Executive Summary
To be successful in today’s rapidly evolving, consumer-driven health care marketplace, hospitals and health systems must aggressively protect and promote their brand by maximizing the value of the care experience in the eyes of their patients. This requires identifying the outcomes that matter to patients and engaging every member of the health care team in the ongoing mission to improve those outcomes.

As is the case for every member of the care team, the contribution of environmental services departments to the patient centricity of the care experience—and, by extension, to the nurturance of brand loyalty—is unique and invaluable.

Certainly, environmental hygiene is critical to patient safety: Proper and thorough cleaning prevents the spread of infection, waste removal from patient rooms and common areas reduces the risk of patient falls, and waste segregation minimizes pathogenic cross-contamination and transmission of microorganisms.

Above and beyond the actual cleanliness of a hospital, however, is patients’ perception of cleanliness, which affects the hospital’s brand and reputation.

New research emerging from a strategic partnership between Press Ganey and Compass One Healthcare suggests that patients’ perceptions of environmental factors are highly correlated with specific safety, quality and experience outcomes, and as such, they are an essential variable in the improvement equation. Specifically, the data show correlations between patients’ perceptions of room cleanliness and the risk of hospital-acquired infections, scores on the Hospital Consumer Assessment of Healthcare Providers and Systems (HCAHPS) Recommend the Hospital item and scores on HCAHPS teamwork indicators.
These data, particularly the link between patients’ perceptions of cleanliness and the risk of hospital-acquired infections, indicate that patients know clean when they see it. Further, the fact that patients are more likely to recommend a hospital they perceive to be clean suggests that cleanliness is an outcome that matters to them, and as such, it is an important improvement target. For this reason, environmental services departments should

- Understand, communicate and take pride in the important role they play in patient safety and clinical quality improvement efforts
- Consistently assess and improve cleaning methods and procedures to ensure a pathogen-free environment and prevent the transmission of bacteria, viruses and other sources of infection
- Continually employ audit practices that measure the actual cleanliness of high-touch surfaces
- Promote staff accountability for cleanliness and encourage self-audit procedures

Introduction

Today more than ever, health care is a team sport, making effective collaboration among every staff member who is directly or indirectly involved in delivering patient care a strategic necessity. Each member of the team contributes to the whole of the enterprise in a meaningful and valuable way.

Environmental services (EVS) staff members play a key role in helping the health care team fulfill these expectations by reliably maintaining a safe, clean care environment; projecting friendliness and caring in routine interactions with patients and families; and communicating and collaborating with the health care team to ensure that patients’ needs are being met.

EVERY TEAM MEMBER CAN MAKE A DIFFERENCE

Justin Groves was a young, promising front-line caregiver at Providence Hospital in Columbia, S.C., when his life was cut short in an automobile accident. At Justin’s funeral, the church was overflowing with family and friends who had come to pay their respects to his family. Following an emotional service, the pastor asked whether anyone in the room wanted to say a few words to honor Justin’s memory. In the back of the room, one of Justin’s former colleagues, a nurse, stood up and talked about what an incredible young man he was and how everyone had enormous respect for him. Another nurse described how Justin was always friendly and would take time to stop in and say hello.

Probably most powerful of all, an elderly woman rose and told the mourners she had recently been a patient at Providence. Although she had never met Justin outside of the hospital, she recognized his picture in the obituaries and remembered how Justin came back to check on her following his shift one day. He had realized she had no family and he wanted to make sure she was okay.

These are testaments that answer the common question of “why” people enter the health care field. Justin’s colleagues and patients recognized him as someone who captured the human spirit and cared about his fellow caregivers and the people he supported. What makes this story particularly compelling is that Justin, who worked as a contracted patient transporter at Providence, was only 19 years old, yet he left such an important mark on the hospital.

Justin had an immediate impact on his fellow caregivers; he was recognized not only for his ability, but also for his commitment to patients. At age 19, without an advanced degree, title or initials after his name, he wasn’t a clinical caregiver, but he was an engaged caregiver who saw his role in health care as being about much more than just transporting patients around the hospital. He understood that what he did mattered, and he knew the simplest of actions might have a lasting impact on a patient.

Also remarkable to this story is how the nursing staff and patients recognized Justin as an essential member of the team. In health care, we know teamwork is a critical component of what makes our work successful. Patients know this, too, and they place a high value on it; they recognize when it is not present and know this degrades not only their experience of care, but the safety and quality of that care as well.
New research indicates that patients’ perception of hospital cleanliness in particular is a lever for multiple quality and experience outcomes, making it an important improvement target. Specifically, the data show that patients’ perception of hospital cleanliness is highly correlated with the risk of hospital-acquired infections (HAIs) as well as HCAHPS indicators of both patient loyalty and teamwork. In other words, patients know clean when they see it, and it’s important to them.

Targeting Hospital-Acquired Infections

Patients are not merely impressed by shiny floors, clean bathrooms and clutter-free common areas. They expect this level of cleanliness, and they perceive it as a minimum requirement for safe, high-quality care. With heightened concerns and awareness regarding HAIs, patients and family members understand why a sanitary environment is important to their healing and recovery, and survey feedback about their perception of cleanliness can serve as an early warning system for HAIs, new research has shown.

The results of an analysis of HCAHPS patient experience of care metrics and the incidence of specific HAIs as reported to the Centers for Medicare & Medicaid Services (CMS) for the year ending June 30, 2014 show a relationships between patients’ perception of cleanliness and HAIs (Figures 1 and 2).

Specifically, the data show a clear correlation between patients’ perception of cleanliness as measured by the HCAHPS question “How often were your room and bathroom kept clean?” and the incidence of Methicillin-resistant Staphylococcus aureus (MRSA) and Clostridium difficile (C. diff.). Hospitals that scored in the highest quintile for cleanliness had, on average, the lowest number of reported infections. Similarly, hospitals where patients reported lower cleanliness scores tended toward higher infection rates.

These findings have broad implications for patients’ perceptions of their hospital stay. In qualitative interviews and focus groups, patients often described their assessment of cleanliness as an important barometer of the quality of care overall. “If they can't keep the hospital clean, what other things that I can't see might also be neglected?” was a common sentiment expressed by patients.
**Figure 2**

**INTESTINAL INFECTIONS (C. DIFF.) ARE LOWEST WHEN PERCEPTIONS OF CLEANLINESS ARE THE HIGHEST**

<table>
<thead>
<tr>
<th>Quintile Group of HCAHPS Cleanliness Domain Score</th>
<th>Mean Clostridium Difficile (C. Diff.) (intestinal infections)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Bottom 20%</td>
<td>1.00</td>
</tr>
<tr>
<td>Next to Bottom 20%</td>
<td>0.80</td>
</tr>
<tr>
<td>Middle 20%</td>
<td>0.60</td>
</tr>
<tr>
<td>Next to Top 20%</td>
<td>0.40</td>
</tr>
<tr>
<td>Top 20%</td>
<td>0.20</td>
</tr>
</tbody>
</table>

Source: Hospital Compare data for year ending June 30, 2014

Error Bars: 95% CI

The strong correlation between patients’ perception of cleanliness and HAI rates supports the idea that patients can, at some level, judge actual cleanliness—a finding that validates the important role EVS staff members play in patients’ evaluation of their hospital experience.

The relationship also represents an important improvement target. Hospitals can boost outcomes on both measures by doing the following:

- Making the consistent assessment and improvement of cleaning methods and procedures an operational priority to ensure a sanitary environment and prevent the spread of infection
- Recognizing the important role EVS staff members play in patient safety and clinical quality improvement efforts
- Implementing ongoing audit practices to evaluate cleanliness and fidelity to established best practices

**Driving Patient Loyalty**

If a patient’s perception of room cleanliness is correlated with a hospital’s overall HAI rate, then it follows that it also affects the hospital’s overall reputation and, importantly, patient loyalty.

In a CHAID (Chi-square Automatic Interactive Detector) analysis, an analytical technique that determines how variables best combine to explain the outcome of a dependent variable, researchers identified the factors that together explained the greatest variation in patients’ willingness to recommend an institution to friends and family, which is considered a proxy for patient loyalty (Figure 3).

The analysis showed that the third most influential question explaining patients’ willingness to recommend the hospital, behind the questions asking whether doctors and nurses listened carefully, was “How often were your room and bathroom kept clean?” Among patients who reported that nurses and doctors always listened well and the room was always kept clean, 90% of respondents would highly recommend the facility.
CLEANLINESS BECOMES A DIFFERENTIATING FACTOR FOR HIGH-PERFORMING HOSPITALS IN WHICH LISTENING ALREADY OCCURS

1. A nonrecursive partitioning (CHAID) analysis was done to determine which combination of questions creates the highest willingness to recommend the hospital.

2. The question “Does the nurse listen carefully to you?” explains the most variation in recommendations. Of the patients that respond ALWAYS, 85% would definitely recommend.

3. Within this segment, when the physician ALWAYS listens, recommendations increase to 87%.

4. Within this segment, recommendations increase to 90% when the room is ALWAYS clean.

This analysis has significant implications for better understanding how the perception of cleanliness fits into patients’ decision rubric when evaluating health care provider experiences. When patients feel they have been heard and their concerns have been understood, hospital cleanliness rises to the top of their additional concerns.

The connection between patients’ and families’ perceptions of cleanliness and their perceptions of a hospital’s reputation makes sense. Patients expect hospitals to be clean, and while they are not always able to judge care delivery on the elements that medical professionals use, they utilize surrogate measures such as cleanliness to help them decide how well hospitals are doing.

Imagine the practical reality of these observations. When family members visit their loved one in the hospital, if the room and hallways appear cluttered or dirty, the expectation that the hospital is a sanitary place will be diminished, leaving the visitors to question how well the hospital performs in other areas.

**Perceptions of Cleanliness and Teamwork Go Hand in Hand**

For hospitals working to improve the actual and perceived cleanliness of the care environment, operational practices are central to these efforts. Decisions such as the cleaning agents that are most effective in eliminating bacteria and how frequently “deep cleaning” should occur at times when the room is unoccupied are relatively straightforward.

In addition to these operational practices, patients’ perception of cleanliness is correlated with other patient experience factors. As illustrated in Figure 4, among the HCAHPS survey domains, Staff Responsiveness and Nurse Communication are most highly correlated with perception of cleanliness. These findings align with research in the literature that cites the importance of teamwork in delivering an exceptional patient experience, promoting a culture of safety and contributing to other quality metrics, including those related to the care environment.
Interviews with hospital leaders and front-line staff provide additional insights into why teamwork is so critical in improving cleanliness. Nursing, EVS and other operational leaders often remark that it requires effort on the part of the entire team to improve cleanliness, including effective hand-sanitizing practices, appropriate disposal of medical waste and even the basic task of picking up after oneself. Additionally, the communication with and support of EVS staff members by clinical colleagues affects the way they view their work, their morale and their productivity.

The identification of patients’ perception of teamwork as a critical differentiator reinforces the importance of ensuring that everyone who directly or indirectly influences patient care has an important role in determining the quality of that care.

Previous studies have shown that teamwork indicators are among the most highly correlated with overall patient experience, and as such, they represent a key improvement opportunity across departments. The fact that EVS staff members are geographically dispersed and spend the majority of their working hours isolated from their department colleagues presents unique challenges, but hospital leadership and department managers can help teams overcome these challenges through the adoption of best practices, including the following.

- Making sure EVS employees are recognized as important members of the department/unit where they primarily clean, not just the EVS department. This can be achieved through the promotion of supportive, positive interactions with nurses and other clinical professionals with whom they interact daily.
- Involving the EVS staff in regular department meetings, including huddles at the beginning of every shift, training and development sessions, and monthly staff meetings. This is critical to maintaining morale and keeping the team connected.
- Encouraging frequent rounding and observation on units by EVS managers. Rounding with nursing and other ancillary services managers at least monthly demonstrates shared responsibility and models the power of constructive relationships to the front-line staff.
Conclusion

The clear correlation between patients’ perception of cleanliness and multiple safety, quality and experience measures demonstrates that cleanliness is an outcome that matters to patients. It is also an outcome that exerts an influence on patients’ overall perception of the care experience.

For this reason, hospitals seeking to distinguish themselves from the competition should look for opportunities to help EVS staff members understand how the physical environment can influence the patient experience, and they should offer support, education and resources for addressing deficiencies that might be obstacles on the journey to patient-centered excellence.

In this regard, hospital leaders and department managers should

- Recognize and value EVS workers as stakeholders in the delivery of safe, effective, quality care
- Consistently identify and employ evidence-based guidance and practices in EVS to optimize the cleanliness and perceived cleanliness of hospital rooms and common areas
- Reinforce accountability for service excellence among the EVS staff
- Foster a culture of teamwork, communication and collaboration between the EVS staff and the rest of the caregiving team

By considering the people, processes and places that affect the patient experience, health care leaders can help their organizations meet important performance goals and build and sustain patient loyalty.
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