STEPPING INTO PATIENT ROOM OF THE FUTURE(Series2)

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재미 건축가

When sixth century Greek philosopher Heraclitus said "nothing endures but change", he easily could have been referring to the healthcare field, an arena in which advances come quickly as medical technology improves and care giving methods evolve. The business side of healthcare delivery also has seen dramatic changes. This constant transition is perhaps most evident in hospital patient rooms, where creating flexible designs is becoming critical to cost effectively staying atop quality care.

LOOKING AHEAD

What will this adaptable patient room of the future be like? The patient room is a key element of a hospital. The optimum design for the patient room should include consideration of healthcare trends that will influence the room's features, including characteristics of future patients, resource limitations, rising costs and technology.

Hospital patients during the next 30 to 40 years will have a greater need for healthcare and

frequently will have multiple problems. They may be having elective procedures and a general expectation of a higher level of care. Placing room functionalities, such as sinks and work counters, where they aid efficiency will save time and therefore labor costs. Additionally, families will continue to become an important part of providing care so the room must have space for them during all hours.

READY FOR ANYTHING

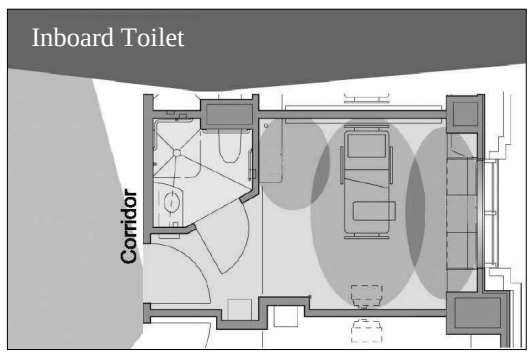
Flexibility in patient room design has long been a goal of healthcare visionaries. Durable, sustainable design, if implemented properly, will allow future healthcare executives to hold the line on costs and continually improve the quality of patient care.

Along the lines of saving money, the room must be universal enough to allow changes dependent upon hospital needs. During 30 years a patient room may be part of an acute care unit, a pediatric unit, or an intensive care unit. The patient room even could be used for minor procedures making it a treatment room and more of a profit center. The key is to make the room flexible so transitional expenses are minimized. Additionally, using **"green" building techniques** will be important for environmental preservation and to cost-effectively construct facilities long term.

When you consider the medical technologies of today that did not exist even 10 years ago, it is easy to understand how important it is to build a room that can accommodate advances. Hospital buildings need to be adaptable enough to work well without knowing what is to come. For example, the hospital building's structural, mechanical and electrical infrastructure has to support new medical equipment.

OPTIMUM PATIENT ROOM OF THE FUTURE DESIGN

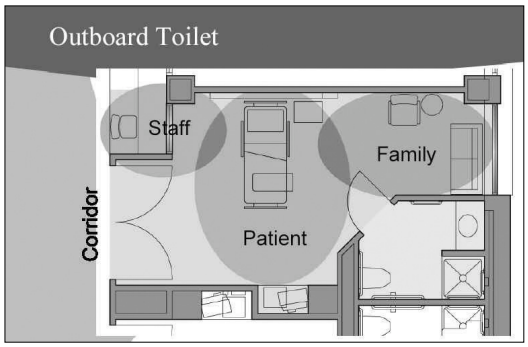
With all these factors in mind, there have been two patient room design options, before deciding on a patient room design with toilet areas side-by-side between patient rooms.



INBOARD TOILET DESIGN (see fig. A)

- Where the toilet is located along the corridor wall thereby allowing more natural light and extra space for family members.

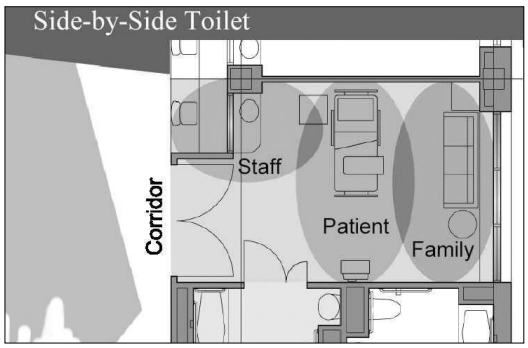
And



OUTBOARD TOILET DESIGN (see fig. B)

- Where the toilet is located along the exterior wall to provide maximum patient visibility for hospital staff.

While both inboard and outboard toilet designs have merits, SIDE-BY-SIDE TOILET DESIGN (see fig. C) version allows the best of both worlds.

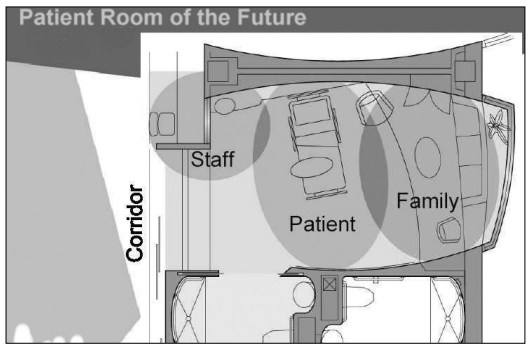


- A view to the outdoors and family space, while maintaining staff visibility into the patient room for better patient care. It is also flexible enough that remodeling to accommodate unit changes would be minimal. Only interior features would require changing. No plumbing needs to be relocated.

OPTIMUM PATIENT ROOM OF THE FUTURE DESIGN (see figs. D, E & F) is a refined version of the Side-by-Side Toilet Design.

■ Three distinct zones make up the design: one each for caregivers, the patient and family members.

• The portion of the caregiver zone outside the room entrance includes space for staff to perform electronic charting and see into the patient room.



Nurses could monitor several patients from this location. Inside the room, the caregiver has a hand wash sink, a work counter, and easy access to the patient headwall. A ceiling mounted lift system that extends from the bed to the toilet ensures both staff and patient safety.

• The bed is the main feature of the patient zone and is canted to orient the patient toward the family area and exterior view.

• In the family zone, a day bed provides sleeping arrangements, while a desk enables family members to continue work while supporting their loved ones. Wireless technology gives online access throughout the patient room.

■ The optimum design plan marries "high tech with high touch". While it can accommodate the latest medical technology, its interior design characteristics are serene, comfortable and conducive to healing. The environment is calming and simple. The curved wall and ceiling forms are a departure from the traditional institutional feel. Surfaces on walls, floors and furniture are textured but easily cleanable. Sights, sounds and smells are appealing.

• Positive visual and auditory elements can be introduced on the room's video screen. From their bed, a patient can pull up a wooded scene with a babbling brook, which can lower stress and aid recovery. This is especially important for hospitals in urban settings where there are no views of nature. The video screen allows some patient control and also can be used for videoconferencing with their children at home, speaking to medical specialists, communicating with nursing staff and more.

• One drawback of the optimum design version may be the room is bigger. Overall, hospital buildings with side-by-side toilet design will be longer but not quite as wide, meaning cost typically won't increase. 2004

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