Letters to the Editor

Ethical Aspects in Infection Control

To the Editor:

The article by Herwaldt[1] reminds us of some of the difficulties encountered in implementing a strict isolation policy for patients with methicillin-resistant *Staphylococcus aureus* (MRSA). From July 1992, this 800-bed regional teaching hospital experienced for 1½ years the continual presence of an MRSA III-29 strain that colonized or infected patients on the intensive-care units and on two surgical wards. New cases regularly were detected and placed in strict isolation, according to the guidelines of the Dutch Working Party on Infection Prevention.[2] This policy is described easily, but it pays no attention to the impact on the patients involved.

During our MRSA epidemic, most of the patients encountered by the Department of Surgery were cared for on one ward, so that the members of the nursing staff were involved widely with the isolation of the 15 colonized or contact patients. It was noted that a number of sociopsychological effects occurred in these patients, and we would like to focus attention on them.

All patients experienced varying psychological or behavioral disturbances due to the implementation of the strict isolation. Most patients felt "infected" and were inhibited in their personal communication with visiting family members. They felt deprived of normal interhuman relationships. The isolation contributed to depressive feelings in addition to the mental stress already present due to the original reason for hospitalization.

Furthermore, feelings expressing a lack of self-esteem were noted, due to the fact that patients considered themselves as an infection danger for their relatives or neighborhood acquaintances. In the most aggravating form, one patient threatened suicide unless his isolation was terminated. As he was a heavy disperser of MRSA, this unfortunately could not be granted, as the isolation policy mentioned has been advocated strongly nationwide by the Inspectorate of the Dutch Department of Health. Due to his preexistent postconcentration-camp syndrome[3] and his memory of this traumatizing era during the isolation period, continuing psychiatric support was necessary during and after his hospital stay.

It is not surprising that the main burden of these difficulties was carried by the nursing staff, and both the patient and the healthcare workers were relieved greatly when discharge from the hospital eventually became possible. Despite extensive patient information regarding MRSA carriership, not all patients are willing to report their previous MRSA colonization when subsequently readmitted to the hospital. Due to the abovementioned psychological problems, at least three patients with chronic underlying disease have done their utmost to avoid readmission to the hospital, and this sometimes has been considered by the attending specialist to have been harmful to their medical care.

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The author replies.

The letter by Wagenvoort et al highlights the emotional and psychological problems that patients in isolation for resistant organisms may experience. In general, infection control personnel have focused on preventing the spread of resistant organisms from colonized or infected patients to other patients. We would all agree that this is a laudable goal, as it protects numerous patients, visitors, and healthcare workers. However, infection control personnel rarely have evaluated the effect of precautions on the patients who are isolated. These patients are entitled to receive appropriate medical care without undue emotional and psychological stress. Thus, infection control staff and clinicians must work together to devise methods to prevent the spread of resistant organisms and to maintain the isolated patient's autonomy and emotional well-being.

In some instances, both of these goals could be achieved by instituting an isolation ward in which the patients are free to walk around. However, many hospitals may not have enough patients to warrant an isolation ward, and other hospitals may not be able to create isolation wards for other reasons. In such institutions, clinicians and infection control personnel must work together to design solutions for patients who will be isolated for long periods of time. For example, patients could wash their hands with an antiseptic preparation and put on a clean cover gown before they walk in the corridor or outside the hospital. Patients could wash their hands and put on a cover gown and then go to physical therapy at the end of the day. All equipment used by the patient would have to be cleaned thoroughly.

Infection control staff must educate the clinical staff to ensure that they do not complicate the isolation precautions needlessly. We have found that nurses and physicians who do not understand the epidemiology of the organism or the method of isolation often give the patient and family members incorrect information, which only increases their anxiety, frustration, and anger. In addition, infection control personnel and clinicians need to educate the patients and their families and to reassure them that the patients are not a risk to their family members and friends. While teaching patients and families about the organism and the isolation precautions, staff should ask the affected individuals about their main concerns. Some

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concerns are relatively easy to address. For example, a liver transplant patient in our hospital who was colonized with vancomycin-resistant enterococci wanted to smoke. We allowed the patient to wash her hands with chlorhexidine and put on a cover gown. A healthcare worker took the patient outside where she could smoke and then escorted the patient back to her room. However, despite our best efforts to explain the isolation precautions and to make the precautions as flexible as possible, some patients also may need counseling or medicine to help them cope with isolation precautions.

Wagenvoort et al have sent an important message. We in infection control must protect the population of patients, visitors, and healthcare workers in our hospitals from acquiring highly resistant organisms. However, we also must protect the autonomy of the patients who are in isolation, and we must make every effort to alleviate the negative emotional effects of isolation.

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Nurses' Occupational Exposure to Blood

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Since the mid-1980s, there have been a number of studies conducted to help define healthcare workers' risk of occupationally acquired bloodborne viral infections. Some studies focus on infection rates and others on rates of injuries that place healthcare workers at risk of exposure to blood. Investigators from the University of Pennsylvania recently published the results of a large study that examined nurses' risk of exposure to blood resulting from injuries with needles and sharps, the methods of estimating those risks, and factors affecting risks. The study data were derived from 40 inpatient units in 20 hospitals that cared for AIDS patients. They were located in 11 cities with a high incidence of AIDS. Percutaneous injuries were documented for every shift during a 30-day period. These prospective reports were compared with retrospective and institutional reports. Factors affecting the likelihood of injuries also were explored.

Based on the prospective reports, the rate of injuries to staff nurses was 0.8 per nurse year. Prospective and retrospective rates were similar, whereas reported institutional rates were significantly lower. Factors associated with increased injuries included recapping needles and temporary work assignments. There were fewer injuries associated with working in hospitals characterized by professional nurse practice models (eg, decentralized decision making, policies promoting nurse autonomy and control, and work organization emphasizing continuity of care) and taking precautions to avoid blood contact. The investigators concluded that injuries from needlesticks are more common than institutional reports suggest and do not occur at random. The prospective- and retrospective-report data used in this study yielded similar estimates, indicating that nurses sustain an average of 0.7 or 0.8 injuries per year, or between 3 and 4 injuries every 5 years.

In this study, recapping of needles appeared to be the most important practice related to the risk of an injury. The authors commented that recapping persists despite CDC recommendations against this practice, suggesting that providing nurses with safer devices is warranted despite the higher costs of such devices and seeming opposition of hospital managers to paying for them. The authors conclude that diminishing the frequency with which nurses recap needles, increasing precautions they take, reducing use of temporary nursing personnel, and implementing organizational changes may lower the odds of nurses being injured. Further, the authors believe that these findings indicate that the recent downsizing or "deprofessionalizing" of the hospital's work force is not without potential adverse consequences.

FROM: Aiken LH, Sloane DM, Klocinski JL. Hospital nurses' occupational exposure to blood: prospective, retrospective, and institutional reports. *Am J Public Health* 1997;87:103-107.

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