

# DESIGN ESSENTIALS

## Hospital Cleanliness, Design, and Environmental Services' Integral Role

By Damon deChamplain, CHESP, CHFM



**A**s more and more research unfolds regarding preventing hospital-acquired infections (HAIs), it is very apparent that cleanliness is as critical to a hospital's successful operation as any clinical function that takes place within the health care institution. So when I looked at the CMS.gov website and the HCAHPS page, I became aware of some amazing facts.

On the CMS.gov website, there is an overview called *HCAHPS: Patients' Perspective of Care Survey*. In the second paragraph, it

states, "The survey contains 18 core questions about critical aspects of patients' hospital experiences (communication with nurses and doctors, the responsiveness of hospital staff, ***THE CLEANLINESS*** — bold and italics mine — and quietness of the hospital environment, pain management, communication about medicines, discharge information, overall rating of hospital, and would they recommend the hospital)." It is significant to me, although could be purely coincidental, that the cleanliness of the hospital ranks third on this list of questions asked of patients.

With that said, ensuring we keep our facilities as clean and sanitized as possible has also become a potential reimbursement issue. Beginning in October 2012, HCAHPS scores began to have an effect on reimbursement. Low scores as compared to other institutions can reduce reimbursement rates by up to 2 percentage points. This can be a significant number depending upon the level of revenue the hospital receives from CMS.

These facts have increased my curiosity on whether any consideration has been given to the impact design has on the

ability to clean. So, like a good student of the Internet, I did a Google search. I found a very interesting thesis by an architecture student titled, "The Impact of Interior Design on Hospital Cleaning: Can Good Design Decisions Help Cleaning Staff Achieve Better Outcomes?"

The thesis is dated May 1, 2012, so the research is current. And according to this paper, there had not been any significant research done regarding the design of the facility and its impact on cleaning staff. The author states, "The increased demand for health care has also created an increased need for the retention of a well-trained health care team, caregivers in addition to those that maintain the facility. Literature exists to support the link between the designed environment and the role it plays in the way caregivers work and how evidence-based design can have a positive impact on workflow, patient safety, and staff retention. However, there was little research specifically targeted to how evidence-based design effects the cleaning maintenance staff of health care facilities. More research is needed to determine if interior design practices can lead to improved outcomes for patients and their families, caregivers, and those that work to keep our health care facilities cleaner and safer."

She goes on to discuss the rising demand for renovated or new structures to meet the needs of the increasing numbers of those in the aging population. She states, "Because of the lack of existing research which specifically targets how interior design can affect how the engineering and maintenance team works, more research on this topic is necessary. If designers can use evidence from previous projects to design facilities that are easier to clean and maintain, then the spread of deadly and costly health care acquired infections can be reduced."

Although some of this analysis and research may illicit a response something to the tune of — *well, of course design can impact how we clean an area* — as it almost does seem intuitive. As an example, a single-bed room will certainly help decrease the spread of infection vs. a two-bed room, and a single bed room is easier to clean.

To that point, the author explains that through research of past designs with a focus on how easy the design was to clean

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and maintain, evidence-based design data becomes available. It is easy to see that the data collected and analyzed as best practice/evidence-based design can and should be used by design firms to create cleanable structures and specify proper and cleanable surfaces, furniture, etc., based on this evidence.

It serves me well to know there is now research being conducted with the specific focus of helping the environmental services staff perform their job functions efficiently and safely through a focused design process, with safety and efficiency being the end goal. The author indicates that, "The housekeeping department probably is the most underrated of all the hospital service departments. A large number of hospitals now realize that in addition to quality of care, other important factors that consumers should consider in choosing a hospital include the quality of its housekeeping services."

This is very good news for our hardworking environmental services folks!

The author used two case studies to support her thesis, which involved several participating hospitals' environmental services management. Survey questionnaires, site visits, and a thorough analysis of products and specific designs are included in the study.

I have a real-life example of just how important it is to have environmental services professionals involved in every step of a project to build a new building or renovate areas of an older building. The facility at which I worked built a 150,000 square foot outpatient and ambulatory addition to their aging hospital. It included a multi-story atrium with a lot of glass. The front of the new building and atrium faced directly east. So when the morning sun was rising,

it shone directly through that huge glass window wall. There was only one problem. The glass window wall was well over 50 feet tall. The windows at the very top of the wall were virtually unable to be cleaned. They needed a large lift to reach that high. But the floor had a cafeteria under it and was not structurally able to hold the weight of the lift, so every morning the sun shone through filthy windows. When the architect was challenged, his response was, "Hey, I only design it; cleaning is your problem." Needless to say, I learned a valuable lesson.

The author's conclusion of this research project is as follows:

"The collaboration of designer, manufacturer, facility, and environmental services personnel is critical. Better outcome and performance of interior surfaces and furnishings can only occur when all involved have a more complete understanding of the products they are purchasing and how to properly maintain them. Health care facilities should invest in better training, perhaps in multiple languages when necessary, for the environmental services staff. The more educated the designer, the end user, and those hired to maintain the facility, the better chance for the desired outcome. The outcome in this case is improved health, human lives saved, and a reduction of huge health care costs."

I couldn't agree more. And I applaud this research and how it points out how necessary it is to have collaboration during any design process, and to include environmental services professionals! ●



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## References

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