LETTER

Response

“Antivaccine Lobby” replies to the BMJ

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We are a group of paediatricians, healthcare activists, teachers in public health, and bureaucrats who have championed universal immunisation in India throughout our working lives, so we were taken aback at being called an “antivaccine lobby” in the*BMJ*.[1]

Studies funded by the World Health Organization show that the incidence of*Haemophilus influenzae* type b (Hib) in India is lower than projected.[2] Furthermore, probe studies from Asia show that Hib vaccine does not significantly reduce the burden of disease compared with placebo.[3] We discuss the anecdotal evidence and the farcical equity argument used to recommend the pentavalent vaccine (diphtheria, pertussis, tetanus, Hib, hepatitis B) in India[4] in our rapid response,[5]and concentrate here on the safety issue.

Meta-analysis shows that the combined vaccine is not as effective as single vaccines administered separately[6]; therefore it is not used widely in the West, where reporting of adverse events is reliable. Pentavalent vaccine was withdrawn in Sri Lanka in April 2008 after five deaths.[7] A WHO panel investigated the events and classified three deaths (cases D1, D3, and D6) as “unlikely” to be related to vaccine. Pentavalent vaccine was reintroduced in Sri Lanka earlier this year. The death rate in Sri Lanka is reported to be unchanged, as if adverse events from immunisation will be acknowledged only when they affect the country’s mortality statistics.

Pentavalent vaccine was withdrawn in Bhutan within two months of its introduction in July 2009 after eight deaths.[7]
Adverse events after immunisation are investigated to establish whether the reaction in a given child is related to vaccination. Such investigation does not comment on the likelihood of reaction if the vaccine is given to other children in the future. The report from Sri Lanka was made available to the Delhi High Court on our petition. Only a summary was previously available on the internet.[8] We have uploaded the full report,[9] which quotes an aide-memoire on the standard WHO classification of adverse events after vaccination.[10]

The standard WHO classification is best understood as an algorithm. The first question is whether the adverse events have a plausible temporal relation to vaccine administration. All such reactions are classified as very likely/certain, probable, or possible. They are classified as unlikely or unrelated only if the timing makes a causal connection improbable or incompatible.

The next level of the algorithm enquires whether the adverse event can conclusively be attributable to other causes. If there are other possible explanations, the association with vaccine is classified as possible. If another cause is not found, an adverse event after immunisation is probable. If the same reaction occurs twice it is defined as a cluster.

In Sri Lanka the WHO panel deleted the categories probable and possible from the standard classification. All adverse events that could not be classified as very likely/certain were classified as unlikely. Using this new classification, three deaths were classified as unlikely to be related to vaccine, “although it could not be conclusively attributable to another cause.” As explained above, the three would have been classified as probable adverse events after immunisation using the standard WHO classification.

A WHO spokesperson defended the changed classification, saying that the independent experts were free to make up their own classification. He said that the three deaths would not be classed as probable or possible even if the old classification were used because “non-conclusive evidence” of other “potentially attributable” causes had been found. The causes enumerated were malnutrition (not uncommon in developing countries), necropsy findings of milk aspiration (often a terminal event in death from any cause), and necropsy findings suggestive of Reye’s syndrome. We note the temporal relation of the deaths to vaccination was not disputed so the classification of unlikely cannot be justified. Interestingly, the report says the vaccine may have “unmasked” an underlying condition. Would malnutrition, milk in the trachea, or Reye’s syndrome have remained masked without the vaccine?

The WHO report presented to court is incomplete. The experts' names were left out. At least one of the experts has previously been accused of not declaring conflict of interest arising from funding by companies, including GlaxoSmithKline.

Classification of adverse events after immunisation as certain/very likely often needs evidence from de-challenge or re-challenge. This is not possible if the adverse event is death. The wider question (outside India and Asia) is whether this new classification should be allowed to replace the standard WHO classification of adverse events after immunisation. If it is, deaths that occur as reaction to vaccine will nearly always be classified as unlikely because re-challenge is not possible. Lives may thus be put at risk.

The opprobrium of the *BMJ* stems from our raising these issues. With the same yardstick it could be castigated as being "antivaccine" for exposing the H1N1 scam.[11]

Notes

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Footnotes

- Competing interests: None declared.

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