qualities. Further, the teaching staff also needs training in building their skills in emotional sensitivity and management of feelings besides leadership skills.

5. Classification in terms of knowledge, skill and attitude makes the issue too complex to be solved. Briefly, knowledge and skill deficit do not cause problematic behaviour, whereas attitude does. And attitude is too vast a subject involving beliefs, values, evaluation, understanding and feelings. Feelings are the outcomes of attitudes and hence easy to work with. It makes the correction path simple and easy to implement. Enable these people to deal with the uncomfortable feelings more