



Seniors Health Strategic Clinical Network™

Restraint as a Last Resort

Elder Friendly Care

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Restraint As a Last Resort



- What type of restraints do you see commonly used?
- Why are the restraints used?

RESTRAINT POLICY

- 1) Physical
- 2) Environmental
- 3) Pharmacologic
- 4) Mechanical

- ✓ LEAST restrictive
- ✓ SHORTEST time
- ✓ LAST resort
- ✓ CONSENT

Alberta Health Services

The AHS Restraint as a Last Resort provincial policy describes 4 types of restraints

Physical: direct application of holding techniques to restrict movement

Environmental: barriers or devices limiting the patient's ability to move or confining them to a specific location

Mechanical: any device, material, or equipment attached to or near a patient which cannot be controlled or easily removed by the patient and which prevents a patient's free body movement and/or a patient's normal access to their body.

Pharmacologic: medications given to control behaviors and actions and/or restrict the freedom of movement – and not to treat a specific medical condition

The goal is to use restraint as a last resort. When absolutely necessary:

- Least restrictive, for example – smallest dose of a drug
- Shortest time: Remove the restraint as soon as possible
- Last Resort: Multiple alternatives to restraints should be attempted
- Consent: Involve the patient and/or alternate decision-maker in an informed consent discussion about risks, benefits and alternatives

Let's take a quick look at each type of restraint.

PHYSICAL restraint



Physical restraint is the direct application of physical holding techniques to a patient that involuntarily restricts his or her movement.

The most dramatic instances of physical restraint involve security, or every Nurse and HCA available at the moment. Physical restraint might be considered to move a person to a safe and quiet area. An alternative is to move patients and staff away from the person who is upset.

Physical restraint might be considered to return a person with dementia to their unit. An alternative is to address them by name, and walk with them, suggesting, “What if we turn here?” or “I think this is the way” or to invite them to have a cup of tea or coffee.

Physical restraint is sometimes considered during personal care, such as holding a patient’s hands. The ideal is to hold one hand gently and/or distract the patient by talking or singing with them. Holding one hand gently while helping the person feel safe is preferable to holding both hands more firmly – or multiple staff holding limbs.

It’s important to remember that physical force often causes the situation to escalate. This is especially true for persons with dementia, who aren’t able to interpret the situation as anything other than an assault.

ENVIRONMENTAL restraint



The policy defines environmental restraint as any barrier or device that limits the **locomotion** of an individual, and thereby confines an individual to a specific geographic area or location. Examples of environmental restraint include:

- Coded doors
- Wanderguard – e.g. alarms that sound when the person attempts to leave the unit or property
- Half doors
- Locked units

Environmental restraints can also be improvised e.g. chairs, stretchers across doorways to form a barricade

What could go wrong?

- Injury climbing over barricades or half doors
- Seclusion and loneliness
- Misperception - “Jail”
- Stress: fixation on the obstacle

Alternatives to environmental restraint include:

- Activities to reduce boredom
- Familiar articles (e.g. photo album, quilt) to provide a sense of comfort
- Socialization with other patients and/or staff to reduce isolation
- Regular assistance to the toilet
- Frequent walking/exercise to reduce restlessness and improve sleep

Keep in mind that the person is often looking for something familiar, comforting, nourishing, hydrating, interesting or friendly...

Clarification regarding locked units: if patients on locked units don't require environmental restraint, they can be given the code to leave at will, or the door can be opened at their request. In this case they aren't considered environmentally restrained.

MECHANICAL restraint



A Mechanical restraint is any device, material, or equipment attached to or near a patient which cannot be controlled or easily removed by the patient and which prevents a patient's free body movement and/or a patient's normal access to their body. Examples include:

- Soft limb restraints
- Chairs the person can't get out of (Broda, Geri)
- Back-fastening lap belts
- Chair trays
- Side rails

What are common reasons we use mechanical restraints?

Current practices for restraint use

82%	Protect from FALLS
59-72%	Maintain therapeutic devices (IV, Catheters, Dressings, sutures)
67%	Protect others from combativeness
65%	Confusion
22%	Prevent wandering
13%	Prevent from bothering other patients
12%	Encourage rest



Restraint is used for safety – this list shows the most common things we are trying to protect our patients from.

AHS is moving away from equating restraints with safety is a way of thinking that, because there are many harms associated with restraint.

Restraint is not the only way to think about safety. E.g. *“In the United Kingdom, physical restraints are not used on acute medical and surgical floors, except in very unusual circumstances.”* (Tolson)

Reference

1. Tolson, D. (2012). Physical restraints: Abusive and Harmful. JAMDA, 13(4); 311-313. [editorial]

Do restraints prevent falls?

Restraint use is positively associated with falls.

Res Theory Nurs Pract 2011
06;25(2):127-152

“Restraint use is associated with increased severity of injury in hospital patients who fall”

J Med Sci (2005) 174: 28



A large study followed over 7800 adults aged 60 or older through more than 10,000 hospitalizations. They concluded restraint use is associated with *more* falls (Titler 2011).

Another study concluded that restraint use is associated *with increased severity of injury* in patients who fall (Tan 2005).

Restraint use is associated with cognitive and physical decline:

“We examined eight mental and physical outcomes 3 months post physical restraint initiation. Even after controlling for prior health status and resident, facility, and market factors, we found that restrained residents are significantly more likely to exhibit low cognitive performance, low ADL performance, and more walking dependence than similar residents who are not restrained. The magnitude of the findings would suggest that the benefits to residents of not using restraints are substantial. (Enberg 2008)

References

1. Titler, MG. (2011). Factors associated with falls during hospitalization in an older adult population. *Research & Theory for Nursing Practice*. 25(2):127-152.
2. Tan, KM. (2005). Falls in acute hospital and their relationship to restraint use. *Irish Journal of Medical Science*, 174(3): 28-31.
3. Engberg, J. (2008). Physical Restraint Initiation in Nursing Homes and Subsequent Resident Health. *The Gerontologist*, (48)4: 442-452.

Protect medical devices?

ICU study found increases in:

- overall adverse events
- agitation
- delirium
- higher doses of opioids, sedatives, antipsychotics
- more extended use of antipsychotics
- ICU LOS
- Post-Traumatic Stress Disorder

Crit Care. 2014; 18(2): R46.

Mechanical restraint increased self extubation by 3.11 times

Am J Crit Care Sept 2008 vol. 17 no. 5 408-415



Tan, K.M., Austin, B., Shaughnessy, M. et al. Ir J Med Sci (2005) 174: 28

Often mechanical restraints are used to protect medical devices such as an intravenous or central venous line, chest tubes, oxygen tubing, dressings, drains....

Yet even in ICU, where the patients are more unstable and medical devices are critical, it's not necessary to use restraint. Alberta ICUs are using alternatives to restraint such simple activities to occupy the hands and mind: playdough, stress balls, white boards and markers, magnetic tiles.*

ICU studies showed that restrained patients needed more medications for pain, anxiety and sedation, and found increases in:

- overall adverse events
- agitation
- delirium
- higher doses of opioids, sedatives and antipsychotics
- more extended use of antipsychotics
- ICU LOS
- Post-Traumatic Stress Disorder

References

1. Luk, E. (2014). Predictors of physical restraint use in Canadian intensive care units. Critical Care, 18(2): R46.
2. Tan, KM. (2005). Falls in acute hospital and their relationship to restraint use. Irish Journal of Medical Science, 174(3): 28-31.
3. Chang, LY. (2008). Influence of physical restraint on unplanned extubation of adult intensive care patients: a case-control study. American Journal of Critical Care, 17(5): 408-41.

*Visit <https://www.albertahealthservices.ca/scns/Page13419.aspx> to learn more about the Critical Care Strategic Clinical Network Delirium Initiative.

The patient perspective:

*"I have done nothing to deserve this [restraints].
To think you fought a war – now I am a POW!"*

"I tried to untie my hands to resist. I think any human being would"

"I felt like a dog and cried all night"

Patients' coping strategies:

Think, pray, try to forget

Attempt removal

Request removal

Do nothing or give up

"After a while I gave up; I became a mouse"

Physical Restraint of Hospitalized Elderly: Perceptions of Patients and Nurses Nursing Research, MAY/JUN 1988 99



One study contacted patients by telephone a few weeks after discharge from acute care to ask how they felt about being restrained. Their comments are indicated on the slide.

When patients were asked how they coped with the restraint there was a range – some tried to remove the restraint or asked for it to be removed. A number stayed quiet, prayed or gave up.

Even when patients are delirious, they mind being restrained.

How do you feel about restraining patients?

In a study that examined the perceptions of bedside caregivers and their patients when restraints had been used, many caregivers described a conflict between personal feelings and their perception of professional responsibility.

Personal feelings:

- "Sometimes it bothers me when the patient can't understand..."
- "I feel like a jailer rather than a nurse"
- "I feel guilty at times because (I) take away the patient's freedom..."

Perception of professional responsibility

- "I'd rather use a restraint than have her fall."

References

1. Strumpf, NE. (1988). Physical restraint of the hospitalized elderly: perceptions of patients and nurses. *Nursing Research*, 37(3): 132-137.
2. Engberg, J. (2008). Physical Restraint Initiation in Nursing Homes and Subsequent Resident Health. *The Gerontologist*, (48)4: 442-452.
3. Myers, H. (2001). Nurses' use of restraints and their attitudes toward restraint use and the elderly in an acute care setting. *Nursing & Health Sciences*, 3(1): 29-34.

PHARMACOLOGIC restraint



Pharmacologic restraint is when medications are given to control behaviors and actions and/or restrict the freedom of movement – and not to treat a specific medical condition

Video
They're Waking Up



<https://globalnews.ca/news/2579062/theyre-waking-up-reducing-drugs-for-dementia-patients-yields-dramatic-results/>

Video
New Perspective



<https://www.youtube.com/watch?v=zeVBAg4fyMw&feature=youtu.be/>



These videos demonstrate what we are learning about pharmacologic restraint in the care of older adults.

The gentleman featured was first given an antipsychotics in acute care when he fought a nurse who tried to remove his shirt. By the time he was discharged from acute care he had lost his ability to walk, talk and feed himself, and was on approximately 30 medications. As his medications were reduced in Long Term Care, he regained his the ability to walk, talk and feed himself, and began to tell stories again.

The woman had been given an antipsychotic for constant calling out. Though she was in her late 90s when her antipsychotic was reduced, she not only stopped calling out, she regained her ability to feed herself, her breathing improved, and she was able to read her birthday cards and thank each guest personally for coming.

Medications used as PHARMACOLOGIC restraints

Antipsychotics

- Haldol (haloperidol)
- Risperdal (risperidone)
- Seroquel (quetiapine)
- Zyprexa (olanzapine)
- Abilify (aripiprazole)
- Largactil (chlorpromazine)
- Stelazine (trifluoperphenazine)

Antidepressants

- Trazadone

Benzodiazepines & other sedative/hypnotics

- Rivotril (clonazepam)
- Ativan (lorazepam)
- Xanax (alprazolam)

“Z drugs” & other medications

- Zopiclone
- Gravol
- hs sedation (at 2 am!)

These are some of the medications used as pharmacologic restraint.

These medications can also be used for other reasons. It's important to understand the reason the medication was prescribed.

Many of these medications are not recommended for older adults because of their effect on brain neurotransmitters which control thinking, mobility and physiological functions such as breathing, digestion and sleep.

Health Canada Advisories and Warnings (2002, 2004, 2005, 2015, 2016)

Risks of atypical antipsychotic use in dementia care include:

- ❖ Heart failure
- ❖ Sudden cardiac death
- ❖ Stroke
- ❖ Urinary retention
- ❖ Infection (mostly pneumonia: 60% increased risk)



Antipsychotics are frequently used as pharmacologic restraints for older adults. They not only have limited benefit in the treatment of responsive behaviours, they come with many risks and side effects.

Health Canada has issued multiple warnings of increased risks from antipsychotic medications.

This includes risk of death from

- Heart failure, sudden cardiac death, stroke and infection (mostly pneumonia).
- There is also increased risk of acute kidney injury and urinary retention

Antipsychotic medications can cause increased saliva – which may present as drooling or spitting - along with decreased ability to swallow. This increases the risk for aspiration pneumonia. Antipsychotics cause a 60% increase risk of aspiration pneumonia in the elderly

Reference

1. Knol, W. (2008). Antipsychotic Drug Use and Risk of Pneumonia in Elderly People. *Journal of the American Geriatrics Society*, 56(4): 661-666.

Potential Side Effects of Antipsychotics



- Confusion
- Agitation, restlessness
- Sleep disturbances
- Muscle stiffness, weakness, pain
- Difficulty urinating
- Nausea
- Hyper-salivation
- Falls



In the elderly, there's a high incidence of side effects for those on long-term antipsychotic therapy. A 2011 study showed that atypical antipsychotics advance cognitive decline by one year compared to placebo. (Vigen et al, 2011)

You can see from the side-effects listed, that many of these symptoms could result in decreased quality of life, along with increased discomfort and agitation. Many stories have emerged from the 170 LTC sites involved in the Appropriate Use of Antipsychotics project in Alberta:

- One man had 45 aggressive incidents per month – his antipsychotic hadn't been discontinued after a delirium. Once his antipsychotic was tapered and discontinued, he had no further aggressive incidents.
- Many residents who screamed and called out constantly became quieter after their antipsychotics were discontinued. They were able to have conversations again, and express their needs without frustration.
- A woman slept better and was easier to care for once off antipsychotics.
- Antipsychotics interfere with communication – some people mute for years begin talking again once off antipsychotics. One man on a harvest tour surprised everyone by calling out, "Turn the bus, I can't see!" Another resident surprised her caregiver by asking – out of the blue, "What are you doing?"
- Antipsychotics reduce the person's ability for social engagement by adding confusion, agitation, blurred vision and sedation. One man was able to recognize his wife again – on their anniversary – after his antipsychotic was discontinued.

In many cases, staff find it easier to care for older adults when they are not on antipsychotics.

Appropriate Use of Antipsychotics

Confirmed mental health diagnosis e.g. schizophrenia, bipolar depression

Psychosis: Distressing hallucinations and delusions

Significant physical aggression: limited effectiveness



There are therapeutic uses for antipsychotics. People with **chronic mental health conditions** such as schizophrenia may require long term use, though the dosage **may** need to be reassessed as they age. Antipsychotics may be used as adjunctive treatment in refractory depression, and for other chronic mental health conditions.

Distressing psychosis in dementia: antipsychotics are a last resort and a temporary treatment; needs change over time with disease progression.

Distressing psychosis in delirium: antipsychotics may cause, worsen and/or extend the duration of delirium.

Alternate strategies to antipsychotics for psychosis:

- Address underlying causes of delirium e.g. medication overload, dehydration
- Comfort and reassure
- Meet needs e.g. assist to the bathroom, provide fluids, settle with a warm blanket.
- Meet the person in their reality. One nurse “swept” a huge spider outside the room and took time to sweep in the corners and under the bed. The patient was noticeably relieved. Another patient saw a kitten on the bed and was worried the blankets were smothering it. The nurse gently placed the kitten in a box for safety.

Significant physical aggression: Health Canada has approved risperidone for “short term symptomatic management of inappropriate behaviour due to **aggression** and/or psychosis in patients with severe dementia” of the Alzheimer type.

- **Frequently not effective for aggression:** 5 to 15 people need to be treated for 3 months to see significant improvement in 1 person. Non-pharmacologic approaches and strategies are more effective. (See the AUA Toolkit for more information)
- Antipsychotics can cause serious and irreversible or fatal side effects for some types of dementia (e.g. Lewy Body, vascular or mixed dementias) Dementia diagnosis is verified by autopsy, so while the person is alive specialists can only make a best guess.

Reference

Schneider, LS. (2006). Efficacy and adverse effects of atypical antipsychotics for dementia: Meta-analysis of randomized, placebo-controlled trials. *American Journal of Geriatric Psychiatry*, 14(3): 191-210.

Antipsychotic Hazards



Extrapyramidal Symptoms

tremor, leaning, stiffness, jerky limb movements, swallowing problems

Tardive Dyskinesia

- painful muscle contractions of face, neck, tongue
- facial grimacing, lip smacking, tongue thrusting

Neuroleptic Malignant Syndrome

Diabetes, increased lipids

Akathisia

inner restlessness, need for constant motion



Other hazards of antipsychotics include:

- Increased risk of falls by causing muscle stiffness and weakness, tremors, shuffling gait, jerky movements, restlessness (extrapyramidal side-effects) blurred vision and orthostatic hypotension
- Diabetes, increased blood glucose and increased lipids.
- The lip-smacking and tongue thrusting of tardive dyskinesia may be irreversible.

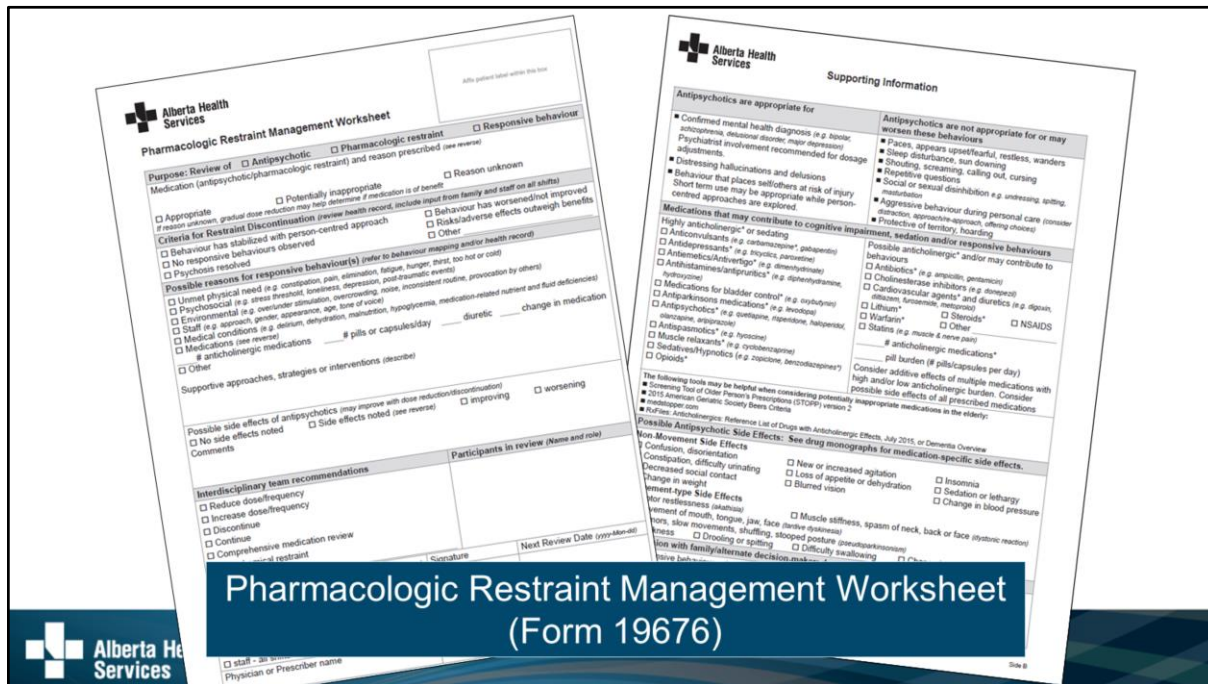
Akathisia – inner restlessness – can look like behaviour getting worse but is an indication we should reduce medications, not increase them. This side effect can also disrupt rest and sleep.

Other Safety Issues Related to Antipsychotics include:

- Extrapyramidal symptoms – risperidone, olanzapine
- Neuroleptic malignant syndrome – life-threatening
- Serotonergic syndrome
- Prolongation of QTC interval

References

1. Maher, AR. (2011). Efficacy and comparative effectiveness of atypical antipsychotic medications for off-label uses in adults: a systematic review and meta-analysis. *JAMA*, 306(12): 1359-1369
2. Devanand, DP. (2011). Consequences of antipsychotic medications for the dementia patient. *American Journal of Psychiatry*, 168(8): 767-769. [editorial]
3. Chahine, LM. (2010). The elderly safety imperative and antipsychotic usage. *Harvard Review of Psychiatry*, 18(3): 158-72.
4. Maglione, M. (2011). Off-Label use of atypical antipsychotics: an update. Comparative Effectiveness Review No.43. Agency for Healthcare Research and Quality, Publication No.11-EHC087-EF.



Pharmacologic Restraint Management Worksheet (Form 19676)

This is a resource that can assist with the assessment of patients who have responsive behaviours and/or many medications.

A medication review considers:

- Pill burden (# of pills)
- De-prescribing of potentially inappropriate medications (PIMS)
- Medication administration times (don't interrupt sleep, fewer meds, fewer admin times e.g. 3 times per day)
- Underlying and/or unmet needs such as pain, constipation, loneliness and "dignity distress" (e.g. privacy, personal space)

Medication review is different from Medication Reconciliation.

To complete medrec we check:

- correct medication? (spelling - diphenhydramine vs dimenhydrinate)
- check decimal placement
- check doses (micrograms or milligrams.)

Medrec helps catch transcription errors but does not encourage people to question whether a medication is potentially inappropriate.

Restraint as a Last Resort – Key Points

- ✓ Last resort - Try other strategies first
- ✓ Least restrictive
- ✓ Shortest time (discontinue at earliest opportunity)
- ✓ Informed consent discussion

Always consider the risks and hazards of restraint use



Using restraint as a last resort requires new knowledge and skill. Changes to care environments and routines may also be required.

Elder Friendly Care resources support staff to adopt and adapt practices e.g.

- Look for alternatives by getting to know the person, e.g. talk to family/alternate decision maker, staff and/or the sending facility
- Develop a person-centered care plan with consistent approaches and strategies to prevent and manage responsive behaviours, and to maintain cognitive and physical function.
- Behaviour mapping and medication assessment to identify underlying reasons for responsive behaviours, in order to develop a person-centred care plan.
- Support of sleep
- Prevention and management of delirium.

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