



KEY POINT SUMMARY

OBJECTIVES

The objective of the article was to present an overview of issues related to the selection of finishes and furnishings that should be taken into consideration during the specification and design process of critical care environments.

Finishes and Furnishings: Considerations for Critical Care Environments

Chambers, M., Bowman, K. L., 2011 | *Critical Care Nursing Quarterly*. Volume 34, Issue 4, Pages 317-331

Key Concepts/Context

Finishes and furnishings play an important role in the healing environment and do affect patient health outcomes, staff satisfaction, operational efficiency, and costs. It is important to create properly designed critical care units. Involving healthcare providers in the design process is necessary to highlight the user's perspective, preferences, choices, and comfort versus safety. According to the authors, several studies have shown that good design has an impact on patient care. This article points out the items and elements that need to be considered prior to designing critical care environments.

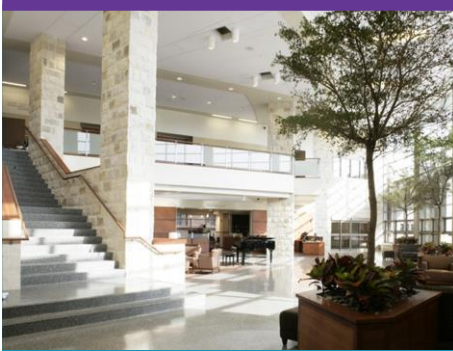
Methods

There was no specific search or data collection methodology presented by the authors, despite the many references given in the article.

Findings

The authors emphasized that the design team should be aware of the codes, regulations, and guidelines affecting any planned facility whether new or under renovation, for example, the Facility Guidelines Institute, the International Building Code, and the NFPA 101 Life Safety Code. The collaborative work between the designers and healthcare providers should include the analysis of design decisions. Furthermore, the authors explained that the following items should be included in the decision-making criteria regarding the specifications of finishes and furnishings:

- 1- Durability and maintainability
- 2- Infection control and cleanability
- 3- Budget and life cycle performance
- 4- Aesthetics
- 5- Sustainability
- 6- Safety



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- 7- Acoustics
- 8- Wayfinding

For finishes and furnishes the following elements were discussed and their design guidelines were referenced to point out additional precautions:

- 1- Flooring
- 2- Walls
- 3- Ceilings
- 4- Window coverings
- 5- Lighting
- 6- Art
- 7- Furniture

Limitations

The authors did not do a study that yielded any data but rather shared information on relevant topics based on their own literature review. The differentiation of critical care environment design was not clear in the article and appeared similar to other areas of the hospital.

Design Implications

1- Durability and maintainability: Consider impact and abrasion-resistant materials for areas prone to high impact to minimize the need for repair and replacement. Also consider low/no VOC content to improve air quality, and provide opportunities for EVS training on proper maintenance.

2- Infection control and cleanability: Designers should specify smooth materials, scrubbable finishes, and tight joints to minimize bacteria on horizontal surfaces. In addition, patient rooms and corridors should have sealed flooring seams, no carpeting, and no upholstered furniture or textured furnishings. Whenever feasible, materials that do not allow bacteria to grow should be specified.

3- Budget and life cycle performance: A life cycle cost analysis must be considered in order to specify appropriate materials. For example, an expensive flooring material might seem inappropriate but after carefully considering its long-term durability and cleanability cost savings over maintenance would offset its high initial cost.

4- Aesthetics: The design of the critical care unit should be visually cohesive in applying color, texture, pattern, and light to the functional and clinical requirements of the space in order to create a healing environment.

5- Sustainability: To create a sustainable facility the designer should consider using materials that are recycled, made from renewable resources, manufactured at a nearby site, with low-contaminants VOCs, and specify low consumption light fixtures, and low maintenance flooring.



6- Safety: To improve safety and prevent falls, slippery flooring material, inadequate door openings, and inappropriate placement of hand rails should be avoided. Moreover, proper lighting should be provided to support different functions and tasks. Soft corners and rounded edges should be used to minimize injuries and improve safety.

7- Acoustics: Sound-absorbing materials should be used, such as acoustical ceiling tile and sound-absorbing flooring.

8- Wayfinding: To best achieve good orientation, visual anchors should be placed at key decision points. Finishes should be used as cues with varying colors and patterns, and appropriate signage should be placed at key locations.

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