



The Importance of Immunizations

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It is virtually impossible to overstate the effect of vaccination upon human health, and especially upon child health. And yet controversy seems to swirl around this topic and has since Edward Jenner first inoculated young James Phipps on May 14, 1796, with material from Sarah Nelmes, the milkmaid who had cowpox. Most of the controversies are because, when vaccination is successful, nothing happens. When we prevent a serious illness, nothing happens (ie, no one gets ill). As this occurs more and more, the public eventually has little or no memory of the morbidity and mortality that was caused by serious diseases like smallpox, measles, varicella, and the other vaccine-preventable infections.

Dr. Dwight Powell from Nationwide Children's Hospital in Columbus, Ohio, is the Guest Editor of this issue of *Pediatric Annals* devoted to child and adolescent immunizations. The topics include how to deal with concerns about vaccine safety, issues specific to adolescent immunization, influenza vaccines, immunizations for international adoptees, the new 13-valent conjugate pneumococcal vaccine, and the business aspects of immunization in the office.

All of us who support and provide childhood vaccinations should be aware of the recent landmark decisions of the federal "vaccine court," a program where claims are decided by the Office of Special Masters, a part of the U.S. Court of Federal Claims. As recounted in the article here by Smith and Marshall (see page 476), on February 12, 2009, the vaccine court completely rejected claims that thimerosal and MMR cause autism, and on March 12, 2010 that thimerosal alone causes autism, using very strong language in both instances. On February 2, 2010, *The Lancet* formally retracted the 1998 paper by Dr. Andrew Wakefield and colleagues that first claimed the now disproved relationship between MMR and autism. The General Medical Council of the United Kingdom has found evidence of serious profes-

sional misconduct by Wakefield and two colleagues, and on May 24, 2010, "struck" Wakefield from the medical register, effectively withdrawing his U.K. medical license. These actions should help quiet the false assertions of a vaccine link to autism.

I have recently received a copy of the third edition of *The Vaccine Handbook: A Practical Guide for*



Clinicians, by Gary S. Marshall, MD, and strongly recommend it to those in general pediatric practice. It is published by Professional Communications, Inc. This handbook is full of practical information covering virtually all aspects of the topic and answering just about all questions related to vaccines that parents may pose to physicians. Individual chapters are devoted to each vaccine-preventable disease and the appropriate vaccine(s). This is a terrific guide to have for ready access in the office, and it has a very useful index.

For the stamps to accompany this column and issue on immunization, I have chosen two related to smallpox immunization and Edward Jenner and two honoring Louis Pasteur. The 1978 Nigerian stamp supporting the now-successful Global Crusade for the Eradication of Smallpox portrays a mother holding her child (see page 460), who is covered with smallpox lesions, which are centripetal (mainly truncal) in distribution. The complete eradication of this major cause of morbidity and mortality, which is known to have affected man since before 1500 BC, is one of the greatest scientific achievements. The 1978 stamp from Senegal in French West Africa depicts Jenner (1749-1823), who appears to be looking down upon an outdoor immunization clinic (see page 460). Jenner's story of experiments from 1796-1801 is familiar, and in 1801 he predicted the ultimate eradication of smallpox. The world's last case of endemic smallpox occurred on October 31, 1977, in Somalia, and the last lab-acquired case occurred in Birmingham, England, in 1978. The other two stamps, from Turkey and the Republic of Cameroon, show the most famous portrait of Louis Pasteur (1822-1895), the greatest French scientist, whose many achievements include the development of the attenuated rabies vaccine, another familiar story. In this portrait by Albert Edelfelt, which is on the cover of most French high school science texts, Pasteur is examining a dried rabbit spinal cord within a flask, serial passaging in this way being central to his successful attenuation of the very deadly rabies virus.

Jenner and Pasteur each experienced substantial criticism of his scientific achievements by the antivaccine forces of the day, but their legacies survived, and the world will be indebted to their perseverance and will always honor their contributions.

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