Following the trail of prior research: A closer look at hand hygiene compliance by hospital visitors

To the Editor:

The recently published article, “Measuring hand hygiene compliance at hospital entrances” by Vaidotas et al1 was very interesting. These authors evaluated the hand hygiene compliance of patients, visitors, and employees upon entry to a hospital and demonstrated abysmally low hand hygiene rates. Using direct observation of patients, visitors, and health care workers at 2 points of entry, they reported that compliance rates were 2.2% and 1.7% at each site. We applaud their work and agree with their suggestion that coordinated efforts are necessary to improve hand hygiene compliance among hospital visitors as well as patients and care providers.

That said, we were quite surprised by the first line of the abstract, which states: “There are no studies evaluating hand hygiene at hospital entrances.” This sentence is somewhat troubling because we published similar findings in this journal in 2012: “Do hospital visitors wash their hands? Assessing the use of alcohol-based hand sanitizer in a hospital lobby.”

Our findings are consistent with those of Vaidotas et al.1 We found that hand hygiene rates among hospital visitors are alarmingly low and that the use of visual cues increased compliance only slightly. Our baseline rates were even more worrisome than those of Vaidotas et al. at 0.52%, perhaps because our study focused exclusively on visitors. In our study,2 even when a brightly colored sign and free-standing dispenser were placed directly in front of the registration area, hand hygiene compliance rates only improved to a maximum of 11.7%.

We congratulate Vaidotas et al1 for once again evaluating the influence of hand hygiene in hospital lobbies and believe that this is an important step toward the goal of reduction of health care-associated infections, especially those that may be related to the contaminated hands of hospital visitors. We are aware that many factors can prevent good citation practices; however, studies that have explored similar topics should be cited whenever possible. Not only is it important to researchers in both professional and personal ways, it is also crucial as a means to “link together the concepts, technologies, and advances that define scientific disciplines.”

References


Support for the usefulness of passive postdischarge surveillance in surgical site infection

To the Editor:

We read with interest the recent article from Løwer et al.1 Our area of interest is passive postdischarge surveillance after primary arthroplasty in France. As a matter of fact, we recently published a report on infection control surveillance systems looking for new screening methods, with fewer health care professionals involved and a lower cost.2 To that end, we built a surveillance model using French national hospital discharge databases to investigate this passive postdischarge surveillance after primary hip or knee arthroplasty (HKA) in France and estimate surgical site infection (SSI) incidence.2 The conclusion was that hospital discharge database-based surveillance could be promoted as a cost-effective method for routine infection control surveillance and as an alternative to the usual surveillance systems, particularly in the context of low-risk surgery.

The positive predictive value and the sensitivity of our passive surveillance model were higher in France than Norway.3 According to the internationally accepted clinical definition for deep SSI,4 this hospital discharge algorithm (based on ICD-10 diagnosis codes associated with HKA procedure codes according to the French Common Classification of Medical Acts) had a positive predictive value of 87% (95% confidence interval [CI], 84.5-89.5) and a sensitivity of 97% (95% CI, 95.7-98.3) for 1 year or more.

The annual incidence rate was lower in France than in Norway:1.3% for HKA incidence compared with approximately 1.9% in Norway. French incidence was estimated from a hospital discharge database-based surveillance in surgical patients in hospitals during the years 2008-2013.5,6 As in Norway, annual SSI incidence increased significantly during the 4-year period from 1.02%-1.69% for hip-associated infections and from 0.84%-1.33% for knee-associated infections, with a slightly lower increase for knee-associated infections. Likewise, as in Norway, SSI rate was higher in hemi-hip arthroplasty than total hip arthroplasty.

The proportion of SSIs occurring during replacement-related hospital stay was higher in France (13%) than reported in other passive surveillance systems. The mean time between joint
replacement and prosthetic joint infection diagnosis was 284 days (95% CI, 281–286 days) and the median time was 91 days (0–1,631 days). We found that SSI occurred during the first 30 days after the replacement in 30.3% of patients; 40.1% of patients were infected between 1 month and 1 year. Moreover, this hospital discharge cohort model allowed detecting SSI occurring >1 year after joint replacement (29.4%) (unpublished data).

The findings reported by Lower et al, when compounded with our French results, demonstrate the potential use of passive post-discharge surveillance in SSI after arthroplasty. The hospital information systems covering the entire population allows data analysis and productions of indicators and then benchmarking, and could be promoted as a cost-effective method for routine infection control surveillance.

References

Conflicts of interest: None to report.


To the Editor:

We would like to thank the authors for their comments on our article. We agree that postdischarge surveillance (PDS) is resource demanding, but it is also very important in correctly identifying the burden of surgical site infections. Our study specifically addressed 1-year follow-up after hip arthroplasty. Our recommendation that active PDS may be replaced by passive PDS only applies to deep infections after hip arthroplasty, which manifest beyond 30 days of surgery. We found that 79% of all infections up to 1 year after hip arthroplasty were detected after hospital discharge through active PDS, and that only about half of these could have been detected through readmissions. In a previous study, which includes several types of surgery, we showed that 81% of all infections within 30 days of surgery were detected after discharge with active PDS. A recent study from The Netherlands3 reported that the method and intensity of PDS are of high importance and that a large proportion of the infections would be missed by using inferior PDS methods. In the 2010-2011 report from the European Centre for Disease Prevention and Control,4 the incidence proportion of infections after hip arthroplasty, cholecystectomy, and colon surgery in The Netherlands and Norway is much higher than in France. Most of this difference may be attributed to the active PDS that is performed in both of these countries.

We would caution against promoting passive PDS, which solely relies on readmission data for the first 30 days after discharge. This may give an incomplete picture of the infection situation by missing infections detected by primary health care providers or other hospitals. Hopefully, legal and technical developments will enable primary health care and hospital data to be harnessed effectively for PDS in the near future.

References