Overview

Physical restraints are broadly defined as any physical device, material, or equipment that limits a patient’s deliberate bodily movement or normal access to their body (1). Typically, physical restraints cannot be controlled or removed easily (1). In clinical practice, the most common physical restraints are bedrails, bed and chair alarms, wrist and ankle mittens, lap belts, and chairs with fixed tables to prevent patients from rising (2). While estimates of physical restraint use vary widely in the literature, across countries, and across care settings, they are felt to be most utilized in hospitals and long-term care facilities. A population-based study across over 14,000 nursing homes in the US found the prevalence of physical restraint use among residents to be roughly 9% (3).

Why are physical restraints used?

The decision to utilize physical restraints is nearly universally made as a safety measure to prevent patients with cognitive impairment or delirium from harming themselves or others (4,5). Among patients with advanced illness, risk factors for physical restraint use include ICU-level care, use of medical devices (e.g., nasogastric tubes, intravenous lines), and use of anticholinergic medications or benzodiazepines (6,7). Among geriatric patients, agitation, impaired mobility, impaired cognitive status, and being a “fall risk” are recognized risk factors (7). Overall, minimization of fall risk and preventing medical device removal are the two most common reasons for use (8).

The impact of physical restraints

There is little evidence to suggest that physical restraints increase patient safety or reduce medical device removal (9-11). There is evidence of negative physical, psychological, and social consequences of physical restraints. Namely, physical restraints are associated with increased incontinence and pressure ulcers (12). They also appear to increase the risk of delirium and agitation, leading to an increased use of psychoactive drugs and longer hospital stays (12-16). Moreover, patients who have been physically restrained are more likely to experience nightmares, avoidant behavior, and PTSD symptoms as well as a sense of vulnerability and a loss of dignity (12-15).

How can clinicians minimize the use of physical restraints for patients at the end of life?

Physical restraints continue to be overused for patients with advanced illness due in part to staffing challenges and misperceptions that these restraints are necessary for patient safety. At a bare minimum, if physical restraints are used, it should be the least restrictive, yet effective restraint and for the shortest duration possible. Furthermore, their use should trigger the clinical team to reassess the clinical situation and care environment for any modifiable factors which may be contributing to their use (e.g., loud noises at night). The following evidence-based approaches may reduce the need and duration of use (17).

- **Educate clinicians on the appropriate use of physical restraints, as well as their potential negative impacts.** Recent work has shown 4-hours of staff education to be an effective means of changing clinicians’ attitudes regarding physical restraints and ultimately decreasing their utility, without increasing the incidence of falls, injury, or psychoactive drug use in elderly patients (17,18).
- **Provide specific nurse “restraint reduction coordinators” for care units with a high prevalence of patients with cognitive impairment and delirium.** A 2016 study suggested that in nursing home settings, these clinical roles can help minimize the need for physical restraints (18).
- **Utilize a 1:1 care person for better supervision.** Consider admission to a more supervised setting (e.g., hospital, inpatient hospice unit) if staffing is not available for 1:1 in the current environment.
- **Utilize best non-pharmacologic and non-physical strategies to minimize end-of-life delirium, such as frequent reorientation, enabling/encouraging the presence of familiar family members or loved ones, promoting a healthy sleep-wake cycle, and maintaining access to glasses and hearing aids.**
- **Limit the use of potentially inappropriate medications for the elderly (e.g., STOPPFrail).**
- **Identify and manage treatable symptoms like pain, anxiety, constipation, and urinary retention which can lead to the use of physical restraints.**
- **Since physical restraints often are used in part to protect the patient from the removal of medical equipment (even in end-of-life care), clinicians should continually evaluate the goals of medical care and the need for each medical device (6). For instance, perhaps the clinician’s assumed goals of life-prolongation are not the primary goals of care of the patient’s surrogate after a thorough discussion of...**
the patient’s underlying illnesses. Should goals of care then transition to comfort, medical device use may no longer be necessary if medications can be given sublingually or subcutaneously rather than enterally or intravenously (4,5).

- **Perform regular interdisciplinary care rounds** to promote better collaboration between the bedside nurses, pharmacists, clinicians, specialists, etc. as well as review the need of medical devices and physical restraints. When appropriate, consider alternative approaches (6).

- In instances where a reversible cause of delirium is unidentifiable and delirium poses a significant risk of harm to self or others, the use of chemical or pharmacologic restraints as opposed to physical restraints may be necessary. For more information on the pharmacologic management of delirium, please refer to Fast Facts #1, 60, 315 and 397.

**Summary:** The use of physical restraints in cognitively impaired patients facing serious illness or EOL should be limited only to situations that are necessary for safety. Their use should trigger clinical teams to reevaluate better strategies. Shared decision-making and regular dialogue within the interdisciplinary team can minimize the use of physical restraints in patients with life-limiting illness.

**Acknowledgements:** This article is dedicated to a shared patient, with hopes of improving the care of other hospitalized patients near the end of life.

**References:**


2. O'Keeffe ST. Physical restraints and nursing home residents: dying to be safe?. *Age Ageing*. 2017;46(4):536-537. doi:10.1093/aging/afx014


Authors’ Affiliations: 1Yale New Haven Hospital, Yale School of Medicine, New Haven, CT 2Department of Internal Medicine, Yale School of Medicine, New Haven, CT 3Department of Medicine, VA Connecticut Healthcare System, West Haven, CT 4Smilow Cancer Hospital, New Haven, CT

Conflicts of Interest: The authors have no conflicts of interest to disclose.

Version History: first electronically published in April 2023, originally edited by Sean Marks MD

Fast Facts and Concepts are edited by Sean Marks MD (Medical College of Wisconsin) and associate editor Drew A Rosielle MD (University of Minnesota Medical School), with the generous support of a volunteer peer-review editorial board, and are made available online by the Palliative Care Network of Wisconsin (PCNOW); the authors of each individual Fast Fact are solely responsible for that Fast Fact’s content. The full set of Fast Facts are available at Palliative Care Network of Wisconsin with contact information, and how to reference Fast Facts.

Copyright: All Fast Facts and Concepts are published under a Creative Commons Attribution-NonCommercial 4.0 International Copyright (http://creativecommons.org/licenses/by-nc/4.0/). Fast Facts can only be copied and distributed for non-commercial, educational purposes. If you adapt or distribute a Fast Fact, let us know!

Disclaimer: Fast Facts and Concepts provide educational information for health care professionals. This information is not medical advice. Fast Facts are not continually updated, and new safety information may emerge after a Fast Fact is published. Health care providers should always exercise their own independent clinical judgment and consult other relevant and up-to-date experts and resources. Some Fast Facts cite the use of a product in a dosage, for an indication, or in a manner other than that recommended in the product labeling. Accordingly, the official prescribing information should be consulted before any such product is used.