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Hand Hygiene Championship: A Direct Observational Study

To the Editor—Hand hygiene (HH) is the single most important element of strategies to prevent healthcare-associated infection (HAI),[1-3] although promotion strategies have been in place for several decades in developing countries. Continuous efforts are needed in most hospitals worldwide to maintain an acceptable level of adherence to hand hygiene practice.[2] Monitoring hand hygiene adherence serves multiple functions, including quality of care assessment, incentive for performance improvement, outbreak investigation, and infrastructure design.[4-6] Direct observation of health care workers (HCWs) during patient care activity by trained and validated observers is recognized as the gold standard for hand hygiene monitoring.[2,7-9]

We announced a competition that we called "Hand Hygiene Championship in Intensive Care Unit (ICU)." To assess the impact of a competition strategy, we observed HCWs for their compliance with any HH opportunity during routine care activity in a large adult ICU with a 100-bed capacity that was divided into 4 physically separated sections in King Saud Medical City in Riyadh, Saudi Arabia.

Nursing staff were dedicated before the competition announcement in each section. The infection control team in the ICU announced that there would be a 2-month competition for the best compliance with HH practice in the ICU. A ceremony was arranged for the end of the competition to distribute gifts, trophies, and appreciation certificates with the participation of the ICU chairman and Infection Prevention and Control Department chairman. We observed more than 700 HCW HH opportunities that conformed to the World Health Organization's "5 Moments for Hand Hygiene."[2] Our study involved all HCWs who met the World Health Organization definition for HH opportunities at the time of observation in all ICU sections. We performed 8 weeks of observation starting on February 1, 2012, and ending on March 31, 2012.

HH compliance rates have never previously been reported in our ICU by section. During the period of the championship competition, a total of 874 observations were noted, and of those, 502 (57%) occurred among nurses, 163 (19%) occurred among physicians, and 209 (24%) occurred among other HCWs. Total HH compliance among all HCWs improved from 58% to 70% (Figure 1). Our results showed that HH compliance for the ICU overall improved from 52% in January 2012 to 70% by the end of the championship competition in March 2012. Nurses showed the highest compliance rate and improved from 62% to 81%. The rate of HH compliance among physicians improved from 40% to 52%, but physicians showed the lowest compliance rate among all HCW categories. When we reviewed the data from the observation forms, we found that the compliance rate before touching a patient and before clean or aseptic procedures (moments 1 and 2) were 20% and 31%, respectively, and the overall compliance rate among all HCWs increased to 80%–88% after body fluid exposure, after touching a patient, and after touching patient surroundings (moments 3–5).

The result of the competition strategy showed an important improvement in the attitude toward and level of compliance with HH practices. Such an improvement will have an impact on reducing HAIs. Additional motivation strategies should be arranged to improve all HCW rates of compliance with HH.

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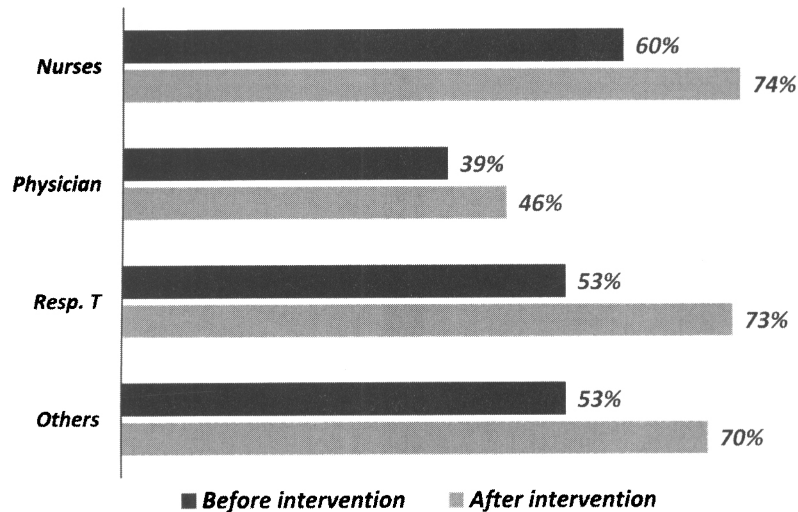

FIGURE 1. Hand hygiene compliance rate in the intensive care unit before and after the championship by healthcare worker category. Resp. T, respiratory technician.

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