

estimated with a mean (SD) of 26.3 (12.4) minutes and average costs per interview calculated with 19.69 CHF (Swiss francs). This corresponds to approximately 1,510,892 CHF for 76,734 telephone interviews in the surveillance period 2013–2014.

Although PDS is able to produce more reliable SSI data compared with surveillance systems that limit the data acquisition period to the time in the hospital and readmissions, most additional captured SSIs are superficial ones,² so the cost-effectiveness of routine PDS has been questioned.

In Germany efforts are underway to conduct SSI surveillance for all inpatient and outpatient surgical procedures with an algorithm based on health insurance data and using *International Classification of Diseases* (ICD) codes, German procedure codes, and diagnosis-related group administrative datasets as part of the mandatory quality assurance program starting in January 2017. This approach will include the postdischarge period but will not need any input by infection control practitioners, thus freeing up their time. However, physicians who treat a case of presumed SSI detected by the automatic algorithm will be required to fill out a short questionnaire to verify the classification. International benchmarking will become more difficult, given the variety of surveillance systems from active PDS in Switzerland and the Netherlands to future “big data” mining in Germany to classical active surveillance reporting using standardized definitions.

Therefore, we believe that an internationally synchronized effort to streamline a cost-effective surveillance approach to detect SSIs is warranted, keeping in mind the RUMBA rule of meaningful quality indicators: Reliable, Understandable, Measureable, Behaviorable, and Achievable.

ACKNOWLEDGMENTS

Financial support. None reported.

Potential conflicts of interest. S.S.-S. reports that he is co-owner of the Deutsches Beratungszentrum für Hygiene (BZH GmbH) and receives royalties for book publishing from Springer and Schattauer publishers, Germany. E.T. reports that he is co-owner of the Deutsches Beratungszentrum für Hygiene (BZH GmbH) and receives royalties for book co-publishing from Mediengruppe Oberfranken publishers, Germany. All other authors report no conflicts of interest relevant to this article.

**Giuseppe Santoro, MAS;¹
Ernst Tabori, MD;²
Andrea Rytz, CEO;³
Sebastian Schulz-Stübner, MD, PhD²**

Affiliations: 1. Klinik im Park, Hirslanden AG, Zürich, Switzerland; 2. Deutsches Beratungszentrum für Hygiene (BZH GmbH), Freiburg im Breisgau, Germany; 3. Schulthess Klinik, Zürich, Switzerland.

Address correspondence to Sebastian Schulz-Stübner, MD, PhD, Deutsches Beratungszentrum für Hygiene (BZH GmbH), Schnewlinstr. 10 79098 Freiburg im Breisgau, Germany (schulz-stuebner@bzh-freiburg.de).

Infect Control Hosp Epidemiol 2017;38:250–251

© 2016 by The Society for Healthcare Epidemiology of America. All rights reserved. 0899-823X/2017/3802-0022. DOI: 10.1017/ice.2016.270

REFERENCES

1. Manniën J, Wille JC, Snoeren RL, van den Hof S. Impact of postdischarge surveillance on surgical site infection rates for several surgical procedures: results from the nosocomial surveillance network in the Netherlands. *Infect Control Hosp Epidemiol* 2006;27:809–816.
2. Horan TC, Andrus M, Dudeck MA. CDC/NHSN surveillance definition of health care-associated infection and criteria for specific types of infections in the acute care setting. *Am J Infect Control* 2008;36:309–332.

Subjective Qualitative Hand Hygiene Compliance Observation: A Feasibility Trial

To the Editor—Hand hygiene compliance observation is an established quality indicator; however, current observation techniques only count correct indications according to the World Health Organization recommendation without assessing the quality of the hand disinfection performed. This study was designed to test the hypothesis that infection control staff are capable of correct classification of observed hand disinfections using subjective parameters suitable for clinical routine use rather than objective measurable parameters.

We studied 2 groups of observers; each group consisted of infection control practitioners and consultants in hospital epidemiology and infection control with >3 years of job experience. Group 1 observed 5 hand disinfections live (in person) and group 2 observed 5 hand disinfections via video link. Without technical aids (eg, a stop watch), all participants were asked to classify the hand disinfection as correct or incorrect considering time and skin coverage.

Test persons demonstrating hand hygiene were asked to perform hand disinfection either correctly or to make mistakes at their discretion. An independent observer measured the duration of the disinfection procedure, and 3 different observers estimated the skin coverage under black light by the fluorescent marker added to the disinfection solution. The test disinfection was classified as correct if >90% skin coverage of the hand was reached and at least 15 seconds passed after skin coverage (per the manufacturer’s instructions).

Table 1 shows the results of 81 observations. In group 1 (live observation), 97.5% of subjective observations were correct compared to 78.8% in group 2 (video observation). All incorrect disinfections were classified as such, resulting in a negative predictive value of subjective assessment of 100%. The positive predictive value for correct hand disinfections was only 92%. Thus, video observation is not a good substitute for live observation, likely because the fixed camera angle and artefacts imposed by light and shadow make the assessment of skin coverage difficult.

TABLE 1. Classifications of Observed Hand Disinfection Tests and Group-Specific Results^a

A. Hand Hygiene Demonstrations					
Variable	Test 1	Test 2	Test 3	Test 4	Test 5
Time, s	32	12	29	31	32
Coverage, % of skin area	100	50	90	50	60
Classification	Correct	Incorrect	Correct	Incorrect	Incorrect
B. Participant Assessments					
Group	Correct Classifications		Incorrect Classifications		
Live	40		1		
Video	33		7		

^aTotal observations, n = 81.

The addition of an easy-to-use qualitative component to hand hygiene compliance observations and consecutive training efforts is important, given that <10% of all hand disinfections were performed correctly in an observational study by Tschudin-Sutter et al,¹ who observed the 6-step technique. Appropriate hand-surface coverage was reached in only 7.9% of hand hygiene procedures observed by Park et al,² despite a high rate of compliance with the correct indications. Shah et al³ performed a video observation of hand washing. Of 1,081 recordings, 403 (37.3%) were excellent, 521 (48.2%) were acceptable, and 157 (14.5%) were unacceptable.

A limitation of our study is the lack of bacterial counts, but the results of Riley et al,⁴ who showed no correlation between hand coverage and bacterial counts with a 6-step technique compared to a 3-step approach, had not been published at the time of our experiment.⁴ Another limitation is the small number of participants and the experimental setting of this proof-of-principle study. However, we believe that based on our results, the addition of dichotomous subjective quality assessment using the parameters time and skin coverage during live observation by experienced infection control staff is feasible and could be a valuable addition to conventional hand hygiene observation.

ACKNOWLEDGMENTS

Financial support: No financial support was provided relevant to this article.

Potential conflicts of interest: Both authors report no conflicts of interest relevant to this article. SSS is co-owner of the Deutsches Beratungszentrum für Hygiene (BZH GmbH) and receives royalties for book publishing from Springer and Schattauer publishers, Germany.

**Janine Bierwirth, Fachärztin für Innere Medizin;
Sebastian Schulz-Stübner, MD, PhD**

Affiliations: Deutsches Beratungszentrum für Hygiene (BZH GmbH), Breisgau, Germany.

Address correspondence to Sebastian Schulz-Stübner, Deutsches Beratungszentrum für Hygiene (BZH GmbH), Schnewlinstr. 10 79098 Freiburg im Breisgau, Germany (schulz-stuebner@bzh-freiburg.de).

Infect Control Hosp Epidemiol 2017;38:251–252

© 2016 by The Society for Healthcare Epidemiology of America. All rights reserved. 0899-823X/2017/3802-0023. DOI: 10.1017/ice.2016.300

REFERENCES

1. Tschudin-Sutter S, Sepulcri S, Dangel M, Schuhmacher H, Widmer A. Compliance with the World Health Organization hand hygiene technique: a prospective observational study. *Infect Control Hosp Epidemiol* 2015;36:482–483.
2. Park HY, Kim SK, Lim YJ, et al. Assessment of the appropriateness of hand surface coverage for health care workers according to World Health Organization hand hygiene guidelines. *Am J Infect Control* 2014;42:559–561.
3. Shah R, Patel DV, Shah K, Phatak A, Nimbalkar S. Video surveillance audit of hand-washing practices in a neonatal intensive care unit. *Indian Pediatrics* 2015;52:409–411.
4. Reily JS, Pice L, Lang S, et al. A pragmatic randomized controlled trial of 6-step vs 3-step hand hygiene technique in acute hospital care in the United Kingdom. *Infect Control Hosp Epidemiol* 2016;37:661–666.

Emergence of OXA-72-producing *Acinetobacter baumannii* Belonging to High-Risk Clones (CC15 and CC79) in Different Brazilian States

To the Editor—Carbapenem resistance limits treatment options and causes major therapeutic problems; it has been continuously reported worldwide among *Acinetobacter baumannii* isolates. Carbapenem resistance in *A. baumannii* is frequently associated with Ambler class D carbapenemase, mainly *bla*OXA-23. Until now, there have been only a few reports of other oxacillinases, such as *bla*OXA-72, in Brazil.¹ Multilocus sequence typing (MLST) seems to be a reliable tool for investigating population structure and global *A. baumannii* epidemiology. In Brazil, most carbapenem-resistant *bla*OXA-23-producing *A. baumannii* have been associated with clonal complexes CC79 and CC15.² To the best of our knowledge, our report here is the first report of the epidemic clonal complex CC15 associated with *A. baumannii* carrying *bla*OXA-72. Furthermore, we describe the spread of