REPLY

The main objectives of our article were to describe the strategies adopted by Govt. of India to introduce a second dose of measles vaccine in the country and the rationale behind those strategies [1]. The correspondent here has not questioned the basic rationale behind the introduction of second dose of measles vaccine per se, but has raised an issue of choice between measles vaccine and combined mumps-measles-rubella (MMR) vaccine and has recommended that MMR vaccine be used straightaway in childhood immunization in the National Immunization program in India.

For private sector clinicians and their clients, the choice of which vaccine to provide is often governed by the clinician’s judgment of the expected benefit-risk ratio of the vaccine and the client’s ability to pay for the goods and services offered. The key context is benefit to the individual client and not the community at large. Conversely, selecting a vaccine for a national immunization program in which the Government bears the burden of entire costs and has to consider individual as well as community benefit, is quite different. Public health policy making is often choosing one practically feasible option among many which are ideally possible.

The Universal Immunization Program (UIP) in India is one of the largest immunization programs in the world and targets an annual cohort of approximately 26 million children. Choosing MMR over single antigen measles vaccine (MV) in the national immunization program would have definite cost implications as MMR is considerably more expensive than single antigen MV.

In 2008, the National Technical Advisory Group on Immunization (NTAGI), Govt. of India had deliberated on this issue and recommended that the available data did not justify including the mumps component with measles vaccine as the benefits would not be commensurate with the additional costs incurred [2]. In 2009 and 2010, successive NTAGI sessions once again determined that available epidemiologic evidence did not warrant the additional cost of mumps antigen with the second dose of measles containing vaccine (MCV).

Measles continues to cause significant morbidity and mortality in young children where vaccination coverage remains low. Rubella and mumps infection do cause significant complications in adolescent and older age groups but once again, the actual burden is not well documented. Introducing mumps and rubella vaccines into childhood vaccination programmes that do not achieve high coverage (≥80%) increases the median age at infection and has the potential risk of paradoxically increasing the public health consequences of the very diseases that vaccination is attempting to control. WHO position papers on both mumps and rubella vaccines have stated the risks of such “paradoxical effects” in quite unambiguous terms [3,4]. The evidence for the danger of paradoxical increase of Congenital Rubella Syndrome (CRS) owing to private sector usage of rubella vaccine achieving low coverage overall, comes from observational and modeling studies [3,4].

These are well known facts regarding mumps and rubella vaccine introduction in children. In fact, in its April 2011 meeting, the Strategic Advisory Group of Experts (SAGE) has cautioned against the possibility of paradoxical increase of CRS owing to widespread use of rubella containing vaccines by private sector service that ultimately achieves low overall coverage (<80%) [5].

The question posed in the end is actually a non-starter from the perspective of the national immunization programme. At present, Govt. of India policy is to give the first dose of measles vaccine between 9 and 12 months to all children in the country. The second dose of measles vaccine will be given through routine immunization between 16 and 24 months of age in 21 states and through mass vaccination campaigns for 9 months to 10 year old children in 14 states. Thus, in any particular state, a child will get the second dose of measles vaccine through either routine immunization or mass campaigns, not both.

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Definition and Etiology of Acute Kidney Injury in Children

We read with interest the research letter by Nasir, et al. [1], describing the etiological profile of 100 children with acute renal failure (ARF) from Kashmir. The study is of relevance considering the significant mortality and morbidity associated with the condition, especially in children. It should be noted however, that due to usage of more than 30 definitions of ARF in the literature, leading to wide variations in the reported incidence and outcome, the term ARF was replaced recently by acute kidney injury (AKI), including a new classification system [2, 3] with a view to provide a uniform definition, standardize patient care, enhance the ability to design prospective studies and evaluate potential prophylactic and treatment strategies. Based on this, AKI is an abrupt (within 48 hours) reduction in kidney function currently defined as absolute increase in serum creatinine of either ≥0.3 mg/dL or a percentage increase of ≥50% or a reduction in urine output (documented oliguria of <0.5 mL/kg/hr for >6 hours). This new definition is applicable across all ages [2, 3]. Three grades of severity for AKI have been described.

The authors of this research letter, while acknowledging the new term AKI in the introductory statement, have used an outdated definition to diagnose the condition (ARF) in their study subjects based on old references. The lack of usage of a standardized definition for study of the clinical profile of AKI impedes rational comparison of epidemiological studies on AKI, limits generalization of data and prevents patient stratification based on AKI severity. Hence, adherence to the new definition is essential. In recent years, a number of studies have been conducted across the world, in adults as well as children to study the incidence and etiological profile of AKI based on the new terminology [4]. The new definition has been validated in these studies.

Another notable feature in the etiological profile of AKI in this study is the absence of cases with snake envenomation. Snake envenomation is known to be an important cause of AKI in certain regions of India. Cases of snakebite envenomation among Kashmiri children have been reported earlier [5]; many of them being due to viper bites, which are known to be associated with systemic manifestations such as AKI, hypotension and coagulopathy. The authors also mention that drug induced ARF comprised 5% of cases. If the drugs could be specified, it would be a learning point for the readers.

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