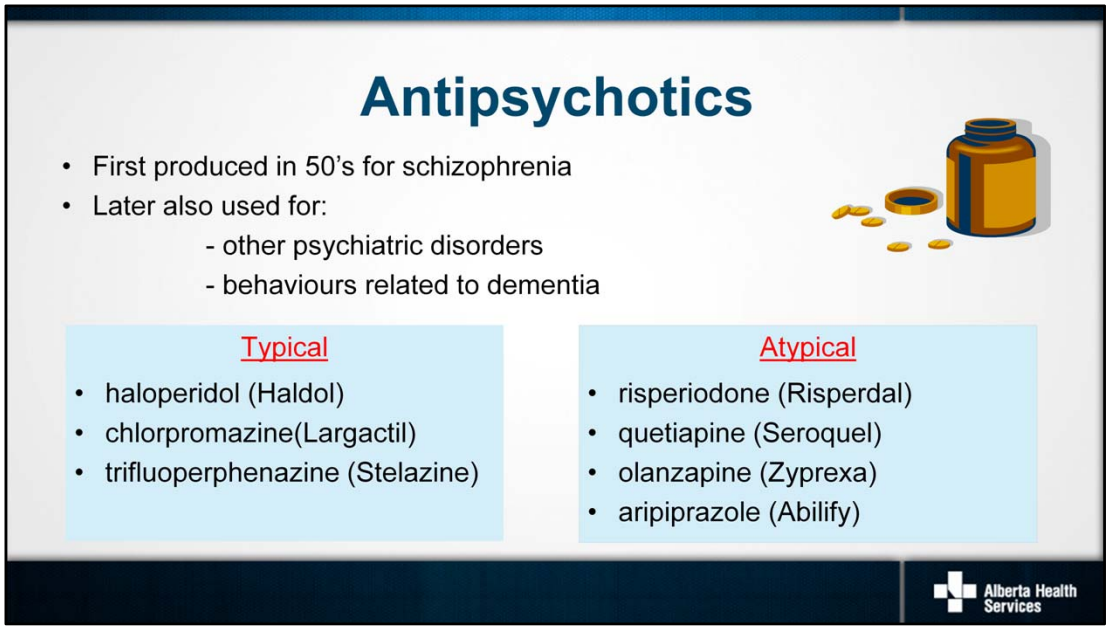
Alberta Health Services

Appropriate Use of Antipsychotics in Dementia

What is all the fuss?

Seniors Health Strategic Clinical Network
in Collaboration with
Addiction and Mental Health Strategic Clinical Network



Antipsychotics are a class of medications developed in the 1950's to treat the symptoms of schizophrenia, enabling people with this illness to live in the community

Typical antipsychotics such as Haldol and Largactil came to be used for some of the symptoms and behaviours of dementia.

Concern developed regarding side-effects such as tardive dyskinesia (a movement disorder that can be permanent).

When atypical antipsychotics **were introduced in the 1990's**, it was believed they had fewer side-effects.

Over time, we learned they don't have fewer side-effects - just different side-effect profiles. As the use of antipsychotics grows, so do reports of harm.

Aripiprazole is the newest atypical antipsychotic and is considerably more expensive than the generic second-generation atypical antipsychotics. Utilization and popularity of this newest antipsychotic is growing, unfortunately without outcome related evidence. It's expected that reports of harm will also accumulate with aripiprazole.

There is a recent tendency to revert back to Haldol and other typical antipsychotics, which are NOT safer, in light of a growing number of Health Canada alerts regarding atypical antipsychotics.

It's important to emphasize this is not an initiative to eliminate antipsychotics but to use antipsychotics appropriately.

People with **chronic mental health conditions** such as schizophrenia or Huntington's Chorea likely 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.

Antipsychotics may also be helpful in **distressing psychosis** - Dementia itself may cause a distressing psychosis –in this case, antipsychotics are a temporary treatment, as needs change over time with disease progression.

Brief psychotic disorder – may be related to delirium. In this case treatment might only be for a few days to a week, until the underlying cause of delirium, such as infection, is treated.

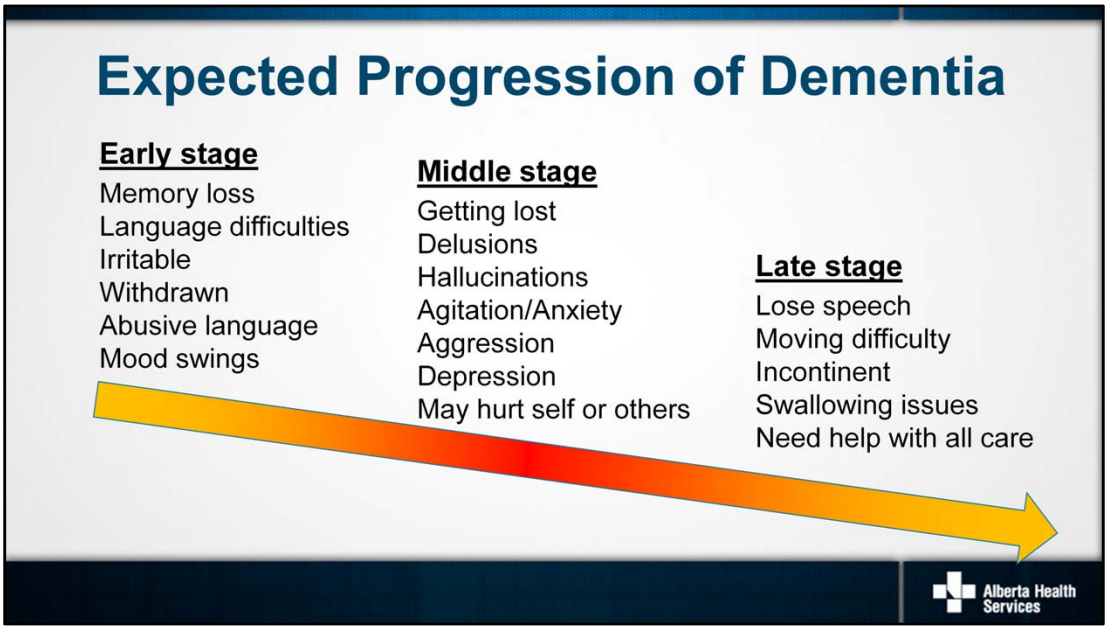
Health Canada has approved risperidone for short term symptomatic management of inappropriate behaviour due to **aggression** and/or psychosis in patients with severe dementia of the Alzheimer type.

Antipsychotic treatment for some types of dementia (e.g. Lewy Body, vascular or mixed dementias) can cause serious and irreversible or fatal side effects.

Short term management of physical aggression means months, not years. For this purpose, the antipsychotic medication is considered a chemical or pharmacologic restraint to reduce risk of injury. While the person is being restrained, the goal of the care team is to assess and address **underlying** reasons for agitation and aggression.

Antipsychotics only *sometimes* improve aggression: In the study noted below they found that (for every 5-14 people treated for aggression associated with dementia over 3 months, only 1 will improve with antipsychotics)

Reference: (NNT 5-14 for 3 months) Schneider LS, Dagerman K, Insel PS. Efficacy and adverse effects of atypical antipsychotics for dementia: Meta-analysis of randomized, placebo-controlled trials. Am J Geriatric Psychiatry 2006;14:191-210.



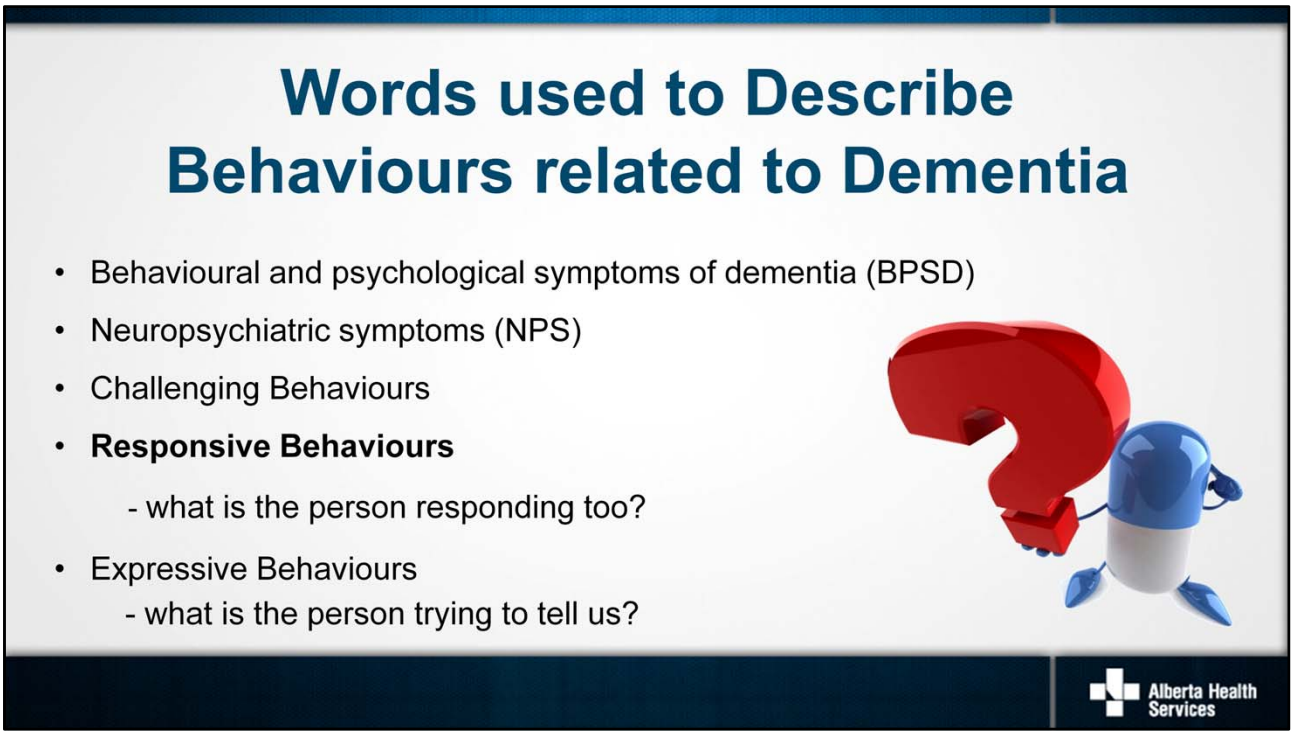
This Slide shows the progression of cognitive loss and behaviours common in Alzheimer's disease.

It's important to note that needs and behaviours change over time and should be frequently reassessed.

Responsive behaviours are often more common in the early to middle stage especially when people are aware they are losing their independence.

Cognitive changes are very frightening to older adults.

It is noted that as the dementia disease progresses there are often changes in behaviour – this is why ongoing timely assessments and adjustments in person-centred care and medications must be considered.



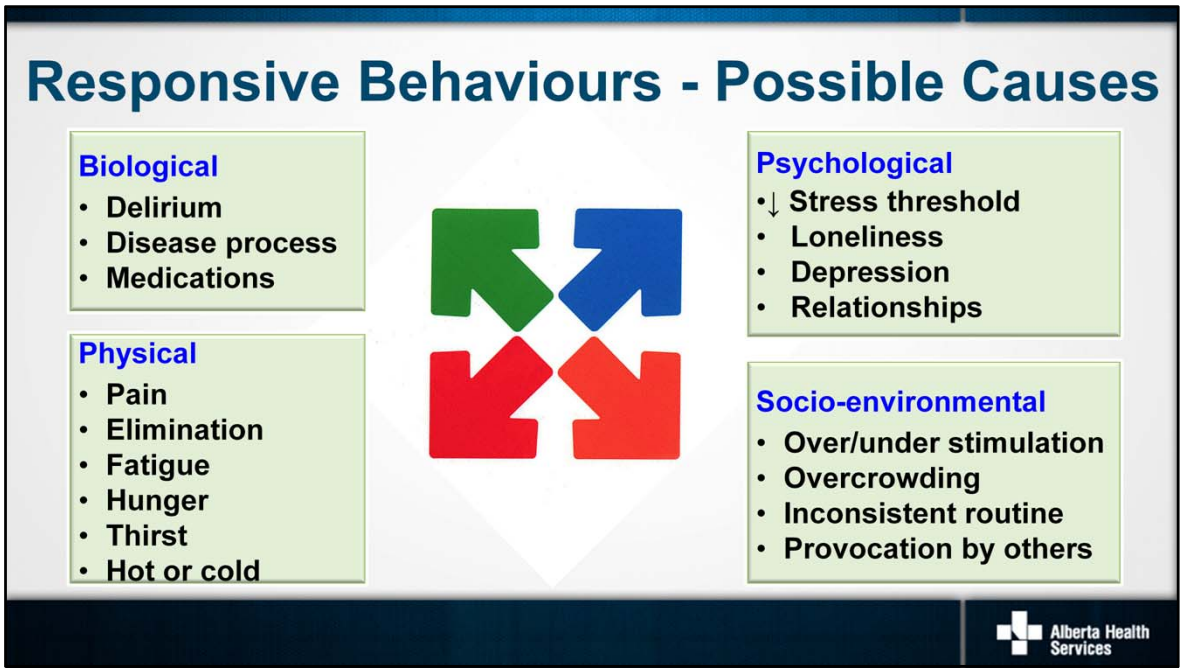
The behaviours in dementia present many challenges – behaviours such as agitation, aggression, anxiety, crying, wandering, hoarding, rummaging, calling out and exit-seeking

They've been called challenging behaviours… or behaviours that challenge

The term "responsive behaviours" reminds us these behaviours are in response to something, and is in alignment with more person-centred language.

Responsive Behaviour - Are they responding to our approach, an unmet need that they can't communicate to us (e.g. hunger, need for the bathroom), their frustration, depression, the environment (e.g. noise) or something physical like illness or pain?

Expressive behavior is a term shared by David Sheard from the UK



Persons with dementia often lose their ability to communicate. They're aware of discomfort, pain, hunger, or an urgent need to find the bathroom – but may be unable to connect meaning to the sensation, or to describe their needs to others. This results in agitation and other responsive behaviours.

If we merely suppress the behaviour, we may miss the underlying cause or reason, which may be biological, physical, psychological or socio-environmental.

Here are some examples of causes of responsive behaviours:

- Medication side-effects: A very anxious resident had 14 of her medications reduced or discontinued, and the underlying problem became apparent: she was bothered by hemorrhoids! Once she was on 3 appropriate medications, she became calm.

- One woman wasn't able to say "I'm hungry", but led her care manager to the dining room where she retrieved a banana.

- Another person started yelling every afternoon at 1400 until a staff member discovered she was only trying to get to her room for a rest.

- People may feel lonely, bored or have lack of purpose. One care centre now has work stations set up, where residents can stuff envelopes or remove caps from bottles for recycling.

- Residents may also feel anxious at shift change when there is more noise, and more people. Or they may find the ringing of bed and chair alarms stressful.

- When people feel lonely, uncared for and cut off from important relationships, they're more likely to have responsive behaviours. One of the key interventions to reduce responsive behaviours is social engagement.

- **We always need to ask 'What is the reason/meaning of the behaviour?"**

Reference: International Psychogeriatric 2010;22:346-372

There's no clinical evidence to support use of antipsychotics for these responsive behaviours. Some of these behaviours can be caused by antipsychotics, such as nervousness, restlessness, calling out, insomnia

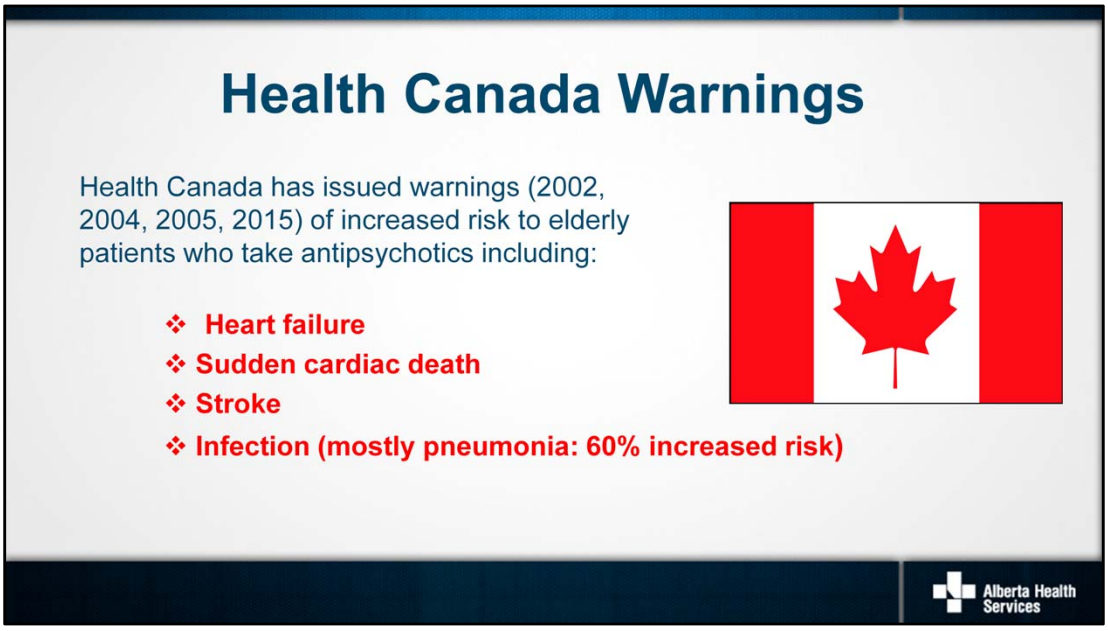
Use of antipsychotics in these behaviours is a chemical or pharmacologic restraint.

It should be noted that antipsychotics can make many responsive behaviours worse by adding confusion and akathisia or restlessness.

There's increasing public concern about the over-use of antipsychotics for people with dementia in Canada and around the world.

Non-pharmacologic strategies are much more effective for these behaviours e.g. A rummage cart or drawers where residents can "find things", a tic-tac to facilitate swallowing of saliva and regular toileting. T

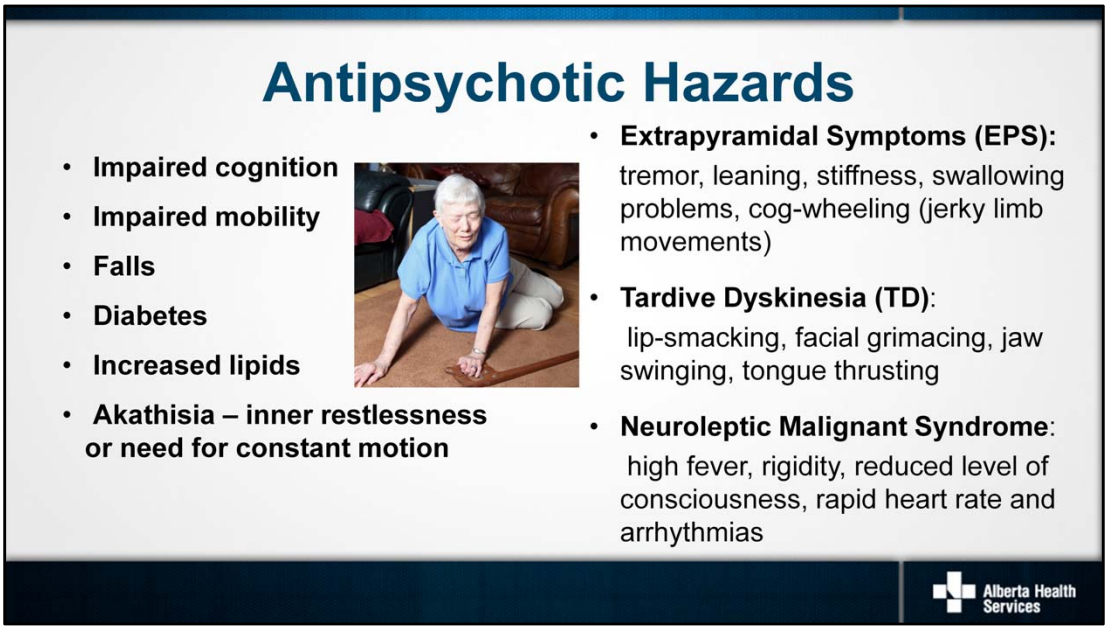
There are many creative ideas in the AUA Toolkit resources; see also the "Success Stories" in the AUA Toolkit (http://www.albertahealthservices.ca/9973.asp or Google *AUA Toolkit*).



Antipsychotics not only have limited benefit in the treatment of responsive behaviours, they come with many risks and side effects.

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 (Knol et al, Antipsychotic Drug Use and Risk of Pneumonia in Elderly People, 2008 J Am Geriatric Society)



Other hazards include impaired cognition. A 2011 study showed that atypical antipsychotics advance cognitive decline by one year compared to placebo. (CATIE-AD); Vigen et al,2011

They increase the risk of falls by causing muscle stiffness and weakness, tremors, shuffling gait, jerky movements, restlessness (extrapyramidal side-effects) blurred vision and orthostatic hypotension

They may cause diabetes and increased lipids (more common with olanzapine and risperidone than quetiapine)

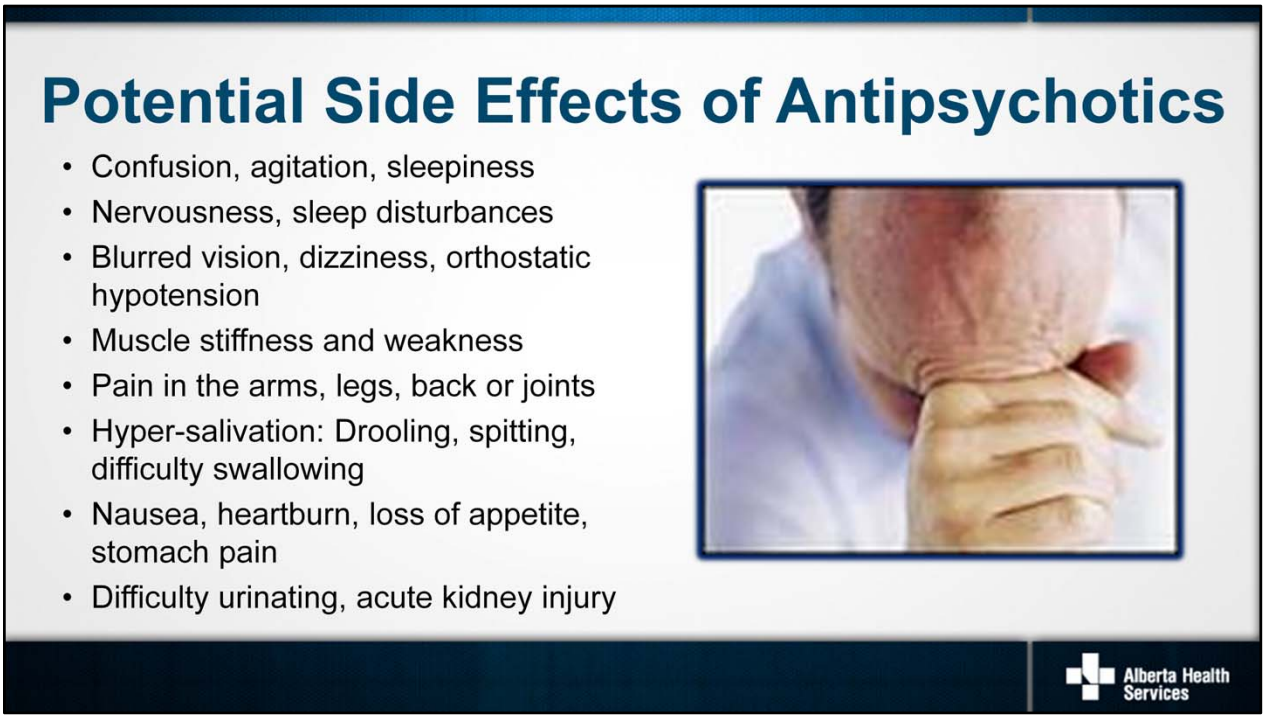
They disrupt rest and sleep by producing the need to be in constant motion.

Other safety issues related to antipsychotics include:

- Extrapyramidal symptoms – more common with risperidone and olanzapine than quetiapine
- Tardive Dyskinesia: e.g. lip smacking and tongue thrusting/ involuntary facial movements. More common with risperidine and quetiapine than olanzapine.
- Neuroleptic malignant syndrome - life-threatening
- Serotoninergic syndrome - can lead to excessive nerve cell activity (life threatening)
- Prolongation of QTc interval

References:
JAMA 2011; 306: 1359-1369
Am J Psychiatry 2011; 168: 8
Harv Rev Psychiatry 2010; 18: 158
AHRQ No.11-EHC087-EF, Sep 2011

See also Prescriber and Pharmacist Frequently Asked Questions in Medication Review section of AUA Toolkit. http://www.albertahealthservices.ca/assets/about/scn/ahs-scn-srs-aua-prescriber-pharm-faq.pdf



In the elderly, there's a high incidence of side effects for those on long-term antipsychotic therapy.

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 AUA project in Alberta in 2015:

- 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.

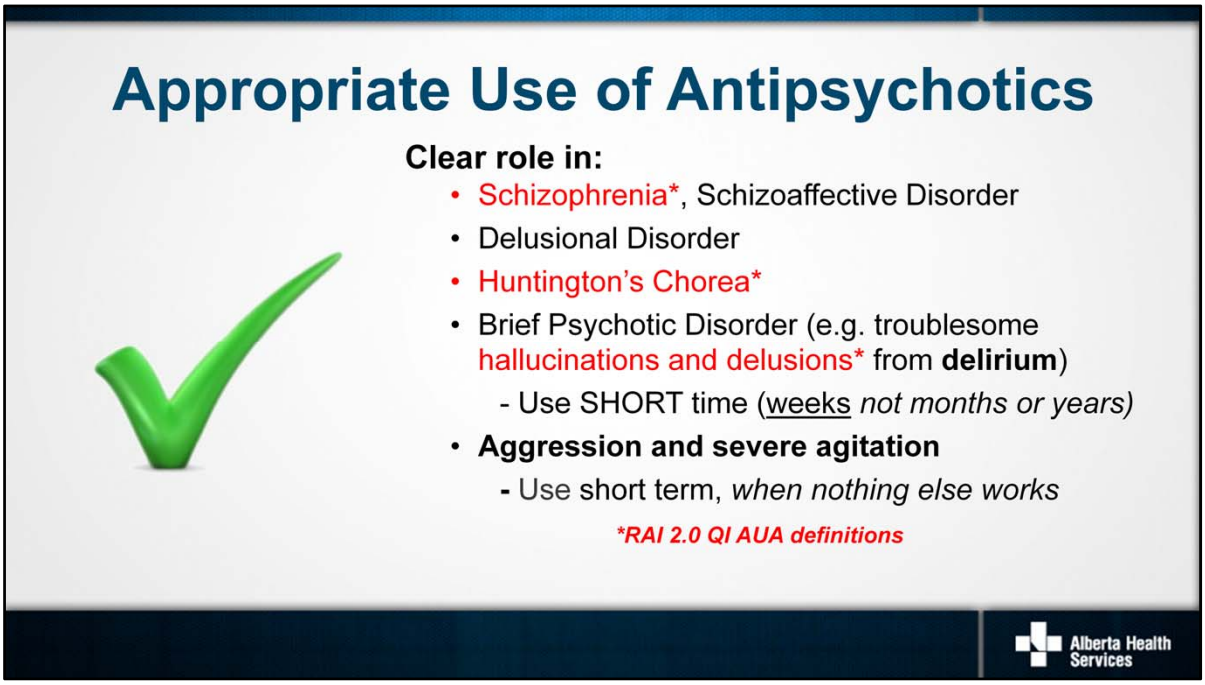
Antipsychotics interfere with communication – people mute for years are talking again once off antipsychotics.

- 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 residents when they are not on antipsychotics.



To summarize, antipsychotics have a clear role in psychotic disorders, but as people age, dosages may need to be reassessed.

Antipsychotics may also be considered short term for aggression and severe agitation, only in Alzheimer type dementia – when non-pharmacologic strategies are ineffective. Monitor for effectiveness.

Antipsychotics only reduce aggression in a small number of cases (for every 5-14 people treated for aggression over 3 months, only 1 will improve with antipsychotics).

Always monitor for side-effects

In the provincial roll-out of the Appropriate Use of Antipsychotics project in 2015

- One care team found that mild improvements in aggression weren't worth the 5-6 falls per day.
- Another care team found that morning care was still a challenge – but the resident was so alert and engaged the rest of the day, that they weren't willing to jeopardize his quality of life by sedating him.

In many cases in dementia, antipsychotics are not appropriate.

Always consider non-pharmacologic alternatives first.

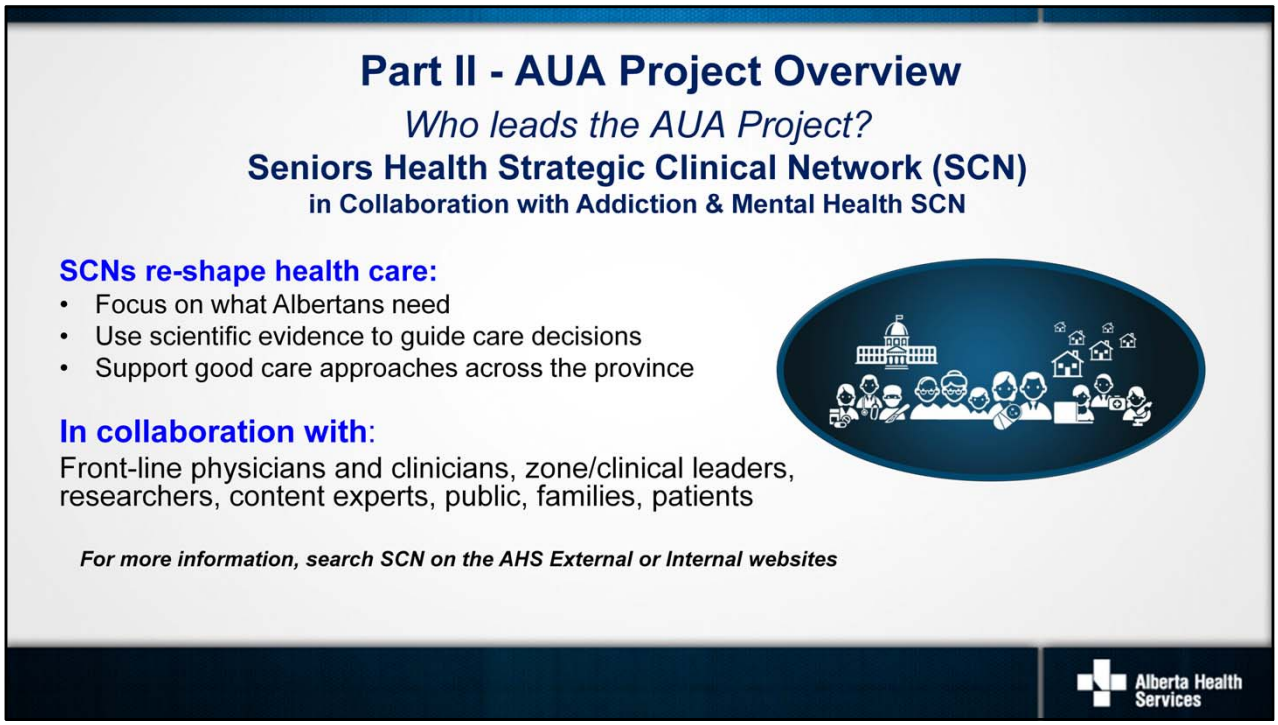
As well, consider if there are other medications that may be more appropriate, such as an analgesic for pain, or a change in bowel routine.

Use antipsychotics only when clinically indicated, and absolutely necessary.

Use the lowest dose possible, monitor closely

Reduce or discontinue within 3 months, if possible when:

- Behaviours stabilize
- If the antipsychotic is ineffective
- If side-effects are evident



The appropriate use of antipsychotics project is sponsored by the Seniors Health Strategic Clinical Network, in collaboration with the Addictions & Mental Health SCN.

Alberta Health Services Strategic Clinical Networks are about improvement, innovation and collaboration.

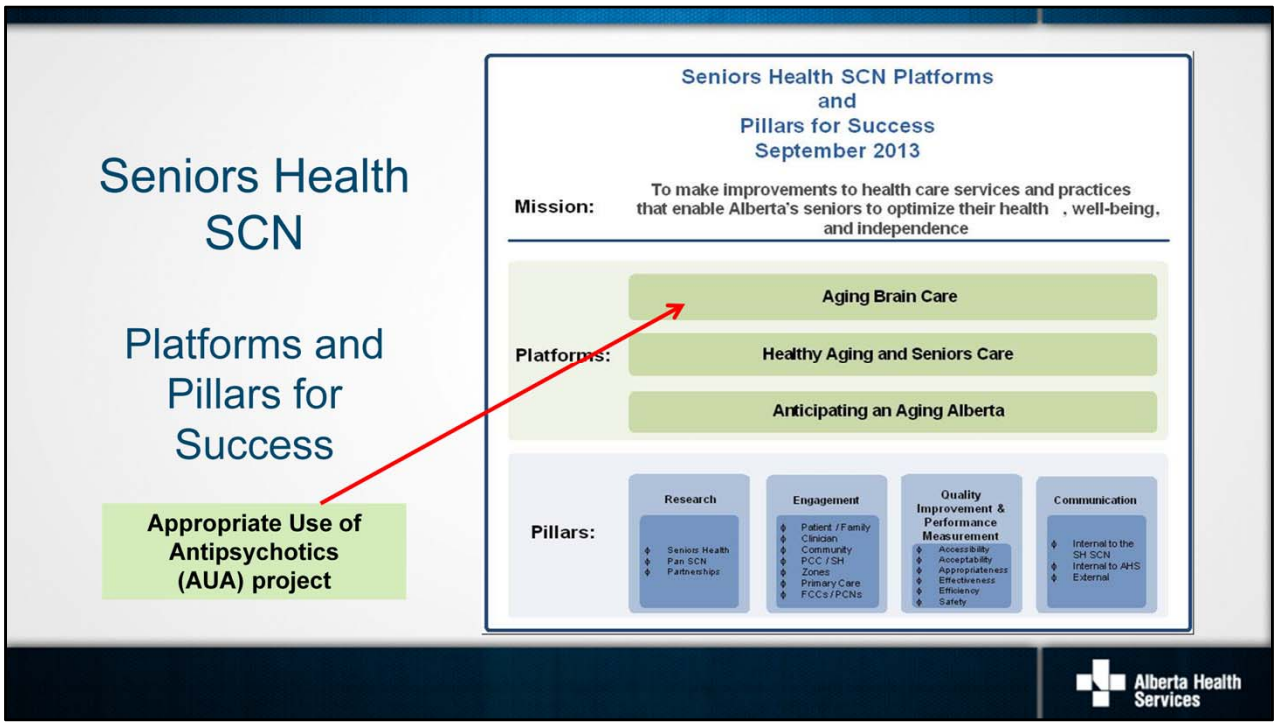
SCNs seek to:

- Improve patient **outcomes -** using evidence & measurement
- Improve patient and family **satisfaction, experience & safety**
- **Enhance clinical practices** and **reduce variations** in clinical practice across the province
- Test methodologies for systems-wide change

The SCNs collaborate with front line experts, including doctors, pharmacists, nurses, zone and clinical leaders, families and patients.

SCNs seek to understand current health issues and to develop strategies for improvement.

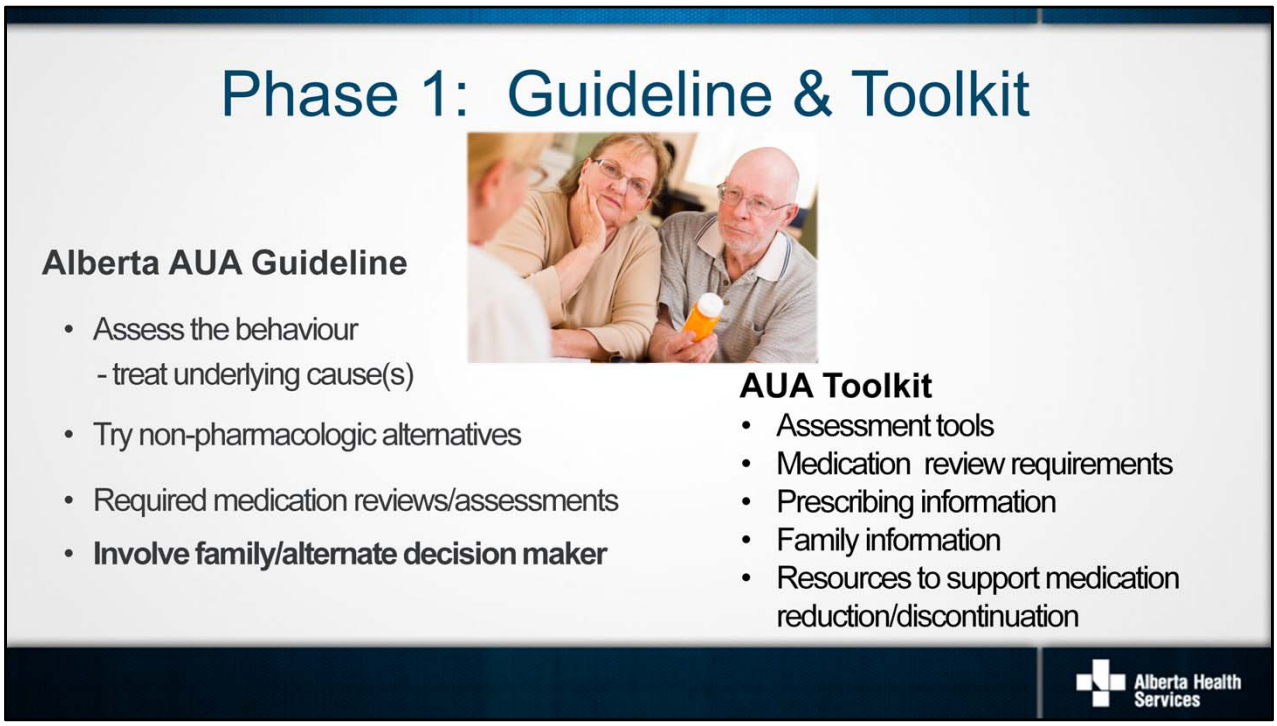
For more information, see http://www.albertahealthservices.ca/7702.asp



The AUA project is part of the Aging Brain Care platform of the Seniors Health SCN.

Though the project addresses antipsychotic use in Long Term Care, it's recognized that appropriate use of antipsychotics in dementia is also an issue in the community, in supportive living facilities and in acute care. Interest and initiatives are being and will be developed to support these areas.

Other projects will support healthy aging, and help Albertans prepare for an aging population.



Phase 1 of the AUA Project began with an extensive review of the literature to see what was already understood about appropriate use of antipsychotics in dementia.

The BC Best Practice Guideline for Accommodating and Managing BPSD (2012) was chosen as a starting point.

The Alberta Guideline on the Appropriate Use of Antipsychotic Medications was developed.

- This guideline emphasises the importance of assessing the reason for the behaviour, and treating underlying causes.
- Non-pharmacologic alternatives are encouraged.
- Because antipsychotics are a high risk medication, there must be documented evidence of an informed consent discussion with families and alternate decision makers
- The guideline also outlines expectations for medication review, assessment, tapering and discontinuation.

A toolkit of resources was developed to support the assessment and management of responsive behaviours– and to provide alternatives to antipsychotics.

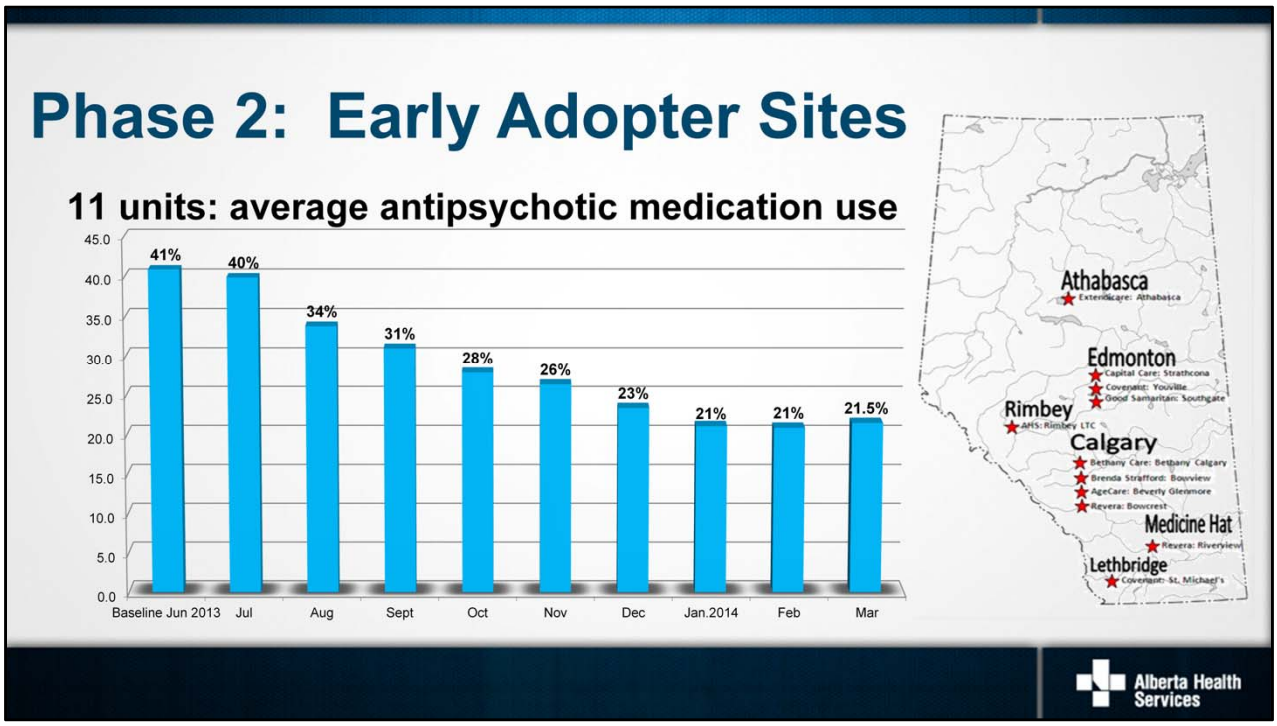
(**http://www.albertahealthservices.ca/auatoolkit.asp or Google *AUA Toolkit)***

The Guideline and Toolkit of resources are available on the AHS External website.

You can easily find them by Googling *AUA Toolkit or searching*
http://www.albertahealthservices.ca/auatoolkit.asp

Each heading includes introductory documents, and links to videos, tip sheets, assessment tools, and project resources.

The resources have been developed in collaboration with front line care teams involved in the AUA project.



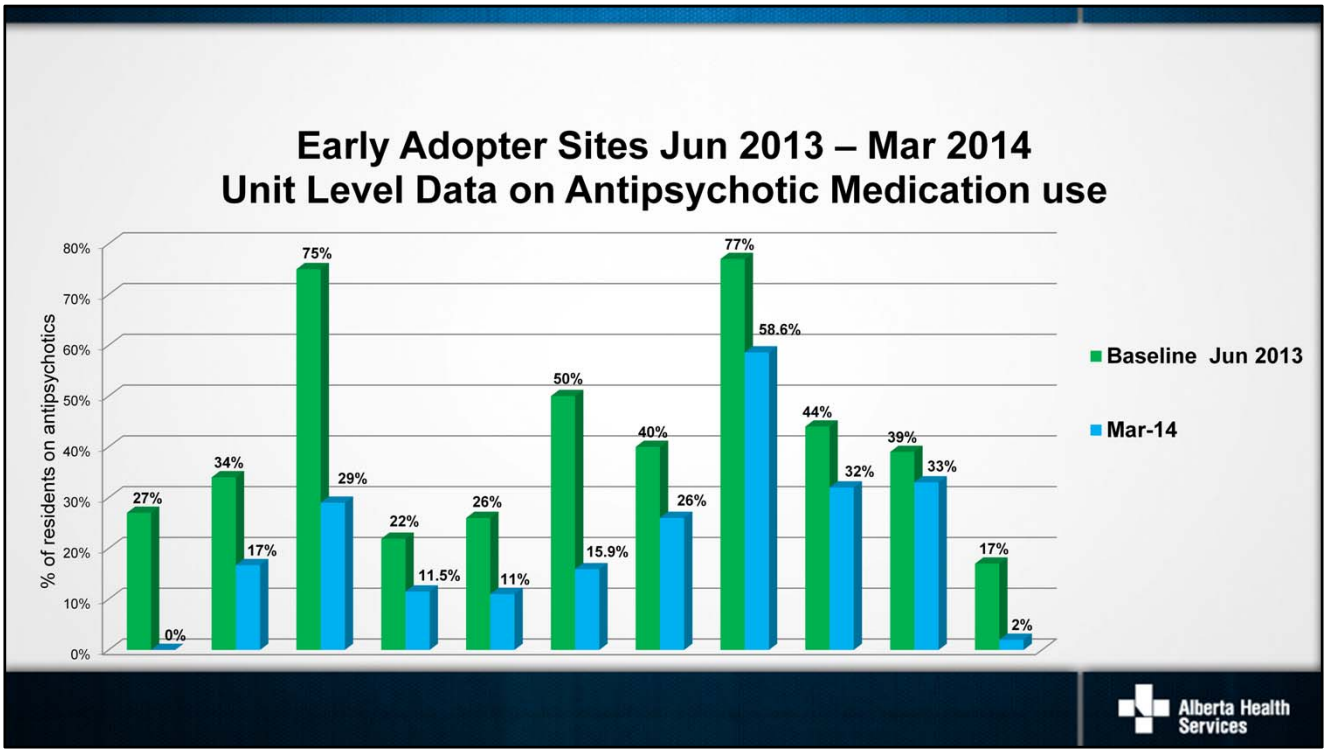
Phase 2 of the AUA project involved a pilot with 11 Early Adopter Sites.

These 11 sites were a mix of large and small, urban and rural, private and AHS. Each began with just one unit/neighbourhood or wing.

They came together for 3 learning workshops, and in between, worked on staff education and monthly medication reviews.

On average, 40% of residents in these units were on antipsychotics when baseline data was collected in June of 2013 (data was collected using the RAI 2.0 definitions of AUA QI).

Nine months later, that number had dropped to 21%, an almost 50% reduction in the number of residents on antipsychotics, without any increased staffing needs.



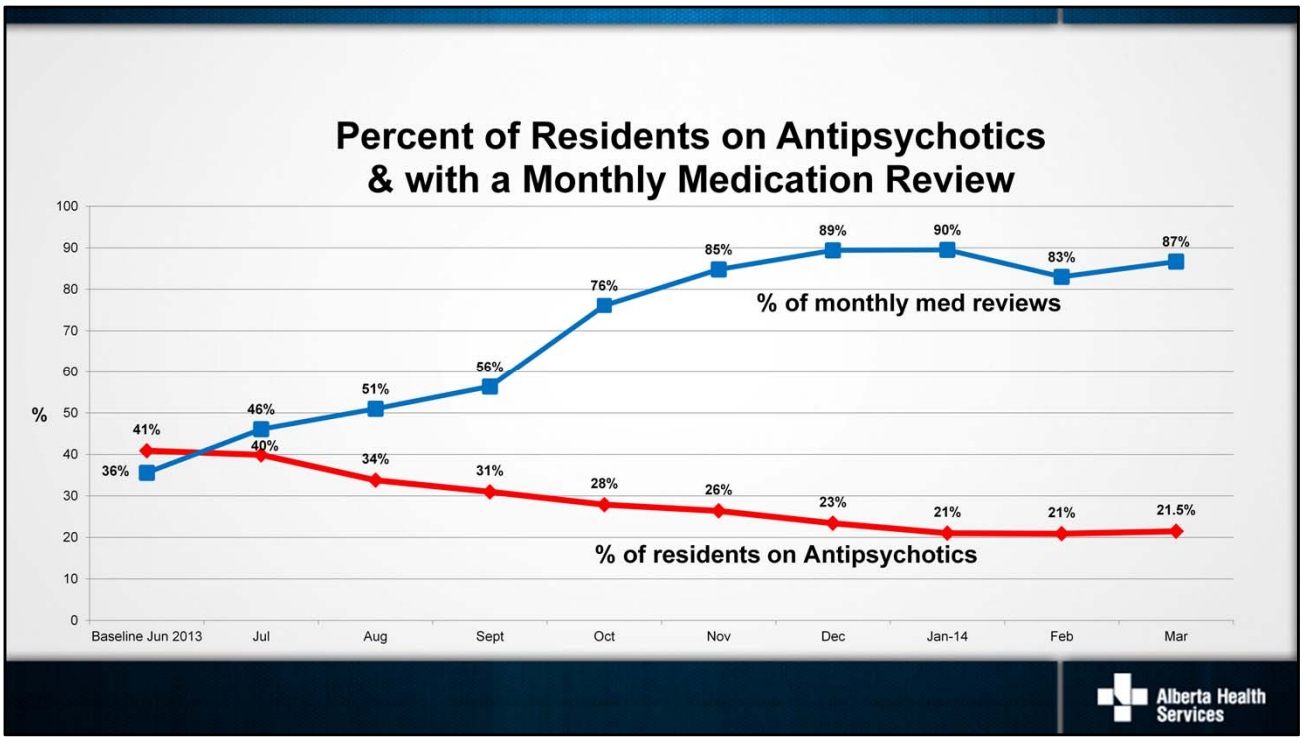
All 11 early adopter sites had, on average, more than 35% of their residents on antipsychotics before the project began. Two sites began with antipsychotic use as high as 75 and 77%

Many of the sites began to decrease their antipsychotic use before baseline data was collected in June 2013. You'll notice that two sites had reached 17% and 22% before receiving any additional education or resources.

- All sites were able to reduce use of antipsychotics – and maintain lower use - without any increased staffing, despite differences in resident populations. The site that ended at 38% decreased to 29% by the following month.

- It's important to note that there's no ONE right number for antipsychotic use. For some sites appropriate use may range from zero to 15%, for others it may be 20 or 30%. The most important thing is that antipsychotics are used appropriately for each individual. For some individuals complete discontinuation is appropriate, and for others a dose reduction is best.

- The sites also noticed that keeping antipsychotic use low required paying attention to new admissions who may arrive on antipsychotics. It's important to use admission as an opportunity to review medications and discuss antipsychotic use with families / alternate decision makers.



One of the key interventions was an interprofessional monthly medication review.

Though the Alberta Continuing Care Standards require monthly review of all residents on antipsychotics, the established practice often involves generating and reviewing a list, and signing the required forms to continue the status quo.

A more effective monthly review involves discussion between prescribers and care team staff, with the intention to reduce or discontinue antipsychotics.

As more residents on antipsychotics received an intentional, interprofessional monthly medication review (the blue line) the percentage of residents on antipsychotics decreased (the red line).

Many care team staff are initially reluctant to reduce their reliance on antipsychotics. They may believe that antipsychotics save time, make it easier to care for residents and keep care providers safe.

Initially, when antipsychotic dosages are decreased, staff are often surprised to notice that there are no major changes.

As the antipsychotics clear the elderly brain, over weeks to months, residents become more alert, some begin to speak again after years without words. They may recognize their families, and re-engage in activities and relationships. They may regain lost independence such as the ability to feed themselves, mobilize and assist with personal care. Families are pleased to see any improvements, after years of decline and loss.

Care teams report that the units are quieter and calmer. There's less calling out, and residents sleep better and are easier to care for. As front line staff learn new approaches and strategies, their interactions with residents are more successful. They enjoy the residents – and their work more, and feel empowered to share solutions and ideas with their colleagues.

Though it takes time to figure out the reasons for responsive behaviours – and more effective strategies and approaches – Alberta LTC sites have consistently demonstrated that in the end, this investment saves time and improves quality of life for residents and workplace satisfaction for care teams.

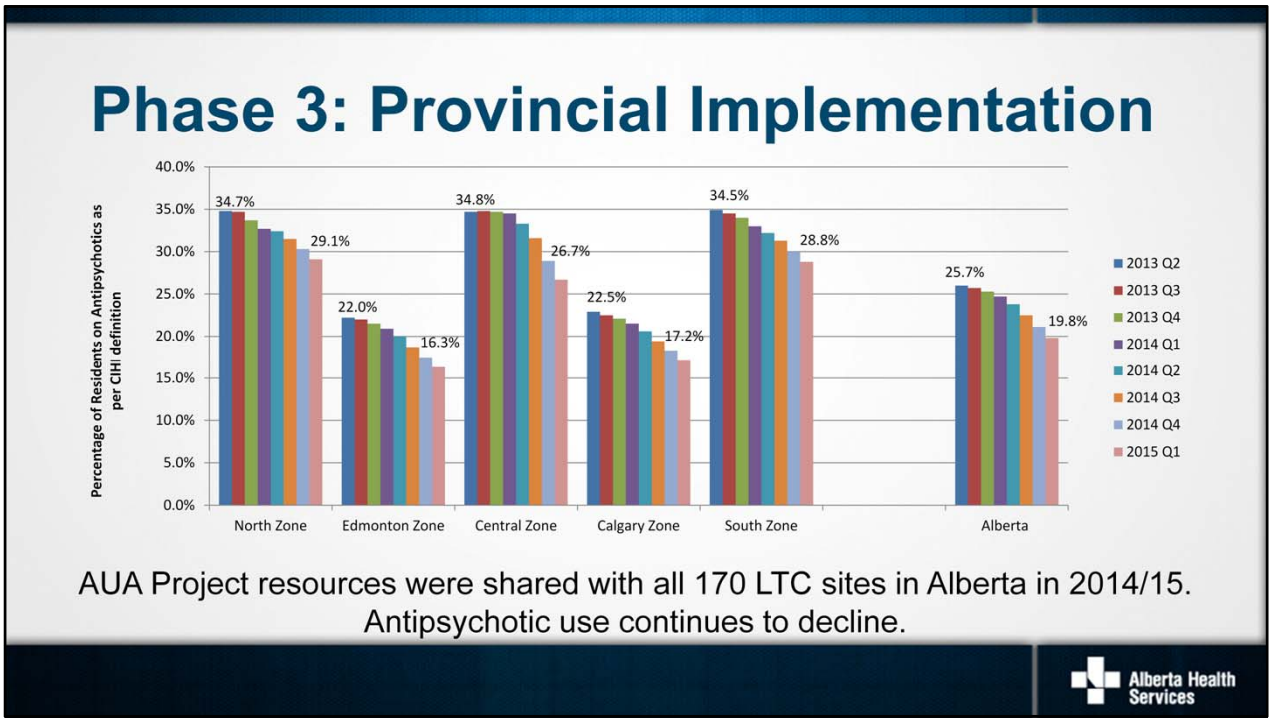
Here are two videos produced about Bow View Manor in Calgary, and Youville Home in St. Albert. More videos and success stories are available on the AUA Toolkit.

Marshall Bye was reluctant at first to approve a decrease in Evelyn's antipsychotics, as she had been very aggressive with care. But taking that risk gave Marshall, Evelyn and the Bow View staff some very meaningful moments in the last months of Evelyn's life. Her antipsychotics were decreased, and no new medications were added. What changed was staff education and staff approach.

After this video, Evelyn continued to improve, and even to speak and joke with her husband and the care team.

One day Marshall said to her, "You're my sweetheart and I'm your sweetheart"
And Evelyn replied – "Isn't it wonderful to have someone and not be alone?"
Evelyn passed away in May of 2014. The care team staff were so grateful to have given Marshall and Evelyn many special moments in her last months.

Marcel Normandeau tells the story of the surprising improvements in Yvonne, his 98 year old aunt. Youville home once had 66 of their residents on antipsychotics, and now there are only 5. Nurse practitioner Dawn Gamon explains that in the past, we thought antipsychotics were a treatment for dementia, but they're actually not – they're a chemical restraint, and that more person-centred, non-drug approaches are usually more effective.



The AUA Project team looked at what had been most helpful for Early Adopter sites and developed resources and strategies for provincial spread of the project. AUA Project resources were shared with all 170 LTC sites in Alberta in 2014/15.

Teams of champions attended learning collaboratives, where they met other LTC teams to learn from each other, discover new resources and plan next steps.

Strategies and resources used by Alberta LTC sites are freely available on the AUA Toolkit, in the Project Resource section and throughout the AUA Toolkit.

Alberta LTC staff enthusiastically report transformation in quality of life and regained abilities for residents.

They also describe improved employee morale and job satisfaction.

Many of these stories have been captured in articles, bulletins and videos.

To learn more, see *Success Stories* in the AUA Toolkit: Google *AUA Toolkit*, or Search *AUA Toolkit* on Alberta Health Services external website

Antipsychotic use continues to decline

- **Alberta currently has the lowest antipsychotic use in Canada.**