

ACPHOSPITALIST®

Music soothes ventilated patients

From the September ACP Hospitalist, copyright © 2013 by the American College of Physicians

By Stacey Butterfield

Where: Intensive care units (ICUs) at five hospitals in the Minneapolis-St. Paul area.

The issue: Reducing anxiety and sedative use in mechanically ventilated patients.

Background

As a critical care nurse, Linda L. Chlan, PhD, RN, had witnessed firsthand the negative effects an ICU stay can have on a patient's psychological well-being. "I was always struck by the profound anxiety that patients on mechanical ventilation experience, regardless of the drug therapy that we administered to them," she said. When Dr. Chlan went to graduate school, she focused her research on interventions to alleviate this anxiety.

Music appeared as a potential solution, and one that appealed to this piano-playing researcher. "It seemed so appropriate for patients who cannot speak and have a lot of fatigue. It made a lot of sense to me," she said. After some preliminary research, Dr. Chlan and colleagues launched a musical intervention for ventilated ICU patients in 2006.

How it works

Over the next five years, ventilated ICU patients who were alert enough to consent and participate in this randomized trial were provided usual care, noise-cancelling headphones or the opportunity to listen to music. A music therapist met with patients in the third group to ascertain their music preferences. Then the patients were encouraged to listen to the selected music whenever they wished, but at least twice a day.

Results

On average, the patients chose to listen to music for about 80 minutes a day, according to results published in the June 12 *Journal of the American Medical Association*. They reported significantly less anxiety than the usual care patients (36.5% less by the fifth day of music) and received less sedation (two fewer sedative doses by the fifth day). "We were very thrilled with our strong results," said Dr. Chlan.

Anecdotal observations from the nurses caring for study patients supported the patient survey findings. The nurses' notes included statements like "Patient listened to music most of yesterday (about 10 h). Tends to be anxious and her blood pressure is lower when she is listening to music" and "Evening was quieter. Patient put headset on which seemed to help a lot."

Headphone-wearing patients also had reductions in anxiety and sedation, and positive notes from nurses, providing support for the general principle of creating a calmer ICU environment. "Reducing noise, reducing light—turning the lights off at night in the ICU—all those things that patients find bothersome when they're alert," said Dr. Chlan.

Challenges

The study's findings shouldn't be generalized too far, however, cautioned Dr. Chlan. "Music is wonderful, but it can also be irritating if not used correctly," she said, noting the tendency of some clinicians to turn on, and leave on, music channels in patient rooms. "I've had patients [not involved in the study] write notes and say, 'Turn off the television' and 'I don't like the music that's playing on the television.' It's usually a loop and it's repeated all the time."

The study avoided this problem by having the therapist communicate with patients about their music preferences, but that requirement meant that only about 5% of the ICU patients assessed by researchers were alert enough to participate in the project.

The anxiety-reduction benefits could possibly be expanded to less conscious patients if their musical preferences could be determined,

predicted Dr. Chlan. “That would entail a loved one or a close friend knowing what someone might have on their iPod at home, bringing in music that we know patients like,” she said. “That would take a few more studies, I think.”

Next steps

More studies on this topic are planned. “We need to determine how best to integrate music,” said Dr. Chlan. “How you translate a research protocol into the real world of the ICU takes some thinking.”

[Top](#)

© 2013 [ACP Hospitalist](#) and [American College of Physicians](#)

ACP Hospitalist provides news and information for internists about the practice of medicine and reports on the policies, products and activities of ACP. All published material, which is covered by copyright, represents the views of the contributor and does not reflect the opinion of the American College of Physicians or any other institution unless clearly stated