

In Vaccine '1-2 Punch,' the Second Hurts More

BY KATE JOHNSON
Montreal Bureau

TORONTO — The order in which consecutive injections of pentavalent and pneumococcal conjugate vaccines are given during the same office visit can significantly impact the amount of pain they cause, Dr. Moshe Ipp said at the annual meeting of the Pediatric Academic Societies.

In a double-blind trial conducted by Dr. Ipp and associates, which was supported by an unrestricted grant from Sanofi Pasteur, 60 infants (aged 2 to 6 months) were randomized to receive either the pentavalent vaccine (DTaP-Hib)

followed by the pneumococcal conjugate vaccine (PCV), or the other way around.

Pain was measured using the Modified Behavioral Pain Scale (MBPS) running from 0 (no pain) to 10.

"When you consider these two vaccines, one is more painful [PCV], and one is less painful [DTaP-Hib]," reported Dr. Ipp, a pediatrician at the Hospital for Sick Children, Toronto.

"It's not the needle itself, but it is the

vaccine material. We think it's related to pH," Dr. Ipp said in an interview.

Video recordings of infants receiving the injections demonstrated that, regardless of the order of injections, PCV was more painful than DTaP-Hib, with a score of 8.1 when given first and 9 when given second.

In contrast, the pain score of DTaP-Hib was 6.5 when administered first, and 8.5 when administered second.

The fact that both vaccines were measured as more painful when given second

suggests "there must be some priming from the first needle that the child registers," said Dr. Ipp.

He recommended that since DTaP-Hib is less painful it should be routinely administered before PCV.

"The pain issue and compliance go together, and I think pain has been ignored in the vaccine scenario.

"Reduce the pain and compliance with vaccination will improve," Dr. Ipp concluded. ■

CDC, Merck Say ProQuad Supply Will Run Short

A projected shortage of the quadrivalent measles-mumps-rubella-varicella vaccine means that children who require immunization for these diseases will need to get two shots instead of the single combination vaccine until supplies of the latter are replenished, according to the Centers for Disease Control and Prevention.

The quadrivalent vaccine (ProQuad) shortage is expected to begin in July, although actual timing will depend on market demand, and last at least through the end of 2007 (MMWR 2007 May 11; 56:453).

ProQuad's manufacturer, Merck & Co., is attributing the shortfall to lower-than-expected amounts of varicella zoster virus (VZV) in its recent batch of bulk vaccine.

Merck notified the CDC earlier this year of its intent to use its available supply of VZV in the production of its varicella-only vaccine (Varivax) and its zoster vaccine (Zostavax) and to temporarily halt the production of ProQuad.

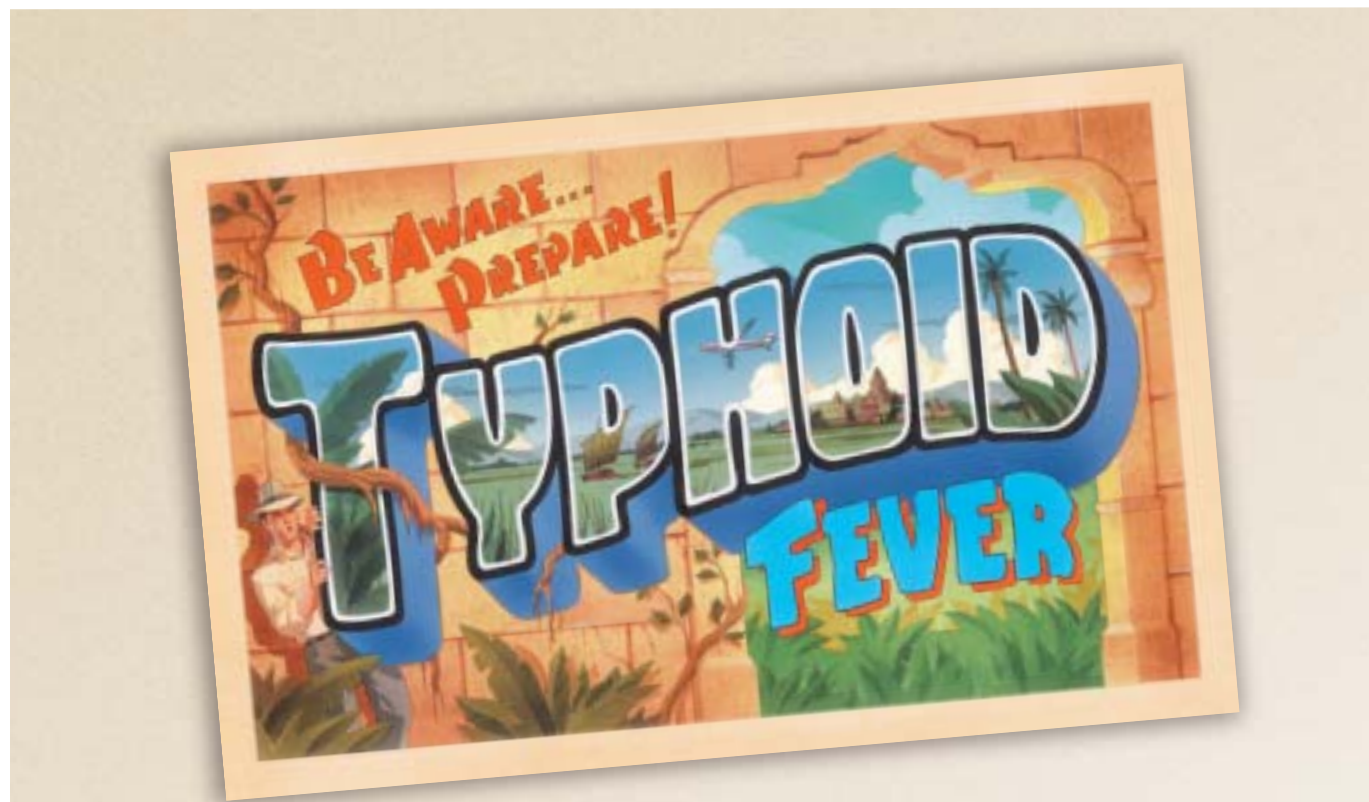
In anticipation of the shortage, Merck is requesting that physicians begin transitioning from the quadrivalent vaccine to the measles-mumps-rubella vaccine (MMR-II) and the varicella vaccine.

The company expects to have adequate supplies of both of the latter vaccines to fully implement the recommended immunization schedules, according to the notice.

"This will allow for continued use of varicella vaccine for all age groups, including the routine two-dose schedule for children aged 12-15 months and 4-6 years, catch-up vaccination with the second dose for children or adolescents who received only one dose, and vaccination with two doses for other children, adolescents, and adults without evidence of immunity," the notice said.

Additionally, the company expects to have an adequate supply of zoster vaccine for routine vaccination of adults who are aged 60 years and over.

—Diana Mahoney



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References: 1. Centers for Disease Control and Prevention (CDC). *Health Information for International Travel 2005–2006*. Atlanta, Ga: US Department of Health and Human Services, Public Health Service; 2005:291-295. 2. Typhim Vi Vaccine full Prescribing Information, December 2005. 3. Kaplan DT, Hill DR. Compliance with live, oral Ty21a typhoid vaccine. *JAMA*. 1992;267:1074. 4. Rahman S, Barr W, Hilton E. Use of oral typhoid vaccine strain Ty21a in a New York State travel immunization facility. *Am J Trop Med Hyg*. 1993;48:823-826.

TYPHIM Vi vaccine is manufactured by Sanofi Pasteur SA and distributed by Sanofi Pasteur Inc.

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Discovery Drive, Swiftwater, Pennsylvania 18370
www.sanofipasteur.us

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