



Sentinel Event Alert

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Preventing Restraint Deaths

Since the Joint Commission began tracking sentinel events two years ago, the Accreditation Committee of the Joint Commission's Board of Commissioners has reviewed 20 cases related to deaths of patients who were being physically restrained. For each of the events reviewed, a root cause analysis was completed. Most of the events occurred in psychiatric hospitals (12), followed by general hospitals (6) and long term care facilities (2).

In 40 percent of the cases, the cause of death was asphyxiation. Asphyxiation was related to factors such as putting excessive weight on the back of the patient in a prone position; placing a towel or sheet over the patient's head to protect against spitting or biting; or obstructing the airway when pulling the patient's arms across the neck area.

The remainder of the cases were caused by strangulation, cardiac arrest or fire. All of the strangulation deaths were of geriatric patients who were placed in vest restraints. In half of those cases, the patients died when they slipped between unprotected split side rails. All of the deaths by fire were of male patients who were attempting to smoke or were using a cigarette lighter to burn off the restraints.

Two-point, four-point or five-point restraints were used on extremities in 40 percent of the cases related to restraint deaths. A therapeutic hold was used in 30 percent of the cases, a restraint vest was used in 20 percent, and a waist restraint was used in 10 percent.

Joint Commission analysis identified the following factors that may contribute to an increased risk of deaths. These include:

In 40 percent of the cases, the cause of death was asphyxiation. The remainder of the cases were caused by strangulation, cardiac arrest or fire.

- Restraining of patients who smoke.
- Restraining of patients with deformities that preclude the proper application of the restraining device (especially vest restraints).
Restraining a patient in the supine position may predispose the patient to aspiration.
- Restraining a patient in the prone position may predispose the patient to suffocation.
- Restraining a patient in a room that is not under continuous observation by staff.

Root Causes Identified

The organizations that experienced the restraint deaths identified the following areas of root causes:

- Patient assessment, such as incomplete medical assessment or incomplete examination of the individual (for example, failure to identify contraband, such as matches).
- Inadequate care planning, such as alternatives not fully considered, restraints used as punishment, and inappropriate room or unit assignment.
- Lack of patient observation procedures or practices.
- Staff-related factors, such as insufficient orientation or training, competency review or credentialing, or insufficient staffing levels.
- Equipment-related factors, such as use of split side rails without side rail protectors; use of two-point rather than four-point restraints; use of a high-neck vest; incorrect application of a restraining device; or a monitor or an alarm not working or not being used when appropriate

Suggested Strategies for Reducing Risk

The Joint Commission and organizations that experienced restraint deaths offered the following suggestions for preventing and reducing restraint deaths. The Joint Commission believes that these strategies help to reduce risk, and it plans to investigate them more fully in the future.

- Redouble efforts to reduce the use of physical restraint and therapeutic hold through the use of risk assessment and early intervention with less restrictive measures.

- Revise procedures for assessing the medical condition of psychiatric patients.
- Enhance staff orientation/education regarding alternatives to physical restraints and proper application of restraints or therapeutic holding.
- Consider age, sex and gender of patients when setting therapeutic hold policies.
- Revise the staffing model.
- Develop structured procedures for consistent application of restraints.
- Continuously observe any patient that is restrained.
- If a patient must be restrained in the supine position, ensure that the head is free to rotate to the side and, when possible, the head of the bed is elevated to minimize the risk of aspiration.
- If a patient must be restrained in the prone position, ensure that the airway is unobstructed at all times (for example, do not cover or "bury" the patient's face). Also, ensure that expansion of the patient's lungs is not restricted by excessive pressure on the patient's back (special caution is required for children, elderly patients and very obese patients).
- Never place a towel, bag or other cover over a patient's face as part of the therapeutic holding process.
- Do not restrain a patient in a bed with unprotected split side rails.
- Discontinue use of certain types of restraints, such as high vests and waist restraints.
- Ensure that all smoking materials are removed from patient's access, including access from family and friends.

Jack Zusman, M.D., a psychiatrist who teaches at the Florida Mental Health Institute of the University of South Florida in Tampa, says a facility can have alternatives to restraints. For example, it can create special rooms open to patients such as a quiet area for patients who are feeling upset or a room with punching bags or treadmills where patients can work off energy without threatening others.

Zusman, a Joint Commission surveyor, recommends that psychiatric hospitals or psychiatric units of general hospitals train staff in de-escalation. This involves using interpersonal skills to calm and relax patients in a difficult situation involving conflict or potential conflict. "All front-line staff should be trained in de-escalation and the application of restraints," he says. "Supervisors also should be trained in team leadership in dealing with these situations."

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