A restraint is any device or intervention that limits the freedom of a patient. The use of restraints produces a constant tension between patient rights and patient safety. The widespread use of restraints with the elderly was a major stimulus for OBRA legislation.

Research shows that increased use of restraints increases overall expense. There is no scientific evidence that restraints will reduce the likelihood of harm to elderly patients. Since the implementation of OBRA regulations, the use of restraints has declined in nursing homes. Restraints are divided into chemical and physical. A medication becomes a restraint when the effect is sufficiently severe to limit a patient's activity -- either from sedation or drug-induced motor side effects. Gait problems occur in 8% to 19% of individuals over age 65 and 38% over age 85.

Each year, between 30% and 60% of nursing home patients fall and 10% of those individuals will sustain a significant injury. Restraints were commonly used in medical settings and previous studies have shown that 30 - 50% of nursing home residents have been restrained and 8% to 17% of medical inpatients. Restraints are used for a variety of reasons including protecting the patient, protecting other patients, protecting the staff, staff convenience, family request and for no discernible reason. The degree of physical restraints can vary from bean bag chairs that use gravity to secure the frail elder in the recumbent position through 4-point leather restraints used for extremely agitated patients. Devices such as mittens, helmets and bed rails can be considered restraints. Studies show that the degree of physical or verbal aggressions and the patient's unpleasantness predict duration of restraints. There should be a comprehensive evaluation to show the need for restraints and to ensure the least restrictive restraint is used and monitored appropriately.

OBRA regulations mandate that nursing homes attempt to achieve a restraint-free environment. This goal may never be met consistently in any facility.

Restraints are divided into two categories -- medical and psychiatric. The devices used to secure the patient are the same but the purposes are different. Medical
immobilization includes restraining patients to avoid pulling endotracheal tube, IV line or falling out of bed if the patients suffer from severe dementia and gait apraxia. Psychiatric restraints include tying patients down to avoid fighting, assault or dangerous behavior. Both types of restraints require careful monitoring. Psychiatric restraints incur great scrutiny in the hospital setting. Nursing home inspectors do not always distinguish medical from psychiatric restraints.

Studies show that up to 75% of restraints are ordered by nursing staff and 15% of restraints are applied without the knowledge of responsible physicians. Nurses order restraints but physicians assume responsibility for their consequences. Nurses and physicians often disagree on the reason for restraints. The decision to restrain a patient mandates a team decision that includes opinions of the physician, the nursing staff, the patient and the patient's family based on the comprehensive evaluation.

**TARGET SYMPTOMS**
The use of a physical restraint is similar to that of psychotropic medications and requires a clearly defined target symptom, consideration of alternative therapies, a titrated level of restraint, assessment of side effects, consideration of restraint reduction and systematic monitoring of program effectiveness.

Target symptoms for medical immobilization include documented attempts to disrupt or remove medical devices essential to patient welfare and safety. Examples include removing endotracheal tubes, pulling PEG tubes etc., in a patient who is incapable of giving informed consent. Competent patients who demand the removal of medical devices have the right to discontinuation of therapy. Patients who engage in dangerous behavior as a result of cognitive impairment are also candidates for restraints (e.g., a gait apractic patient who attempts to walk producing falls that may fracture a hip). Psychiatric immobilization requires considerably more thought and documentation of target symptoms. Common annoying behavior such as wandering, rummaging, repetitive questions, disrobing and other non-injurious activities are poorly treated by physical restraints. Patients who manifest aggressive or hostile behaviors can be restrained as a last resort following documentation that valid attempts of less restrictive alternatives such as behavioral management and psychopharmacology have failed. The use of psychiatric restraints requires a clearly defined target symptom and documentation of less restrictive alternatives. Physical restraints can be used with dangerous patients until chemical restraints are effective. Patients who require prolonged use
of physical restraints for behavioral management should undergo inpatient geriatric psychiatric evaluation for diagnosis and pharmacological management.

Any type of restraint order must include a specific type of device. The least restrictive alternative is always chosen. Minimal research is available on the relative safety of each type of device. There are no reports of serious injuries or deaths in bean bags, geri-chairs, lap buddies and mittens. Waist and chest devices have significant potential for patient injury including patient strangulation. Staff must be trained on the appropriate application of each device and alerted to potential complications from inappropriate applications.

Nursing personnel commonly use restraints for legal, safety and financial reasons. Studies show minimal legal protection to nursing homes by restraining patients. Restraints are sometimes employed because administrators perceive that these devices reduce expenditures. Economics studies of restraints show increased long-term expenditures by nursing homes through the use of restraints unless staff ignores requirements for monitoring release and repositioning. Restrained patients require more staff time for documentation and monitoring as well as increased care and costs for the complications resulting from patient restraint. The studies clearly indicate that restraints are more expensive than behavioral management or other long-term interventions.

**COMPLICATIONS AND RESTRAINTS**

Patients suffer physical, physiological and psychological complications from restraints. Physical problems include decubiti, decreased range-of-motion, muscle loss and others. Physiological problems include diminished exercise tolerance, increased fluid loss, alteration of bowel function, weight loss and others. Psychological problems include humiliation, demoralization, isolation, agitation and increased confusion. The complications from restraints are divided into immediate and long-term. Immediate complications from restraints include injury, bruising, dehydration, rectal impaction, malnutrition, increased risk of falls, asphyxiation, and death. Studies indicate that one per thousand residents in nursing homes suffer from restraint-related death. Half of restraint deaths occur in bed and half in chairs. Elderly, demented females who attempt to escape restraints are most likely to die. The long-term complications of restraints include weight loss, muscle bulk loss, impaired gait, depression, isolation, loss of ADL function and increased pain.
Monitoring of side effects include assessment for complications from restraints such as circulation, impaired ventilation, dehydration, etc. The staff should identify problems rather than waiting for complications. Patients with multiple risk factors (e.g., confusion, low weight, poor nutrition, etc.) are of higher risk for complications.

APPLICATION OF RESTRAINTS
Restraints should be applied for a precise length of time and only when necessary. The symptoms of dementia often fluctuate on a daily or hourly basis. Some patients may be calm and cooperative in the morning and not require physical restraints to prevent harm but are combative in the evening (i.e., sundowning) where some restraint is indicated. Delirious patients often require some type of physical restraint. Delirium will clear within one to two weeks and restraints can be discontinued. Most behavioral problems arising from dementia are poorly treated by restraints. Restrained, demented patients generally become more agitated and more hostile as a result of the restraints. Demented patients often struggle in restraints with increased need for hydration and calories. No patient with dementia should be placed in restraints without a subsequent detailed assessment for the causes of agitation and aggressive behavior (See Behavior Management Book). Restraints are not an acceptable alternative for an effective fall prevention program, structured activities and staff training. Nurses restrain to prevent falls but long term studies indicate that restrained patients suffer injuries as often as non-restrained individuals. Gait impairment is usually worse following periods of restraints due to weakness, stiffness, increased confusion and muscle loss.

RESTRAINTS AT HOME
The use of restraints in the home situation is largely unstudied. Many advanced stage Alzheimer patients are restrained by family. Family members require education about application of restraints, potential complications and ways to minimize discomfort and distress for the patient. No regulations presently apply to the use of restraints at home for the elderly. The criminal justice system does not consider the good-faith application of restraints with impaired elders as a form of illegal incarceration, abuse or assault. The inappropriate use of physical restraining devices by family caregivers can be investigated as a form of abuse or neglect if it is used in a punitive manner or it exceeds the bounds of common sense. Most protective service workers and law enforcement officials are reluctant to prosecute any family member unless the judgment or behavior is clearly outrageous. Home health agencies are responsible for informing families about the
proper application, monitoring and potential side effects of physical restraints. There is no known case where a home health agency was held liable for the family restraining a patient. Home health agencies do have a responsibility to inform appropriate agencies when restraints are used in an abusive, exploitative manner.

QUALITY ASSURANCE
The Restraint Quality Assurance Program should monitor the rate, duration and types of restraints used in a facility. Large numbers of psychiatric patients in restraints suggests that the facility lack behavioral management programs. Large numbers of restrained patients also suggest under-staffing and poor patient supervision. The program should documentation of release and turning as well as staff education. Each restrained patient should have an initial note that documents target symptoms, consideration of less restrictive alterations, application protocol and long-term strategy to discontinue restraints.

EXAMPLE: Mr. Jones has dementia and frequently assaults other patients without warning in the evening. He is hallucinating and delusional. Staff will use lap restraints in afternoon and evening while doctor titrates neuroleptic. We will discontinue when he is less psychotic or refer to geropsych unit for stabilization.

ROLE OF EDUCATION
Studies show that nursing personnel identify restraints in over 80% of cases as the first option in managing behaviors that may have other solutions. Education for family and team management will increase awareness of alternative options. Administrators and facility lawyers must recognize that there are few successful lawsuits for failure to restrain but numerous suits from failure to supervise patients.

CONCLUSION:
Advanced dementia patients operate at an intellectual level of an 18-month old child. As the staff uses restraints, they should see how their 18-month old child would feel under similar circumstances.
REFERENCES


2. Luisa Skoble, MD., Use of Restraints in Nursing Homes, PRACTICE MANAGEMENT, p.11.


