Can it be accomplished?

BY THOMAS C. BUTTON, RN, BSN, NE-BC, CIC, AND CRYSTAL LYLES, BSBM

BACKGROUND

The World Health Organization (WHO) noted that “a paradigm shift has occurred in our world that cannot be reversed—multidrug resistant pathogens are here to stay.” Despite the prevalence and risk for colonization of multidrug-resistant organisms (MDROs) in behavioral health patients, hand hygiene remains a challenge due to product availability for staff and staff perception. Few studies have been published discussing challenges, solutions, and hand hygiene performance in the behavioral health setting.1,2,3,4

Truman Medical Centers (TMC) located in Kansas City, Missouri, has active behavioral health services at both the Hospital Hill campus situated in downtown Kansas City, as well as a geriatric psychiatry unit at the Lakewood campus in Eastern Jackson County. Each year, TMC serves nearly 16,000 patients in more than 225,000 visits with 3,500 admissions, which makes for a busy behavioral health emergency department.

TMC services a behavioral health patient population that struggles with chemical dependency, homelessness, and numerous medical co-morbidities that put them at an increased risk for developing either colonization or infection with MDROs and other significant organisms. Because the behavioral health setting focuses on individual and group therapy, TMC
has modified isolation practices from those used in the acute care setting. If the patient has MDRO colonization, it is noted in the electronic medical record to offer frequent hand hygiene for the patient, encourage the patient to wear clean clothes, and to monitor the cleanliness of the environment including frequent use of the disinfectant wipes. If the MDRO is a result of a draining wound, the wound needs to be covered in addition to the requirements for colonization.

When the isolation need is due to a diarrheal illness, the patient must be able to control elimination, perform hand hygiene, and avoid soiling their clothing in order to attend therapy sessions. TMC behavioral health units do not have airborne isolation rooms; therefore, all patients requiring airborne isolation are transferred to the acute medical unit. The determination to transfer a contact isolation patient to an acute medical unit is done on a case-by-case basis.

During infection prevention rounds, TMC infection prevention staff discovered that hand hygiene was often inadequate. We made strides to improve the practices with the adoption of the WHO 5 Moments for Hand Hygiene in 2012 (see figure 1). TMC trained hand hygiene champions, developed a documentation system, and deployed the champions to monitor and record the hand hygiene opportunities. The champions noted low hand hygiene among personnel during their observations, due in large part to the lack of product availability. There did not seem to be a simple solution to increase hand hygiene performance in the behavioral health setting. In researching the problems we encountered with non-compliance in the behavioral health setting, we found minimal information in the literature regarding hand hygiene in this unique healthcare setting.1,2,3,4

**PROJECT**

In June 2013, TMC joined the Hand Hygiene Learning Network, a cohort with The Joint Commission Center for Transforming Healthcare and America’s Essential Hospitals. The collaborative focused on monitoring hand hygiene upon entry and exit of patient rooms/zones utilizing the Targeted Solutions Tool (TST).5 Initial steps in the process included:

1. TMC’s CEO signing the letter of commitment agreeing to support the project’s efforts to improve hand hygiene compliance within the organization and to follow the TST tools and guidelines
2. Identification of the units to be monitored
3. Training of observers and coaches per the learning network’s guidelines
4. Collecting and measuring baseline compliance data
5. Evaluating the contributing factors to lack of hand hygiene compliance
6. Implementing solutions during the improvement phase
7. Improving hand hygiene compliance and sustaining the gains

TMC formed a performance improvement team after joining the collaborative utilizing the TST to record observed data. TMC then identified the substance abuse and a geriatric psychiatry unit to be monitored for the project. Members of the team included the infection prevention and control department as well as unit staff and leadership level representatives from the geriatric psychiatry and the adult substance abuse units.
The TST monitoring tool is used to record hand hygiene observations that specifically focus on healthcare worker entry and exit of patient rooms. In behavioral health settings, patients spend most of their day in the common areas of the unit, contrary to a typical acute care setting. With this in mind, TMC developed parameters for monitoring hand hygiene. Monitoring included before and after vital signs check, blood draws (including blood glucose checks), passing food trays, passing medications, and assistance with patient grooming. Using the Hand Hygiene Observation and Contributing Factor Form (figure 2), trained observers monitored, collected baseline data prior to institution of Just-in-Time Training (trained staff actively intervene when hand hygiene non-compliance is observed), and helped identify challenges (see figure 2 above).

The “entry or exit” section of the Hand Hygiene Observation and Contributing Factor Form was amended to reflect a definition suitable for the behavioral health settings. “Entry or exit” was adapted to “before patient contact or after patient contact” respectively.

**RESULTS**

Results of the baseline data in the substance abuse unit revealed that nearly 42 percent of healthcare personnel did not perceive the need to do the required hand hygiene. Lack of product availability accounted for 26 percent of non-compliance. The third most common identified reason for lack of hand hygiene was distraction (16 percent). No significance was found in healthcare provider title or function in relation to hand hygiene non-compliance (see figure 3).

In the geriatric psychiatry unit, 50 percent of non-compliance was due to the perception that hand hygiene was not needed. Nearly 17 percent related to the frequent entry and exit into the room. Thirteen percent of staff thought that hand hygiene wasn’t necessary before putting on and after taking gloves off. Additionally, lack of hand hygiene products in key locations led to non-compliance. No significance was found in healthcare provider title or function in relation to hand hygiene non-compliance (see figure 4).

**INTERVENTIONS AND DISCUSSION**

Initial steps to improve hand hygiene compliance included an investigation to determine options to make products more readily available. First, TMC conducted a literature review to determine alternatives to increase hand hygiene product availability. Next, TCM provided staff members with personal (2 ounce) alcohol-based hand rub (ABHR) containers on lanyards to encourage use. Then, ABHR dispensers were attached to all rolling equipment (e.g., vital signs machines), as these were never left unattended. TCM then held discussions with colleagues and vendors.
to brainstorm solutions and to determine if there were alternatives that it had not considered.

Although staff members were provided with personal ABHR with lanyards, not all of them wore them on a routine basis. To assure compliance, daily the leadership team enforced and reminded personnel of the need to wear their lanyards with the ABHR. The ABHR dispenser on all rolling equipment proved effective; TMC found no problems with the installation or use.

To ensure patients did not ingest the ABHR affixed to stationary locations, TMC worked with a vendor to install steel casing (that could be locked with a small padlock) around the dispensers. This casing was being used in various correctional institutions successfully and safely. We also provided a proposal for the placement of lockable ABHR devices at strategic locations in the common areas and corridors to ensure they were always under staff supervision. The Infection Prevention and Control Committee reviewed this proposal and incorporated it into the organization's risk assessment. The committee determined that these dispensers presented a low risk for the following reasons: (1) the amount of product that could be ingested prior to intervention would be low, because the areas involved are supervised, and (2) the mechanism to be mounted on the wall was nearly indestructible so it did not pose a risk to staff or patients. The Safety Committee performed a separate risk assessment, which had similar findings. Although the product presented a low harm risk, the ABHR needed to be removed periodically and temporarily due to specific patients’ consumption of small amounts.

In addition to attempts to make ABHR more available, TMC provided staff education in group settings and individually (as needed) on the WHO 5 Moments for Hand Hygiene, including the importance of cleaning hands before and after glove use. If hand hygiene non-compliance was observed, TMC provided immediate Just-In-Time training to personnel who were in violation of hand hygiene policy.

After the institution of these improvement measures, TMC has seen an increase

continued on page 60
in hand hygiene compliance. The substance abuse unit compliance rate is 70.5 percent and the geriatric psychiatry unit compliance rate is 43.8 percent (see figure 5).

**LESSONS LEARNED**

The WHO 5 Moments for Hand Hygiene can be monitored effectively in psychiatric units when clear definitions for hand hygiene moments are identified. Hand hygiene education of staff on psychiatric units needs to be tailored to their setting to ensure compliance.

Psychiatric-safe hand hygiene products are not always readily available, but an internal risk assessment should be completed to provide insight on safe structure for those products to be used on units. Although ABHR generally poses no risk to acute care patients, behavioral health patients have been known to ingest ABHR, especially if they have a history of substance abuse. Agitation or an increase in aggression due to the presence of ABHR may necessitate the temporary need to remove the product.

There is a need to work collaboratively with colleagues and vendor associates to develop safe alternatives for ABHR use in the behavioral health setting.

Research needs to be strengthened in the behavioral health setting for the basics in infection prevention.

**References:**


**Figure 5.**

<table>
<thead>
<tr>
<th>Area Name</th>
<th>Campus</th>
<th>Baseline Sample Size</th>
<th>Improve Sample Size</th>
<th>Improve Baseline Begin</th>
<th>Improve Begin</th>
<th>Baseline Compliance</th>
<th>Improve Compliance</th>
</tr>
</thead>
<tbody>
<tr>
<td>Behavioral Health 2C/2D</td>
<td>Hospital Hill</td>
<td>140</td>
<td>851</td>
<td>9/5/2013</td>
<td>11/25/2013</td>
<td>45.7%</td>
<td>70.5%</td>
</tr>
<tr>
<td>Geriatric Psychiatry</td>
<td>Lakewood</td>
<td>99</td>
<td>240</td>
<td>10/21/2013</td>
<td>11/21/2013</td>
<td>30.3%</td>
<td>43.8%</td>
</tr>
</tbody>
</table>

*National baseline compliance rate as of 09/16/13 is 58 percent.