Letters to the Editor

Handwashing Versus Gloving

To the Editor:

We commend Birnbaum et al (1990; 11(9) :465-472) for the excellent article describing various isolation strategies used in Canadian hospitals. Several references are made to the body substance isolation (BSI) system[1] that is described as a broad strategy of precautions to reduce nosocomial infection risks, both to patients and to healthcare workers. The article also attributes the BSI system with using "gloves as an alternative to handwashing," both as a policy recommendation and an infection control strategy. In our view, handwashing and gloving are not equivalent and cannot really be considered alternatives.

For patient protection, when healthcare workers put on clean gloves just before contact with mucous membranes and nonintact skin, they reduce the likelihood of transferring organisms from their hands to the patient.[2,3] An added benefit is the barrier between the patient and the healthcare worker that may reduce the risk of healthcare worker infection with a variety of agents, such as herpes simplex from oral secretions.

When healthcare workers' hands are soiled with moist body substances, handwashing removes the soil (or most of it) but does not offer as much protection to the healthcare worker as does the physical barrier of gloves. Gloves provide a physical barrier between the healthcare worker's hands and whatever the hands contact; however, nothing except handwashing cleans hands if they are soiled. These are clearly two different issues.

Numerous studies have demonstrated that healthcare workers do not wash their hands adequately. The appropriate use of gloves does not change this behavior. In our article in *Annals* of *Internal Medicine,*[1] *we* stated that "...gloves are worn for contact with mucous membranes, nonintact skin, and moist body substances...Correspondingly, handwashing is required less frequently." If gloves are worn, hands are less likely to be soiled, and the impact of unwashed hands is thus reduced. As one of the speakers at the Third International Conference on Nosocomial Infections (1990) so succinctly pointed out, 'When the choice is between a device or behavior change...go for the device." Undoubtedly, gloves as a device are superior to poor handwashing. In many cases, gloves are superior to good handwashing, but in all cases, gloves are superior to no handwashing-the current state of affairs in most hospitals.

Patricia Lynch, RN, MBA, CIC
M. Jeanne Cummings, RN, BSN, CIC
Walter E. Stamm, MD
Marguerite M. Jackson, RN, MS, CIC
Harborview Medical Center, Seattle, Washington
University of California, San Diego, California

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The authors were asked to respond to this letter.

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Our survey asked infection control practitioners if they had received, reviewed, or adopted specific recommendations from important guideline publications. Its purpose was to measure the extent of guideline receipt and adoption, not to evaluate published recommendations themselves. One of these publications' states that, as one of six components of Body Substance Isolation (BSI), "Gloves are worn for anticipated contact with all blood, secretions, mucous membranes, nonintact skin, and moist body substances for all patients. Handwashing is unnecessary in these circumstances unless the hands become visibly soiled due to punctures in the gloves. Gloves are changed before another patient is treated."

This departure from the usual emphasis on handwashing attracted an editorial response? "...we are not convinced that changing gloves between patients eliminated the need for handwashing." The phrasing of Lynch et al was used in our questionnaire but edited to more concise statements in publication. It is disturbing that a large proportion of respondents, even in hospitals claiming adoption of BSI, had not read the guideline.

Our support for concepts advocated in the letter by Lynch et al, as well as a hope that more rational substitution of hygiene for "isolation," would encourage improved understanding of infection control, precedes the acquired immunodeficiency syndrome (AIDS) and Universal Precautions.[3] However, our recent survey, as well as further research now in progress, suggests that today's focus on protecting healthcare workers from AIDS has grossly overshadowed the goal of protecting patients from nosocomial infection. Gloving may be superior to no handwashing in protecting staff from AIDS (and, more frequently, herpetic whitlow and hepatitis B), but improper use of gloves has already been implicated in spreading contamination and cross infection.[4,5]

David Bimbaum, MPH;
Michael Schulzer, MD, PhD;
Richard G. Mathias, MD;
Michael Kelly, MD, PhD;
Anthony W. Chow, MD
The University of British Columbia,
Vancouver, British Columbia

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Home Healthcare

To the Editor:

I read with great interest the article titled "Infection Control for Home Health" (1990;11(7):362-370). Having been an infection control practitioner for many years and a home health nurse even longer, I am always intrigued by the comments of writers of articles regarding home healthcare. This article certainly pointed out the multiple numbers of home care programs directly associated with hospitals since 1980. Home health is not new to nursing, as a perusal of the literature will prove. It is, however, new to hospital support.

Recognizing the need for updated information for the healthcare worker in the home, I wrote, with Marya Grier, the pocket reference Nurse's *Guide to* Infection *Control Practice,* published in 1988. In this guide, we discussed the home care principles for handling infections and infectious material, waste, and environment for each system of the body. We have included a section on the discussion of blood and body fluid precautions for patients with the acquired immunodeficiency syndrome (AIDS).

I appreciate the references used in the Simmons et al article, but would have appreciated even more the current information from the guide I have previously described.

I also question statements not recommending disinfection using white vinegar, recommending that the tracheostomy cannula be rinsed in boiled water, and recommending that the suction catheter can be boiled if used longer than eight hours. As stated, there is little-to-no direct research measurement of the effect or non-effect of vinegar in cleaning respiratory equipment, particularly cannulas. There is a preponderance of anecdotal information, however, of no infections with the use of vinegar in cleaning cannulas. Using boiled water in certain geographical locations of the country will leave deposits of alkali and heavy minerals on the cannulas, if they are metal. Why boil water that is potable in the first place?

In addition, the use of a disposable catheters do not lend themselves to boiling. If the red Robinsons are used, I question the feasibility of boiling, because these catheters are loaded with fissures and cavities that can protect bacteria during boiling. These red rubber catheters also become sticky and deteriorate quickly if boiled. In my home healthcare practice, I teach and demonstrate the cleaning of the reusable catheter with soapy water:

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