Research Summary

A successful hospital design requires considerable research on behavior and interaction of care givers, patients and their families in a healthcare setting, and the effects of interior design on physical and psychological experiences in these spaces. The interior designer plays a major role in creating a space that provides an environment which is universally therapeutic for patients, technologically timeless and sustainable in its design.

Hospital stays for all patients should be unthreatening, relaxing and as stress-free as possible. A universally therapeutic interior consists of some important aspects:

- Use of familiar and relevant materials
- Building orientation: use of natural light
- Color, texture and pattern should all give cues for a “way-finding” process

Aesthetics is closely related to creating a therapeutic environment, so it is important in creating an everlasting and attractive space to better staff morale and promote patient rejuvenation. Timeless and technological aesthetic design considerations include:

- Admitting ample natural light, natural materials and textures
- Providing patients with a bedside console that enables them overall control
- Interactive video screen display connected to patient’s tablet
- Laminated switchable glass for bathrooms

Hospitals have significant direct and indirect impacts on the environment, society, and economy; they are heavy users of energy and water and produce large amounts of waste. By placing such demands on community resources, hospitals are natural candidates for an overall sustainable design. The main objectives of a sustainable interior design are:

- Enhancing Indoor Environmental Quality (IEQ)
- Use of materials with lower VOCs (stone, linoleum, terrazzo)

Interior design impacts humans both physically and psychologically. An effective healthcare design solution that has a universally therapeutic environment due to the technologically timeless and sustainable design will help produce a successful project that meets the needs of the client, the project’s stakeholders, and the patients who will utilize these spaces.

Design Goals

1. Therapeutic
   To provide a comforting and stress-free environment for patients.
2. Technological
   To incorporate top of the line technology to empower the patient with control, connect them to the outside world, and increase productivity for doctors and nurses.
3. Sustainable
   To impact the environment minimally through skillful, sensitive design and generate long-term relationships between user and object/service.

Concept Statement

The planned design for the “smart” hospital room will be patient focused and family centered. Tomorrow’s patient room increases safety and provides an environment which is universally therapeutic by allowing patients to be in control of the room and the care they receive. By incorporating cutting-edge technology with the integration of light and nature, the patients’ experience and doctors’ workflow will be enhanced as a whole. The spaces will exhibit a streamlined design that seeks to capture characteristics of modernism through modular furniture through the seamlessness seen in the sustainable material of the walls, floors, lighting and ceiling features.

Resources:
Fabric and Finish Selection

Armstrong "English Walnut" Luxury Vinyl Flooring

Not only does LVT provide a warm inviting atmosphere, it is of high quality, great durability, superior performance, low maintenance, lower lifecycle cost, and is easy to install. Most brands use a UV-cured urethane coating that reduces scratching; LVT also has an extra wear layer to protect against staining and damage from medically used chemicals. It is practically waterproof and offers good indoor air quality characteristics and won’t trap dust. LVT can also be recycled.

Nevamar Panolam "True White" High Pressure Plastic Laminate

HPL is considered to be one of the most durable decorative surface materials and is available with special performance properties including chemical, fire and wear resistance. Special grades of HPL can be postformed around curved edges by application of heat and restraint.

Furniture Selection

Ultra Fabrics "Wild Honey" Polyurethane Fabric
Ultra Fabrics "Eco Tech Coal" Polyurethane Fabric
Ultra Fabrics "Eco Tech Gypsum" Polyurethane Fabric

Polyurethane fabric is a 100% waterproof fabric, typically polyester, but may be cotton or a polyblend material that has been heat-laminated to a polyurethane layer. Fully reacted polyurethane polymer is chemically inert. PUL is lightweight, breathable, and durable enough to withstand machine washing in hot water & heat drying.

Benjamin Moore "In The Midnight Hour" with Polyurethane Paint Coating
Benjamin Moore "Chantilly Lace" with Polyurethane Paint Coating

Polyurethane Paint (Aqueous PUD Coating) is a perfect green paint based on Water borne Polyurethane finish for concrete and masonry surfaces. This Polyurethane Paint gives a hygiene wall coating, having antifungal and antibacterial characteristics and excellent weather resistance properties. These paints are extra resistant to water and chemicals.

Sage Glass Switchable Glass

Also known as Smart Glass windows, switches from frosted to clear at the flick of a switch. This means that the Switchable coating can be simply applied to any type or thickness of glass (including fire rated), creating a solution with optimum clarity and performance. A simple ON - OFF mode switches the glass from being clear to opaque. In its frosted state the film acts as an electronic blind providing privacy and security for any glass, window or partition.