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Original Research Article

Practicing pediatrician's perspective on the immunization schedules: a short survey

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ABSTRACT

Background: The practicing pediatrician is left in a dilemma regarding the need for the newer vaccines and conflicting scientific data from vaccine manufacturers. This study is aimed at evaluating the pediatrician's perspective regarding the immunization schedule.
Methods: A brief questionnaire was framed to bring out the most common issues faced by the pediatrician in immunization schedules.
Results: About 77 percent of respondents felt that our National Immunization is inadequate. About 37 percent and 28 percent of respondents felt that the next vaccine that is to be introduced in the National Immunization Schedule is Pneumococcal vaccine and Rotavirus vaccine respectively. Nearly half of the respondents trusted IAP as the single most important influencing factor in choosing a newer vaccine. About 76 percent of respondents felt that the immunization schedules are influenced by vaccine makers
Conclusions: The practicing pediatrician who had always looked at IAP Immunization schedule as his bible in office practice is now beginning to doubt its authenticity. The threat of not having a consensus on Immunization is detrimental. It is the duty of IAP to clear the air regarding the controversies it had faced in the immunization schedule.

Keywords: IAP, Immunization schedule, Vaccination

INTRODUCTION

There is a continuous quest for mankind to conquer diseases. This has been made possible with the advent of immunizations. In 1900, the only vaccine that was available was against that of small-pox. In 1950, many countries started to vaccinate children against 4 diseases - smallpox, diphtheria, pertussis and tetanus.[1] From 1980, many other vaccines were introduced and the immunization schedule became dynamic. Now there are about 27 diseases against which immunization is available.[2] In India, in 1977 after the country was declared smallpox free, the Expanded Program of immunization was launched in 1978 which covered 6 diseases.[3] The Government of India follows the National Immunization Schedule as recommended by National Technical Advisory Group on Immunization (NTAGI) is meant for mass vaccination strategy. The Private practitioners and Pediatricians follow the guidelines recommended by Indian Academy of Paediatrics (IAP) which are meant for individual strategy for office practice.[4]

The mass vaccination strategy of Government of India is limited by financial constraints and technical feasibility. On the other hand, immunization in private sector is marred by controversy. The National past president of IAP Dr. C. P. Bansal makes the following observation

with regard to the private sector's participation in immunization. "On the other hand, the private sector is also not berefting of its own ills, accusations, and indictments. The 'private market' though quite miniscule in comparison to huge public sector in terms of vaccine needs and usage seems quite unregulated. There is no 'playing rules' for the industry regarding their operations in this sector. There is no ethical guideline, no monitoring, and no 'code of conduct' for their promotional activities. As a result, the vaccine industry evolves their own set of rules and regulations, driven solely by sales and profits. And in the process, they often prop-up a group of 'experts' from the pool of so called 'key opinion leaders' willing to help them in pursuance of their final goal of boosting sales and garnering profits. They use the baits of 'paid speaking assignments' and 'foreign jaunts' to these experts to further their cause. Often, they try to influence the guidelines of academic bodies by sponsoring their meetings, CMEs, and scientific sessions to get a favorable recommendation. All these issues are not under any veil and frequently discussed and debated openly by academia and lay media, now and then".[5] This summarizes the current status of immunization in the office practice in private sector. There were many media reports questioning the need for many newer vaccines and the unholy nexus between Doctors and Vaccine manufactures.[6-9]

Hence, the practicing pediatrician is left in a dilemma regarding the need for the newer vaccines and conflicting scientific data from vaccine manufacturers. This study is aimed at evaluating the pediatrician's perspective regarding the immunization schedule.

METHODS

A brief questionnaire was framed to bring out the most common issues faced by the pediatrician in office practice. The questionnaire contained 10 easy to answer questions with specific choices. The Survey Monkey Pro™ version software was used. A link was generated and sent to many practicing pediatricians through social media. Care was taken not to send the link to non-practicing pediatricians and students. Simple descriptive statistics were employed. The results were tabulated and analyzed using Microsoft Excel 2010.

RESULTS

The results of the study are shown in Table 1. There were 430 respondents and their responses were tabulated and analyzed using Microsoft Excel software. About 77% of respondents felt that our National Immunization is inadequate. About 83% of respondents said they deviated from the IAP immunization schedule for the sake of parent's affordability. About 37% and 28% of respondents felt that the next vaccine that is to be introduced in the National Immunization Schedule is Pneumococcal vaccine and Rotavirus vaccine respectively. About 45% of respondents said that they routinely recommended newer vaccines to their patients. About 46% of respondents said that acellular pertussis vaccine is not equally immunogenic as that of whole cell vaccine. Nearly half of the respondents trusted IAP as the single most important influencing factor in choosing a newer vaccine. About 66% of respondents were averse to frequent changes in the immunization schedule.

However about 52% of respondents accepted a change in immunization schedule when a new scientific data is available. About 76% of respondents felt that the immunization schedules are influenced by vaccine makers. Only 33% of respondents felt that IAP immunization schedule is fully evidence based.

DISCUSSION

In this study, about 77% of respondents felt that the National Immunization Program is insufficient for childhood immunization. The National Immunization Schedule is meant for mass vaccination and contains much less number of vaccines than in IAP immunization schedule. Many researchers felt that this divide should be shortened and ultimately equaled.[10]

About 43% of respondents said that they recommend newer vaccines depending on their affordability. The newer vaccines are often costlier and are unaffordable to the majority of population who actually need them. This paradoxical situation should be a point of debate whenever a newer vaccine is introduced.[10]

In this study about 37% and 28% respondents felt the next vaccines that need to be introduced in the National Immunization schedule are Pneumococcal and Rotaviral vaccines respectively. Nisargra R et al in their study on invasive pneumococcal disease surveillance reiterates the need for pneumococcal vaccine in India.[11] The Indian National Rotaviral Surveillance Network has documented an increase in the incidence of rotavirus disease in the recent years.[12]

About 46% of respondents in the study felt that acellular pertussis vaccines are not equally immunogenic as that of whole cell vaccine. And about 28% of the respondents are not sure that the whole cell pertussis vaccine and acellular vaccine are equally immunogenic. The IAP immunization schedule recommends only whole cell pertussis vaccine in primary series. But many researchers have conflicting published results when comparing them.[13-19]

About 49% of the respondent's trust IAP as the reliable source while taking up a newer vaccine. About 40% of respondents rely on scientific data for taking up a newer vaccine.

Only 0.5% of the respondents rely on the data from the vaccine manufacturer's data and advice while taking up a newer vaccine. This is a finding in contrast to the

accusations in the media and by the anti-vaccine campaigners that the practicing pediatricians promote newer vaccines without scientific data and at the pressure by the vaccine manufacturers.[6-8]

Table 1: Pediatrician's perspective on immunization schedule.

Pediatrician's perspective on immunization schedule					
1. Do you think government of India's national immunization schedule is sufficient for childhood immunization? (n=430)					
Yes	No	Skipped			
98 (23%)	328 (77%)	4			
2. How strictly you adhere to iap immunization schedule?					
Strictly	Depending on parent's affordability	I do not follow iap immunization schedule	Skipped		
54 (13%)	342 (82.6%)	18 (4.3%)	16		
3. In your opinion which is the next immediate vaccine that needs to be incorporated in government of India's national immunization schedule?					
Hepatitis A	Varicella	Typhoid	Pneumococci	Rotavirus	Influenza
20 (4.7%)	32 (7.4%)	46 (10.07%)	160 (37.02%)	124 (28.08%)	48 (11.02%)
4. How frequently you recommend newer vaccines like pneumococcal, rotavirus, hepatitis A, varicella, influenza and typhoid vaccines to your patients?					
Routinely	Less frequently	Not at all	Depending on the patient's affordablity	Depending on patients request	Skipped
192 (44.7%)	28 (6.5%)	6 (1.4%)	184 (42.8%)	20 (4.7%)	0
5. In primary vaccination series, do you think acellular pertussis vaccine is equally immunogenic as whole cell pertussis vaccine?					
Yes	No	Not sure	Skipped		
112 (26.4%)	194 (45.8%)	118 (27.8%)	6		
6. What is the single most important factor that influences you to take up a newer vaccine in your practice?					
Indian academy of pediatrics	Peer pediatricians	Vaccine company representative	Scientific data	Others	Skipped
206 (48.6%)	24 (5.7%)	2 (0.5%)	170 (40.1%)	22 (5.2)	6
7. In your opinion, the frequent change in immunization schedule is?					
Acceptable	Not acceptable	Skipped			
146 (34.3%)	280 (65.7%)	4			
8. How frequently do you think that the immunization schedule should be revised?					
As and when new scientific data is available	Annually	Once in two years	Once in five years	Skipped	
222 (51.6%)	42 (9.8%)	120 (27.9%)	46 (10.7%)	0	
9. Do you think that the immunization schedule is being influenced by the vaccine makers?					
Yes	No	Skipped			
324 (76.1%)	102 (23.9)	4			
10. To what extent you beleive that the IAP immunization schedule is evidence based?					
Fully evidence based	To some extent only	Not at all evidence based	Skipped		
136 (33.2%)	260 (63.4%)	14 (3.4%)	20		

About 63% of respondents felt that IAP immunization schedule is not fully evidence based and about 76% of the respondents felt that the immunization schedules are being influenced by the vaccine manufacturers. The IAP has constituted IAP Advisory Committee on Vaccine and Immunization Practices in 2013 which evaluates the available scientific data and formulates the IAP Immunization schedule. Similarly, the Government of

India has NTAGI which evaluates the feasibility and reviews the scientific data before introducing a newer vaccine in the National Immunization Schedule. But however there has been discontent among the practicing pediatricians in the study group that the immunization schedules are not evidence based and are being influenced.

However, the recent happenings in Pedicon 2017 at Bangaluru where there was commotion and pandemonium and ultimate police actions have made a serious dent in the image and credibility of IAP immunization schedule.[20]

About 66% of respondents are averse to frequent changes in immunization schedule though the majority (52%) is not averse to changes when a new scientific data emerges.

CONCLUSION

Mahatma Gandhi said, "When introducing change for development, ask how the poorest of the poor will benefit from it". This is more applicable to the field of immunizations than to any other as there is a huge divide among the National and IAP immunization schedules. The newer vaccines which are costlier and unaffordable to the deserving should be made affordable to all. The surveillance system should be strengthened to get a reliable data based on which newer vaccines can be licensed and introduced.

The practicing pediatrician who had always looked at IAP Immunization schedule as his bible in office practice is now beginning to doubt its authenticity and evaluates the scientific data by himself and exercises his own wisdom in recommending the newer vaccines. While the process of self-evaluation is a welcome change, the threat of not having a consensus on Immunization in office practice is detrimental. It is the duty of IAP to clear the air regarding the controversies it had faced in the immunization schedule and regain its glory.

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