The National Vaccination Schedule in Previously Healthy Children: The Practical Recommendations about Additional Vaccines

Dear Editor,

I read the review article titled "National vaccine calendar in previously healthy children; recommendations for additional vaccines" by Arısoy and et al. (1). In this article, recommendations were made regarding the vaccine both routinely available in our national vaccine calendar and those no yet routinely available. The fact that the vaccine on our national vaccine calendar are administered in line with the vaccine schedule recommended by the Ministry of Health, all physicians abide by this schedule is crucially important for maintenance of the hard-obtained high vaccine rates. Otherwise, difference practices will cause further complications, and as a result, it will cause the risk of fall in our vaccination rates due to the drop of confidence in vaccination on the part of the physicians and the public. In this connection, for the varicella vaccine, just like for other vaccines, it will be wise to recommend one dose of the vaccine as recommended in our national vaccine schedule. As is commonly known, there is no routine administration of varicella vaccine in the world, and Turkey is one of the four countries routinely administering varicella vaccine in Europe. The other countries in Europe routinely administering varicella vaccine are Germany, Greece and Lithuania. The first country in the world attaching varicella vaccine into their nation vaccine schema is the United States of America; it was included into the routine schema as a single dose in 1996. With the inclusion of the vaccine into the routine vaccine program, there was a significant reduction in varicella-related morbidity and mortality and the diseases incidence decreased 76-87% (2). By 2002, there occurred 88% reduction in varicella-related hospitalizations and 59% in policlinic admittances in comparison to the prior-to-vaccine period (3). However, since breakthrough varicella cases (varicella despite the vaccine) appeared in vaccinated children and varicella epidemics occurred in previously-vaccinated children in schools, the practice of two doses (first dose in 12-18 months, booster vaccination in 4-6 ages) was initiated in 2006 (4). The reason why breakthrough diseases has appeared is because the efficiency of a single dose varicella vaccine against any type severity of varicella infection is 80-85% (5). However, it should be remembered that varicella vaccine is as high as 97% protective against medium level or severe infections; therefore, breakthrough cases are usually mild and prevail with few unclear rushes, and complications are rare. As far as Turkey is concerned, as is commonly known, varicella vaccine was included into the national routine vaccine schema in January, 2013 and is administered as a single dose to 12-month infants. Since it is administered to only this age group, despite one year after the onset of routine vaccination, there still occurs varicella cases in our country; therefore, the barren virus still out and about and causes the need for a booster dose for our previously vaccinated children. Therefore, it will be wise to maintain the practice of a single dose vaccine and take a decision in years to come based on the surveillance studies (such as VARICOMP) whether to administer the second dose. For this reason, I am of the opinion that it will be wiser and more scientific to make a varicella vaccine recommendation as such "it should be administered a single dose as recommended in our national schema, but whether second dose is necessary should be decided based on future surveillance studies".

In the article, there is s statement which reads "in order to minimize undesirable effects of the vaccine, starting before or after the five-valiant combined vaccine, paracetamol (10 mg/kg/dose) can be given totally 8 times with 6-hour intervals". In fact, some studies showed that giving paracetamol to previously-vaccinated children prophylactically negatively impacted the vaccine's response (6). Therefore, the routine use of analgesics and antipyretics before or during vaccination is not recommended (7, 8). They can be used after vaccination when fever or local side effects occur.

In the article, it was also mentioned that "the MW-4 vaccine conjugated with diphtheria toxin is not recommended in the USA to the children in the risk group under 2 years of age on the grounds that PCU-13 may reduce the level of antibodies". As is commonly known, the diphtheria toxin conjugated KMA-4 vaccine can be administered to 9-23-month group of healthy children together with other vaccines (KKK, varicella, hepatitis A and PW vaccines). One exception of this is the children with functional or anatomic asplenia. In children with functional or anatomic asplenia, the diphtheria toxin conjugated MW-4 vaccine should not be administered together with the PW13 vaccine. The diphtheria toxin conjugated MW-4 vaccine should be administered to patients with asplenia at least four week after the completion of KPA12 doses (9). In summary, the statement mentioned above should be corrected as in the following; "The diphtheria toxin conjugated MW-4 vaccine should be administered to patients with asplenia at least four week after the completion of PW12 doses".

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Responses of the Authors

We would like to thank valvable Zafer Kurugöl for his comments on the article titled “National vaccine calendar in previously healthy children; recommendations for additional vaccines” by Arısoy and et al. (1). The responses for Mr. Kurugöl’s comments and recommendations were summarized as in the following;

1. As it was mentioned in the concerned letter, the vaccine calendar currently in practice for free-of-charge in community health centers today as suggested by the Ministry of Health within the framework of routine vaccine calendar has been extended incomparable to what it was like 10 years ago and now has the status of compatibility with those of developed countries. It is also another point of recognition and praise that the average rate of vaccination for all vaccines is over 95%. Within this framework, there are only a few vaccines to be added to this list. Therefore, in the editorial recommendation in question, in order not to cause further confusion, a single calendar suggestion was especially emphasized in contrast to Mr. Kurugöl’s criticism and this was also clearly highlighted in the foot notes. When the calendar in question is closely examined, it will be clear that there is no difference between all the vaccines available on the “Pediatric Vaccine Calendar of the Ministry of Health” and their time of administration. It is out of question to implement a different practice within this framework.
2. According to the existing laws in our country (the altered Turkish penal code and the code of criminal procedure published in the official gazette on the 12.10.2004 and went into effect on 01.06.2005), regarding the legal assessment of problems and court cases between physicians and patients; physicians are expected to have medical knowledge of an average physician compatible with the relevant field of expertise, and carefully and methodically implement the required care and treatment to the patients in the light of latest developments in the field of medicine. Accordingly, it is also no acceptable if the medical intervention is incorrect, deficient and failure to implement what is required (2) and if the patient gets harmed as a result, this can be interpreted as malpractice. Within this framework, in the light of latest developments regarding in the field of medicine, the authors are of the opinion that the families had better be informed about the other vaccines whose reliability and efficiency have been proved, and that after informing, these vaccine can be administered should the families require them. This is an appropriate approach in terms of the quality standards of medical science. Furthermore, there is no scientific proof that this particular situation will have a negative impact on the routine vaccine calendar. On the contrary, the positive examples of this became evident with vaccines previously not available in the vaccine calendar and recommended by the Association of Pediatric Infectious Diseases, Pediatric Infectious Diseases Specialists and pediatricians such as the hepatitis B, Haemophilus influenzae type B, MMR (measles-mumps-rubella), conjugate pneumococcal, hepatitis A and varicella vaccines; and it is also possible to think that this approach can be a factor for all the vaccines in question to be made available and/or made available earlier in routine vaccine calendar administered the free-of-charge by the Ministry of Health.
3. The varicella vaccine is still recommended as a single dose in the Ministry of Health’s Pediatric Vaccine Calendar. The vaccine was made available as a single dose in the calendar in the USA as stated by Mr. Kurugöl and in 2006; and it started to be administered as two doses (since complicated cases and epidemics emerged in vaccinated children). As is commonly known, varicella is an acute and very contagious viral disease; the virus has very little genetic variations and no animal reservoir (3); in other words, the source of all these cases if human metastasis. As is commonly known again, the disease prevails more severely in adults and in persons and children with

suppressed immune system. It was found in the Turkish studies that the 22-57% of pediatric hospitalized cases developed in children with suppressed immunity (4, 5). With a single dose in the USA, the disease prevalence dropped 57-90%, hospitalizations 75-88% and mortality 74% (6, 7); in other words, there may still be 10-43% disease, 12-25% hospitalization and <21% mortality risk in the USA. Ultimately, according to these data, although there occurs a great deal of decrease in the disease load through the single dose vaccine-related protection, the proposal of two doses of the vaccine was brought to the agenda in the USA, as Mr. Kurugöl stated, since there was a serious varicella-related disease load. Within this framework, we are of the opinion that single dose vaccine will significantly reduce disease cases and the nationwide varicella disease load; but, since it will not stop the virus circulation, some noticeable infections may develop especially in risky cases and adults in whom vaccine-related immunity drops. Even though high vaccination rates (85-90% and above) could reduce disease shift towards elder children and adults (3) a varicella infection that may develop in a vaccinated person or varicella-related hospitalization may seriously damage the confidence of the public in the vaccine and this negative psychology might impact other vaccines as well. The fact that varicella vaccine is a live viral one and more sensitive against other vaccines may be another factor contributing to this failure. Therefore, provided that logistic and economic support is supplied, we are of the opinion that recommendation of varicella vaccine as two doses just like MMR vaccine will be beneficial and necessary.

4. We agree with Mr. Kurugül's opinion that paracetamol should not be routinely given in order to reduce the side effects of the vaccine. In fact, given the antifebrile pathogenic mechanisms of paracetamol, it is clear that it is not in a path in which cellular immunity (B and T cell-related immunity) will be affected. Besides, there is no reliable evidence that paracetamol impacts the vaccine response or the responses of other immunities. In this framework, since the vaccines used in the routine vaccine calendar understate the side effects fever and pains to benefit from paracetamol, we share the opinion that there is no need to routinely use paracetamol.
5. As is commonly known, Advisory Committee on Immunization Practices (ACIP) in the USA does not recommend the diphtheria toxin conjugated MW4 vaccine since it may affect the protection level of the PW7 vaccine between 9-23 months in the presence of any risk group member (such as crescent-cell anemia or anatomic asplenia), the lack of data regarding its clinical significance and pneumococcal disease has greater risk than meningococcal disease among these risk groups (8). As is again commonly known, MW4 vaccine is still not recommended in the USA except the healthy adolescent non-risk group children (It should also be remembered that there may be different vaccine schemas in line with the rational and scientific assessment of all the epidemiologic data of the countries). With the recommendation of Mr. Kurugöl, it will be useful to clearly add the two risk groups in question into the specified segment.

Best regards,

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RSV Pneumonia in the Pediatric Intensive Care Unit

Dear Editor,

I read the article titled "RSV Pneumonia in Pediatric Intensive Care Unit" written by Ganime Ayar et al. published in the first issue of 2014 with great interest (1). This was a well-prepared article examining and assessing the clinical processes of patients monitored with the diagno-