

touchpoint



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what is a touchpoint?



A patient's hospital room is not the beginning of the road to recovery, but merely a touchpoint in the long road that begins at diagnosis. A hospital environment can make a huge impact on the recovery of a patient. Pediatric cardiology patients spend a relatively short amount of time in the hospital environment. It is imperative to design spaces that promote high quality of care while reducing or preventing extended length of stay. Providing the patient with an environment of relaxation and healing while also integrating space for family promotes a healthy, positive touchpoint within their journey to recovery.

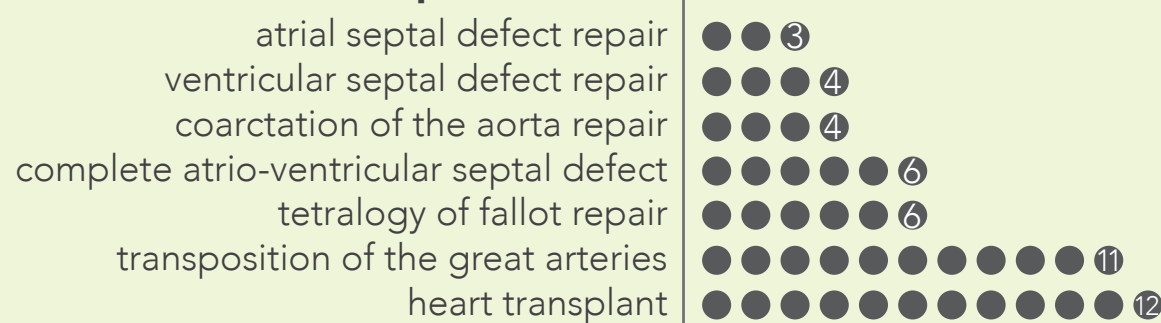
who are the key players?



patients caregivers families

how long is the average hospital stay?

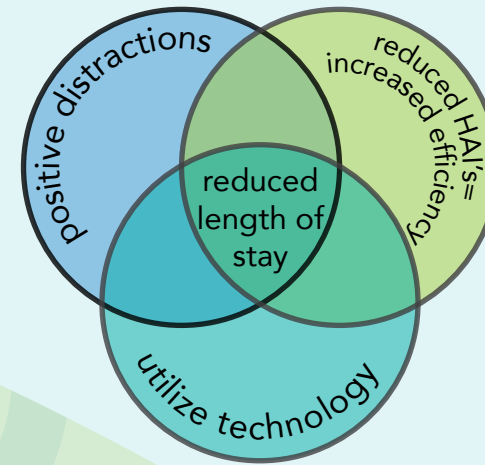
common procedures



average length of stay (days)

how do we create a touchpoint?

- 1 provide a space for patients that supports healing and more productive hospital stays by utilizing positive distractions, and patient customization
- 2 create a streamlined space for caregivers that increases efficiency and reduces mistakes which allows for shorter, more productive length of stays as well as reducing healthcare acquired infections
- 3 utilize technology to improve the healing process by increasing caregiver efficiency, and providing patients with positive distractions



why is this precedent successful?

Seattle Children's Hospital architects utilized evidence based design research to create a space not only for children, but also for their families. This integrated approach allows the hospital to use Family Centered Care approaches. They provide large single-occupant rooms to provide families with the opportunity to support their child's healing process in a way that is also comfortable to them. They also have dedicated family spaces outside of the room for a variety of rest and healing options. ZGF created spaces where families can store and prepare food, an innovation not often seen in healthcare settings.



ZGF knows the importance lighting can have to healing. They have installed a pre-set dimmable light fixture that mimics the body's natural rhythms which has been shown to help with relaxation and sleep patterns. The addition of a color changing LED wall allows patients to customize their space, normally something very hard to do in a hospital environment. The large windows allow light to not only penetrate the patient room, but also to enliven the corridors and team cores. The thought and care placed on user experience and evidence based design is what makes Seattle Children's Hospital an excellent example of healthcare design.



what are the key components?



positive distractions.

Research has shown that positive distractions within a healthcare environment can significantly improve the patient's recovery process. What is a positive distraction? A positive distraction is anything that distracts the patient in a positive way. Chaudhary et al (2004), have proven that positive distractions can also reduce or prevent extended length of stay in hospitals. Providing patients with views of nature, or even with nature-based artwork has been shown to relax patients as well as relieve pain in some cases. In a study done by Pati (2011), pediatric cardiology patients responded positively to nature scenes played on a monitor in a ten-minute loop without sound. The content provides the distraction while the switching of the photos provides a sense of anticipation for those watching it.



Lighting is another example of a positive distraction. According to Wiley (2013) patients often get poor sleep in a hospital environment, often because of the lack of natural fluctuation in lighting levels. Providing a variation of lighting levels through dimmers, or daylighting monitors can provide not only a positive distraction, but also give patients the opportunity to customize their environments.



An excellent way to provide a positive distraction for patients is to create a comfortable environment for family members as well. Chaudhary (2004) describes social support is a crucial element in the healing process. Allowing family members to have their own comfortable environment within the hospital space helps reduce their anxiety, which gives family members the opportunity to focus on their loved one, instead of where they will sleep that night.

increased efficiency and reduced errors.



Reducing the number of staff errors, including medication errors can also reduce length of stay. Same handed patient rooms are rooms that have identical configurations. This reduces mistakes from caregivers, especially in emergency situations. Standardization allows caregivers the opportunity to instinctively know where tools are placed, creating a second nature routine that saves vital time in emergency situations (Stichler 2012). Technology such as point of care charting, charting on a computer at a patient's bedside, also reduces mistakes from mis-charting to illegible handwriting that may affect the patient's care (Duffy et al 2010).

reduced healthcare associated infections.

According to Magill and Edwards (2014) the number one cause of extended length of stay are healthcare associated infections. Healthcare associated infections are infections that develop in a healthcare setting unrelated to the patient's condition. The most common healthcare acquired infection is pneumonia. Approximately 1 in 25 inpatients in the U.S. develop these infections. Pittet (2000), these infections can be spread through pathogens in the air, or more commonly by contact.

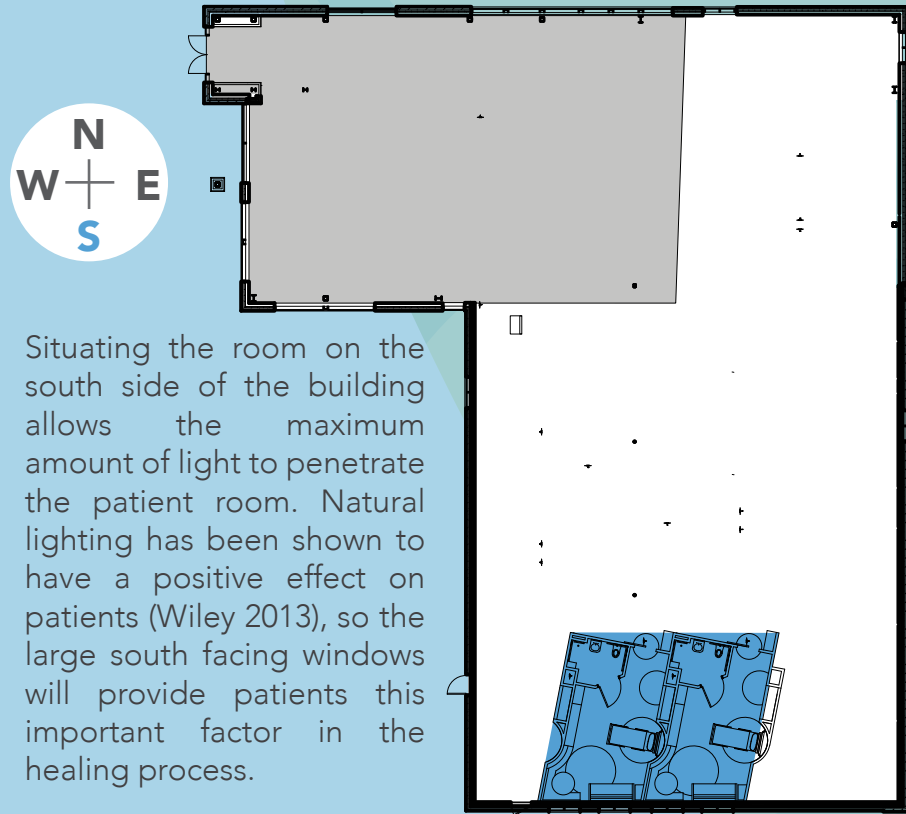
"1 OF EVERY 25 PATIENTS IN THE U.S. ACUTE CARE HOSPITALS HAS AT LEAST ONE HEALTHCARE ASSOCIATED INFECTION"
-Magill and Edwards (2014)

Choudhary et al (2004) describe several design solutions to reduce the number of these infections. First, it is imperative that patient rooms provide easy access to hand washing stations for doctors and nurses to utilize to stop the spread of disease. The room should be designed to support cleanliness for the patient as well as the caregivers. Second, it is important to design single patient rooms with excellent ventilation to cut down on the spread of airborne pathogens. Single patient rooms have many other benefits as well including providing a larger space for families who in turn provide social support for the patient.



how do we design a touchpoint?

location.

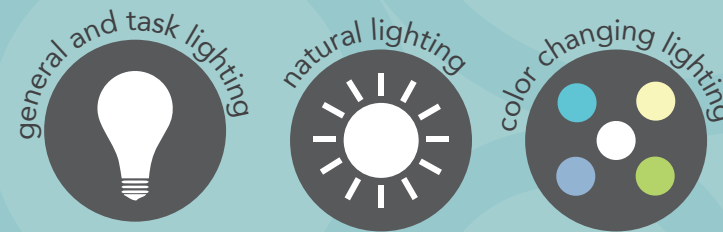


color palette.



lighting plan.

Providing a variety of lighting styles and options gives the patient the opportunity to easily customize their healing environment. Three factors create an interactive, user friendly lighting plan.



First, the general and task lighting provides light for all users activities and needs. Second, the windows provide the way for natural sunlight to penetrate the room, and bring nature into the healing environment. And finally, with the help of LED light strips, users can chose colors around the footwall, and on the fixture above for a cool, customizable atmosphere.

furniture/materials

These vinyl upholsteries manufactured by Standard Textiles are utilized in the built in seating for their excellent abrasion resistant properties.

This vinyl sheet flooring by Armstrong is gouge and abrasion resistant, as well as having excellent static load resistance, UV coating, and aseptic qualities.

This flooring by Altro is excellent for bathroom use, because of its slip resistant surface in both wet and dry applications.

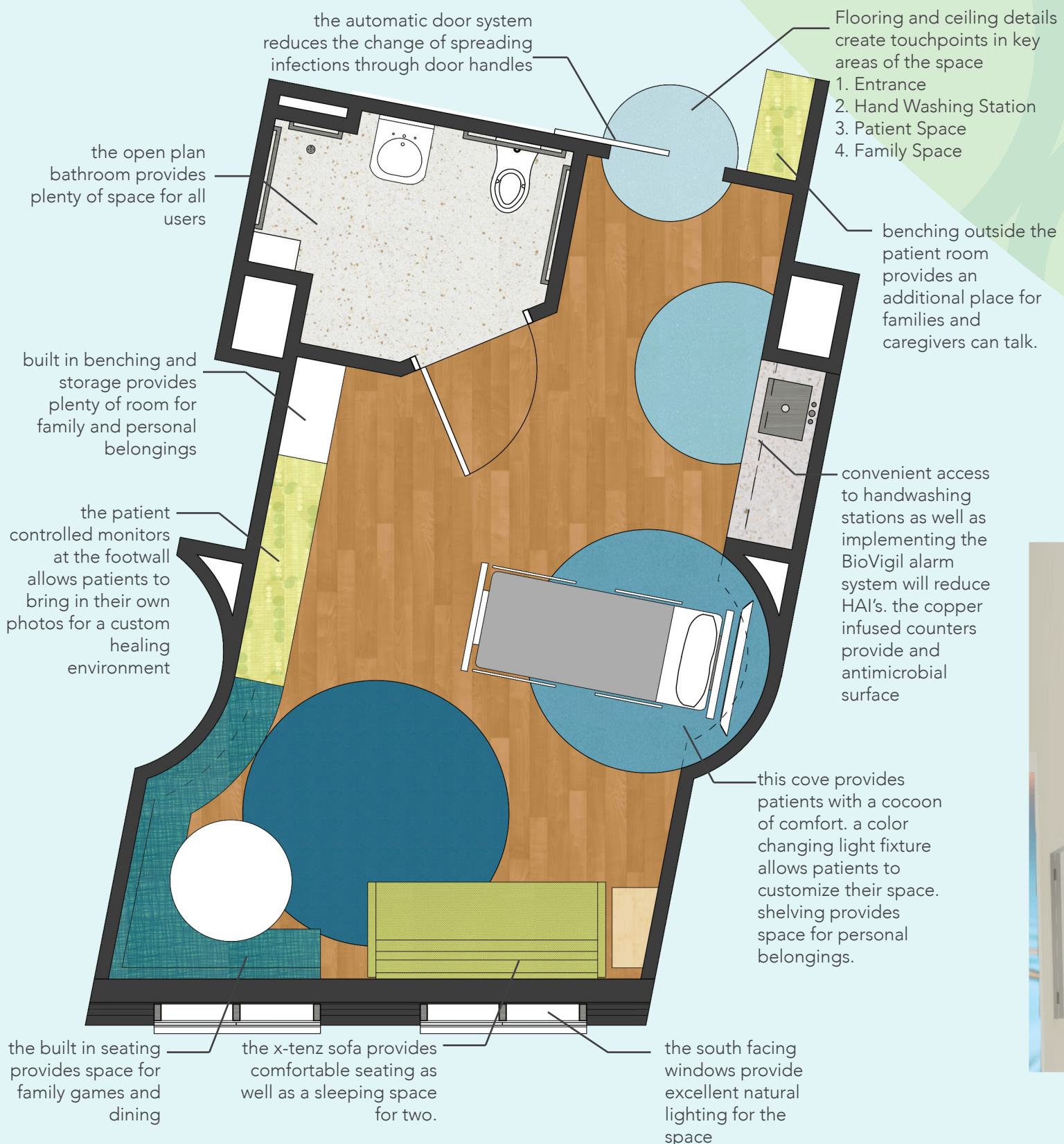
This solid surface countertop by EOS is infused with copper, increasing its antimicrobial properties exponentially.

Vibe by Knoll was used on the sofa because of its antimicrobial, bleach cleanable surface created from a combination of polyurethane and polyester.



E-Tenz by Steelcase was used in the family area because when fully opened can sleep two people comfortably.

floor plan.



elevations.



renderings.



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