

# Designing Quiet Patient Rooms for Medicare Reimbursement, Patient Satisfaction



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Healthcare costs are rising, and the federal government is trying to rein in costs and get better results for the money it is spending on Medicare. With the passage of The Affordable Care Act, insurance coverage expansion received most of the media attention, but part of the act covered improvement of quality and reduction of costs in Medicare. Under the ACA, the Department of Health and Human Services and its Centers for Medicare and Medicaid Services are tasked with implementing these quality and cost measures. CMS already had some cost and quality improvement measures in place, such as reducing hospital-acquired conditions and the inpatient quality reporting system. Among other things, the ACA added the re-admissions reduction program, which aims to cut down on the number of patients re-admitted to hospitals within 30 days of discharge, and introduced value-based purchasing.

## UNDERSTANDING MEDICARE REIMBURSEMENT AND VALUE-BASED PURCHASING

In order to understand this new VBP program, it's important to understand the basics of how Medicare reimburses hospitals for patient stays. At each discharge, Medicare pays the hospital an operating base payment along with other payments.

Under VBP, the government withholds a small percentage of all operating base payments. This withheld money is then redistributed to hospitals according to how the hospitals perform on quality measures. VBP is budget neutral, so the incentive money paid out to hospitals equals the amount withheld. This incentive system is different than building rating systems, such as LEED, which award points based on reaching a certain performance. VBP distributes payments based on how well hospitals perform relative to each other.

In FY 2013, the VBP performance scores were based 70 percent on clinical process measures and 30 percent on patient experience measures. The patient experience score is based on the Hospital Consumer Assessment of Healthcare Providers and Systems survey. Up to 80 points on the patient experience score can be achieved from HCAHPS scores and up to 20 points can be achieved by a consistency score. A hospital's performance during the "performance period" and improvement between the "baseline period" and "performance period" determines the score. For FY 2013, the baseline period was June 2009 to March 2010 and the performance period was July 2011 to March 2012.

HCAHPS results contribute to the performance scores and are posted online at [www.hospitalcompare.hhs.gov](http://www.hospitalcompare.hhs.gov). The reporting of HCAHPS scores is required by the Deficit Reduction Act of 2005.

## THE HCAHPS SURVEY AND PATIENT SATISFACTION

The HCAHPS survey consists of 32 questions; seven are demographic and four are for screening purposes. The remaining 21 questions address the patient's hospital experience, offering multiple-choice answers of "never, sometimes, usually and always."

There are two HCAHPS questions covering the healthcare environment: "How often were your room and bathroom kept clean?" and "How often was the area around your room quiet at night?" The percentage of "top-box" scores and the number of patients answering "always" are used for hospital compare and VBP performance scores.

On hospital compare, the results for the cleanliness and quietness questions are reported separately. The quietness results are the lowest of reported HCAHPS results nationally, at about 60 percent reporting "always."



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For VBP, the “top-box” percentages are averaged into a cleanliness-quietness dimension. This dimension is one of eight dimensions calculated from HCAHPS results. The score for each dimension can be between 0 and 10 and is the greater of the achievement and improvement scores, which are based on the “performance” and “baseline” periods. In addition to the eight dimensions, there is a consistency score, with up to 20 points available, based on the lowest-performing dimension. Given the low performance on the quietness question, it would not be unusual for the cleanliness-quietness dimension to be the lowest-performing dimension. Good performance on the quietness question could contribute up to 30 points toward the patient experience score.



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## IMPROVING HOSPITAL 'QUIETNESS'

There are many things that hospitals can do with their operations to affect the quietness score. Quieter operations could include scheduling floor cleaning during the day, using good skin prep and frequent electrode changes to reduce nuisance alarms, using quieter wheels for carts and implementing a “quiet culture.” Hospital design can affect this HCAHPS performance as well.

A hospital's layout can have a major impact on noise. Large gatherings of staff in open areas are frequently noisy and should be reduced. Staff meeting rooms for larger groups should be used to share ideas and speak freely without causing a noise problem for patients. Decentralized nurse stations bring the work areas for nurses closer to patients and do not support large groups of staff congregating near patient rooms. Noisy equipment, such as ice machines, should be kept in separate rooms.

Ceiling finishes can affect the noise environment. High sound absorption ceiling panels, which have Noise Reduction Coefficients of 0.70 or greater, should be used. Glass fiber ceiling panels, which can achieve NRC 0.90 or 0.95, are a good choice in corridors to reduce noise buildup and propagation in corridors. Mineral fiber ceiling panels achieving a NRC of 0.70 and a Ceiling Attenuation Class of 35 or greater can provide protection against noise buildup in patient rooms and can reduce noise transmission from ceiling plenum equipment, such as terminal boxes.

The acoustical effects of floor finishes are the sound levels of impact and rolling activities, such as footfall and rolling carts. Acoustically speaking, carpet is the best floor finish, but carpet is associated with cleanability, infection control and rolling equipment friction concerns. Rubber and cushioned vinyl flooring can lower footfall and cart noises and provide better comfort for staff.

Technology systems can affect the noise environment. Nurse call and staff locator systems with RFID tags and wireless communicators can reduce the use of overhead paging and time spent looking for staff. Smart alarm and alarm notification systems can reduce the number of nuisance alarms and the broadcasting of alarm systems throughout patient care units. These technology improvements require that a sufficient IT infrastructure be designed into the hospital.

Audio from patient televisions can be a significant source of noise, especially in double patient rooms. One potential method of controlling television audio is with hearing induction loops. If the patient has hearing aids with a telecoil switch, the hearing aids can pick up the magnetic field from these loops and act as headphones. This would eliminate storage and inventory problems for headphones and would avoid some infection control problems. The induction loops might either be in a pad under the pillow or worn around the neck. Highly directional ceiling loudspeakers can steer the sound only to the patient head location, reducing the sound that is broadcast to the rest of the room and the rest of the patient care unit.

Another tool that can be important in improving quietness scores is sound masking or “white noise.” This is controversial because it involves adding sound when the goal is for quiet. However, the real goal is not objective quiet (getting the lowest possible sound levels) but subjective quiet, which is the freedom from startle from intrusive activity noises.

The changing federal reimbursement landscape for hospitals is one issue of many that affects the bottom line of each hospital. The money hospitals receive will be increasingly tied to how well they score on measurements like the HCAHPS survey. With attention to the acoustic environment, hospitals can position themselves to mitigate changes to their reimbursements, while enhancing patient satisfaction.