

Bending the truth ostensibly for public good: The case of the pneumococcal conjugate vaccine

The Pune Mirror of the 26th of August 2012 reports that the Indian Academy of Pediatrics (IAP) has declared that pneumonia is a leading cause of death (responsible for 410,000 childhood deaths annually) and recommended that the Government of India should include free vaccines for pneumonia and rotavirus in their immunization schedule. The reporter noted that the IAP's 2-day training program at the Hyatt Regency in Mumbai was sponsored by three foreign-based pharmaceutical companies who make pneumonia vaccines.^[1]

Two questions spring to mind. Why did the Academy of Pediatrics recommend rotavirus vaccine to prevent pneumonia and why would pneumonia vaccine manufacturers want to promote rotavirus vaccine? Dr. Sailesh G Gupta, Honorary Secretary General, IAP, has since clarified that it was wrongly reported that three vaccine companies that supported the meeting were pneumonia vaccine manufacturers. He said the meeting was supported by four pharmaceutical companies and only two of those manufacture pneumonia vaccine, while the other two were rotavirus vaccine manufacturers.

Given this background, this editorial is not about the conflict of interests involved in the recommendation made by the IAP to the Government of India, but merely discusses some of the evidence why this is not such a good idea.

In the first place, it is both unscientific and misleading to suggest pneumococcal vaccine must be introduced because pneumonia is a leading cause of death in childhood. The pneumococcal vaccine is effective only against one of the many pathogens that cause pneumonia and that too against a very limited number of serotypes of that one organism. The number of deaths caused by these serotypes is what is

pertinent. That data are not available. However, data on number of deaths prevented by vaccine can be used as a substitute. The WHO Bulletin suggests that vaccinating 1000 children will prevent 3.6 cases of pneumonia.^[2] The observed death rate for pneumonia in the multi-center study in India ranged between 0.77% and 2.35%.^[3] For our calculations, let us assume the highest mortality of 2.35%. This means that of the entire population of 25 million infants born this year, it would prevent 90,000 cases of pneumonia and 2115 deaths. If the mortality were 10%, it would avoid 9000 deaths. This is a far cry from the 410,000 deaths quoted as the reason for introducing pneumococcal vaccine.

At present, the cost of vaccinating one child (3 doses) is about ₹ 6000 to ₹ 12,000. Assuming the price comes down to ₹ 1200 per child, the cost of immunization of 25 million children born in India each year to prevent the 2115 deaths will be ₹ 3000 crores. Another calculation from an international perspective put the cost per life saved at US \$ 47,220.^[4] Even at one-tenth the cost, this is not an attractive option according to the professor of comparative health care, Professor D. W. Light.^[5]

Vaccine-induced strain shifts and risk of asthma

That is not all. The use of the vaccine in the West has caused strain shifts of an ominous nature. Widespread use of the 7-valent vaccine in the US has resulted in the emergence of serotype 19A as a major pathogen. Whereas the strains that were common previously were penicillin sensitive, 30% of the new strain is actually penicillin resistant.^[6,7] Furthermore, the vaccine doubles the chances the children will develop asthma.^[8]

Given these dangers and the nebulous benefits, it defies reason that the vaccine is being promoted in India by the IAP.

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