Editorial

By Richard P. Wenzel, MD; William Schaffner, MD

Infection Control—A Progress Report

Five years ago the Editorial Board of *Infection Control*, working with SLACK Incorporated, introduced a new medical journal.[1] The bimonthly publication was a response to the needs of an increasing number of members of our discipline seeking current scientific information. In the interim, the Journal has made steady progress. The number of manuscript submissions continues to increase and a year ago the Journal began monthly publication. Citations of manuscripts in *Infection Control* have appeared increasingly in papers published in many journals. A prominent international advisory board has been recruited, and the Journal co-sponsored a successful, large international symposium on nosocomial infections.[2-4]

The field of infection control has remained a dynamic one with many changes occurring over the past five years affecting our readership. New antimicrobial agents (especially the cephalosporins) continue to become available at a dizzying pace. Concurrently, hospitals increased their efforts to audit, monitor, and control the use of these expensive agents, often with the active participation of infection control teams. Nosocomial pathogens continued their unpredictable evolution: methicillin-resistant *Staphylococcus aureus* is resurgent in many institutions, *Staphylococcus epidermidis* now is acknowledged to produce nosocomial bacteremia, enterococci are slowly becoming more prominent, as are our old "friends," *Pseudomonas aeruginosa* and the several *Candida* species. In addition to the epidemiology of pathogens, the molecular epidemiology of resistance plasmids had become a regular aspect of the laboratory investigation of nosocomial infections.

Other national developments include the growth of the Society of Hospital Epidemiologists of America (SHEA)[5] and its sponsorship of several national courses in hospital epidemiology for physicians, the steady expansion of the Nosocomial Infections Division of the American Society for Microbiology (ASM), the certification examination of the Association for Practitioners in Infection Control (APIC), the development of the Guidelines for Infection Control by the Centers for Disease Control (CDC), the withdrawal by the Food and Drug Administration (FDA) of regulations imposing national efficacy testing of disinfectants before release,[6] the availability of hepatitis B vaccine, and the introduction of the prospective payment system for hospitalized patients based on a limited number of diagnosis-related groups (DRGs). Furthermore, the long awaited publication of the CDC's Study on the Efficacy of Nosocomial Infection Control (the SENIC Study) is imminent.[7]

Perhaps nothing in the past five years approaches the impact of the emergence of the acquired immunodeficiency syndrome (AIDS). This illness has had extraordinary effects on public health, clinical medicine, basic scientific investigation, as well as on social beliefs and attitudes. Perhaps less well appreciated is the profound demands AIDS has placed on the infection control teams of this country. When AIDS was first recognized, many hospitals experienced considerable turmoil in providing care for these severely ill patients. Understandably, hospital personnel feared they might acquire this still-mysterious infection as they ministered to the sick. As information rapidly accumulated, the CDC,[8] a special working group in San Francisco,[9] and the American Hospital Association[10] quickly provided special advisories on appropriate hospital infection control practices. Infection control teams across the country responded with intensive in-service programs and special infection control efforts. Irrational fears were dispelled, and hospital staff once again were able to provide compassionate and appropriate medical care to all patients, assured that their risk of nosocomial infection was exceedingly low. Continuing surveillance by the CDC reaffirms this conclusion. It is no exaggeration to suggest that this country's hospitals were able to cope successfully with AIDS only because a strong, effective national infection control network was in place.

Internationally, there have been a large number of prominent symposia,[2-4,11,12] the development of a Hospital Infections Society in Great Britain, a new mandate for infection control by the World Health Organization,[13] nascent infection control awareness in the Middle East Gulf states, and the activity for infection control in South America stimulated by the Pan-American Health Organization.[14]

Our Journal was born in turbulent times, and there is no indication that the early growth and development phase will see fewer changes and challenges. The increased visibility of the infection control team and its unique talents in the hospital may suggest to administrators a broader role in our solving a variety of institutional epidemiologic problems. The future promises a great emphasis on cost containment; however, limited research funding by the National Institutes of Health may discourage investigation in our field. The latter situation is compounded by the fact that pharmaceutical companies have an increasing number of investigators competing for their support. The future will require a great deal of creativity and stamina for the clinician epidemiologists who are interested in research.

There is no dearth of investigative opportunities. The epidemiology of nosocomial infections in nursing homes and free-standing out-patient surgeries remains largely unexplored. The role of hospital-acquired viral infections requires additional attention in adult as well as pediatric patients. A new varicella-zoster vaccine is on the horizon, but its use in hospital personnel must be assessed. Molecular genetics laboratories will produce new vaccines, and monoclonal antibody reagents will be employed to provide rapid and precise diagnosis of infections. The AIDS saga has just begun, and advances in transplantation immunology as well as the bionic revolution will provide infection control challenges which even the most prescient among us cannot fully anticipate.

As you chronicle these advances, the role of this young Journal is to insist that the peer review process continue in the honest, critical, and helpful manner; to demand rigorous study design of its authors; to be creative in its perception of the needs of its readers and to remain open to critique. As we look ahead, the editors invite authors with unique observations to request rapid review and the readers to offer suggestions for change. We welcome your participation.

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