Pentavalent and other New Combination Vaccines: Solutions in Search of Problems

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This reprinted article is unedited version published in the Indian Journal of Medical Research (IJMR), Oct 2010, 132:15-16.

The pentavalent vaccine and many other combination vaccines waiting to enter Universal immunization Programme (UIP) have brought into sharp focus the gaping gap between lofty slogans of ‘evidence based medicine’ and the actual dynamics that drive policy on the ground1-4. Notwithstanding the theatrics of the ‘experts’ of the World Health Organization (WHO) and the Global Alliance for Vaccines and Immunization (GAVI) globally and National Technical Advisory Group on Immunization (NTAGI) here in India, it is becoming increasingly obvious that the pentavalent vaccine, like many other recent combination vaccines, is a solution searching for problems.

Whither Evidence-Based Medicine?

The fact of the matter is that there is no scientifically valid evidence of a high enough disease burden due to Influenzae type b (Hib) or Hepatitis-B (HepB) that justifies universal vaccination in India5-7. Indeed, every attempt to find such evidence for HiB in India and elsewhere in Asia has failed4. In the absence of evidence for individual vaccines, it defies logic how one can justify combining them into a pentavalent vaccine. It also begs the question as to whether the industry made these combination vaccines in response to specific public health demands, if so who articulated them and with what evidence from which countries. It seems that there was no need for any such evidence, as long as ‘expert’ recommendations behind closed doors were unquestioningly accepted by all concerned. Unfortunately, increasing awareness and rising dissent against medicines-sans-evidence is forcing the policy makers to find post-facto evidence that is becoming increasingly difficult to manufacture. By now, it is obvious to all concerned, except to the determined ‘experts’ who drive our immunization policies, that there has never really been a real public health demand for many of these new vaccines, let alone their combinations.

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Marketing Tricks or Innovations for Health?

Indeed, combination vaccines were invented precisely to overcome the poor penetration of the individual vaccines in the global market, as well as to overcome the expiry of their patents and establish eternal market monopolies. Scientific evidences indicate that combination vaccines bring no new health benefit to the immunized people\textsuperscript{8-11}, except the convenience of not having to take each vaccine separately, provided all those vaccines are actually needed. The issue of safety and efficacy of combination vaccines were often cause for concern\textsuperscript{12}. For instance, MMR in combination with Varicella vaccine reported to have enhanced febrile seizures in children\textsuperscript{13-14}, and Hepatitis A vaccine is not protective enough when combined with typhoid vaccine\textsuperscript{15}. It is a marketing trick, which is no more scientific than the logic behind the bundling of Television channels or online journals. Just as many not-so-popular channels or journals need a piggy back ride on a popular channel or a journal in a bundle, every dubious new vaccine needs a Diphtheria Tetanus Pertussis (DTP), measles or some other essential vaccine to get a back door entry into the Universal Immunization Programme (UIP)\textsuperscript{16}. Pushing Hib,Hep-B, Mumps Measles Rubella (MMR), rotaviral, Human Papilloma Virus (HPV), etc through combination vaccines among people who don't need them (using UIP vaccines as piggybacks) is no better than beaming religious channels using news channels as piggybacks.

It is also obvious why our ideologues of out-of-pocket financing of the increasingly privatized health industry suddenly need centralized government procurement of vaccines and are no longer content with doctoring customer ‘choice’. The sustainability of global (read Multinational Company) vaccine industry depends on adoption of new vaccines into the national immunization of large countries like India\textsuperscript{17-18}, because the present prices make them unaffordable even in relatively affluent country markets. A more honest and straightforward way would be to recommend Indian government aid to support vaccination of needy children in such countries, rather than giving Indian children unnecessary vaccines to bring down global prices. But it is hard for the rich to accept donations from the poor, when they are so used to robbing them in benevolent style. So much for equity!

Equity for Health or Market?

Why is it that ‘equity’ argument is often given only when it comes to government spending on vaccines? Why not for all other health care services or other basic amenities such as food, shelter, water and clean environment, which are ruled by market forces? Why are health concerns so muted when it comes to OPV induced paralytic cases? Is the
government, or NTAGI willing to take responsibility and compensate for vaccine induced paralytic cases? Why don’t we have proper vaccine injury compensation in this country? Why should our immunization experts enjoy so much immunity from the unhealthy consequences of their advice for health? In any case, the hollowness of the ‘equity’ argument becomes obvious when we consider that the total coverage of ‘universal’ immunization is below 50% of the children in India, even for the most essential and affordable vaccines. If you don’t have bread, eat cake!

Public Sector Abuse for Medicine sans Evidence?

Another side of the equity argument is that manufacturing these combination vaccines in public sector units (PSUs) would bring down their prices and make them more affordable to all. This would have been a welcome move (lest we too be branded as anti-vaccine), provided the public health need for these new vaccines is firmly established. Unfortunately, even well meaning minds in the government committed to reviving the crucial role of PSUs in Indian vaccine security seem to be lost in supply side arguments without firmly establishing the demand for these vaccines based on disease burden. This is inspite of having all the human, financial and technological resources to document disease burden scientifically. This is the fundamental tragedy of medicine-sans-evidence policy that rules in Indian vaccines.

References


