Interior Design: Making the NICU an Attractive Place

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Introduction

Designing a neonatal intensive care unit requires consideration of three user groups with very different needs: infants, families, and staff. Meeting diverse needs often is complicated by the physical parameters of the NICU space that further constrain the ability of the designer to create an innovative, unique, welcoming space. Despite these limitations, we know that each user group benefits from environments that lower anxiety and foster interaction with the infant. We can develop these kind of spaces if we look more toward features of residential interiors than commercial, institutional, or (typical) hospital environments. This means to consider variety in the design of space and use of color, pattern, and texture. Note that variety exists in abundance in the NICU by the very nature of equipment, furnishings, and specialized spaces, but this type of variety within a space often is uncontrolled and, thus, using variety in conjunction with unity is necessary to bring visual and psychological order to a space. Note also that too much unity led to the development of sterile, neutral-colored, uninteresting space that has been associated with hospital décor in recent decades. Thus, approach the design of the interior space with a careful consideration of the existing features, including sources of variety and unity. Other features to consider are light, sound, and aroma. Check “References” (eg, The Recommended Standards for Newborn ICU Design) for specifics regarding light and sound, including suggested materials.


Is there a design “theme” that is best?

Wall coverings and borders with juvenile patterns (teddy bears, ducks...) do little for any of the three user groups in the NICU, and appear to be a holdover from a bad idea that abstracted images are appropriate for young children, and, thus, also appropriate for spaces that may be inhabited by small children and infants. These types of patterns are not effective. On the other hand, evidence of the positive effects of nature in healthcare environments abounds. This is not to say that “nature” is an appropriate “theme,” but that contact with nature or views of nature can be effective in healthcare environments. Thus, in the design or redesign of a NICU, consider the placement of windows and if they do not occur in the unit, then consider carefully how windows might be used and emphasized in areas for families and staff such as lounges, consultation rooms, and overnight rooms. Plants in sterilized dirt in the NICU may also be useful, but be careful that these are used intentionally and purposefully and not just stuck into unused corners or cubbies. Other appropriate “themes” should evolve from the design concept and consider regional influences and effects. For example, a NICU located in a coastal region should look very different from a unit positioned in the heart of a large, metropolitan area.
What colors should we use in the NICU?

Again, each unit will have a design concept that is specific to a NICU located in a particular part of the world. The color scheme will be generated by the design concept, and, thus, providing advice about the “best” or “right” color scheme is difficult. However, we know that color can contribute to our health and well being, and that full-spectrum color such as that found in daylight is best. If daylight is limited, we can supplement its effects with light and color added into the environment. “Full-spectrum” color does not mean that we need to paint rainbows in each unit, but that a range of color should appear in the space. In developing a color scheme, begin with a careful inventory of features of the environment that cannot change such as hardware (eg, “brass” hardware is yellow) and exit signs (red or green). These and other unchanging features of the environment should be acknowledged and incorporated into the scheme rather than ignored. Also remember that color is a property of light and, thus, as light changes, colors also change. This means that a paint color, for example, is perceived differently under fluorescent or incandescent light, and will change again across the course of the day as our day lighting conditions change.
What can be done to break up the length of a double-loaded corridor?

Developing niches for doors is best for breaking the “run” of a corridor. If this isn’t possible, consider changing the color or pattern of the floor covering at the entrances to develop a “front stoop” that begins to demarcate the space. If possible, changes in the ceiling heights or surface (easiest to accomplish with ceiling tiles) break up the ceiling plane and will help to disrupt the “tunnel” effect of a long corridor. Graphics, not just framed images, but painted graphics and murals that cover significant amounts of wall space also begin to demarcate narrow spaces. Another solution may involve wall washers or light fixtures that reflect light on the wall above and below the fixture to brighten those areas of the wall and attract our attention as we move through the space. Combining wall washers with tackable surface or shadow boxes enables families to personalize an entry, and is effective at breaking up the length of a corridor. This treatment also provides some sense of control to families, an important component in health care environments.
References


