



Australian Society for Geriatric Medicine

Position Statement No.2

Physical Restraint Use in Older People

Revised 2005

1. Physical restraint may be defined as any device, material or equipment attached to or near a person's body and which cannot be controlled or easily removed by the person, and which deliberately prevents or is intended to prevent a person's free body movement to a position of choice and/ or a person's normal access to their body.
2. The application of physical restraints has been commonplace in the management of a range of challenging behaviours in hospitals and residential care facilities. These include wandering, aggression, and interference with medical equipment.
3. The use of physical restraint in both acute and long term care settings is not supported by evidence of efficacy or safety. Thus, the decision to use an intervention of little proven benefit but which has the potential to cause harm has clear ethical, legal and clinical implications.
4. There is a growing body of evidence regarding the negative consequences of restraint use including physical, psychological and ethical problems.
5. Consideration of the use of restraint should be a stimulus for a thorough assessment of the individual, focusing on identifying the underlying cause(s) of the behaviour(s) of concern including physical, psychological, social and environmental considerations.
6. The decision to use restraints should be a collaborative decision involving the individual or their surrogate decision maker, nursing staff, medical practitioner, and other relevant healthcare providers.
 - a. The individual should be allowed to make a decision regarding treatment or an intervention after full explanation of the indications and potential risks.
 - b. In those who lack the capacity to make such a decision, an appropriate surrogate or proxy decision maker should be consulted.
7. The decision to use physical restraints should include:
 - a. Review of the individual by a medical practitioner and
 - b. Documentation of the rationale for restraint use and its intended duration
 - c. Documentation of alternatives to restraint use considered.
8. Medical practitioners should assume joint responsibility for the use of restraining devices on their patients. They should be involved in the decision to restrain, provision of relevant education, formulation of policies, and the development of procedures that promote alternatives to restraints.
9. Physical restraints may be used in emergency situations when a patient's behaviour poses a danger to themselves or others and no alternative is available.
 - a. Patients who are at risk to themselves or others because of agitated or aggressive behaviour, or through wandering, are best managed in specialised units with a locked area, rather than by physical restraints.
 - b. The use of physical restraints should not be a substitute for inadequate staffing, surveillance, or unsuitable environment for the individual's appropriate care.
10. Physical restraints must be used only by health care providers who are trained in its proper application and monitoring. Restraints must be used only on a time-limited basis, with regular monitoring of the individual throughout the period of usage.
 - a. Physical restraints should be checked every 30 to 60 minutes, and each limb should be removed from the restraint at least once per hour.
 - b. The individual should be examined every 3 or 4 hours for the development of adverse effects (eg. pressure sores, abrasions) and attention to the need for hydration, elimination, comfort and social interaction must be assured.
11. Institutions must have written policies for physical restraint use.
 - a. These should include guidelines for consent, permitted types of restraints, physician orders, monitoring requirements, and examination of all possible alternatives.
 - b. Management should be individualised within the policy framework of the institution.
12. Restraint minimisation and improved practice is encouraged by Australian accreditation requirements in health and aged care settings. Some progress toward this end may be occurring but studies based on quantitative data are needed to inform this process.
13. An effective culture of restraint minimisation requires education, attention to staff attitudes, expert consultation, a multidisciplinary approach, valid quality indicators, and appropriate architectural design. This is an evolutionary process that will be dependent on adequate resource allocation.

This Position Statement represents the views of the Australian Society for Geriatric Medicine and was approved by the Federal Council of the ASGM on 19 June 2005. The revision of this paper was coordinated by Drs Barbara Sabangan, Benny Katz and Professor Leon Flicker.

BACKGROUND PAPER

Restraint may be classified as physical or chemical (pharmacological). Physical restraint may be defined as any device, material or equipment attached to or near a person's body and which cannot be controlled or easily removed by the person, and which deliberately prevents or is intended to prevent a person's free body movement to a position of choice and/ or a person's normal access to their body.¹ Restraints include, but are not limited to, vests, belts, mittens, wrist and ankle restraints, gerichairs and bed rails. Chemical restraints are often used in conjunction with physical restraints, however, because of the different modes of action of physical and chemical restraints, further discussion is limited to the use of physical restraints.

Data on the prevalence rates of physical restraint use are limited and vary widely. The prevalence of restraint use in the United States has been reported at between 3.4-17% in acute care hospitals^{2,3} and 12- 47.8% of nursing home residents.^{4,5} These figures contrast with those seen in the United Kingdom and much of Europe, where the use of restraints is generally condemned, with rates of use < 10%.^{6,7,8} The use of physical restraints in Australia has not been well documented. One study involving four Australian hospitals found the proportion of patients restrained ranged from 8.5-18.5%.⁹ A national survey of nursing homes in 1998 found that the use of physical restraints ranged from 15-30%.¹

The actual rates of restraint use may be higher than reported in these studies. Many prevalence studies do not include data from periods of lower staffing when the use of restraints may be higher, for instance weekends, late evening, or overnight shifts.^{2,10,11} A recent study by Bournnonniere¹² examined the relationship of staffing levels in terms of total staff numbers and skill level, on physical restraint use. Controlling for advanced practice nurse intervention, age and behavioural characteristics, there was increased restraint use related to weekend staffing ratios; both total staff-patient and registered nurse-patient ratios.

Irrespective of the setting, the use of restraints has been shown to increase in relationship to the age of the patient and the level of cognitive impairment.^{6,13} In a review of the literature, Evans & Strumpf⁶ identified predictors of restraint use that could be divided into two main groups, patient factors and system factors. Patient related factors included age and cognitive impairment, risk of injury to

self or others, physical frailty, presence of a monitoring or treatment device, and the need to promote body alignment. System related factors included avoidance of litigation, staff attitudes, levels of staffing, and availability of restraint devices. Macpherson et al¹⁴ surveyed the general medical wards in an acute care hospital and found that nurses initiated the use of physical restraints in 76% of patients, in whom physicians had written orders for only 28%, and 15% of attending physicians were unaware that their patients had been restrained. Furthermore, there was poor agreement between the nurses and physicians concerning the reasons to restrain, and poor documentation.

Perceived Benefits of Restraint Use

The application of physical restraints has become commonplace in the management of a range of challenging behaviours in hospitals and residential care facilities. These include wandering, aggression and interference with medical equipment. In addition, restraints have been used in those at risk of falls, to reduce the risk of litigation, and to address inadequate staffing levels.^{6,7,15,16}

The benefit of any intervention should outweigh the risk. There is little evidence to indicate that the use of restraints is beneficial for the reasons commonly cited for its use. On the contrary, there is a growing body of evidence regarding the negative consequences of restraint use including physical, psychological and ethical problems.

The short term use of restraints may be justified to maintain medical treatment and devices, particularly during an acute episode, however, they are not foolproof. Restraints may not prevent patients from pulling out invasive lines nor prevent self-extubation.¹⁶

Patient falls represent a major cause of adverse hospital incidents, with individuals 65 years and older experiencing the majority of these falls.¹⁵ A commonly held belief is that the use of physical restraint will prevent such falls. However, restraints seldom eradicate falls or the risk of injury from falls.⁶ Furthermore, restraint use may be associated with an increase in serious injury such as fractures when there is an attempt to free oneself from the restraint device.¹⁷ Studies also suggest that following restraint minimisation programs there may be an increase in the number of minor injuries, but the number of serious injuries remains constant or declines.^{13,18,19} This should not be surprising as restraints may actually contribute to falls by causing deconditioning, muscle wasting or contractures, sensory deprivation and exacerbating underlying gait

abnormality.¹⁶ These findings contradict the rationale of justification for restraining people for their protection and safety.¹³

Restraints are often used in individuals who are confused or agitated. However, the application of restraints often exacerbates this behaviour²⁰ which may improve once restraints are removed.²¹ Studies have demonstrated a correlation of cognitive decline with restraint use^{4,21} and physical restraints may also have a considerable emotional effect. Many patients report feelings of anger, withdrawal, emotional desolation, discomfort, and fear.²⁴ The emotional sequelae may also extend to their family.^{22,23}

In the acute care setting, restrained patients are often severely ill and may require the use of restraint devices to ensure life sustaining treatment. There is a correlation between restraint use and complications in hospital such as falls, nosocomial infections, greater severity of illness, longer lengths of stay and higher rates of nursing home discharge.^{2,12,25} It is often difficult to distinguish the effects of restraint use and the severity of illness in determining the cause of the increased morbidity and mortality.¹⁰

Perhaps the most compelling argument against the use of restraints involves the very real risk of death. Several studies show an association between the use of restraints and death.^{2, 10, 26} Deaths linked directly to the use of physical restraint such as strangulation or asphyxiation have been reported. Miles and Irvine²⁶ estimated that at least 1 in every 1,000 nursing home deaths was the direct result of restraints. Deaths associated with restraints are likely to be underreported. Robbins et al¹⁰ found that 24% of restrained patients died during hospitalisation compared to 3% of those not restrained. Studies in acute care settings that show a higher mortality rate in those restrained fail to define the cause of death in such patients.^{2, 10, 25} Death may have been an indirect result of restraint use, following a fall, fracture, or nosocomial infection, or alternatively, the result of the reason for restraint use. Certainly there is a bias in the literature to report adverse outcomes that cannot be ignored. More studies are required to describe and quantify the potential risks of restraint use.

A common argument is that the use of restraints is unavoidable at times of low staffing levels.⁷ The use of restraint as a substitute for adequate supervision cannot be condoned. A cross cultural study by Evans & Strumpf²⁷ involving nursing facilities in Britain and the United States did not support the inverse association between staffing levels and restraint use. The use of restraints

was almost six times more frequent in nursing homes in the United States, although staffing levels were similar in both countries. Restraining patients actually requires increased nursing time to comply with requirements for regular monitoring, release, and documentation.¹⁵ Restraint minimisation can occur without an increase in staffing levels.²⁸

Ethical and Legal Issues

Ethical dilemmas arise concerning the use of restraints. Physicians are motivated by two competing ethical obligations: duty to respect the autonomy of those in our care, and the duty to protect those in our care. Plueckhahn, Breen & Cordner²⁹ defined autonomy as the right of individuals to make decisions on their own behalf. The principles of beneficence (doing what is best) and nonmaleficence (duty to do no harm) may conflict with the patient's expectation of autonomy. Thus, the decision to use an intervention of little proven benefit but which has the potential to cause harm has clear ethical, legal and clinical implications. Individuals have an expectation to be cared for without risk of harm from other patients or residents, and staff have a right to expect a safe work environment. The use of physical restraint cannot be ethically justified on the basis of limited staffing levels, a dilemma well known to the Aged Care sector. Service providers often provide care in suboptimal circumstances with inadequate numbers of appropriately skilled staff, or in environments not conducive to optimal care. Thus the use of restraints may reflect systemic problems rather than failure of the individual staff member providing the care.

Weiner³⁰ exposed the discrepancy between the manner in which nurses perceive the use of restraints in an idealistic situation and in a realistic situation, with a greater tendency to use restraint in the realistic situation. This highlighted the conflict between the personal beliefs of the nursing staff and the nurses' perception of their institutional obligations.

There is a common perception that the use of physical restraints can avoid legal liability. Evidence suggests that failure to restrain is rarely a negligent act.^{6, 31} Their use may actually increase the risk of litigation. Several successful lawsuits have been based on the misuse or overuse of restraints, including misapplied restraints, or failure to monitor restrained patients.³¹ The risk of liability should not be the determining factor in health care decision making.

Restraint Minimisation

Only one RCT has evaluated restraint minimisation.²⁸ The results of this study together with those of several non RCT studies suggest that restraints can be safely reduced.^{19, 21, 32, 33, 34, 36, 37, 38, 39} These studies illustrate the complexity of the issue including the need to review staff attitudes, health care practices, and resource allocation priorities. The most common approach to restraint minimisation has been through the use of interventions that replace physical restraint devices or reduce the need for these devices.¹³ These programs have been multifaceted, combining education, expert consultation, policy change and appropriate architectural design.

While there have only been a small number of studies in the acute care setting,^{34, 38, 40} it appears that the reduction in restraint use in this setting is not as great as has been achieved in residential care facilities.^{19, 21, 28, 33, 37} In residential care, restraint reduction may also be sustained over a number of years. Levine et al³³ reported a decrease in the prevalence of physical restraint from 39% to 4% over 3 years through educational programs and policy change that was not accompanied by an increase in the rate of falls, accident related injuries, nor an increase in the use of psychotropic medications. Similarly, a randomised control trial by Evans et al,²⁸ demonstrated that a restraint education program in combination with expert consultation led to a 18% decline in restraint use without increasing the levels of staff, serious injuries, or psychoactive drug use. Several studies further illustrate that physical restraint reduction can be achieved without a concomitant increase in psychoactive drug use.^{19, 33, 34, 35}

Imperative to achieving restraint minimization is identifying alternatives to restraint use. While many restraint alternatives have been cited in the literature, few have been rigorously evaluated.¹³ A number of studies have demonstrated that the use of physical restraints can be reduced using a variety of interventions, however it has not yet been determined which interventions are effective. The following broad categories summarise the potential restraint alternatives:^{13, 41}

- Environmental considerations eg secure wards⁴², appropriate lighting³⁸
- Improved bed safety eg low beds⁴³, non-slip strips on floor by bed²¹
- Seating and position support eg recliner instead of gerichair⁴³
- Activities and programs eg physical, occupational and recreational therapies^{21, 43}

- Toileting and continence eg regular toileting³⁸
- Alterations to nursing care eg individualized person centred care³⁷, call bell within reach⁴³
- Psychosocial considerations eg familiar staff³⁸, reality orientation⁴⁴
- Physiological considerations eg treatment of cause of delirium³⁸, decreased sensory stimulation⁴⁴
- Alarms eg bed, chair or wrist alarms for cognitively impaired^{18, 37}

Management should be individualised within the policy framework of the institution.

Although not reflected in current scientific literature, there is anecdotal evidence that there is increasing awareness of the risks associated with physical restraint use in Australian hospital and residential care services. There is an urgent need for quantitative Australian data about current patterns of restraint use and about whether evidence-based alternatives to physical restraint are being appropriately exhibited.

Conclusion

Published studies indicate that the prevalence of physical restraint use in both acute and long term care settings remains significant but is not supported by evidence of efficacy or safety. Restraints may be necessary in an emergency situation for the immediate safety of the patient, but the majority of times, they are used to manage behaviours of concern such as wandering and aggression, in addition to preventing falls. In these circumstances the use of physical restraints provides no clear benefit, but does have the potential to cause serious injury, both psychological and physical, and even death.

These guidelines are based on the evidence available, and on published guidelines for the use of physical restraint. They focus on the needs of the individual, other individuals with whom that individual may be in contact, and the staff who provide care for them. Restraint use may vary between settings, but should be determined by the needs of the individual in that setting, and not by inappropriate protocols or limitations imposed by the setting. Restraint minimisation involves a process that requires commitment and participation of all members of the health care team. Medical practitioners should assume more responsibility for the use of restraining devices on their patients including the decision to restrain, provision of relevant education, formulation of policies, and the development of procedures that promote alternatives to restraints.

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