Effects of Acuity-Adaptable Rooms on Flow of Patients and Delivery of Care

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Key Concepts/Context

Acuity-adaptable rooms could reduce patient transfer times, decrease costs, and increase patient quality of care and satisfaction. Researchers conducted a pre/post study in an acute care setting to evaluate the impact of moving to acuity-adaptable rooms on patient flow, hospital capacity, patient and staff satisfaction, sentinel events, average length of stay, and nursing productivity.

Methods

The researchers conducted a pre/post study in an acute care setting to evaluate the impact of moving to acuity-adaptable rooms on patient flow, hospital capacity, patient and staff satisfaction, sentinel events, average length of stay, and nursing productivity. They developed 12 outcome-based questions for the basis of the study. They then collected 2 years of baseline data prior to the move to an acuity-adaptable design and compared them with 3 years of data collected after the move.

Findings

The researchers found significant improvements in the quality and operational cost after the move. They found a large reduction in clinician handoffs and transfers; reductions in medication error and patient fall indexes; improvements in predictive indicators of patients’ satisfaction; a decrease in budgeted nursing hours per patient day and increased available nursing time for direct care without added cost; and an increase in patient days per bed, with smaller bed base (number of beds per patient days). They note that some staff turnover occurred during the first year; but that turnover stabilized thereafter.
Limitations

The single location limited generalizability.

Design Implications

On the basis of the outcomes of this study, designs should include: finding ways to conserve critical care beds for super-acute cases, adding medical-surgical acuity-adaptable beds for super-acute cases, and creating consolidated acuity-adaptable beds for postanesthesia care units and interventional/special procedure areas. Staff need constant reminders on how to use technology to their advantage if it is to be perceived of as a tool rather than an obstacle.