

Patient Rooms: A Positive Prognosis

As the next generation of patient rooms come onboard, new designs based on human-centric principles are improving patient, family and clinician experiences.



Meet Jenny. When she gave birth to her second child a few months ago, she was exhausted and thrilled. Thanks to a new hospital policy, baby Carson stayed in the same room, never leaving for the nursery. The room was packed with well-intentioned family members as well as a wall-mounted computer for electronic medical records. All Jenny wanted was some quiet rest—and for the computer to stop waking up the baby.

Meet Meredith. When her mother was dying from cancer, Meredith practically lived at the hospital, ensuring her mom was never alone. That meant she had to make tough trade-offs. Not enough time for her husband. Or her dog. Or her job. What she didn't expect was all the trade offs she was forced to make in her mom's hospital room just to maintain some semblance of normalcy.

Meet Ansley. A nurse who deals with a lot of orthopedic patients, she's constantly checking on patients and encouraging them to move around. She prefers to talk with her patients face to face, but navigating around a walker and a wheelchair makes it tough for Ansley to even get to her patients' beds, much less find a chair she can use.

THE PATIENT ROOM

The patient room, that often overcrowded yet under-performing space, is experiencing a long overdue reinvention. The next generation of patient rooms, being built and renovated now, will incorporate technology for the patient and family as communication and learning tools.

HERE'S WHAT'S FUELING THE MOVE:

1. A healthcare construction boom in the last several years, combined with renovations of existing facilities, has brought thousands of new rooms onboard.
 2. Medical errors, infection control and clinician injuries necessitate safer, more efficient patient rooms.
 3. New healthcare laws directly link patient outcomes and satisfaction scores with reimbursement levels, so every square foot must deliver profitability.
 4. With outpatient procedures gaining popularity and complexity, patients who are admitted to the hospital exhibit more acute symptoms, so the space must be able to respond to critical care needs.
 5. Years of research confirm that the patient room plays an important, yet largely overlooked, role in positive outcomes. This body of research is literally transforming patient rooms with built-in ability to flex for the future.
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BUILDING ON THE BODY OF RESEARCH

From universities settings to hospital boardrooms, innovation consultancies to equipment and furniture manufacturers, the patient room of the future has been the focus of intense research. Architects and designers, clinicians and patients have intuitively understood the impact of space on healing, and now there's a body of supportive research. Today, multiple studies indicate that well-designed rooms often lead to increased patient satisfaction rates, fewer accidents, lower infection rates, shorter stays and even a decrease in pain medication. Once a theory, the field has reached a tipping point and crossed over into mainstream design practices.

"More than ever, patient rooms are more than just a place for a bed and medical equipment," says Michelle Ossmann, director of Healthcare Environments for Steelcase Health. "The patient room is where you have to get everything right for the patient, family members and clinicians. When you incorporate literature-based design principles and truly create a space that's people-centric, everyone benefits."



SAFETY FIRST

Patient safety is every healthcare providers' first priority, and with good reason: Medical errors and hospital-acquired infections are among the leading causes of death in the U.S., where one in 20 patients develops an infection while in the hospital, according to the Centers for Disease Control and Prevention, costing more than \$10 billion a year. Europe is not immune either: one in 19 patients has at least one hospital-acquired infection, amounting to nearly 3.2 million patients a year, according to the European Centre for Diseases Prevention and Control.

Transmission is directly linked to clinicians' failure to consistently wash their hands and contact with exposed surfaces. Design can support infection control processes by:

- Creating a clinician zone at the room entrance featuring a sink and alcohol-based hand cleaner to reinforce the importance of diligent handwashing.
- Specifying materials and surfaces that are easily cleaned and maintained, from high-performance upholstery to solid surface casework.

But it's more than just washing hands and making sure surfaces are clean and cleanable. Designing to prevent patient falls is a high priority as well, ensuring unimpeded access to the bathroom and recliners that afford easy, independent egress. Falls are the most common adverse event in hospitals around the world, with approximately 3–20 percent of patients falling at least once during their stay, according to one report.

A 2013 Agency for Healthcare Research and Quality report found that every year in the U.S. somewhere between 700,000 and 1 million people fall in the hospital, with more than a third of those considered preventable. Nearly half of patients who fall experience injuries ranging from bruises to bone fractures. Human-centered design can help encourage patient mobility and clear potential obstacles for safe ambulation.

It's also about protecting clinicians' health. A World Health Organization report states that 37 percent of lower back pain is attributed to occupation, and healthcare workers are more prone to experience it. In fact, recent U.S. Department of Labor studies show that nursing assistants suffer roughly three times more back injuries than any other occupation. These injuries can be traced to the repetitive heavy manual lifting associated with moving patients and working in awkward postures. Room design that integrates mechanical lifts or helps clinicians access patients without assuming uncomfortable and potentially dangerous postures has been shown to help reduce the frequency of clinician back injuries.



THE MULTI-FUNCTIONAL ROOM

For patients, it's a healing space, bedroom and dining room. For clinicians, it's a workspace and procedural environment. For family members, it's a living room, and sometimes even a bedroom or office. The competing demands on patient rooms stretch their usability and create inherent tensions among all occupants. Without any space to spare—the average patient room is about 300 square feet (28 square meters)—multi-functionality is essential.

Just ask Jenny, who recently gave birth to her second child, a son, a few months ago. After a complicated delivery, Jenny's experience in her patient room failed to deliver on almost all measures. The hospital's new policy of in-room baby care meant little Carson never left the room creating extra-cramped quarters. And the hospital's new electronic medical records computer, attached to the wall, didn't stay tucked in and out of the way. The keyboard hit the bathroom door and the monitor's lights came on and woke up the baby every time it hit. No wonder she was seriously sleep deprived. "I couldn't charge my cell phone, I couldn't reach my water on the table without asking someone, and I had no idea where my things were. I felt like I wasn't in control of anything," she reports. "The room was not conducive to healing."

By designing patient rooms that encourage healing, provide modern conveniences and give patients a quiet respite, patient perspectives on care improve and experiences like Jenny's become less common.



ENCOURAGING EDUCATIONAL INTERACTIONS

There are few things as anxiety-inducing as a serious medical issue, and teaching and learning are essential parts of alleviating that worry. Valuable exchanges happen between patients, clinicians and family members but not always at the same time, so it's important to consider design elements that foster communication.

Clinicians, patients and family members are beginning to expect more personal, private and frequent communication, and the physical environment can impact the quality of those interactions. For example, a clinician who often counsels patients and family members on radiology procedures recently described how the hospital where he works hasn't fully completed patient room renovations. "About 85 percent of the time, I have to stand over the patient to talk with them," he said. "Where the chair is located in the older rooms isn't a place where I can talk with them eye to eye."

A woman who lost her mother to cancer after several weeks in the hospital echoed a similar experience, but from a family member's perspective. "There wasn't a good space for me to talk with the doctors," she said. "They wanted to give me an update, but I didn't want to disturb my mom while she was resting. So we had to go in the hallway. There was no privacy. I wish the room was more calming so I could think of the right questions to ask."

In newer settings, creating a sense of shared presence helps establish informational transparency around the patient's medical status and treatment plans. Design can create multiple communication channels and opportunities to make important information accessible to everyone involved in patient care.

Whiteboards convey vitals, staff changes and contact numbers for clinicians. They also provide a place for clinicians to sketch and visualize information for patients and families.

Comfortable, easily moveable, [hospital sleeper chairs](#) make it easier for clinicians and family to sit next to patients, allowing a more natural way to connect.

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Some hospitals are starting to experiment with tablets and apps to digitally communicate with patients and share information about their conditions, medications and lab results. This data can be shared on in-room screens to spark conversation and questions.



RECOGNIZING FAMILY NEEDS

Kate, a pancreatic cancer survivor who's been an patient at three hospitals and undergone eight surgeries in the last 15 months, put it plainly: "You want your family there with you all the time," she said. "You're not in a state of mind where you can ask questions and remember. You need that backup." But she also witnessed how they had to create workarounds and juggle responsibilities. "My poor brother and sister," she said. "They were trying to work and take care of me and talk with the doctors and I know it wasn't easy."

Friends and family expect to feel engaged and welcomed in their loved one's hospital room. But all too often, tightly packed rooms aren't equipped for larger family groups, overnight stays or even basic levels of self-sufficiency.

Progressive hospitals understand that healing isn't just for patients; it's also for weary family members.

CHOICE, CONTROL AND COMFORT

Hospitalization challenges patients and their families physically, cognitively and emotionally, as feelings of vulnerability intensify and create a need for personal control and comfort, which are key components in the healing process. Innovative design creates environments that are less institutional and more customizable to help people process the strains of the experience.

Today, many up-to-date patient rooms feature individual lighting and temperature controls in addition to the traditional bed and television controls. One hospital is even experimenting with colored LED lights so patients can add more visual interest to their rooms. Some hospitals are expanding this idea beyond room design, allowing patients to choose menu items and meal serving times.

“The best thing about the hospital room where my mom was treated was the lighting,” one family member said. “There was lots of natural light, but, more important, we could control the room lighting. We could even control different zones in the room, so if my mom was sleeping and I wanted to read, we had options for that.”

NEXT-GENERATION PATIENT ROOMS

For more than 70 years, patient hospital room design and experience has remained fairly static as new medical advances and technology have eclipsed the space's efficiency, comfort and safety. Thankfully, a human-centered perspective is now influencing patient room design—one that focuses on the needs of patients, clinicians and family members.

The applications that follow are thoughtstarters that address these needs in inboard patient rooms and outboard patient rooms.

INBOARD PATIENT ROOM

With everything close by, this room design makes family feel comfortable and more involved in their loved one's care. An efficient space where clinicians can move around freely and engage effectively, this layout amplifies the quality of interactions.



1. The Sieste® sleeper sofa and table allows family members to carry on with their daily activities like work while remaining in the room so they can provide comfort and advocate for the patient. The table allows note-taking, fostering collaboration with the clinician and patient, while the sleeper sofa easily converts to a bed, allowing visitors to sit, lounge or sleep in comfort.



1. A combination of open and closed compact storage allows patients to keep items secure, and also display flowers, cards and photos to personalize the space.
2. With a large, high-definition monitor, clinicians can quickly engage with patients and family members by displaying health information or videoconferencing with a specialist or family member.
3. Whiteboards convey staff changes and contact numbers for clinicians. They also provide a place for clinicians to sketch and visualize information for patients and families.
4. Pocket™, a mobile clinician workstation, enables clinicians to engage in face to face communication while documenting in the patient's chart, all while holding technology in a tight footprint.

OUTBOARD PATIENT ROOM

Clinicians are afforded ample circulation space around the bed in this patient room, allowing them to position themselves appropriately for procedural activities as well as meaningful interactions with the patient and family. A low traffic corner of this patient room provides a cozy zone where family can remain close to the patient while carrying on with life's activities.



1. The overbed table does double duty and acts as a consultative space.



1. Empath recliners, featuring breakthrough design features including safe, easy and quick cleaning upholstery and pass-through design that avoids trapping liquids and debris, provides versatile seating, encouraging family members to stay in comfort.

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