SYNOPSIS

KEY POINT SUMMARY

OBJECTIVES

Patients and families frequently complained about noise and privacy in the Post Anesthesia Care Unit (PACU) at the Memorial Sloan Kettering Cancer Center. Patient satisfaction scores surrounding noise indicated a need for improvement. In conjunction with a larger project, the PACU was designed to promote a safe, comfortable, and therapeutic environment.

A Novel PACU Design for Noise Reduction

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Key Concepts/Context

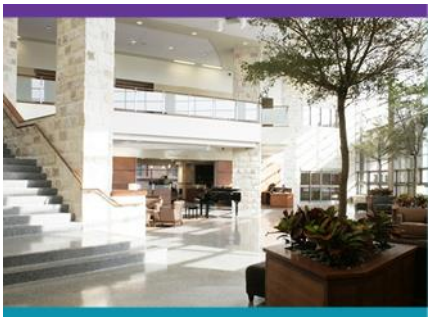
As redesign and renovation of patient care units occur, health care providers need to consider the importance of lowering environmental stressors. Noise in the hospital environment is one well documented problem, with detrimental effects to both patients and staff. The paper reviews the redesign of the organization's PACU that explored a unique floor plan to minimize noise and improve privacy.

Methods

The existing PACU occupied a space that was too small with open floor plan of 23 beds that was noisy and provided limited privacy. Daylight was unavailable, artificial lighting was harsh could not be controlled within the space, and a centralized nurse station became a hub for congregation. The new space included a 72,000 SF surgical platform with 17 preadmission beds, 20 ORs, 20 PACU beds, and 15 swing beds (PACU or preadmission).

The Standards of Perianesthesia Nursing Practice were used to inform the project – specifically Standard IV (Performance Improvement) that emphasizes nurse monitoring and evaluation of care on an on- going basis, and Standard II, (Environment of Care), highlighting the importance of a safe, comfortable, and therapeutic environment, with all areas providing privacy and patient confidentiality.

Environmental features of the design to address noise and privacy included the use four patient bays, with hard floor- to-ceiling walls separating the pods decentralized nursing, and a wireless communication system to eliminate overhead paging. Independently controlled lighting was used to offer patient comfort during varying stages of recovery, and natural light was used to promote circadian rhythm. Views to the outside allow staff and family members to monitor weather and darkness.



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Additional amenities included as space for the family, waiting areas, consult spaces and TVs for distraction.

Findings

Patient satisfaction with the noise level in the PACU was measured through Press-Ganey data and showed improvements in the first two quarters following the opening. No other data is provided.

Limitations

No limitations are identified by the author; however, the paper is not a rigorous research study, but more of a case study. The results presented do not allow for the longer-term evaluation of the improvements, as they only reflect the first six months of operation. The author also does not identify whether the change in satisfaction levels is statistically significant. While the author describes numerous intervention unrelated to noise, there are no data to support their perceived benefits. No staff-related data are included in the results. The author indicates staff education was planned to continue the efforts to maintain a quiet environment.

Design Implications

Improving acoustical environment by architectural design can effectively reduce noise, improve speech intelligibility, and increase patient confidentiality. Some key design considerations include removing or reducing loud noise sources and educating staff on the effects of noise, as well as providing patient care areas with walls that extend fully to the ceiling may prevent voice and noise from carrying through the ceilings.