# Companion Guide to Modules 10 and 11

**Discussion Questions & Resources** 



**Supporting People with Serious Mental Illness and Dementia** 

# ADRC Dementia Care Training

Aging Services and Supports for People Living with Dementia





Last updated December 2016

# **Table of Contents**

Introduction	2
Acknowledgements	3
Group discussion questions and activities	
Module 10: Bipolar Disorder, Dementia, and Delirium	4-7
Module 11: Schizophrenia and Dementia	8-13
Elements of a Behavioral Monitoring Log	14
Pharmacological Considerations	
Anticholinergic medications	15-16
Benzodiazepines	16-17
Antipsychotic medications for people with dementia	18-20
Resources	21-22
References	23
Appendix A. Beers List	24-26
Appendix B. Cognitive Pyramid	27
Appendix C. Chronic Mental Illness Day-to-Day Do/Don't	28
Appendix D. The DICE Approach	29

#### Introduction

This guide serves as a resource for the ADRC dementia care training initiative. Modules 10 and 11 focus specifically on supporting people who have both serious mental illness and dementia or people with dementia whose symptoms mirror those of serious mental illness. We encourage ADRC staff and partners to view modules 1-8 before viewing modules 10 and 11.

Learning will be most effective if ADRC staff and partners watch this video together and then discuss the content. Discussion questions are provided in this guide to facilitate this process.

Links and resources related to dementia and serious mental illness are included as well. All of the resources described in the video are listed as are additional resource materials that may be helpful to ADRC staff, partners, and family members of people with developmental disabilities. Resources that are more technical or appropriate for ADRC staff are marked with an asterisk (\*).

Remember: the Alzheimer's Association's free 24/7 helpline is 1-800-272-3900 and Oregon's ADRC website section on Alzheimer's is www.HelpforAlz.org

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The knowledge survey for these modules can be found here:

Module 10: <a href="https://www.surveymonkey.com/r/NZ2NRJ2">https://www.surveymonkey.com/r/NZ2NRJ2</a>

Module 11: https://www.surveymonkey.com/r/59WVQXY

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#### **Group Discussion Questions and Activities: Module 10**

#### Bipolar disorders, delirium, and dementia

Carlos is 78 and widowed; he has lived in his apartment for 10 years. His son lives across the country. Carlos' neighbor called aging services because he has become increasingly agitated and very restless. He is up at all hours and seems disoriented. When asked about his son, he wrings his hands and says that his son is going to take him to the theater, but is late. Other times he is euphoric as he talks about his past with the theater, all the time pacing around the room.

People supporting Carlos did not know what was happening when he began to exhibit some manic behaviors. People in aging services wondered if he had bipolar disorder, but those in health care and behavioral health looked for delirium first. Review the symptoms related to mania and symptoms related to delirium.

#### **DSM-5 Criteria for a Manic Episode**

People with Bipolar disorder cycle between depression and mania. The DSM lists several criteria for a manic episode which present as an abnormally and persistently elevated, expansive or irritable mood. These episodes represent a major change in behavior for the person. The criteria for a manic episode include:

- An inflated self-esteem or grandiosity
- A decreased need for sleep
- Becoming more talkative than usual or seeming to feel pressure to keep talking
- Having a flight of ideas or feelings of racing thoughts
- Being distracted easily such as being drawn to unimportant or irrelevant external stimuli
- Increase in goal-directed activity or psychomotor agitation
- And finally, excessive involvement in activities that have a high potential for painful consequences

#### **Delirium**

#### Characterized by:

- Disturbed consciousness
- Poor environmental awareness
- Decreased attention
- Changes in cognition
- Perceptual disturbances.
- Hyperactivity or hypo activity
- Visual illusions, misperceptions, and hallucinations

#### Delirium is a medical emergency marked by:

- Sudden onset, over hours or days
- Fluctuations in alertness, cognition, thinking, perceptions, emotions
- Often reversible with treatment
- Without treatment, high rates of mortality or permanent functional loss

#### Major causes of delirium:

Infection, trauma, medications, sensory impairment, dehydration, impaction

#### **Discuss:**

- What symptoms did each of these providers focus on?
- How did they figure out what was actually going on? (Note: what was the role of the medical exam?)
- Why is it important to consider symptoms in trying to figure out how to help Carlos?
- Why is it important to begin with a thorough medical examination?
- Describe the similarities and differences in helping a person who is having a manic episode and helping a person who has a delirium?
- What could alert you to the possibility that a client has a delirium or is experiencing a manic episode related to an existing mental health disorder? How would you respond to a referral for someone like Carlos?
- How can you provide information and support to Carlos' son? What information do you need from him? What information does he need from you?
- What partnerships are available, or could be available, in your community to assist you and your agency in meeting the needs of someone like Carlos?

**Wilma** is an example of someone who suffered from Bipolar Disorder I and although she was not diagnosed until her early 30s, had symptoms that indicated bipolar disorder in her early 20s. She had multiple hospitalizations throughout her adult life, but had many periods of remission where she functioned quite well. When she remained on her medications, she did well, but said she missed the pleasures associated with mania.

#### **Bipolar Disorders**

Bipolar disorder is a brain illness that causes extreme mood swings between depression and mania.

- These are more intense than the typical ups and downs that most people experience.
- Can disrupt social relationships, ability to work, maintain normal everyday activities.
- People with bipolar disorders sometimes engage in dangerous behaviors and are at high risk for suicide.

People with bipolar disorders have higher risk for impaired cognitive functioning, including dementia, although lithium may provide a protective factor.

#### Manic episodes in Bipolar I and II: Differences

#### Bipolar I: Mania

- More severe
- Marked impairment in functioning or relationships with others, or
- Requires hospitalization to prevent harm or self to others, or
- Psychotic features

#### Bipolar II: Hypomania

- > Somewhat less severe
- No marked impairment in functioning
- Does not require hospitalization
- > No psychotic features
- Noticeable change in mood
- Often paired with depression



13

#### **Discuss:**

- Wilma has aged with bipolar I disorder. Describe what this means.
- How is a manic episode for someone with a bipolar I disorder different from a mania associated with bipolar II disorder? What are the implications for you as a professional who is caring for someone who is aging and also has a serious mental illness?
- If you work for aging services, what could raise red flags for you that a person you meet or who calls (or is being called about) has a bipolar disorder? How might this affect the way you respond and the resources you provide?
- Diagnosing dementia with someone who has impaired judgement due to a mental illness can be difficult. Describe how that was true for Wilma. What role did the medical community and those who knew Wilma best play in arriving at the diagnosis of dementia?
- Marilyn described growing up with a parent with a bipolar disorder. How can this
  experience influence family caregiving? What additional caregiving support would a
  family member need if they are trying to support their aging parent?
- What partnerships are available, or could be available, in your community to assist you and your agency in meeting the needs of someone like Wilma and her family?

### **Group Discussion Questions and Activities: Module 11**

#### **Schizophrenia and Dementia**

Schizophrenia is a chronic and sever mental disorder that affects how a person thinks, feels, and behaves. It is a syndrome of multiple, varied, and diverse signs and symptoms as described in the DSM-5.

## Schizophrenia in DSM-5

- Two or more of the following, each present for a significant portion of time during a 1-month period (or less if successfully treated):
  - Delusions\*
  - Hallucinations\*
  - · Disorganized speech\*
  - Grossly disorganized or catatonic behavior
  - Negative symptoms
    - \*At least one of these must be present

- Level of functioning markedly below levels prior to onset
  - Work
  - · Interpersonal relations
  - · Self care
- Continuous signs of disturbance present for at least 6 months
- Other psychiatric disorders are ruled out (e.g., Schizoaffective disorder, depressive or bipolar disorders)

DSM-5

9



#### Aging with schizophrenia

**Natalia** is 66 and was diagnosed with schizophrenia when she was 27. She has been on psychotropic medications on and off for decades. Both severe positive and negative symptoms resulted in multiple hospitalizations for psychiatric care throughout her adulthood. Her symptoms were poorly controlled in part because Natalia would often refuse to take her medications, especially during periods when she drank heavily and used drugs. When she was drinking, she was often homeless. Her family often had no idea where she was and felt burned out from trying to provide support when they did know. Over time they lost contact with each other. Natalia never expressed any interest in them.

Natalia became very ill because her diabetes was not controlled. Following the most recent hospitalization, she was discharged to an assisted living community where she has lived for a few months. The staff observe that she is increasingly withdrawn. She sits expressionless for hours without speaking. She only eats, gets dressed, or moves from her room when staff come to get her and cue each step. She does not like to be touched, so taking her into a shower can be really tough.

#### **Symptoms**

Symptoms fluctuate through the life course. Good news if treated early; many people live successfully with schizophrenia. Long term use of psychotropic medications can have adverse effects.

#### **Positive Symptoms** ("add-ons" to normal behavior)

- Hallucinations, delusions, thought disorders
- Persist into old age, but may change (e.g., voices more positive)
- Many people develop effective coping strategies, many experience remission

#### **Negative Symptoms** (normal behaviors that are missing)

- Flat affect, reduced feelings of pleasure, difficulty beginning or sustaining activities, reduced speaking
- Persist into old age; rates similar to younger adults with schizophrenia
- Difficult to distinguish from depression; often co-occurs with depression

#### **Cognitive Symptoms**

- Thinking and processing information (e.g., poor executive functioning, trouble focusing, problems with memory, inability to understand or use information)
- Mixed findings regarding schizophrenia and cognitive decline. Those with dementia, decline more rapidly than the general population.
- Decline greatest with history of institutionalization, severe and persistent positive and negative symptoms, low levels of institutionalization, and long term use of antipsychotic medications

#### **Discuss**

- Natalia's symptoms are consistent with multiple conditions, including depression, dementia and negative symptoms associated with schizophrenia. Natalia may have all three. How does the staff figure this out? How can they provide support?
- Natalia may or may not have dementia. Her behavioral health team thinks that her negative symptoms are related to her schizophrenia and not dementia. How would confirmation of the presence or absence of the diagnosis affect the way that you would approach Natalia to provide support?
- Many residential long term care settings are reluctant to care for someone with a serious mental illness, often due to stigma and lack of understanding about the condition.
- Dianne Wheeling provides a lot of practical advice for working with someone like Natalia. What does Natalia's story suggest about how you can better support someone who has a life time of poorly controlled symptoms and poor self-care?
- Glenise McKenzie describes the importance of focusing on symptoms and daily functioning to improve quality of life. How can you do that with Natalia?
- What partnerships are available, or could be available, in your community to assist you and your agency in meeting the needs of someone like Natalia

#### Aging with schizophrenia and dementia

Li, 61, was diagnosed with schizophrenia as a young adult and spent time in and out of a psychiatric hospital in his early 30s. Unlike Natalia, however, he had a strong support system and his symptoms were managed well throughout his 40s and 50s. He did not misuse alcohol or drugs. He lived with his parents and was able to hold down a job in a supportive work setting. With reminders, he managed his medications well and went to the community mental health clinic for ongoing support. He has had extended periods of remission of his symptoms throughout most of his adult life. When his parents died, he moved into a behavioral health adult foster care home where he lived successfully for several years, continuing to work and keep his clinic appointments. Lately, however, he has been missing his mental health appointments. He is no longer managing his symptoms well and has had problems at the day program he has attended for years. Physically, he is having a lot of trouble getting around and is experiencing some bizarre movements consistent with tardive dyskinesia.

Li's medical and behavioral health team concluded that Li has dementia. At first, the behavioral health adult foster care provider assumed that Li would need to move out. However, she and her staff decided to help Li age in place.

#### **Symptoms**

#### **Extrapyramidal symptoms**

- A class of drug-induced movement disorders including Parkinsonism, akathisia, dystonia, and tardive dyskinesia
- Typical antipsychotic drugs are the most common cause of these symptoms

#### Tardive dyskinesia

- Occurs with long-term use of antipsychotic medications, particularly the first generation drugs
- Typical symptoms include random movements especially of the tongue, lips, or jaw such as chewing movements, tongue darting, or lip pursing
- Some people may experience repetitive finger and toe movements, rocking, jerking, or other movements of the trunk or hips
- In addition to long term use of antipsychotics, risk factors for tardive dyskinesia include older age, being female, substance misuse disorders, and being African or Asian American

#### **Discuss**

- Li's support team learned to accommodate his psychiatric, physical, and cognitive support needs. What are some things that they did to make these accommodations?
- What are the implications for aging services, health services and behavioral health services providers in the way that they approach finding support for people like Li?
- What role did aging services, behavioral health services, and health services providers play in arriving at a diagnosis of dementia? Why could this diagnosis be difficult to make?
- How does a diagnosis of schizophrenia inform the way dementia support can be provided to Li and the people at the adult foster home?
- What are some myths or stigma associated with schizophrenia that complicate obtaining support for people like Li?
- If you work for aging services, what could raise red flags for you that a person you meet or who calls (or is being called about) has schizophrenia? How might this affect the way you respond and the resources you provide?
- What are your experiences? What difficulties have you encountered in finding support
  for someone like Li in the system of care where you work? After watching this module,
  what can you do differently the next time you encounter someone aging with
  schizophrenia?
- How can aging services, health services, and behavioral health services systems work more closely together to support people like Li? That is, be more focused on function than eligibility?

#### Aging with dementia with psychotic symptoms

Jerome lives in memory care community. He is physically very healthy, though walks with a cane. Recently, he tied his closet doors shut because "those people were trying to get" him at night. During the night he yells and throws things at the closet door. He is shouting at the caregivers and has taken a particular dislike to the male caregivers. He hit one with his cane. Jerome curses everyone he sees; yesterday he knocked the cup of coffee out of the hands of one of the residents because "she was looking at" him. The memory care community wanted him committed to a psychiatric unit because he was a danger to himself and others. The nursing staff thought he might have schizophrenia and because they were afraid they couldn't handle it, they hoped he would be discharged. We can understand the staff's concerns. Many of his symptoms can be described as psychotic, particularly the delusions and possible hallucinations. If Jerome were to show up in an emergency room, an untrained physician might conclude he had late-onset schizophrenia.

#### **Discuss**

- Have you ever had experience with someone like Jerome who has dementia and also
  has psychotic symptoms? Or, have you ever talked to a family member or caregiver who
  was upset because a person with dementia they were caring for was becoming
  aggressive or violent? Briefly share these experiences with each other, providing details
  about the symptoms or the behaviors that you observed or learned about from family
  member or caregivers
- The team caring for Jerome used a behavior monitoring log that helped them identify situations that were contributing to Jerome's distress. Once they addressed these, they found ways to support Jerome that were beneficial to him and the staff. The first two entries of the log are provided below for illustration. The DICE approach (Appendix D) provides an additional tool to help staff figure out how to support Jerome.

Think of your own work experiences. Did you ever use a behavior monitoring log? What did you learn? If you have not used this tool, how could you have used it or how would you go about using it? If you were responding to a call to the ADRC or being asked to provide complex case consultation, how would you introduce the idea of the behavioral monitoring log to a family member or care team?

• How can a mental health professional support aging services and long-term services and support providers caring for someone like Jerome?

# **Elements of a Behavioral Monitoring Log**

Day/time	Detail Behavior	Where did it happen?	Who was present?	How did staff respond	What were possible triggers	What other data provides information?
Monday, 1:00 pm	Seemed nervous, looking around, got out of his seat and struck out at resident who had been talking to him, knocking her coffee out of her hands. Struck out at Tony when he came to intervene.	Dining room after lunch	Several residents. Caregivers: Tony and Angela	Tony – told Jerome he shouldn't do that and would have to leave. Angela comforted resident	Noisy and chaotic after lunch.	Jerome was startled when Tony took hold of his arm.
Tuesday, 4:00 am	Jerome yelled at staff when they walked past him, seemed frightened, told them not to hurt him. Seemed especially upset with Tony	Hallway	Tony, Joe (caregivers)	Tony walked on ahead to take care of resident, Joe apologized to Jerome for startling him, and walked beside him slowly reassuring him	Jerome didn't seem to hear them coming.	Maybe staff walked by too fast.
(Log continues)						

For more information about behavioral monitoring logs, see this resource guide:

https://www.google.com/url?sa=t&rct=j&q=&esrc=s&source=web&cd=10&cad=rja&uact=8&ved=0ahUKEwjq koXRq7 QAhVWGGMKHW4bCCkQFghpMAk&url=https%3A%2F%2Fwww.cms.gov%2Fregulations-and-guidance%2Flegislation%2Fcfcsandcops%2Fdownloads%2Frestraintreduction.pdf&usg=AFQjCNE Onqy63Rsao ZlkHGL Su8SRClig&sig2=NjSluLd-egNZKFt30U7pmQ

# **Pharmacological Considerations**

Anticholinergic medications. Class of medications that block the neurotransmitter acetylcholine. In the peripheral nervous system acetylcholine activates muscles. Within the central nervous system, it acts in areas of the brain that control motivation, arousal, and attention. Use of multiple medications with anticholinergic properties contribute to cumulative effects with significant side effects, particularly in older adults. Below are examples of medications with anticholinergic properties.

- Antihistamines (H-1 blockers: chlorpheniramine, cyproheptadine, diphenhydramine, hydroxyzine)
- Cardiovascular medications (furosemide, digoxin, nifedipine, disopyramide)
- Antidepressants (amoxapine, amitriptyline, clomipramine, desipramine, doxepin, imipramine, nortriptyline, protriptyline, paroxetine)
- Gastrointestinal medications
  - > Antidiarrheal medications (diphenoxylate, atropine)
  - > Antispasmodic medications (belladonna, clidinium, chlordiazepoxide, dicyclomine, hyoscyamine, propantheline)
  - Antiulcer medications (cimetidine, ranitidine)
- > Anti-Parkinson medications (amantadine, benztropine, biperiden, trihexyphenidyl)
- > Antipsychotic medications (chlorpromazine, clozapine, olanzapine, thioridazine)
- Muscle relaxants (cyclobenzaprine, dantrolene, orphenadrine)
- Medications for urinary incontinence (oxybutynin, probantheline, solifenacin, tolterodine, trospium)
- Antivertigo medications (meclizine, scopolamine)
- Phenothiazine antiemetics (prochlorperazine, promethazine)

#### Potential Adverse Consequences of Medications with Anticholinergic Properties

Blood pressure, increased
Clumsiness or unsteadiness
Digestive system changes, e.g.,
Bloating
Bowel motility, decreased
Constipation
Ileus, paralytic/adynamic
Nausea or vomiting
Swallowing difficulty with dry mouth

Delirium
Drowsiness
Headache
Lethargy, fatigue
Muscle weakness, severe
Skin, changes
Dryness Sweating, decreased
Flushing Warmth, excessive
Urinary retention or difficulty

Breathing difficulty, changes
Convulsions
Mental status/behavior changes, e.g.,
Distress, excitement, nervousness
Attention, impaired
Cognitive decline
Confusion/disorientation
Hallucinations
Memory loss
Restlessness or irritability
Dizziness
Fever
Heart rate, increased

Eye pain Light sensitivity

Vision impairment, changes in acuity

Mucous membrane dryness: mouth, nose

Blurring Glaucoma, worsening

Speech, slurring

Source: <a href="http://www.health.state.mn.us/divs/fpc/cww/D02">http://www.health.state.mn.us/divs/fpc/cww/D02</a> Transmittal22ExcerptTableII.pdf

**Benzodiazepines.** Benzodiazepines are a class of medications that depress the central nervous system, particularly the brain. They are frequently prescribed for psychological disorders, especially anxiety and panic and for mood disorders, including bipolar disorders. They are also used to help people sleep and for seizure disorders. Benzodiazepines have multiple side effects and are considered high risk drugs, particularly for older adults.

Use is linked to higher rates of dementia and other cognitive impairment, reduced mobility leading to falls, and impairment in driving. It appears that long-term use of benzodiazepines with bipolar disorder may be associated poorer control of symptoms compared to alternative treatments. Benzodiazepines in combination with other prescriptions can reduce the effectiveness of those drugs or result in adverse drug affects. This is also true for combination of benzodiazepines with alcohol, over the counter medications, and other drugs. People who have used benzodiazepines for a long time develop a physical dependence on the drug.

# Common Benzodiazepines Available in the U.S.

Generic Name	Brand Name	Common Uses
alprazolam	Niravam, Xanax, Xanax XR	anxiety, panic disorders
chlordiazepoxide	Librax	anxiety, alcohol withdrawal
clobazam	Onfi	Lennox-Gastaut syndrome, adjunct (seizures)
clonazepam	Klonopin	seizure disorder, panic disorder, neuralgia (nerve pain)
clorazepate	Tranxene T-Tab	anxiety, alcohol withdrawal, partial seizures
diazepam	Valium	anxiety, sedation, alcohol withdrawal, muscle spasm, seizure disorders
estazolam	ProSom	insomnia (short-term use)
flurazepam	Dalmane	insomnia (short-term use)
lorazepam	Ativan	anxiety, insomnia (short-term use), seizures, sedation
midazolam	Versed	<b>sedation, preoperative</b> ; general anesthesia induction; seizures
oxazepam	Serax	anxiety, alcohol withdrawal
temazepam	Restoril	insomnia (short-term use)
triazolam	Halcion	insomnia (short-term use)

Source: <a href="https://www.drugs.com/article/benzodiazepines.html#list-us">https://www.drugs.com/article/benzodiazepines.html#list-us</a>

# Use of Antipsychotics to Treat Agitation or Psychosis in Patients with Dementia: American Psychiatric Association Practice Guidelines (Reus et al., 2016)

The following statements are assessments of current scientific and clinical information. These guidelines focus on the judicious use of antipsychotic medications for individuals with dementia in all care settings.

Assessment of Behavioral or Psychological	<b>Statement 1.</b> APA recommends that patients with dementia be assessed for the type, frequency, severity, pattern, and timing of symptoms. (1C)			
Symptoms of Dementia	<b>Statement 2.</b> APA recommends that patients with dementia be assessed for pain and other potentially modifiable contributors to symptoms as well as for factors, such as the subtype of dementia, that may influence choices of treatment. (1C)			
	<b>Statement 3.</b> APA recommends that in patients with dementia with agitation or psychosis, response to treatment be assessed with a quantitative measure. (1C)			
Development of a Comprehensive Treatment Plan	<b>Statement 4.</b> APA recommends that patients with dementia have a documented comprehensive treatment plan that includes appropriate person-centered nonpharmacological and pharmacological interventions, as indicated. (1C)			
Assessment of Benefits and Risks of Antipsychotic Treatment for the Patient	<b>Statement 5.</b> APA recommends that nonemergency antipsychotic medication should only be used for the treatment of agitation or psychosis in patients with dementia when symptoms are severe, are dangerous, and/or cause significant distress to the patient. (1B)			
	<b>Statement 6.</b> APA recommends reviewing the clinical response to nonpharmacological interventions prior to nonemergency use of an antipsychotic medication to treat agitation or psychosis in patients with dementia. (1C)			
	<b>Statement 7.</b> APA recommends that before nonemergency treatment with an antipsychotic is initiated in patients with dementia, the potential risks and benefits from antipsychotic medication be assessed by the clinician and discussed with the patient (if clinically feasible) as well as with the patient's surrogate decision maker (if relevant) with input from family or others involved with the patient. (1C)			

Dosing, Duration and Monitoring of Antipsychotic Treatment

**Statement 8.** APA recommends that if a risk/benefit assessment favors the use of an antipsychotic for behavioral/psychological symptoms in patients with dementia, treatment should be initiated at a low dose to be titrated up to the minimum effective dose as tolerated. (1B)

**Statement 9.** APA recommends that if a patient with dementia experiences a clinically significant side effect of antipsychotic treatment, the potential risks and benefits of antipsychotic medication should be reviewed by the clinician to determine if tapering and discontinuing of the medication is indicated. (1C)

**Statement 10.** APA recommends that in patients with dementia with agitation or psychosis, if there is no clinically significant response after a4-week trial of an adequate dose of an antipsychotic drug, the medication should be tapered and withdrawn. (1B)

Statement 11. APA recommends that in a patient who has shown a positive response to treatment, decision making about possible tapering of antipsychotic medication should be accompanied by a discussion with the patient (if clinically feasible) as well as with the patient's surrogate decision maker (if relevant) with input from family or others involved with the patient. The aim of such a discussion is to elicit their preferences and concerns and to review the initial goals, observed benefits and side effects of antipsychotic treatment, and potential risks of continued exposure to antipsychotics, as well as past experience with antipsychotic medication trials and tapering attempts. (1C)

**Statement 12.** APA recommends that in patients with dementia who show adequate response of behavioral/psychological symptoms to treatment with an antipsychotic drug, an attempt to taper and withdraw the drug should be made within 4 months of initiation, unless the patient experienced a recurrence of symptoms with prior attempts at tapering of antipsychotic medication. (1C)

Use of Specific Antipsychotic Medications, Depending on	<b>Statement 14.</b> APA recommends that in the absence of delirium, if nonemergency antipsychotic medication treatment is indicated, haloperidol should not be used as a first-line agent. (1B)
Clinical Context	<b>Statement 15.</b> APA recommends that in patients with dementia with agitation or psychosis, a long-acting injectable antipsychotic medication should not be utilized unless it is otherwise indicated for a co-occurring chronic psychotic disorder. (1B)

The Beers Criteria High-Risk Medications in Older Adults (Appendix A) identifies potentially inappropriate drugs for older adults. Alternatives to these medications are available on the Institute on Aging website in the list of Resources for Primary Care Providers, at <a href="https://www.pdx.edu/ioa/primary-care-provider-modules-0">https://www.pdx.edu/ioa/primary-care-provider-modules-0</a>

See also webinar trainings and materials sponsored by the State Unit on Aging: http://www.oregon.gov/DHS/SENIORS-DISABILITIES/SUA/Pages/AAA-Training.aspx

The following webinars may be of particular use:

Dementia and Behaviors Part 2: When and How to avoid Anti-psychotics in Patients with Dementia and Behavioral Symptoms, Elizabeth Eckstrom, MD, MPH https://www.youtube.com/watch?v=HfOKLSo\_15g&feature=youtu.be

Dementia and Behaviors Part 3: When Anti-psychotic Medications are Appropriate, Maureen Nash, MD, MS, FAPA, FACP <a href="https://www.youtube.com/watch?v=NID9xzWG9ug&feature=youtu.be">https://www.youtube.com/watch?v=NID9xzWG9ug&feature=youtu.be</a>

### **Aging Services and Behavioral Health Resources**

#### **Aging and Disability Resource Connection**

https://www.adrcoforegon.org

The ADRC of Oregon provides information and assistance to individuals seeking information on local resources, professionals seeking assistance for their clients and individuals planning for their future long-term needs. To contact a local ADRC please call: **1-855-ORE-ADRC (673-2372)** 

#### **Older Adult Behavioral Health Initiative**

Find the Older Adult Behavior Health Specialist in your area and access training materials for aging services, behavioral health services, and primary care providers at the Institute on Aging web page: <a href="https://www.pdx.edu/ioa/serving-older-adults-with-behavioral-health-needs-training-youtube-links-companion-guides">https://www.pdx.edu/ioa/serving-older-adults-with-behavioral-health-needs-training-youtube-links-companion-guides</a>

You may also contact Nirmala Dhar, the Older Adult Behavioral Health Coordinator, to find the specialist in your area by email: <a href="mailto:Nirmala.Dhar@dhsoha.state.or.us">Nirmala.Dhar@dhsoha.state.or.us</a> or phone: **503-945-9715** 

#### Guardianship, Conservatorship, and Other Options in Oregon

https://www.oregon.gov/DHS/SENIORS-DISABILITIES/SUA/Pages/Guardianship-Resources.aspx

Access resources to help individuals who have become incapable of making decisions about health or everyday life.

Booklet summarizing legal and other tools available in Oregon:

https://apps.state.or.us/cf1/DHSforms/Forms/Served/se0502.pdf?CFGRIDKEY=SDS%200 502%2c%2cOptions%20in%20Oregon%20to%20Help%20Another%20Person%20Make% 20Decisions%2c%2cse0502.pdf%2c%2c%2c%2c%2c%2chttps://apps.state.or.us/cf1/DHSforms/Forms/Served/-%2c%2chttps://apps.state.or.us/cf1/DHSforms/Forms/Served/-

#### **Substance Abuse and Mental Health Services Administration (SAMHSA)**

http://www.samhsa.gov/disorders

The Substance Abuse and Mental Health Services Administration (SAMHSA) is the agency within the U.S. Department of Health and Human Services that leads public health efforts to advance the behavioral health of the nation. SAMHSA's mission is to reduce the impact of

substance abuse and mental illness on America's communities. See the reference list for more a guide to geriatric depression issues.

#### National Alliance on Mental Illness (NAMI)

#### www.nami.org

NAMI offers education programs, advocacy, and support for people with mental illness and their families. They offer a HelpLine to answer questions about mental health issues including: symptoms of mental health conditions, treatment options, local support groups and services, education programs, helping family members get treatment, programs to help find jobs, and legal issues. The NAMI HelpLine can be reached Monday through Friday, 10 am–6 pm, ET at 1-800-950-NAMI (6264)

See more at: http://www.nami.org/Find-Support/NAMI-HelpLine

#### National Institute of Mental Health (NIMH)

#### www.nimh.nih.gov

The National Institute of Mental Health (NIMH) is the lead federal agency for research on mental disorders. NIMH is one of the 27 Institutes and Centers that make up the National Institutes of Health (NIH), the nation's medical research agency. NIH is part of the U.S. Department of Health and Human Services (HHS). Learn more about the prevalence of SMI, mortality rates, treatment costs, and current research in the field.

Schizophrenia: www.nimh.nih.gov/health/topics/schizophrenia/index.shtml

#### **Mayo Clinic and WebMD**

Explore symptoms, disease descriptions, and medical information.

Bipolar disorder: <a href="http://www.mayoclinic.org/diseases-conditions/bipolar-disorder/basics/symptoms/con-20027544">http://www.mayoclinic.org/diseases-conditions/bipolar-disorder/basics/symptoms/con-20027544</a>

Benzodiazepine use in older adults: <a href="http://www.mayoclinicproceedings.org/article/S0025-6196(12)60643-0/abstract">http://www.mayoclinicproceedings.org/article/S0025-6196(12)60643-0/abstract</a>

Schizophrenia: <a href="www.webmd.com/guide/schizophrenia-symptoms">www.webmd.com/guide/schizophrenia-symptoms</a>

#### References

- Al Jurdi, R. (2014). Aging with serious mental illness: An overview and implications for service delivery. *Generations (San Francisco, California), 38*(3), 14-22.
- Cohen, Meesters, & Zhao. (2015). New perspectives on schizophrenia in later life: Implications for treatment, policy, and research. *The Lancet Psychiatry*, 2(4), 340-350.
- Desai, A.K., Seraji, M., Redden, M., & Tatini, R. (2010). Schizophrenia in older adults: How to adjust treatment to address aging patients' changing symptoms, comorbidities. *Current Psychiatry*, 9(9), 23-28.
- Gerhard, T., Devanand, D., Huang, C., Crystal, S., & Olfson, M. (2015). Lithium treatment and risk for dementia in adults with bipolar disorder: Population-based cohort study. *The British Journal of Psychiatry: The Journal of Mental Science*, 207(1), 46-51.
- Kales, H., Gitlin, L., & Lyketsos, C. (2014). Management of Neuropsychiatric Symptoms of Dementia in Clinical Settings: Recommendations from a Multidisciplinary Expert Panel. *Journal of the American Geriatrics Society*, 62(4), 762-769.
- Lala, Sonali V, Sajatovic, Martha, Gildengers, Ariel, & Young, Robert C. (2012). Medical and Psychiatric Comorbidities Among Elderly Individuals With Bipolar Disorder. *Journal of Geriatric Psychiatry and Neurology*, 25(1), 20-25.
- Lewandowski, Sperry, Malloy, & Forester. (2014). Age as a Predictor of Cognitive Decline in Bipolar Disorder. *The American Journal of Geriatric Psychiatry*, 22(12), 1462-1468.
- Nash, M., Tune, L., & Greenspan, D. (2013). Clinician's Debate: Use of Psychotropic Medications in Those Living in Nursing Homes With a Focus on Those With Dementia. *American Journal Of Geriatric Psychiatry*, 21(3), S8.
- Reus, V.I., Fochtmann, L.J., Eyler, A.E., Hilty, D.M., Horvitz-Lennon, M., . . . Yager, J. (2016). The American Psychiatric Association Practice Guideline on the Use of Antipsychotics to Treat Agitation or Psychosis in Patients With Dementia. American Journal of Psychiatry, 173(5), 543-546.
- Substance Abuse and Mental Health Services Administration. *The Treatment of Depression in Older Adults: Depression and Older Adults: Key Issues*. HHS Pub. No. SMA-11-4631, Rockville, MD: Center for Mental Health Services, Substance Abuse and Mental Health Services Administration, U.S. Department of Health and Human Services, 2011.
- Weisenbach, S., Marshall, D., Weldon, A., Ryan, K., Vederman, A., Kamali, M., . . . Langenecker, S. (2014). The double burden of age and disease on cognition and quality of life in bipolar disorder. *International Journal of Geriatric Psychiatry*, *29*(9), 952-961.

#### Appendix A. Beers List

This list is updated as research continues. Download this version, and search for the most current here: <a href="http://www.empr.com/clinical-charts/beers-list-potentially-inappropriate-drugs-for-elderly/article/125908/">http://www.empr.com/clinical-charts/beers-list-potentially-inappropriate-drugs-for-elderly/article/125908/</a>

#### BEERS LIST: POTENTIALLY INAPPROPRIATE DRUGS FOR ELDERLY (Part 1 of 3)

Alprazolam (increased sensitivity to benzodiazepines. Increased risk of cognitive impairment, delirium, falls, fractures, and motor vehicle accidents in older adults)

Amiodarone (data suggest that rate control yields better balance of benefits and harms than rhythm control for most older adults)

Amitriptyline (highly anticholinergic, sedating, and cause orthostatic hypotension)

Amobarbital (high rate of physical dependence; tolerance to sleep benefits; risk of overdose at low dosages)

Aripiprazole (increased risk of cerebrovascular accident [stroke] and mortality in persons with dementia)

Asenapine (increased risk of cerebrovascular accident [stroke] and mortality in persons with dementia)

Aspirin (>325mg/d) (increases risk of GI bleeding and peptic ulcer disease in high-risk groups, including those aged >75 or taking corticosteroids or anticoagulants)

**Belladonna alkaloids** (highly anticholinergic, uncertain effectiveness)

**Benztropine (oral)** (not recommended for prevention of extrapyramidal symptoms with antipsychotics; more-effective agents available for treatment of Parkinson disease)

**Brompheniramine** (highly anticholinergic; dearance reduced with advanced age, and tolerance when used as hypnotic; risk of confusion, dry mouth, constipation)

Butabarbital (high rate of physical dependence; tolerance to sleep benefits; risk of overdose at low dosages)

**Butalbital** (high rate of physical dependence; tolerance to sleep benefits; risk of overdose at low dosages)

Carbinoxamine (highly anticholinergic; dearance reduced with advanced age, and tolerance when used as hypnotic; risk of confusion, dry mouth, constipation)

Carisoprodol (most musde relaxants are poorly tolerated by older adults because of anticholinergic adverse effects, sedation, risk of fracture)

Chloral hydrate (tolerance occurs within 10 days, and risks outweigh benefits in light of overdose with doses only 3 times the recommended dose)

Chlorazepate (increased sensitivity to benzodiazepines. Increased risk of cognitive impairment, delirium, falls, fractures, and motor vehide accidents in older adults)

Chlordiazepoxide (increased sensitivity to benzodiazepines. Increased risk of cognitive impairment, delirium, falls, fractures, and motor vehide accidents in older adults)

Chlordiazepoxide-amitryptyline (highly anticholinergic, sedating, and cause orthostatic hypotension)

Chlorpheniramine (highly anticholinergic; dearance reduced with advanced age, and tolerance when used as hypnotic; risk of confusion, dry mouth, constipation)

Chlorpromazine (increased risk of cerebrovascular accident [stroke] and mortality in persons with dementia)

Chlorpropamide (prolonged half-life in older adults; can cause prolonged hypoglycemia; causes syndrome of inappropriate antidiuretic hormone secretion)

Chlorzoxazone (most muscle relaxants are poorly tolerated by older adults because of anticholinergic adverse effects, sedation, risk of fracture)

Clemastine (highly anticholinergic; clearance reduced with

advanced age, and tolerance when used as hypnotic; risk of confusion, dry mouth, constipation)

Clidinium-chlordiazepoxide (highly anticholinergic, uncertain effectiveness)

Clomipramine (highly anticholinergic, sedating, and cause orthostatic hypotension)

Clonazepam (increased sensitivity to benzodiazepines. Increased risk of cognitive impairment, delirium, falls, fractures, and motor vehicle accidents in older adults)

Clonidine (high risk of adverse CNS effects; may cause bradycardia and orthostatic hypotension; not recommended as routine treatment for hypertension)

Clozapine (increased risk of cerebrovascular accident [stroke] and mortality in persons with dementia)

Cyclobenzaprine (most muscle relaxants are poorly tolerated by older adults because of anticholinergic adverse effects, sedation, risk of fracture)

Cyproheptadine (highly anticholinergic; clearance reduced with advanced age, and tolerance when used as hypnotic; risk of confusion, dry mouth, constipation)

Dessicated thyroid (concerns about cardiac effects; safer alternatives available)

**Dexbrompheniramine** (highly anticholinergic; dearance reduced with advanced age, and tolerance when used as hypnotic; risk of confusion, dry mouth, constipation)

**Dexchlorpheniramine** (highly anticholinergic; dearance reduced with advanced age, and tolerance when used as hypnotic; risk of confusion, dry mouth, constipation)

**Diazepam** (increased sensitivity to benzodiazepines. Increased risk of cognitive impairment, delirium, falls, fractures, and motor vehicle accidents in older adults)

Diclofenac (increases risk of GI bleeding and peptic ulcer disease in high-risk groups, including those aged >75 or taking corticosteroids or anticoagulants)

Dicyclomine (highly anticholinergic, uncertain effectiveness)

Diffunisal (increases risk of GI bleeding and peptic ulcer disease in high-risk groups, including those aged >75 or taking corticosteroids or anticoagulants)

**Digoxin (>0.125 mg/d)** (in heart failure, higher dosages associated with no additional benefit and may increase risk of toxicity; slow renal dearance may lead to risk of toxic effects)

**Diphenhydramine (oral)** (highly anticholinergic; clearance reduced with advanced age, and tolerance when used as hypnotic; risk of confusion, dry mouth, constipation)

Dipyridamole (oral short acting [does not apply to extended-release combination with aspirin]) (may cause orthostatic hypotension; more effective alternatives available; intravenous form acceptable for use in cardiac stress testing)

**Disopyramide** (a potent negative inotrope and therefore may induce heart failure in older adults; strongly anticholinergic; other antiarrhythmic drugs preferred)

**Dofetilide** (data suggest that rate control yields better balance of benefits and harms than rhythm control for most older adults)

**Doxazosin** (high risk of orthostatic hypotension; not recommended as routine treatment for hypertension; alternative agents have superior risk/benefit profile)

**Doxepin (>6mg/d)** (highly anticholinergic, sedating, and cause orthostatic hypotension)

(continued)

#### BEERS LIST: POTENTIALLY INAPPROPRIATE DRUGS FOR ELDERLY (Part 2 of 3)

**Doxylamine** (highly anticholinergic clearance reduced with advanced age, and tolerance when used as hypnotic; risk of confusion, dry mouth, constipation)

**Dronedarone** (worse outcomes have been reported in patients taking dronedarone who have permanent atrial fibrillation or heart failure)

Ergot mesylates (lack of efficacy)

Estazolam (increased sensitivity to benzodiazepines. Increased risk of cognitive impairment, delirium, falls, fractures, and motor vehicle accidents in older adults)

Estrogens with or without progestins (evidence of carcinogenic potential [breast and endometrium]; lack of cardioprotective effect and cognitive protection in older women)

Eszopiclone (adverse effects similar to those of benzodiazepines (eg, delirium, falls, fractures); minimal improvement in sleep latency and duration)

Etodolac (increases risk of GI bleeding and peptic ulcer disease in high-risk groups, including those aged >75 or taking corticosteroids or anticoagulants)

Fenoprofen (increases risk of GI bleeding and peptic ulcer disease in high-risk groups, including those aged >75 or taking corticosteroids or anticoagulants)

Flecainide (data suggest that rate control yields better balance of benefits and harms than rhythm control for most older adults)

Fluphenazine (increased risk of cerebrovascular accident [stroke] and mortality in persons with dementia)

Flurazepam (increased sensitivity to benzodiazepines. Increased risk of cognitive impairment, delirium, falls, fractures, and motor vehicle accidents in older adults)

Glyburide (greater risk of severe prolonged hypoglycemia in older adults)

**Growth hormone** (effect of body composition is small and associated with edema, arthralgia, carpal tunnel syndrome, gynecomastia, impaired fasting glucose)

**Guanabenz** (high risk of adverse CNS effects; may cause bradycardia and orthostatic hypotension; not recommended as routine treatment for hypertension)

Guanfacine (high risk of adverse CNS effects; may cause bradycardia and orthostatic hypotension; not recommended as routine treatment for hypertension)

Haloperidol (increased risk of cerebrovascular accident [stroke] and mortality in persons with dementia)

Hydroxyzine (highly anticholinergic; clearance reduced with advanced age, and tolerance when used as hypnotic; risk of confusion, dry mouth, constipation)

Hyoscyamine (highly anticholinergic, uncertain effectiveness)

**Ibuprofen** (increases risk of GI bleeding and peptic ulcer disease in high-risk groups, including those aged >75 or taking corticosteroids or anticoagulants)

Ibutilide (data suggest that rate control yields better balance of benefits and harms than rhythm control for most older adults)

Iloperidone (increased risk of cerebrovascular accident [stroke] and mortality in persons with dementia)

Imipramine (highly anticholinergic, sedating, and cause orthostatic hypotension)

Indomethacin (increases risk of GI bleeding and peptic ulcer disease in high-risk groups, including those aged >75 or taking corticosteroids or anticoagulants)

Insulin (sliding scale) (higher risk of hypoglycemia without improvement in hyperglycemia management regardless of care setting)

Isoxsuprine (lack of efficacy)

**Ketoprofen** (increases risk of GI bleeding and peptic ulcer disease in high-risk groups, including those aged >75 or taking corticosteroids or anticoagulants)

**Ketorolac (includes parenteral)** (increases risk of GI bleeding and peptic ulcer disease in high-risk groups, including those aged >75 or taking corticosteroids or anticoagulants)

Lorazepam (increased sensitivity to benzodiazepines. Increased risk of cognitive impairment, delirium, falls, fractures, and motor vehicle accidents in older adults)

Loxapine (increased risk of cerebrovascular accident [stroke] and mortality in persons with dementia)

Lurasidone (increased risk of cerebrovascular accident [stroke] and mortality in persons with dementia)

Meclofenamate (increases risk of GI bleeding and peptic ulcer disease in high-risk groups, including those aged > 75 or taking corticosteroids or anticoagulants)

Mefenamic acid (increases risk of GI bleeding and peptic ulcer disease in high-risk groups, including those aged > 75 or taking corticosteroids or anticoagulants)

Megestrol (minimal effect on weight; increases risk of thrombotic events and possibly death in older adults)

Meloxicam (increases risk of GI bleeding and peptic ulcer disease in high-risk groups, including those aged >75 or taking corticosteroids or anticoagulants)

Meperidine (not an effective oral analgesic in dosages commonly used; may cause neurotoxicity; safer alternatives available)

Mephobarbital (high rate of physical dependence; tolerance to sleep benefits; risk of overdose at low dosages)

Meprobamate (high rate of physical dependence; very sedating)

Mesoridazine (highly anticholinergic and risk of QT-interval prolongation)

**Metaxalone** (most muscle relaxants are poorly tolerated by older adults because of anticholinergic adverse effects, sedation, risk of fracture)

Methocarbamol (most musde relaxants are poorly tolerated by older adults because of anticholinergic adverse effects, sedation, risk of fracture)

Methyldopa (high risk of adverse CNS effects; may cause bradycardia and orthostatic hypotension; not recommended as routine treatment for hypertension)

Methyltestosterone (potental for cardiac problems and contraindicated in men with prostate cancer)

Metoclopramide (can cause extrapyramidal effects including tardive dyskinesia; risk may be even greater in frail older adults)

Mineral oil (oral) (potential for aspiration and adverse effects; safer alternatives available)

Molindone (increased risk of cerebrovascular accident [stroke] and mortality in persons with dementia)

Nabumetone (increases risk of GI bleeding and peptic ulcer disease in high-risk groups, including those aged >75 or taking corticosteroids or anticoagulants)

Naproxen (increases risk of GI bleeding and peptic ulcer disease in high-risk groups, including those aged >75 or taking corticosteroids or anticoagulants)

(continued)

#### BEERS LIST: POTENTIALLY INAPPROPRIATE DRUGS FOR ELDERLY (Part 3 of 3)

Nifedipine (immediate release) (potential for hypotension; risk of precipitating myocardial ischemia)

Nitrofurantoin (potential for pulmonary toxicity; safer alternatives available; lack of efficacy in patients with CrO<60mL/ min due to inadequate drug concentration in the urine)

Olanzapine (increased risk of cerebrovascular accident [stroke] and mortality in persons with dementia)

Orphenadrine (most muscle relaxants are poorly tolerated by older adults because of anticholinergic adverse effects, sedation, risk of fracture)

Oxaprozin (increases risk of GI bleeding and peptic ulcer disease in high-risk groups, including those aged >75 or taking corticosteroids or anticoagulants)

Oxazepam (increased sensitivity to benzodiazepines. Increased risk of cognitive impairment, delirium, falls, fractures, and motor vehicle accidents in older adults)

Paliperidone (increased risk of cerebrovascular accident [stroke] and mortality in persons with dementia)

Pentazocine (opioid analgesic that causes CNS adverse effects, including confusion and hallucinations, more commonly than other narcotic drugs)

Pentobarbital (high rate of physical dependence; tolerance to sleep benefits; risk of overdose at low dosages)

Perphenazine (increased risk of cerebrovascular accident [stroke] and mortality in persons with dementia)

Perphenazine-amitriptyline (highly anticholinergic, sedating, and cause orthostatic hypotension)

Phenobarbital (high rate of physical dependence; tolerance to sleep benefits; risk of overdose at low dosages)

Pimozide (increased risk of cerebrovascular accident [stroke] and mortality in persons with dementia)

**Piroxicam** (increases risk of GI bleeding and peptic ulcer disease in high-risk groups, including those aged >75 or taking corticosteroids or anticoagulants)

Prazosin (high risk of orthostatic hypotension; not recommended as routine treatment for hypertension; alternative agents have superior risk/benefit profile)

Procainamide (data suggest that rate control yields better balance of benefits and harms than rhythm control for most older adults)

**Promazine** (increased risk of cerebrovascular accident [stroke] and mortality in persons with dementia)

Promethazine (highly anticholinergic; dearance reduced with advanced age, and tolerance when used as hypnotic; risk of confusion, dry mouth, constipation)

**Propafenone** (data suggest that rate control yields better balance of benefits and harms than rhythm control for most older adults)

Propantheline (highly anticholinergic, uncertain effectiveness)

Quazepam (increased sensitivity to benzodiazepines. Increased risk of cognitive impairment, delirium, falls, fractures, and motor vehicle accidents in older adults)

Quetiapine (increased risk of cerebrovascular accident [stroke] and mortality in persons with dementia)

Quinidine (data suggest that rate control yields better balance of benefits and harms than rhythm control for most older adults) Reserpine (>0.1 mg/d) (high risk of adverse CNS effects; may cause bradycardia and orthostatic hypotension; not recommended as routine treatment for hypertension)

Risperidone (increased risk of cerebrovascular accident [stroke] and mortality in persons with dementia)

Scopolamine (highly anticholinergic, uncertain effectiveness)

Secobarbital (high rate of physical dependence; tolerance to sleep benefits; risk of overdose at low dosages)

Sotalol (data suggest that rate control yields better balance of benefits and harms than rhythm control for most older adults)

Spironolactone (>25mg/d) (in heart failure, the risk of hyperkalemia is higher in older adults, esp. if taking >25mg/d or taking concomitant NSAID, ACE inhibitor, ARB, or K+ supplement)

Sulindac (increases risk of GI bleeding and peptic ulcer disease in high-risk groups, including those aged >75 or taking corticosteroids or anticoagulants)

Ternazepam (increased sensitivity to benzodiazepines. Increased risk of cognitive impairment, delirium, falls, fractures, and motor vehicle accidents in older adults)

Terazosin (high risk of orthostatic hypotension; not recommended as routine treatment for hypertension; alternative agents have superior risk/benefit profile)

Testosterone (potental for cardiac problems and contraindicated in men with prostate cancer)

Thioridazine (highly anticholinergic and risk of QT-interval prolongation)

Thiothixene (increased risk of cerebrovascular accident [stroke] and mortality in persons with dementia)

Ticlopidine (safer effective alternatives available)

Tolmetin (increases risk of GI bleeding and peptic ulcer disease in high-risk groups, including those aged >75 or taking corticosteroids or anticoagulants)

**Triazolam** (increased sensitivity to benzodiazepines. Increased risk of cognitive impairment, delirium, falls, fractures, and motor vehicle accidents in older adults)

**Trifluoperazine** (increased risk of cerebrovascular accident [stroke] and mortality in persons with dementia)

Triflupromazine (increased risk of cerebrovascular accident [stroke] and mortality in persons with dementia)

Trihexyphenidyl (not recommended for prevention of extrapyramidal symptoms with antipsychotics; more-effective agents available for treatment of Parkinson disease)

**Trimethobenzamide** (one of the least effective antiemetic drugs; can cause extrapyramidal adverse effects)

**Trimipramine** (highly anticholinergic, sedating, and cause orthostatic hypotension)

**Triprolidine** (highly anticholinergic; dearance reduced with advanced age, and tolerance when used as hypnotic; risk of confusion, dry mouth, constipation)

Zaleplon (adverse effects similar to those of benzodiazepines (eg, delirium, falls, fractures); minimal improvement in sleep latency and duration)

Ziprasidone (increased risk of cerebrovascular accident [stroke] and mortality in persons with dementia)

Zolpidem (adverse effects similar to those of benzodiazepines (eg, delirium, falls, fractures); minimal improvement in sleep latency and duration)

#### REFERENCES

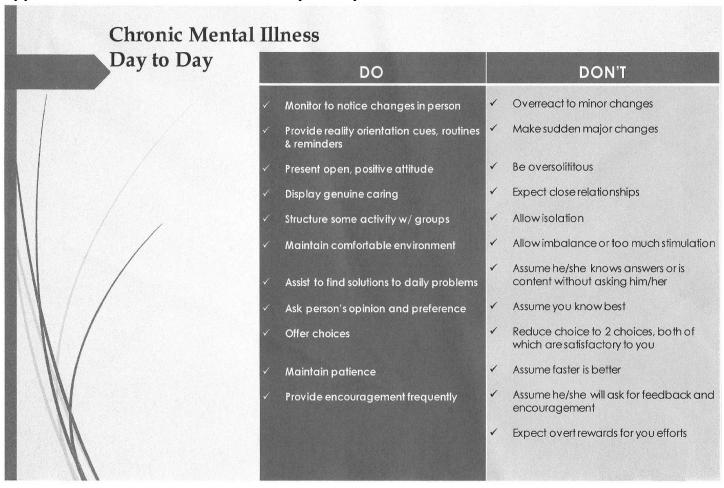
Adapted from: American Geriatrics Society Updated Beers Criteria for Potentially Inappropriate Medication Use in Older Adults. (Table 2).
The American Geriatrics Society 2012 Beers Criteria Update Expert Panel. JAm Geriatr Soc. 2012;60:616-631. (Rev. 6/2012)

# **Appendix B. Cognitive Pyramid**

BEHAVIORS			INTERVENTIONS
Ox4, Sphere of awareness: global, uses abstract thinking, multi-tasks Plans future tasks, demonstrates carryover Self-corrects, anticipates events Demonstrates insight into condition	Watches and discusses TV programming cogently Independently manages extraneous stimuli     Memory intact, recognizes all team members     Anticipates need for assistance	Executive Function Unstructured Environment: Distraction Tolerated	Collaborate on creating plan for the day Allow for greatest freedom within the limits of pt's condition Encourage empowered decision-making Provide education regarding continued risk assessment
Ox3, Sphere of awareness: includes hospital environment Alternates attention with ease Able to recall new multi-step tasks Plans for present Acknowledges need for assistance Requests resources to implement plan Initiates use of correct strategy	Self-focused behaviors: "Here and now thinking"     Demonstrates emerging insight     Watches TV and uses remote, recalls programming     May need cues to manage extraneous stimuli	Reasoning and Judgment Moderately Structured Environment	Collaborate on plan for the day Help pt take ownership of things pt can do Discuss daily, seasonal events Problem solve collaboratively Support pt's goals for ADL and mobility Break down information into tasks/steps  OHSU
Ox1-2, possibly 3, sphere of awareness: include room environment Alternates between 2-3 stimuli Follows 3-step directions May acknowledge existing problems Can sustain attention 5-10 min May exhibit impulsive behavior	Behavior not consistent with pt's stated understanding of condition May have memorized info but cannot implement independently Watches TV, loses remote, forgets programming Needs assistance to manage extraneous stimuli/safe ambulation	Memory/ New Learning Highly Structured Environment: Minimal Distraction	Provide external orientation aids—write on whiteboard correct date, place, situation and simple goals for the day     Provide assist to identify when problem is occurring, help generate possible solutions      *Focus on one activity or one person at a time     *Help pt prioritize activities provide immediate and objective feedback during the activity     Help prioritize top 2 goals for pt to focus on     *Acknowledge frustration*
Ox1-2 , sphere of awareness: extends to bedside table Alternates between 2 stimuli Demonstrates spontaneous motor movements after prompting Follows 2-step directions Can sustain attention 2-5 min May demonstrate emerging awareness	of existing problems, but lacks insight into deficits  • May watch TV but does not track content  • Pt may hyper-focus on extraneous stimuli  • Poor insight into balance deficits	Environmental/ Spatial Awareness Highly Structured Environment: Minimal Distraction	Post signage at bedside Establish functional routine and activity Allow for extra time for safe transfers Gentle redirection, use repetition to increase pt's awareness Identify problems and priorities for pt and give limited choice of solutions Allow increased time to respond to
Orients to name, sphere of awareness = bed Pulls on lines, sheets, exit-seeking Redirecting pt is difficult, often not possible given reduced processing ability Closes eyes frequently, does not sustain eye contact May recall single-step task or have difficulty starting a task May misperceive environment and/ or use common items inappropriately</td <td>(brush hair with toothbrush, does not register TV)  No memory of care providers  May visually hallucinate  Often exhibits fear and distress/anxiety  Extraneous stimuli contributes to agitation  Minimal balance awareness</td> <td>Attention Completely Structured Environment: Non-distracting</td> <td>Close (18 inches) engagement with eye contact to cue     Engage pt in a simple/familiar task: i.e., washing face, combing hair, etc.     Reassure pt he is in safe environment. When mobilizing use second person for safety, supervised when out of bed     Don't insist on re-orientation, use distraction when indicated     Gentle redirection providing safety reassurance</td>	(brush hair with toothbrush, does not register TV)  No memory of care providers  May visually hallucinate  Often exhibits fear and distress/anxiety  Extraneous stimuli contributes to agitation  Minimal balance awareness	Attention Completely Structured Environment: Non-distracting	Close (18 inches) engagement with eye contact to cue     Engage pt in a simple/familiar task: i.e., washing face, combing hair, etc.     Reassure pt he is in safe environment. When mobilizing use second person for safety, supervised when out of bed     Don't insist on re-orientation, use distraction when indicated     Gentle redirection providing safety reassurance
Alerts to name/tactile stimulation Pt may open eyes briefly to verbal/ tactile stimulus Gaze non-focal	Unaware of environmental cues including TV     Brief but unsustained eye contact     Demonstrates 1 motor movement following passive movement	Arousal Completely Structured Environment: Non-distracting	Assist with face washing, hand/foot massage     Gentle sensory stimulation, i.e. gentle voice, calming music     Passive range of motion     Completely dependent on others for safety, provide and manage safe environment     TV is untherapeutic     Include starred (*) interventions for in Environmental/Spatial Awareness

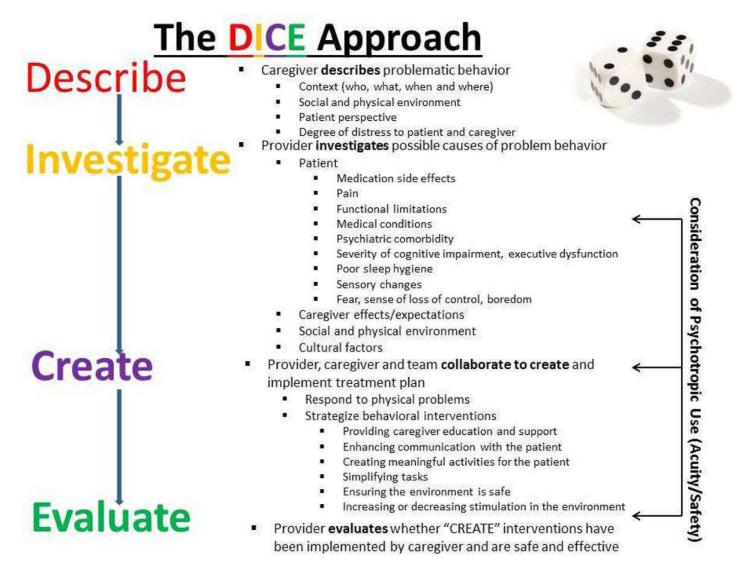
Reproduced with permission from Dianne Wheeling

Appendix C. Chronic Mental Illness Day to Day



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#### Appendix D. The DICE Approach (Kales, Gitlin, & Lyketsos, 2014)



For more information visit <a href="http://www.programforpositiveaging.org/research/dice-approach/">http://www.programforpositiveaging.org/research/dice-approach/</a>