

## LETTERS TO THE EDITOR

## Attitudes of Healthcare Workers and Patients Toward Individualized Hand Hygiene Reminders

*To the Editor*—Despite the well-documented laxity of hand cleansing practices in hospitals, individual healthcare workers (HCWs) tend to overestimate their own adherence.<sup>1</sup> Novel strategies to improve HCW hand hygiene practices have included individualized feedback through patients<sup>2,3</sup> and electronic monitoring devices.<sup>4</sup> Each of these interventions is designed to provide HCWs with a realistic assessment of their personal hand hygiene performance to motivate improvement.

A campaign to improve HCW hand hygiene practices through patient feedback was developed at our 500-bed tertiary care teaching hospital. Posters, placed in every inpatient room beginning in July 2006, encourage patients to ask HCWs, “Have you washed your hands?” (see Figure). HCWs are, however, unaccustomed to receiving individual-level feedback on hand hygiene adherence. We surveyed HCWs to assess their attitudes toward receiving hand hygiene feedback from patients as well as from staff, and we interviewed inpatients to assess their role in reminding HCWs to cleanse their hands.

In February–April 2007, HCWs completed anonymous surveys distributed at faculty meetings, resident conferences, and nursing units. Also, randomly selected adult inpatients on medical or surgical acute care (non-intensive care) units were interviewed on their third hospital day in a standardized format.

Of the 326 completed HCW surveys, 173 (55%) were by physicians (92 of these physicians [58%] were faculty, and 66 [42%] were residents or fellows) and 99 [32%] by nurses. (Because not all questions were answered by every person, denominators vary per question.) Forty-five (35%) of the physicians were from the department of medicine, 23 (18%) from surgery, and 18 (14%) from pediatrics. Two hundred sixty-two (81%) of the respondents agreed that patients and/or families should be encouraged to remind HCWs to cleanse their hands; 287 (89%) agreed that any staff member should be encouraged to remind HCWs. Of those who disagreed with feedback strategies, 18 were physicians (10% of physician respondents) and 3 were nurses (3% of nurse respondents). The most frequently cited reasons for objecting included the following: it is not patients’ responsibility to remind staff; patients or staff may not see that the HCW had previously cleansed his or her hands; and reminders are embarrassing and/or inappropriate.

Fourteen (15%) of the nurses and 13 (8%) of the physicians reported that patients and/or families had reminded them to cleanse their hands during the 9-month period that followed the initiation of the campaign. Similarly, 15 (16%) of the nurses and 24 (15%) of the physicians reported being re-

mindful by coworkers. After being reminded, 46 (81%) of 57 reported being more careful about hand cleansing during patient care activities; other HCWs reported no change.

Of the 89 patients who completed an interview, 54 (61%) were aged 20–59 years, and 45 (52%) were female. All patients affirmed that HCWs should cleanse their hands before and after contact with each patient, and 70 (81%) affirmed that alcohol-based hand gel is at least as effective as soap and water for HCWs to use to cleanse their hands before touching a patient. Fifteen (18%) of the patients reported that physicians never or less than half the time cleansed their hands before contact; 8 (9%) perceived this poor practice in their observation of nurses. If a physician in a hypothetical scenario was observed not to cleanse his or her hands before contact, 62 (71%) of the patients were at least sometimes comfortable reminding the physician; similarly, 67 (76%) of the patients were at least sometimes comfortable reminding nurses. When asked reasons for feeling uncomfortable, 24 (69%) of these 35 patients were afraid the HCW would be offended, and 9 (26%) assumed that HCWs would have cleansed their hands already. During their current hospital stay, only 2 (2%) of the patients reported reminding an HCW to cleanse his or her hands.

In the setting of a hospital-wide campaign, HCWs articulated acceptance of hand hygiene reminders from patients and staff. This represents a positive cultural step, especially since concerns about giving feedback have been that HCWs would take offense and that counterproductive interactions would result.

In this era of increasing patient self-advocacy, it may be appropriate to further leverage patients to remind HCWs to perform hand hygiene. Patients were aware of the need for HCW hand hygiene, and most reported they would feel comfortable reminding HCWs. The mildly embarrassing yet memorable nature of being reminded may positively influence HCWs’ hand hygiene habits. However, there are challenges to patient reminder strategies: inpatients’ acute illnesses likely decrease their interest in questioning HCWs, and hand gel dispensers or sinks are not always in patients’ view. Furthermore, the impact of “patient empowerment” reminder strategies on the patient-provider relationship is unknown.

The psychological impact may differ if an HCW is reminded about hand hygiene by another HCW instead of by a patient. Yet, peer pressure is an important driving factor for HCW hand hygiene adherence.<sup>5</sup> In selected environments within hospitals, the culture of “staff empowerment” may already be partially successful—for example, nurses in neonatal intensive care units and operating rooms may be able to enforce careful hand hygiene. As a challenge to “staff empowerment” reminder strategies, hospitals’ hierarchical structure is often still a deterrent. Senior staff have a major impact as role models<sup>6</sup> but, even if hand hygiene practices are poor, are unlikely to be given feedback.

Encouraging patients and staff to more frequently voice re-



FIGURE. Poster, displayed in every inpatient room, to encourage patients to remind healthcare workers to practice hand hygiene. The poster was designed by Do Sunho.

mind remains a major challenge to individualized feedback strategies. More intensive efforts, beyond poster campaigns, may be necessary to encourage patients to remind HCWs. Prior patient feedback strategies used one-on-one patient information sessions<sup>2,3</sup>; however, inpatient turnover imposes continual resource demands on that approach. Clinical leaders are needed to openly invite their teams to give hand hygiene feedback. It may be useful for future “empowerment” campaigns to build on the finding that most of the surveyed HCWs, at least in principle, accept reminder strategies. This is a step toward an open hospital culture where HCWs can mutually enforce hand hygiene adherence to promote patient safety.

#### ACKNOWLEDGMENTS

We thank survey participants and the many people who have worked on Penn State Milton S. Hershey Medical Center’s hand hygiene campaign.

**Financial support.** This study was supported by the Pennsylvania Department of Health through a Centers for Disease Control and Prevention grant (ELC-04040).

**Potential conflicts of interest.** All authors report no conflicts of interest relevant to this article.

**Kathleen G. Julian, MD; Kavitha Subramanian, MD;  
Arlene Brumbach, MS, CIC; Cynthia J. Whitener, MD**

From the Divisions of Infectious Diseases (K.G.J., K.S., C.J.W.) and Quality and Infection Control Services (A.B.), Penn State Milton S. Hershey Medical Center, Hershey, Pennsylvania.

Address reprint requests to Kathleen G. Julian, MD, Division of Infectious Diseases, Penn State Milton S. Hershey Medical Center, Room C6833, BMR Building, Mailcode H036, 500 University Drive, Hershey, PA 17033 (kjulian@psu.edu).

Presented as a poster: 18th Annual Scientific Meeting of the Society for Healthcare Epidemiology; Orlando, Florida; April 6, 2008.

*Infect Control Hosp Epidemiol* 2008; 29:781–782

© 2008 by The Society for Healthcare Epidemiology of America. All rights reserved. 0899-823X/2008/2908-0019\$15.00. DOI: 10.1086/590083

#### REFERENCES

- O’Boyle CA, Henly SJ, Larson E. Understanding adherence to hand hygiene recommendations: the theory of planned behavior. *Am J Infect Control* 2001;29:352–360.
- McGuckin M, Taylor A, Martin V, Porten L, Salcido R. Evaluation of a patient education model for increasing hand hygiene compliance in an inpatient rehabilitation unit. *Am J Infect Control* 2004;32:235–238.
- McGuckin M, Waterman R, Storr IJ, et al. Evaluation of a patient-empowering hand hygiene program in the UK. *J Hosp Infect* 2001;48:222–227.
- Swoboda SM, Earsing K, Strauss K, Lane S, Lipsett PA. Electronic monitoring and voice prompts improve hand hygiene and decrease nosocomial infections in an intermediate care unit. *Crit Care Med* 2004;32:358–363.
- Sax H, Uckay I, Richet H, Allegranzi B, Pittet D. Determinants of good adherence to hand hygiene among healthcare workers who have extensive exposure to hand hygiene campaigns. *Infect Control Hosp Epidemiol* 2007; 28:1267–1274.
- Lankford MG, Zembower TR, Trick WE, Hacek DM, Noskin GA, Peterson LR. Influence of role models and hospital design on hand hygiene of healthcare workers. *Emerg Infect Dis* 2003;9:217–223.

## Alcohol-Based Hand Rub and Nosocomial Scabies

*To the Editor*—In the December 2007 issue of the journal, Garcia et al.<sup>1</sup> described a hospital outbreak of scabies and its control. We ask the authors whether they used alcohol-based hand rub for hand hygiene at the study facility during the outbreak.

To our knowledge, no alcohol-based compound has been proven effective against *Sarcoptes scabiei* var. *hominis* and its eggs. Therefore, the replacement of hand-washing with