Curing the Ills of Hospital Design

Mercy uses evidence-based design, along with research and voice of the customer, to build a Joplin hospital at the leading edge of a design revolution.

Joplin, MO (PRWEB) April 29, 2014 -- Improving health care can start by curing hospitals themselves: The construction of the new Mercy Hospital Joplin comes amid a revolution in thinking about how buildings themselves can improve medicine.

Researchers and designers have talked to patients and doctors, and applied modern science to tweak the physical space that will house the sick and their caregivers. The new building does away with maze-like hallways, patients searching for bathrooms and families stumbling around fast-moving gurneys.

Gone, too, is the gobbledygook of medical jargon that long baffled patients – picture signs that say “Ear, Nose and Throat” instead of “Otolaryngology.”

“Signs are something that we are thinking a lot about,” said Michele Stewart, Mercy Joplin chief operating officer. “And even after they’re up, we’ll see what works and what doesn’t and make changes.”

Wide corridors also will connect departments where patient care naturally flows, such as the emergency department to cardiac care. “It’s all part of easy ‘wayfinding,’” said Stewart. Wayfinding is an area of formal study borrowed from other public spaces such as shopping malls and airports that have made a science of efficiently moving strangers through a building.

It’s just one of the academic disciplines that have turned hospital construction inside out. Driven by observation, measurements and hard data, hospital “evidence-based design” emerged in the 1980s but has accelerated amid health care reforms. The research has unearthed hundreds of patient-centered advances that make hospitals more efficient and comfortable.

Based on similar methodology, Mercy has developed a set of standards that guide construction across its four-state region. “Everything we are doing is based on extensive research,” said Cynthia Beckham, Mercy’s executive director of facility design. “We have a vast body of data that guides our standards.”

Joplin is the first place those standards can be applied to an entirely new, general acute-care hospital. The project was born from disaster, the 2011 tornado that made a direct hit on the old St. John’s Regional Medical Center.

In choosing to rebuild in Joplin, Mercy is erecting a care center that will showcase the science, empathy and common sense that shaped its construction standards. They enabled Mercy planners to sketch the outlines of the new hospital quickly, with perhaps 90 percent of the plans in place within a week or two of the disaster.

The last 10 percent came after hours of meetings with Joplin physicians, nurses, patients and community members. “They were long, hot days at Joplin’s convention center, where the storm had knocked out the air conditioning,” Beckham said. “But we learned a lot talking to the people who would be using the hospital.”

Opening in the spring of 2015, the new hospital and physician offices will have about 880,000 square feet of
space and more than 200 patient beds. It not only replaces the former St. John’s but three temporary facilities built as Mercy worked feverishly to continue care in Joplin. Including nearby clinics, Mercy will build about one million square feet of new space in Joplin – or about what was lost to the tornado.

St. John’s came together over decades, with sections added or rearranged as health care changed. The new Mercy Joplin benefits from what is known about modern care.

Plans for the new hospital itself include medical and surgical, critical, intensive and cancer care – as well as greatly expanded care for women and children, with labor, delivery, recovery and postpartum rooms and a new neonatal intensive care unit.

Other changes include more elevators designed to separate patients from the public, easing awkward moments for both. Intensive-care rooms get their own bathrooms, and there will be one for every pair of surgical prep rooms, saving the usual trip down the hallway.

Different entrances will funnel patients to clinics or the hospital, where they’ll sit on comfortable couches while staff greets them with portable check-in technology that helps reduce the anxiety of those early moments.

Cardiac care will feature new hybrid operating rooms that enable a catheterization, where a long probe is sent through blood vessels to the heart for X-rays. But patients can stay in the same room if surgery is warranted – rather than being trundled to another operating room. Other operating suites will sit next to the emergency department, with anesthesiologists nearby so they don’t waste time dashing to another section of the hospital.

In-patient floors will have decentralized nurse stations outside every two rooms. A space at the center of each wing of rooms will also encourage collaboration between nurses and other team partners including case managers, physicians and therapists.

The hospital will have only private in-patient rooms, with warmer colors than the traditional beige and comfy chairs that fold nearly flat for loved ones spending the night. The rooms will have large windows, which was a special challenge because Mercy wanted them storm-hardened. Patients will enjoy interactive TV that enables them to see the Internet postings of family and friends.

Research shows all these innovations aren’t luxuries but cost-saving changes that contribute to faster healing. Private rooms, for one, mean shorter stays because patients benefit from less noise, fewer transmitted infections and longer visits by loved ones.

One 2011 study showed that private rooms, bigger windows and decentralized nurse stations could add $30 million to the cost of a $350 million hospital. But the improvements paid for themselves in three years with about $10 million in annual savings from better and more efficient care.

Shared rooms also present a special challenge of managing genders, as only men can room with other men and women with women. “It’s easier to get patients into a bed when the hospital has all private rooms,” said Stewart.

The changes extend beyond the hospital’s doors, where canopies will help protect patients as they come and go. Parking lots are arranged in semi-circles so spaces get wider at one end for maneuvering wheelchairs and walkers. A loop road limits conflicts between patients and cars. And next to the building will stand healing
gardens where patients can benefit from walks amid nature.

Again, no mere amenity. A recent book detailed research into the power of gardens to reduce patient anxiety and depression, encourage movement, distract from pain and reduce the need for medicines, and contribute to a hospital’s bottom line.

Plus, said Stewart, “The staff will have access to the gardens, too, as a great place to escape a stressful day.”

Read more: Mercy Hospital Joplin devises window system that can protect its most vulnerable patients from 250 mph winds of a monster tornado.

Mercy is the sixth largest Catholic health care system in the U.S. and serves millions of people annually. Mercy includes 32 acute care hospitals, four heart hospitals, two children’s hospitals, three rehab hospitals and one orthopedic hospital, nearly 700 clinic and outpatient facilities, 40,000 co-workers and more than 2,100 Mercy Clinic physicians in Arkansas, Kansas, Missouri and Oklahoma. Mercy also has outreach ministries in Louisiana, Mississippi and Texas.
Contact Information
Angella Saporito
Mercy
+1 417-625-2260

Online Web 2.0 Version
You can read the online version of this press release here.