CASE STUDY: Paring back on patient restraints
The use of patient restraints in a non-psychiatric hospital is more common than many might think. According to a 2007 study in the Journal of Nursing Scholarship, as many as 27,000 patients are restrained in U.S. hospitals every day. In that particular study, restraints were applied for 50 out of every 1,000 patient days in select units of the hospitals that were studied.

Most patients who undergo physical restraint are being treated in the intensive care unit (ICU), where staff often fears that patients may remove the various tubes that keep them alive, either purposely or by accident, or simply fall out of bed. Patient restraints can include wrist and ankle belts, mitts, vests or even tall side rails.

The need and desire to restrain patients, however, is often in conflict with directives from the Centers for Medicare & Medicaid Services (CMS). As a condition of being paid to treat patients, CMS mandates that patients be restrained only as a last resort, and primarily if they are a harm to themselves or others.

According to CMS data, the average hospital restrains a patient 0.66 hours for every hour they are in the hospital. But what CMS mandates and how hospital staff interprets such mandates are often two separate issues.

It was common practice to restrain patients on the ventilator in order to prevent self-extubation, according to Nicole Spence, RN, MSN, Manager of Patient Care Services for Sentara Halifax Regional Hospital, a 192-bed hospital in South Boston, Virginia.

Fueled by the expertise of a well-established medical staff representing more than two dozen specialties, Sentara Halifax Regional Hospital remains focused on excellent care—a tradition which has been carried throughout the hospital’s 60-plus year history.


Halifax Regional was acquired by Sentara Healthcare system in 2014 through an acquisition and became Sentara Halifax Regional Hospital (SHRH). As a result, SHRH changed its accrediting body from Joint Commission to DNV GL Healthcare the following year. Following its first DNV GL inspection, the hospital received a “condition level deficiency” surrounding the use of patient restraints.

The hospital had never received a similar level finding. While planning for a resolution to the issue, the team uncovered that it was not following best practice regarding evidence-based use of restraints and noted that questions surrounding the use of restraints were rarely raised.

A condition-level finding is the second most severe finding that can occur during an accreditation inspection, ranking just below a determination that some object or function in the hospital places patients in immediate danger of harm/loss of life. Hospitals are typically given 90 days to correct the issue or risk losing the ability to participate with many insurance companies including Medicare and Medicaid programs. If insurer funding is cut off, it can result in a hospital closing its doors. These findings galvanized the SHRH team to create an immediate plan of action.

Opportunities for improvement requiring immediate action were identified. Some patients had been restrained for weeks at a time due to several reasons listed below. Contrast that to best practice recommendations which endorse that restraints should not be used for longer than a 24-hour period, if at all, following which an MD re-assessment accompanied by MD orders are required for each subsequent day. We also identified other practices with improvement opportunities which would require a corrective plan of action, utilizing engagement and education of the entire healthcare team, they included:

- Automatically restraining intubated/ventilated ICU patients. The intent for this practice had been to eliminate the risk of self-extubation.
- Patients restrained to prevent pulling out their breathing or other indwelling lines or tubes. Such an event happened on average, twice a year even with restraints in place.
- Restraint of patients experiencing withdrawal from substance abuse – this practice results in worsened outcomes in this patient population.

Research uncovered that restraints are sometimes used to prevent patients from falling out of bed. Using restraints in this manner increases the risk of strangulation, loss of muscle mass, pressure ulcers, incontinence, and cognitive and functional impairment.

Successfully coaching one person to change an inappropriate practice in a healthcare setting is relatively easy. Accomplishing the same for an entire healthcare team is a challenge. Although DNV GL Healthcare uses the ISO 9001 quality management system as a standard of operation, it does not prescribe fixes for issues at its client hospitals. Hospital leadership must work collaboratively with their entire healthcare team to resolve identified improvement opportunities immediately and institute processes for continuous improvement.

According to Spence, this required sharing what was at stake with the hospital healthcare team: Patient safety, quality of care (best practice evidence-based care) and the possible loss of participation in Medicare and Medicaid programs. The resultant effect potentially impacting 70 percent of patients served.


The end results were impressive: Sentara Halifax reduced its use of restraints by 95 percent almost immediately after the changes were made. Average patient lengths of stays on ventilators also shrunk.

These potential consequences led to nearly immediate but extensive reeducation or change management with the nursing staff on the use of restraints (most such decisions are made by nurses, according to both Spence and data on the topic of restraints). Additionally, physicians wanted data on extubations in order to elicit additional buy-in for the changes in practice.

In addition, Sentara Halifax only had one extubation in all of 2016. That compared to two to three on average annually while the old patient restraints policy was in place. “That was huge,” Spence observed.

As the relationship between Sentara Halifax and DNV GL Healthcare continues, it is expected that other areas of the hospital will see improvements in quality and patient safety.

“DNV GL Healthcare is a lot of work and a change in thought process,” Spence said, in reference to the company’s insistence on conducting annual surveys as opposed to once every three years. “But it is worth it.”
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