Patient responses to the HCAHPS survey of experience consistently identify noise at night as a dissatisfier in their hospital stay. Only 51% of patients surveyed following discharge from a California hospital report that their hospital room was always quiet at night, compared to 62% of patients nationally. Noise at night is our greatest challenge to create a healing environment of care.

Hospitals that have successfully improved this dimension of care have used a few common strategies: informed staff behavior modification, mechanical noise mitigation, environmental noise mitigation, and real time data to drive changes.
Informed Behavior Modification
As health care providers, it is imperative that we understand and help to provide our patients with an environment that is optimized for healing. Staff members must be educated about the effects that noise from talking, equipment and other activities has on patients’ healing in the hospital. To increase awareness of the noise levels in patient care areas, hospitals may choose to utilize noise monitors that provide visual cues for decibel levels above the optimal range in real time. Awareness of noise levels can help to activate staff members to remove or decrease the offending source of noise – such as whispering versus use of a loud voice.

Mechanical Mitigation
People and equipment in the hospital environment make noise that cannot always be eliminated. Mechanical measures may be taken to mitigate the unavoidable sound intrusion. Patients may be given kits that contain ear plugs, eye masks and even a sign to hang on the door requesting quiet during times of sleep. Staff explanation of and encouragement to use the items in the kits gives patients an opportunity to help control the amount of noise in their own environment. Equipment such as carts and portable computer stations should be examined for squeaky wheels or other sources of noise. Organizations may also choose to utilize sound absorbing curtains, or wall and ceiling panels in areas of greatest noise levels to both decrease noise and improve privacy.

Environmental Mitigation
Changes in the hospital environment are often necessary in order to truly affect a patient’s experience with noise. An example is the institution of “Quiet Hours” in patient care areas, particularly at night. To help remind staff and visitors that quiet hours are in effect, dim hallway and non-essential lighting in patient care areas, ask team members to set phones or other communication devices to vibrate whenever possible, and add signage that is a visual reminder of the need for quiet. Absolute silence is not the goal, though. In fact, white noise can actually be calming to patients and can help to mask the necessary noise of providing care. Explore the use of white noise modalities available to patients.
Real Time Data-Informed Mitigation

Feedback mechanisms allow staff members to make changes to the sound being generated in patient care areas in real time. Implement a noise decibel monitoring process that all staff members can access. Provide a mechanism for patients to report increased levels of noise that are then conveyed to staff in the area immediately. Encourage and empower staff members to be able to respectfully point out to peers when noise levels are too high. Use data from patient satisfaction surveys to identify areas of the hospital with the greatest proportion of responses indicating excessive noise levels. Engage patients and families in the efforts to reduce noise by inviting their feedback on noise levels and sources during the hospital stay, as well as including them as partners in wider organizational strategies to reduce noise.

Devices designed to measure and report sound decibel levels, or illuminate either red, yellow or green depending on the decibel sound level in the environment can help staff members become aware of noise levels and identify sources of excessive noise.

“Quiet Kits” – kits that can be given to patients along with encouragement to use at night, can include ear plugs, eye mask for sleeping, and even a door hanger notifying visitors to the room that the patient is trying to minimize the noise around his or her room while sleeping.

Plan for Improvement

SENIOR LEADERS/MANAGERS

- Familiarize yourself with the current noise abatement practices in place, and resources to reduce noise levels further.
- Educate all staff members (not just the clinical staff – housekeeping, dietary, and engineering staff play an important role) on the effects that a lack of sleep has on patient recovery, and why the organization is focusing on reducing noise.
- Include discussion, assessments of and mitigation efforts to reduce noise in existing Environmental Rounds.
- Discuss noise level mitigation during Leadership Rounds, especially in evening hours, and utilize real time sound decibel tracking as part of the discussion. Ask staff members to help to identify sources of noise and provide a feedback loop when abatement efforts have been implemented for identified noise sources.
- Identify organization-wide efforts to minimize overhead paging, control lighting, and encourage staff members to be mindful of avoidable sound.
- Provide an organization-wide mechanism for measuring sound decibel levels, and a system for informing the organization about the outcomes of noise studies.
- Provide timely reports from patient satisfaction surveys about noise levels, as well as monitoring reports for sound decibel levels throughout the organization.
- Reward and celebrate successes.

CLINICAL STAFF

- Identify noise levels in real time with the use of sound decibel tracking and patient feedback.
- Report equipment and other environmental sources of excessive noise.
- Talk with patients about hospital practices to reduce noise, and encourage the use of ear plugs, sleep masks and other noise reduction items available to patients in the hospital “quiet kit”.
- When possible, close patient doors and dim the lights in the evening.
- Group procedures and tests together if they have to be done in the evening if possible. (Example – vital sign checks and blood draws)
- Provide uninterrupted night sleep if possible, based on patient condition.

SUPPORT STAFF

- Identify noise levels in real time with the use of sound decibel tracking.
- Report equipment and other environmental sources of noise. (Example – squeaky wheels on carts, doors with a loud latching mechanism)

PATIENTS AND FAMILY MEMBERS

- Encourage patients and family members to report noise levels that interfere with sleep and rest, and provide a feedback loop to let them know how the noise issue has been resolved.
- Encourage patients and family members to report intrusive noise levels and help the organization identify noise “hotspots” in real time, such as via use of a “noise hotline.”
Conclusion
An effective noise reduction strategy requires ongoing attention from all levels of the organization. Hospital leadership must make noise reduction a priority by providing consistent messaging, resources and incentives to improve. A shared commitment based on evidence of effects of sleep/rest disruption on healing, needs to be developed throughout the organization. The organization must have the knowledge of optimal sound levels and identify sources of avoidable noise, and create the capacity to undertake mechanical and environmental mitigation activities. Finally, patients and families are the best source of information about noise issues and should be included in ongoing assessment, improvement and planning efforts.