Critical Care Unit

Healthcare Design
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Materials, furniture, and artwork all contribute to the users’ experience within a space, which leads to the ultimate goal of a positive experience. This can be achieved by creating a common theme throughout a unit.
Research & Evidence Based Design

According to FGI, flooring with no pattern or large patterns can help reduce falls, as well as color contrast between walls and floors. Wall finishes should be washable, smooth, and have smooth seams. The use of brighter colors such as blue will help to provoke positive feelings. To help reduce falls and or stress, using supported paths, non-glare finishes, and seamless transitions all can help create a safer critical care unit. (American...,2018).

Some suggestions for design strategies to achieve a successful critical care unit include keeping clear paths to move equipment in and out of rooms, and orienting the patient beds towards a window to promote healing, while still allowing them to be viewed by staff from a nurses station. Providing large windows for staff and families to view nature has been shown to reduce stress. Wayfinding and an intuitive floor plan can make it easier for visitors and staff to navigate the unit. (The Center...,2015)

Layout

Materials
Mission Statement

Tranquility is the state of being calm, worry free, and serene. Beaches are an example of this for many people, and while a critical care unit may seem anything but that, the goal of this unit is to create spaces that patients, staff, and visitors will feel at ease and tranquil.
Floor Plan
Zoning
The use of different colored LVT helps families and visitors follow a path leading them to patient rooms. Armstrong’s Mixer Champagne leads to the East wing, while Armstrong’s Mixer Blue Lagoon leads to the West wing. Since the floor plan is configured in a racetrack shape, this also helps with wayfinding.
Wayfinding begins upon leaving the waiting area. The colored signage continues down into the flooring where the colors will lead guests in the right direction. Cool tones of blue materials are implemented throughout the West wing while tans and neutrals are primarily used throughout the East wing.
Wayfinding Elevation
Artwork of natural elements has been shown to reduce stress, promote healing, and provide a sense of place. Murals specific to the beach locations are used throughout the corridors to help achieve this, and further contribute to giving each room its own identity.
Wayfinding Through Room Names
Patient rooms in the west wing are named after beaches on the West Coast, while patient rooms in the east wing are named after beaches on the East Coast. This gives each room its own identity and is intended to make it easier to remember than numbers.
Patient Room Floor Plan with FGI Requirements

- Natural light provided by windows
- Sleeper sofa for family
- TV for family
- Patient recliner
- 4 in clearance on non-transfer side
- 16 receptacle outlets on headwall
- 1 ft from head of bed to wall
- 13 in. min. clearance headwall and space for equipment
- 3 oxygen / 3 vacuum / 1 medical air
- Nurse call device
- IV stand
- 5 in. clearance on transfer side
- Mobile monitor stand
- Communication board
- Hand washing sink
- Door swings both directions
- 30 in. turning radius
- European shower
- Grab bars in toilet room
- Toilet paper dispenser
- Shower head and seat

Critical Care Room
- Staff zone
- Patient zone
- Privacy curtain
- Visual observation to patient provided by sliding glass door

Patient Zone
- 335 SF

Staff Zone
- 4

Hand washing station adjacent to entrance
- Linen and trash underneath
- Patient TV
- Patient wardrobe
- Window facing patient
- Curtain can be closed for family privacy
Patient Room View From Front
Patient Room View From Back
West Wing Centralized Nurse Station
East Wing Centralized Nurse Station
Various shades of paint by Sherwin Williams are used throughout the patient rooms on the walls and soffit. Using an eggshell finish will reduce glare, while also allowing for easily cleanable surfaces.

**Patient Room Finishes**

- **Spaces**
  - Finishes
    - SW6510
    - SW6798
    - SW7036
    - SW7041
    - SW6047
    - SW7508

- **Accessories**
  - Chemetal, Brushed Aluminum

- **Countertops**
  - Corian, Sandstone

- **Toilet Room Flooring**
  - Tile, Balboa Beige

- **Flooring**
  - LVT - Armstrong, Club Soda
  - LVT - Armstrong, Root Beer Float
  - HPL - Wilsonart, Cocobola
The use of carpet near the nurses stations, using acoustical tiles for the ceiling, and eliminating the use of metal drawers and racks all help to reduce noise levels throughout the critical care unit (Hamilton & Sheply, 2015).

LVT is an appropriate choice because of its durability, as equipment and foot traffic are a big factor of its use. Carpet is used in the waiting area to absorb sound and reduce the noise level.
Evidence Based Design Through Furniture

Research reveals that furniture can play a role in eliminating patient harm and improving the healthcare experience for patients, their families, and caregivers.

- Eileen Malone & Barbara Dellinger
  [Furniture Design Features and Healthcare Outcomes]

Reduce surface contamination linked to healthcare associated infections:

Surfaces are bleach cleanable and seamless, while upholstery is also bleach cleanable, nonporous and smooth to prevent microbial growth.

Reduce patient falls and associated injuries:

All seating options include armrests, and are sturdy enough to not be easily tipped over. The patient recliner supports foot position changes and none of the furniture has sharp or hard edges.

Improve communication and social support for patients and family members:

Within the social space for families, multiple styles of seating are provided along with breaking those seating areas up into smaller groups that are semi-private, and spaces for interacting with other families.

Improve staff effectiveness, efficiency, and communication:

The chairs at the nurses stations are height adjustable in order to accommodate ones ergonomic needs. The upholstery on seating in the respite room and at nurses stations are all soft in order to absorb sound.
1  Hill-Rom 405 Hospital Bed
2  Steelcase Mineral Recliner
3  Steelcase Pocket Mobile Worksurface
4  Hill-Rom Overbed Table
5  Steelcase Surround Sleeper Sofa

Patient Room Furniture
1. Steelcase Coalesse Free Stand
2. Steelcase Coalesse Embrace Lounge Chair
3. Steelcase Turnstone Bassline Table
4. West Elm Brighton Lounge
5. West Elm Boardwalk Seat

Public Area Furniture
Sources


The Center for Health Design. Intensive Care Patient Room Annotations. [2015].


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