



## KEY POINT SUMMARY

### OBJECTIVES

The study aimed to find a quick way to research the ongoing problem of environmental noise in a specific acute care unit.

### DESIGN IMPLICATIONS

Reviewer note: Many of the noise sources discussed can be mitigated through design.

## Using Rapid Assessment to Evaluate Noise on an In-Patient Unit

Deitrick, L.M., Kennedy, P., Cyriax, C., Davies-Hathen, N.  
2009 | *Journal of Nursing Care Quality*  
Volume 24, Issue 1, Pages 27-32

### Key Concepts/Context

Research shows that many hospitals are noisy from a variety of sources: people, environment, and machines. Further, this excessive noise can have negative effects on patients and staff including lost sleep, higher blood pressure, lower overall patient satisfaction, increased readmission rates, and increased employee stress levels.

This study used rapid assessment to evaluate noise on a busy, high-traffic, high-acuity medical/surgical telemetry unit over a 4-week period. The authors used a rapid assessment methodology, because it was more time and cost efficient than traditional research and allowed the data to be ready soon enough to inform decision-making.

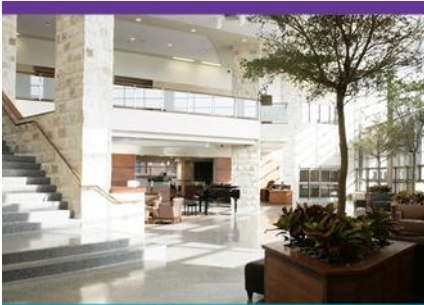
### Methods

A hospital-based interdisciplinary team conducted a rapid assessment on a busy 34-bed, high-acuity medical-surgical inpatient unit during a 4-week period in 2005. The team used place-based observation and included photographs to highlight some of the issues identified in the study. Researchers also used ethnographic observations, interviews, and noise meter readings.

### Findings

The team identified six sources of environmental noise: (1) conversational noise, (2) noise from doors, (3) noise from housekeeping activities, (4) noise from the pneumatic message tube station, (5) hallway noise, and (6) miscellaneous noise. From these results, the team developed a series of recommendations.

The study also illustrates the value of rapid-assessment methodology for the evaluation of clinical problems such as noise. However, the authors recognize that



### The Center for Health Design: Moving Healthcare Forward

The Center for Health Design advances best practices and empowers healthcare leaders with quality research providing the value of design in improving patient and performance outcomes in healthcare facility planning, design, and construction, optimizing the healthcare experience and contributing to superior patient, staff, and performance outcomes.

Learn more at  
[www.healthdesign.org](http://www.healthdesign.org)

this methodology is not a substitute for traditional, long-term, and basic research. But rather, a process to provide focused information quickly and at a low cost.

### Limitations

The information was presented as a case study, thus, findings are not generalizable. As the authors note, this study is not a traditional basic research study.