Predictors of Physical Restraint Use in Hospitalized Veterans at End of Life in the Acute Care Setting: An Analysis of Data from the BEACON Trial (TH318-C)

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Objectives
- Gain an understanding of the prevalence of restraint use in dying patients.
- Understand what patient characteristics and care processes place a patient at greater risk for being restrained at time of death.

Original Research Background: The use of physical restraints in dying patients should be limited to situations where patient death is unanticipated. Little is known about the prevalence or risk factors for restraint use at end of life.

Research Objectives: To determine the prevalence and predictors of physical restraint use at the time of death in hospitalized adults.


Setting/Participants: Data on the last seven days of life were abstracted from the medical records of 5,476 decedents from six Veterans Administration Medical Centers (VAMCs) in the southeast United States and from VA administrative databases.

Methods: Based on literature and expert clinical opinion, we prospectively identified potential risk factors for restraint use at the time of death from among all variables collected during the trial. Factors included location of death, medications given, nasogastric tube, intravenous (IV) fluids infusing, family presence at time of death, and receipt of a palliative care consultation. Generalized estimating equations, which account for correlation among patients within a site, were used to assess the relationship between each predictor and physical restraint use.

Results: Physical restraint use at time of death was documented in 890 decedents (16.3%). Restrained patients were more likely to have a nasogastric tube (OR, 2.30; p<.0001); and be receiving IV fluids (OR, 2.15, p<.0001), benzodiazepines (OR, 1.75; p<.0001), or antipsychotics (OR, 2.36; p<.0001). Use of restraints varied by location of death, with a higher risk associated with patients in intensive settings compared with decedents on medicine or surgery wards (OR, 1.7; p=0.006).

Conclusions: Factors associated with restraint use include therapies that may be disrupted by an agitated patient, care in intensive settings, and medications commonly used for delirium.

Implications for Research, Policy, or Practice: Further study should focus on interventions to reduce restraint use in dying patients.