



Immunol Allergy Clin N Am
23 (2003) xi–xii

IMMUNOLOGY
AND ALLERGY
CLINICS OF
NORTH AMERICA

Preface
Vaccines in the 21st century



Gregory A. Poland, MD
Guest Editor

The control of infectious diseases through immunization is hailed as one of the greatest medical advances. This is evident by the dramatic decrease in the number of vaccine-preventable diseases, the number of averted deaths, and the overall increase in health and well-being throughout the world. Therefore, it is appropriate that an entire issue of the *Immunology and Allergy Clinics of North America* be devoted to the impact of vaccines and vaccine practice, as they are invaluable to the practicing internist, allergist, and immunologist.

In this issue, I hope to accomplish three major tasks. The first is to provide up-to-date information that is directly relevant to the practicing internist and allergist, including diagnosing, preventing, and treating allergic reactions to vaccines. The second task is to discuss specific vaccines of significance in the 21st century; hence, this issue also emphasizes vaccines that prevent diseases due to biologic agents of mass destruction, namely smallpox and anthrax. The third and final task is to discuss specific vaccines and adjuvants that are not necessarily new but merit attention nonetheless. For example, the live, cold-adapted influenza vaccine has resulted in new formulations and methods of administration that may be new to some readers. In addition, this issue provides information on vaccines that may be less familiar to practitioners (eg, the meningococcal vaccine). Furthermore, new concerns over disease epidemiology and hypothesized side effects, such as aluminum inclusion macrophagic myofasciitis, are both topics that deserve attention.

The first article focuses on the specific issues of vaccine allergy, diagnosis, and management. The next five articles deal with specific vaccine management topics such as immunization of immunocompromised persons, immunization of egg-

allergic persons, antigenic overload in relation to the role of multiple vaccinations, the exciting new area of transcutaneous immunization, and a recently hypothesized relationship between aluminum adjuvants and macrophagic myofasciitis. Two articles on anthrax and smallpox vaccines (the only two agents of bioterrorism for which there are currently licensed vaccines) are also included. The final articles focus on the recently approved live-attenuated, cold-adapted influenza vaccine, the meningococcal vaccine, and an innovative development in vaccinology: the use of new technology to deliver vaccines and immunostimulants transcutaneously. Together, these articles should provide a current and reasonable overview of the most important and pressing issues in the field of vaccines.

Despite major advances in the use of influenza and pneumococcal vaccines, the use of most other vaccines is not as prevalent. This is due in part to many practitioners' unfamiliarity with vaccines such as smallpox, anthrax, and the new formulation of influenza vaccine, as well as the misperceptions regarding vaccine safety and vaccine side effects. This confirms the importance of an issue that provides relevant vaccine information for practitioners. It is my hope that we will have added to the knowledge base that allows readers to make informed decisions about these issues.

Finally, the tremendous effort necessary to produce an issue such as this one was made immeasurably easier by the assistance of Sarah Barth (Senior Editor, Elsevier) and Kim Zabel (Publications Specialist, Mayo Vaccine Research Group) and the support of my colleagues in the Mayo Vaccine Research Group and my family members (who unfailingly allow me to shirk other responsibilities to concentrate my time and efforts on this project).

Please let me know if this effort was useful to you, the practitioner, and any thoughts you have regarding future topics.

Gregory A. Poland, MD
*Mayo Vaccine Research Group and the
Program in Translational Immunovirology and Biodefense
Mayo Clinic and Foundation
611C Guggenheim Building
200 First Street, SW
Rochester, MN 55905, USA
E-mail address: poland.gregory@mayo.edu*