

THE NEW INTRAVENOUS MALARIA VACCINE

Most malaria vaccines to date have been sub-unit vaccines. Veteran malaria researcher, Michael Hoffman decided to use the whole sporozoite and not just subunit components. But developing the PfSPZ vaccine was extraordinarily complex. Mosquitoes were raised in sterile conditions on an industrial scale and fed *Plasmodium* infected blood and then irradiated. Billions of parasites were then harvested from the mosquitoes' salivary glands, purified and cryopreserved. An initial trial in 2011 using intradermal vaccination only protected 2 of the 80 who were exposed to *Plasmodium*. However in the recent trial published in *Science*, six patients who got 5 doses of the vaccine were 100% protected when exposed to *Plasmodium* while 5 of the 6 who were unvaccinated developed malaria. However there are many logistic difficulties with the vaccine. First, it needs 5 intravenous doses and second it needs to be preserved in liquid nitrogen. But given the impressive results of the phase I trial, everyone knows that difficulties mastered will be opportunities won (*Science, Online August 8 2013*).

THE BAN ON PIOGLITAZONE

The brouhaha over the ban of the oral hypoglycemic Pioglitazone and its subsequent reversal has raised many questions. It is apparent that the Union Health Ministry imposed a ban on Pioglitazone with unseemly haste and secrecy. The drug was approved for use in the early 2000's and 35 lakh patients are estimated to be on the drug. Based on a letter sent by diabetologist V Mohan from Chennai who reported the development of bladder cancer in 8 patients on the drug, the drug was banned on June 18. What is perplexing is that the opinion of the Drug Technical Advisory Board (DTAB) was not sought. Diabetologists from round the country raised a hue and cry since this is a relatively cheaper option for diabetic patients. It costs Rs 5/- per tablet as against the other gliptin marketed at Rs 42/- per tablet. The subsequent meeting by the DTAB on July 11 led to revoking of the ban. The only valid Indian data is of 958 patients with a 2 year follow up, which has not reported any bladder carcinoma. It is banned in France but is available in the US with a box warning. The need of the hour is to generate and evaluate authentic Indian data. The incident has also highlighted the importance of pharmacovigilance and the need to develop a simple country wide system of adverse event reporting (*The Hindu 20 July, The Economic Times 18 July 2013*).

MID-DAY MEAL TRAGEDY

India boasts of the world's largest school meal program which feeds 12 crore children in 12 lakh schools. But in July 2013, in

a terrible tragedy, 23 children died in Bihar's Saran District, after their mid day meal which was found laced with poison. It was probably the cooking oil contaminated with an organophosphorus 'monocrotophos'. There are two major issues about this horrific incident. This kind of gargantuan welfare scheme needs a strong commitment, operational skills and food safety considerations. The HRD ministry has announced a new committee which will monitor effectiveness of the food supply chain and kitchen hygiene standards. To its credit, Bihar has improved tremendously in all aspects of the mid day meal scheme implementation and coverage has gone up from 43% last year to 67% this year. The incident has also brought into the limelight another sore area- the continued use of organophosphorus insecticides in India. These have been banned or restricted in 23 countries and is responsible for 200,000 deaths annually. In 2004 the government ruled out banning their production on grounds that they were cheaper and more effective than available alternatives. The issue is highly incendiary and needs deeper thought and analysis (*The Hindu 19 July, 20 July, 21 July, 2 August, 2013*).

SUPREME COURT QUASHES NEET

The Supreme Court of India quashed the National Eligibility cum Entrance Test (NEET) for admissions into all medical and dental colleges on 18 July 2013. The apex court ruled that the Medical Council of India cannot conduct a unified examination. The court's decision came after 115 petitions challenging the MCI notification on NEET for admission to MBBS and post-graduate medical courses conducted in colleges across the country. A three-judge bench by a 2:1 verdict held that MCI is not empowered to prescribe all India medical entrance tests and was in violation of the Constitution. Justice A R Dave dissented as he felt that NEET is legal, practical and is the need of the society. The test would have allowed students from all over the country study in any medical college without writing multiple exams. However it also has inherent drawbacks as clarified by one of the petitioners against NEET, the Christian Medical College, Vellore. The CMC claims because of the NEET, there would be allotment of candidates to non-native states which would ultimately leave states poorer of their own native doctors. Permanence and long-term commitment to native states would suffer. The CMC suggests that the MCI and the Health Ministry need to do more research into the problem before implementing a workable solution (*The Hindu 20 July, 5 August 2013*).

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