De-prescribing of Antipsychotics in Nursing Home Patients: Current CMS Guidelines

De-Prescribing of Antipsychotics in Nursing Home Patients: Current CMS Guidelines

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Disclosures

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- We have had no financial relationships in the past 12 months with any companies that produce proprietary products discussed in this presentation.

- Dr. Carnahan is serving as an independent consultant to the US Department of Justice on issues related to medication use in nursing homes.

- No drug is FDA approved to treat neuropsychiatric/behavioral disturbances in dementia.
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Objectives

- List appropriate indications for antipsychotic use in patients with dementia
- List inappropriate indications for antipsychotic use in older adults
- Discuss “off-label” uses of antipsychotics at the end of life

Brief Overview of Antipsychotic Use in Dementia
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Meet Mrs. A

- 86 y/o widow
- Enrolled in hospice for NASH leading to end stage liver disease
- In a Nursing Home due to mild dementia
- Poorly controlled diabetes, mild hypertension
- History of anxiety and depression

The Challenge

- Very few drugs help for problem behaviors or psychosis in dementia
- Antipsychotics are the main drug treatment
  - ~22% of NH residents get antipsychotics
    - Varies widely by state (~16.3-29.1%) and facility
  - Effectiveness is modest
  - Serious side effects, including death
- Non-drug methods are preferred
  - Providers may feel or be poorly trained to use non-drug behavior management techniques

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The Problem

• ~22% of atypical antipsychotic prescriptions in nursing homes are problematic per Centers for Medicare and Medicaid Services (CMS) standards

<table>
<thead>
<tr>
<th>Problem per CMS standards</th>
<th>% of claims</th>
</tr>
</thead>
<tbody>
<tr>
<td>Excessive dose</td>
<td>10.4%</td>
</tr>
<tr>
<td>Excessive duration</td>
<td>9.4%</td>
</tr>
<tr>
<td>Without adequate indication</td>
<td>8.0%</td>
</tr>
<tr>
<td>Without adequate monitoring</td>
<td>7.7%</td>
</tr>
<tr>
<td>In the presence of adverse effects that indicate the dose should be reduced or discontinued</td>
<td>4.7%</td>
</tr>
</tbody>
</table>


Antipsychotics and Mortality in Dementia

• Black Box Warning Issued in 2004
  – Elderly with dementia-related psychosis treated with these drugs at increased risk for death compared to placebo

• Fairly consistent across all antipsychotics
  – Accumulating evidence suggests conventionals have a higher risk

• Relative risk = 1.6-1.7
  – Absolute risk = 3.5% vs. 2.3% with placebo

• Number Needed to Harm = 83
  – Number need to treat = 5-14
  – For every 9-25 persons helped, 1 death associated with use

Jeste et al, Neuropsychopharmacology 2008;33:957-70
Huybrechts et al, BMJ 2012344;e977.
Antipsychotic Adverse Effects

- Sedation
- Postural hypotension
- Falls
- Extrapyramidal
  - Parkinsonism
- Cerebrovascular
  - OR 2.1, ARI ~1%
- Mortality
  - Infection and cardiac
- Metabolic side effects (weight gain, etc.)


Problem Behaviors and Psychosis in Dementia

Communication  Environment

Other Stressors  Drugs

Severity and Type of Dementia
Depression/Anxiety/Insomnia
Medical Conditions
Unmet Needs
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CMS Regulations for Nursing Homes

- Antipsychotic use guidance updated in a transmittal November 26, 2014
- Major changes in nursing home regulations just released
- Resources highlighted from the IA-ADAPT program
  - Improving Antipsychotic Appropriateness in Dementia Patients
  - https://www.healthcare.uiowa.edu/igec/iaadapt/

Nursing Home Quality Metrics and Surveys

- Nursing home 5-star ratings are impacted by antipsychotic use
  - Schizophrenia, Huntington’s, and Tourette’s excluded from denominator
- Nursing homes can be cited and fined if regulations are not followed
  - Documentation of symptoms justifying use, the evaluation of their causes, and the behavioral interventions attempted prior to antipsychotics is always essential
Before Using an Antipsychotic

- Identify and address other causes of symptoms
  - Physical
  - Functional
  - Psychological
  - Emotional
  - Psychiatric
  - Social
  - Environmental

- Document that the symptom is persistent
- Use and document behavioral interventions
  - These should be continued with a goal of eliminating the medication

### Caring for People with Dementia and Problem Behaviors: A Step-by-Step Evidence-Based Approach

#### 1. Evaluation
- Clearly characterize and document behavior or symptoms, including frequency, severity, triggers, and consequences.
- Consider environmental factors and triggers. Are they modifiable?
- Perform medical evaluation (elkement, medical conditions, pain, depression, etc.). See Common Causes of Problem Behaviors (see other card). Delirium Assessment and Management and Drugs That May Cause Delirium or Problem Behaviors.

#### 2. Address these causes if they are identified.
- Make sure the behavior is persistent or not a transitory event.

#### 3. Therapy with non-drug approaches
- Engage in meaningful activities, redirect, clear communication, etc. See Non-Drug Management.

- Consider alternative drug reduction or discontinuation if the drug is not effective, side effects exist, or the behaviors have been insufficient. See Antipsychotics Prescribing Guide.

### Evaluation of Problem Behaviors in People with Dementia

#### Common Causes of Problem Behaviors

<table>
<thead>
<tr>
<th>Physical</th>
<th>Psychological</th>
<th>Environmental</th>
</tr>
</thead>
<tbody>
<tr>
<td>Fatigue, loneliness, pain</td>
<td>Anxiety, fear, depression</td>
<td>Caregiver frustration</td>
</tr>
<tr>
<td>Use theseSelected causal factors</td>
<td>Violence, ridicule, isolation</td>
<td>Community issues</td>
</tr>
<tr>
<td>Increased agitation</td>
<td>Noise, confusion, disorientation</td>
<td>Change in usual activities</td>
</tr>
<tr>
<td>Intermittent pain</td>
<td>Assistance rejection of new setting</td>
<td>Caregiver frustration</td>
</tr>
</tbody>
</table>

#### Consider the Following Assessments
- Check: Visual, aural, olfactory, taste, tactile, upper extremity

### Common Sources of Pain
- Severe pain, other uncontrolled pain, pain symptom depression, joint pain, pain related to bone/joint deformity
- Use a pain scale that monitors pain intensity

### Delirium Assessment
- See Delirium Assessment and Management

### Delirium, or other arousal symptoms
- Blood glucose, CBC with differential, electrolytes if appropriate
- Drug side effects:
  - See Drugs that May Cause Delirium or Problem Behaviors
  - Recent changes: environmental, routines, family, drugs, medical
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### De-prescribing Assessment and Management

#### Definition of De-prescribing

- Discontinuation of antipsychotics, cognitive stimulation, activity, and communication to improve patient outcomes.
- Antipsychotics are unnecessary, potentially harmful, or cause unnecessary side effects.

#### Indications for De-prescribing

1. Is the patient in a de-escalated state? (Yes/No)
2. Is the patient receiving antipsychotic therapy as a last resort? (Yes/No)
3. Is there evidence of adverse effects? (Yes/No)
4. Is there evidence of non-pharmacological interventions? (Yes/No)

#### De-prescribing Plan

- Use consensus-based guidelines and best practices.
- Implement a multidisciplinary approach involving nurses, pharmacists, and therapists.
- Monitor for signs of withdrawal and adjust treatment accordingly.

#### De-prescribing Tool

- Support delusions and paranoia using non-pharmacological interventions.
- Use cognitive behavioral therapy, occupational therapy, and speech therapy.
- Consider adjunctive treatments such as nutritional support and physical activity.

### Antipsychotics

#### Antipsychotics

- **Typical (Conventional):** Haloperidol, Thorazine, Prolixin, and others.
- **Atypical:** Olanzapine, Risperidone, Clozapine, and others.

#### Indications for De-prescribing

2. Presence of severe neurologic side effects.
3. Presence of extrapyramidal symptoms.

#### Contraindications for De-prescribing

1. Presence of severe agitation.
2. Presence of severe psychosis.
3. Presence of severe depression.

### Antipsychotics - Side Effects

- **Typical (Conventional):** Dystonia, akathisia, parkinsonism, and others.
- **Atypical:** Neuroleptic malignant syndrome, and others.

### De-prescribing Strategies

- Use cognitive-behavioral therapy, occupational therapy, and speech therapy.
- Use non-pharmacological interventions such as physical activity, environmental changes, and lifestyle modifications.
- Use individualized care plans to address specific patient needs.

### References

- American Psychiatric Association.
- Centers for Medicare & Medicaid Services.
- National Institute on Aging.

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### Drugs That May Cause Delirium or Problem Behaviors

#### Delirium

- **Hallucinations:** Auditory, visual, and tactile.
- **Confusion:** Difficulty with attention, memory, and orientation.
- **Motor Restlessness:** Agitation, pacing, and other movements.

#### Problem Behaviors

- **Agitation:** Restlessness, pacing, and other movements.
- **Aggression:** Verbal and physical aggression.
- **Depression:** Suicidal ideation and behavior.

### Medication Safety

- **Antipsychotics:** Haloperidol, Thorazine, Prolixin, and others.
- **Atypical Antipsychotics:** Olanzapine, Risperidone, Clozapine, and others.

### Medication Management

- **Avoid polypharmacy:** Use the least number of medications necessary.
- **Monitor for side effects:** Regularly assess for signs of drug toxicity.
- **Consult with healthcare professionals:** When changing medications or dose adjustments.

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### Author

Dr. Jane Smith, MD

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**Audience Response Question**

- Mrs. A is reporting problems sleeping and the nursing home says she is less cooperative with care, occasionally incontinent, and restless and distressed during the day. Which of the following is an appropriate antipsychotic treatment target in nursing homes per CMS guidance?
  - A. Distress
  - B. Restlessness
  - C. Uncooperativeness
  - D. None of the above

**Mrs. A**

- You examine Mrs. A and she reports dysuria so you check a UA and find a UTI. With treatment Mrs. A returns to baseline.
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<table>
<thead>
<tr>
<th>Potentially Appropriate Antipsychotic Treatment Targets</th>
</tr>
</thead>
<tbody>
<tr>
<td>• Hallucinations</td>
</tr>
<tr>
<td>• Delusions (e.g. thinks people are stealing lost items, note: memory problems are often mistaken for delusions)</td>
</tr>
<tr>
<td>• Aggressive behavior (especially physical)</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Formerly Appropriate Antipsychotic Treatment Targets</th>
</tr>
</thead>
<tbody>
<tr>
<td>• If the symptom presents a danger to the patient or others</td>
</tr>
<tr>
<td>• Or, causes the patient to experience</td>
</tr>
<tr>
<td>– Inconsolable or persistent distress</td>
</tr>
<tr>
<td>– Significant decline in function</td>
</tr>
<tr>
<td>– Substantial difficulty receiving needed care</td>
</tr>
</tbody>
</table>
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**Updated Appropriate Antipsychotic Treatment Targets**

- For nursing homes, per CMS, Nov. 2014
- Symptoms **must present a danger** to the resident or others, AND either
  - The symptoms are due to mania or psychosis
  - Or behavioral interventions have been attempted and included in the plan of care
- Excludes persistent distress, decline in function, and difficulty with needed care


**Inappropriate Antipsychotic Treatment Targets**

- Wandering
- Poor self-care
- Restlessness
- Impaired memory
- Mild anxiety
- Insomnia
- Inattention or indifference to surroundings
- Sadness or crying alone that is not related to depression or other psychiatric disorder
- Nervousness
- Uncooperativeness (refusal or difficulty receiving care)
- Fidgeting
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Other Notable Criteria

- Other causes must be ruled out, and symptoms must be persistent
- Non-drug interventions should be used for persistent symptoms unless contraindicated
- Emergency treatment should lead to interdisciplinary evaluation within 7 days
- Need for antipsychotics in those admitted on them should be evaluated in initial MDS assessment
  - Within 2 weeks of admission

Other Conditions in Which Antipsychotics Can be Used

The same criteria regarding impact of symptoms are required to justify use

- Schizophrenia
- Schizoaffective disorder
- Schizophreniform disorder
- Delusional disorder
- Mood disorders
  - e.g., bipolar disorder, severe depression refractory to other therapies and/or with psychotic features
- Psychosis in the absence of dementia
- Medical illnesses with psychotic symptoms
- Tourette’s disorder
- Huntington’s disease
- Hiccups (not induced by other medications)
- Nausea and vomiting associated with cancer or chemotherapy
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Comments

• These are CMS nursing facility regulations
  – Similar principles apply to other settings
  – However, the threshold of dangerousness to self or others to justify antipsychotic use is a high one
    • If the patient is harmed due to the symptom, e.g. won’t socialize due to delusions, this could potentially justify use with good documentation (depends on surveyor interpretation)

• Antipsychotic use in other settings may be OK if target symptoms produce severe and persistent distress
  – Even if the symptoms do not pose a clear physical danger to the individual or others
  – If use improves the individual’s quality of life

Audience Response Question

• Mrs. A starts to refuse her medications saying that they are “poison” and has struck a nurse who was passing medications. You decide to trial an antipsychotic. What needs to be documented in the chart for CMS?
  A. A trial (and failure) of behavioral interventions
  B. A trial showing benzodiazepines are ineffective
  C. Your logic for the antipsychotic that your chose
  D. A new diagnosis of schizophrenia
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### Non-Drug Management of Problem Behaviors and Psychosis in Dementia

#### STEP 1: ASSESS & TREAT CONTRIBUTING FACTORS
- Focus on one behavior at a time.
- Note how often, how fast, how long, & document specific details.
- Ask: What is really going on? What is causing the problem behavior? What is making it worse?

#### IDENTIFY what leads to or triggers problems:
- Physical: pain, infection, injuries, falls, irritability, restlessness, etc.
- Psychological: solitude, boredom, denial of disease
- Environmental: too much/too little going on, etc.
- Psychiatric: depression, anxiety, psychosis?

#### RULE OUT things that lead to or trigger the problems:
- Treat medical/physical problems
- Offer non-pharmacologic interventions for comfort or to help control behavior
- Address environmental needs: boundaries, encourage, engage
- Offer environmental reorientation to reduce disorientation (eg, small group size)
- Encourage or discourage stimulating objects
- Redirect away from people or areas that lead to problems
- Try another approach, try again later
- Find new words for others; get someone to help

#### DOCUMENT outcomes:
- If the behavior is reduced or manageable, go to Step 3
- If the behavior persists, go to Step 2

#### STEP 2: SELECT & APPLY INTERVENTIONS
- Cognitive-behavioral therapy
- Physical restraint
- Environmental reorientation
- Pharmacological interventions
- Person-centered plan
- Accept, labelling, environment-based interventions tailored to the person’s unique needs/interests

#### STEP 3: SELECT & APPLY INTERVENTIONS, CONTINUED
- Adjust medication profile
- Adjust environmental interventions
- Solicit/Toe best evidence-based interventions tailored to the person’s unique needs/interests

#### AGREE on an approach to the person:
- Personal approach: use, prefer, refusal, distress, focus on person’s abilities, interests, personalizing approach as indicated
- Try to increase touch and eye contact in person’s usual environment
- Reduced doses of antipsychotics

#### BODY language:
- Simplify tasks and put them in a regular routine
- Offer novel objects: use long-standing patterns and preferences to guide routines & activities
- Communication style: simple words and phrases; speak clearly, wait for answers, make eye contact; maintain tone of voice and body language

#### UNCONSCIOUS positive regard:
- Use non-verbal, challenging or regular routines/patterns: duration, intensity, frequency; accept belief as real to the person; reassurance, comfort, and support
Antipsychotic Choice

- Evidence supports modest symptom improvements with
  - Haloperidol (*Haldol*®)
  - Olanzapine (*Zyprexa*®)
  - Quetiapine (*Seroquel*®)
    - less supportive evidence
  - Risperidone (*Risperdal*®)
  - Aripiprazole (*Abilify*®)

- Research does not support use of other antipsychotics in dementia

*all now available as generics, but cost may remain a factor

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AHRQ Summary of Efficacy: Atypical Antipsychotics

<table>
<thead>
<tr>
<th></th>
<th>Aripiprazole</th>
<th>Olanzapine</th>
<th>Quetiapine</th>
<th>Risperidone</th>
</tr>
</thead>
<tbody>
<tr>
<td>Dementia-Overall</td>
<td>++</td>
<td>+</td>
<td>+</td>
<td>++</td>
</tr>
<tr>
<td>Dementia-Psychosis</td>
<td>+</td>
<td>+/-</td>
<td>+/-</td>
<td>++</td>
</tr>
<tr>
<td>Dementia-Agitation</td>
<td>+</td>
<td>++</td>
<td>+/-</td>
<td>++</td>
</tr>
</tbody>
</table>

**Legend:**

++ = Moderate or high evidence of efficacy
+  = Low or very low evidence of efficacy
+/- = Mixed results

http://www.effectivehealthcare.ahrq.gov/index.cfm/search-for-guides-reviews-and-reports/?productid=786&pageaction=displayproduct
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**Evidence for the Use of Antipsychotics for Behavioral Disturbances**

- Modest efficacy in RCTs with some drugs
  - Risperidone for psychosis
  - Aripiprazole and Risperidone for neuropsychiatric symptoms
    - Benefits ↑ in those without psychosis, in nursing homes, and with severe cognitive impairment
  - Haloperidol similar efficacy to atypicals
  - 4 negative placebo controlled trials with quetiapine


**Dementia Type-Specific Issues**

- Parkinson’s Disease / Lewy Body Dementia
  - Tolerate antipsychotics poorly
    - Sensitive to extrapyramidal side effects (parkinsonism)
    - High risk of neuroleptic malignant syndrome
      - Signs/Symptoms: fever, sweating, unstable BP, stupor, muscle rigidity, autonomic dysfunction
      - Potentially deadly
  - Reduce antiparkinson med doses for psychosis
  - Cholinesterase inhibitors (rivastigmine) may reduce hallucinations (but may cause syncope)
  - Memantine may produce “global improvements”

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Dementia Type-Specific Issues

• Frontotemporal Dementia
  – Preliminary data for trazodone
    • Titrated up to 300 mg, but limited by fatigue, dizziness, hypotension, cold extremities
  – Preliminary data for stimulants
    • Methylphenidate (risk taking)
    • Dextroamphetamine (reduced NPI)
  – Mixed data on paroxetine
    • May worsen cognition


Selecting an Antipsychotic

• Receptor Binding – and effects
• Consider adverse effect impact on patient co-morbidities when choosing an antipsychotic
  – Metabolic Disease (Diabetes, Hyperlipidemia)
    • Avoid olanzapine
  – Parkinson’s Disease
    • Avoid haloperidol and most antipsychotics (quetiapine may be preferred, though evidence for efficacy is poor)
    • Clozapine an option
• Start with a low dose

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### Antipsychotic Affinity for Neuroreceptors

<table>
<thead>
<tr>
<th>Receptor</th>
<th>Haloperidol * Halodol®</th>
<th>Aripiprazole Abilify®</th>
<th>Risperidone Risperdal®</th>
<th>Olanzapine Zyprexa®</th>
<th>Quetiapine Seroquel®</th>
</tr>
</thead>
<tbody>
<tr>
<td>D&lt;sub&gt;2&lt;/sub&gt; - Dopamine Antipsychotic/EPS</td>
<td>+++</td>
<td>+++ (partial agonist)</td>
<td>+++</td>
<td>++</td>
<td>0</td>
</tr>
<tr>
<td>5HT&lt;sub&gt;2A&lt;/sub&gt; - Serotonin Anti-EPS</td>
<td>+</td>
<td>++</td>
<td>++++</td>
<td>+++</td>
<td>+</td>
</tr>
<tr>
<td>5HT&lt;sub&gt;2C&lt;/sub&gt; - Serotonin Weight gain</td>
<td>0</td>
<td>++</td>
<td>+</td>
<td>+++</td>
<td>0</td>
</tr>
<tr>
<td>α&lt;sub&gt;1&lt;/sub&gt; - Adrenergic Sedation, Hypotension</td>
<td>++</td>
<td>+</td>
<td>+++</td>
<td>+</td>
<td>++</td>
</tr>
<tr>
<td>H&lt;sub&gt;1&lt;/sub&gt; - Sedation, weight gain</td>
<td>0</td>
<td>+</td>
<td>+++</td>
<td>++++</td>
<td>++</td>
</tr>
<tr>
<td>M&lt;sub&gt;1&lt;/sub&gt; - Confusion, Anticholinergic</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>+</td>
<td>0 (++)</td>
</tr>
</tbody>
</table>

*0 = very low or no affinity, dissociation constant, K<sub>d</sub> > 5000nM, + K<sub>d</sub> = 25-45nM, ++ K<sub>d</sub> = 8.7-24nM, +++ K<sub>d</sub> = 0.8-5.2. ++++ = most potent, K<sub>d</sub> 0.1-0.3nM. Richelson, J Clin Psych 2010, 71:9


### Selecting an Antipsychotic

<table>
<thead>
<tr>
<th>Drug (daily dose range)</th>
<th>Aripiprazole (2-10 mg) Abilify</th>
<th>Haloperidol (0.25-2 mg) Haldol</th>
<th>Olanzapine (2.5-7.5 mg) Zyprexa</th>
<th>Quetiapine (12.5-150 mg) Seroquel</th>
<th>Risperidone (0.25-2 mg) Risperdal</th>
</tr>
</thead>
<tbody>
<tr>
<td>Movement Side Effects¹</td>
<td>□□□□□</td>
<td>□□□□□</td>
<td>□□□□□</td>
<td>□□□□□</td>
<td>□□□□□</td>
</tr>
<tr>
<td>Central Nervous System</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Sedation</td>
<td>□□□□□</td>
<td>□□□□□</td>
<td>□□□□□</td>
<td>□□□□□</td>
<td>□□□□□</td>
</tr>
<tr>
<td>Confusion, delirium, other cognitive worsening</td>
<td>□</td>
<td>0</td>
<td>□□□□</td>
<td>□</td>
<td>□</td>
</tr>
<tr>
<td>Worsening psychotic symptoms</td>
<td>0</td>
<td>0</td>
<td>□</td>
<td>0</td>
<td>0</td>
</tr>
<tr>
<td>Cardiovascular /Metabolic</td>
<td></td>
<td></td>
<td></td>
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<td></td>
</tr>
<tr>
<td>Orthostatic hypotension</td>
<td>□?</td>
<td>□□□□</td>
<td>□</td>
<td>□?</td>
<td>□?</td>
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<tr>
<td>Edema</td>
<td>□?</td>
<td>0</td>
<td>□</td>
<td>0</td>
<td>□□□□</td>
</tr>
<tr>
<td>Weight gain/glucose ↑</td>
<td>0</td>
<td>□?</td>
<td>□□□□</td>
<td>□</td>
<td>□□□□</td>
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<tr>
<td>Triglyceride ↑</td>
<td>0</td>
<td>0</td>
<td>□□□□□</td>
<td>□□□□</td>
<td>0</td>
</tr>
<tr>
<td>Urinary incontinence/UTI</td>
<td>□□□□□</td>
<td>□□□□</td>
<td>□□□□</td>
<td>□□□□</td>
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</tr>
</tbody>
</table>

1. Movement Side Effects: □ = mild, □□ = moderate, □□□ = severe, □□□□ = very severe
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Usual Maximum Daily Dose for Dementia per CMS Guidance

- **FGA/Typical**
  - Chlorpromazine: 75 mg
  - Fluphenazine: 4 mg
  - Haloperidol: 2 mg
  - Loxapine: 10 mg
  - Molindone: 10 mg
  - Perphenazine: 8 mg
  - Thioridazine: 75 mg
  - Thiothixene: 7 mg
  - Trifluoperazine: 8 mg

- **SGA/Atypical**
  - Aripiprazole: 10 mg
  - Clozapine: 50 mg
  - Olanzapine: 5 mg
  - Quetiapine: 150 mg
  - Risperidone: 2 mg
  - No others have doses listed due to lack of evidence on safety or efficacy in dementia

Mrs. A

- Given her diabetes and primary delusion/psychosis you decide to start with low dose haloperidol
- You also notice her ascites is significantly worse and she is now short of breath. With consent you do a paracentesis and remove 6L.
- Her paranoia resolves and you are able to discontinue the haldol after 5 days.
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Dementia Antipsychotic Prescribing Guide

**General Guidelines**
1. Rule out reversible causes before considering a drug.
2. Try non-pharmacological interventions first.
3. Be prepared to taper or discontinue antipsychotics.
4. Avoid polypharmacy.

**Appropriate antipsychotic treatment targets**:
- Aggressive behavior (especially physical)
- Incontinence (of urination or defecation)
- Delusions (false beliefs or misperceptions)
- Hallucinations (false sensory perceptions)
- Fidgeting
- Restlessness

**Inappropriate antipsychotic treatment targets**:
- Wandering
- Incontinence
- Incontinence
- Restlessness
- Uncoordinated movements with or without agitation
- Hallucinations or delusions
- Sedation or sleepiness (often indicated by sleep apnea or other sleep disorders)

**Adverse Effects Consequence Table**

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**Antipsychotic Efficacy**

Evidence supports modest symptoms improvement with antipsychotics. However, disorientation, agitation, and hallucinations may persist. Antipsychotics appear to increase the risk of extrapyramidal side effects, with no evidence of benefit in cognitive or functional outcomes.

**Dementia Antipsychotic Prescribing Guide:**

**Dosing**

<table>
<thead>
<tr>
<th>Antipsychotic</th>
<th>Starting Dose (mg/day)</th>
<th>Max Dose (mg/day)</th>
<th>Special Considerations</th>
</tr>
</thead>
<tbody>
<tr>
<td>Haloperidol</td>
<td>2.5 - 10</td>
<td>30 - 50</td>
<td>Haloperidol is a short-acting antipsychotic</td>
</tr>
<tr>
<td>Clozapine</td>
<td>25 - 200</td>
<td>300 - 600</td>
<td>Clozapine is widely used in patients with schizophrenia</td>
</tr>
<tr>
<td>Quetiapine</td>
<td>25 - 300</td>
<td>400 - 800</td>
<td>Quetiapine is a newer antipsychotic</td>
</tr>
</tbody>
</table>

**Guidance for Special Populations**

- Older adults: Lower starting doses recommended.
- Patients with severe cognitive impairment: Lower starting doses recommended.
- Patients with history of falls: Lower starting doses recommended.
- Patients with history of seizures: Lower starting doses recommended.

**Monitoring for Response**

- Measure changes in behavioral symptoms, mood, and medication adherence.
- Monitor for adverse effects, including weight gain, extrapyramidal symptoms, and sedation.

**Monitoring for Adverse Effects**

- Use a comprehensive approach to detect and manage adverse effects.
- Use a comprehensive approach to detect and manage adverse effects.
De-prescribing of Antipsychotics in Nursing Home Patients: Current CMS Guidelines

Newest Regulations (10/4/16)

- All psychotropic medications treated similarly to APs
  - Antipsychotic, antidepressant, antianxiety, hypnotic, other drugs with similar effects
  - 14 day maximum duration for PRNs
- Longer prn use can be justified in chart, but NOT for antipsychotics
- Documented specific indications, GDRs, behavioral interventions

- Medication review
  - Pharmacist reviews chart monthly
  - Medical director to receive reports of medication issues noted by pharmacist

- Regulations to go into effect 10/4/2017

Audience Response Question

• Which of the following has been observed as an apparent consequence of trying to reduce antipsychotic use in nursing homes?
  A. Fewer antipsychotics being used
  B. Nursing Homes may refuse to use any antipsychotics
  C. Increased use of alternate agents (e.g. benzodiazepines)
  D. All of the above

Discontinuing Antipsychotics

• Continue medication only if there is clear evidence of efficacy
  – Continue non-drug interventions with or without meds
  – Consider high placebo response rates—symptoms often resolve without drugs

• Many do not experience exacerbation of agitation when medication withdrawn\(^1\)
  – Some evidence shows reduction in depressive symptoms with antipsychotic DC

\(^1\)Gentile, Psychopharmacology 2010;212:119-129.
Discontinuing Antipsychotics

• Use periodic gradual dose reductions to assess continued need
  – At least twice yearly
    • Probably much sooner on initial prescription, e.g. 3 months max, but monitor closely for relapse

• If used in delirium, DC or taper after resolution

• Consider 25% decrease every 4-6 weeks as a general GDR guideline
  – More precise schedules are half-life dependent

Non-Behavioral Uses for Antipsychotics

• Which is NOT a CMS approved indication?
  A. Medical illnesses with psychotic symptoms
  B. Parkinson’s disease
  C. Hiccups (not induced by other medications)
  D. Nausea and vomiting associated with cancer or chemotherapy
Delirium

• Very common
• Often superimposed on dementia
• May cause distressing symptoms and difficult to control behaviors
• Need a high index of suspicion
• Screening is the key

Screening Recommendations

• SQiD (single question in delirium)
  – “Do you think [insert pt name] has been more confused lately?”
• Basic cognitive tests
  – Verbal trails (alternate alphabet and numbers to 10)
  – Days of week or months of year backwards
  – Clock-draw
  – Count backwards from 20 to 1 (good for dementia pts)

Sands, Palli Med 2010
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Delirium Management

- Educate family and staff
- Treat underlying cause
- Ensure safety
- Manage symptoms
  - Disease symptoms (pain, dyspnea, nausea etc)
  - Delirium symptoms (psychosis, agitation etc)

Antipsychotics and Delirium

- Unknown efficacy for delirium prevention and management
  - Studies are ongoing
- Indication: delirium with agitation and risk for self-harm
  - Unresponsive to nonpharmacologic strategies
  - Not proven to aid in delirium prevention/management
  - Ensure agitation not from untreated pain or withdrawal
- Do no harm
  - No evidence that mortality is increased
  - Measure QTc interval regularly
    - Avoid when baseline prolongation of QTc or history of torsades
    - Caution with concomitant meds known to prolong the QTc interval
  - Discontinue antipsychotics within 48 hours of delirium resolution

De-prescribing of Antipsychotics in Nursing Home Patients: Current CMS Guidelines

### Typical Formulations

<table>
<thead>
<tr>
<th>Generic names</th>
<th>Relative Potency</th>
<th>Available Formulations</th>
<th>Considerations</th>
</tr>
</thead>
<tbody>
<tr>
<td>Chlorpromazine</td>
<td>100</td>
<td>tabs, liquid, IM/SQ, suppository</td>
<td>May be more effective for highly agitated patient. More anticholinergic. Can help with hiccups.</td>
</tr>
<tr>
<td>Thioridazine</td>
<td>95</td>
<td>tabs, liquid</td>
<td>More cardiac concerns.</td>
</tr>
<tr>
<td>Fluphenazine</td>
<td>2</td>
<td>tabs, liquid, Long acting IM/SQ</td>
<td>Vey similar to haloperidol</td>
</tr>
<tr>
<td>Perphenazine</td>
<td>8</td>
<td>Tabs, liquid, IM</td>
<td>Often not recognized by family/care centers</td>
</tr>
</tbody>
</table>

### Atypical Formulations

<table>
<thead>
<tr>
<th>Generic names</th>
<th>Relative Potency</th>
<th>Available Formulations</th>
<th>Considerations</th>
</tr>
</thead>
<tbody>
<tr>
<td>Risperidone</td>
<td>3</td>
<td>Tab, liquid, rapid dissolving (SL)</td>
<td>Very similar to haloperidol</td>
</tr>
<tr>
<td>Ziprasidone</td>
<td>60</td>
<td>Caps, IM</td>
<td>Little data for delirium</td>
</tr>
<tr>
<td>Olanzapine</td>
<td>5</td>
<td>Tab, IM, rapid dissolving (SL)</td>
<td>More sedating, can worsen delirium</td>
</tr>
<tr>
<td>Quetiapine</td>
<td>100</td>
<td>Tabs</td>
<td>1st line in Parkinson’s</td>
</tr>
<tr>
<td>Clozapine</td>
<td>100</td>
<td>Tabs</td>
<td>Needs intensive monitoring, 2nd line in Parkinson’s</td>
</tr>
<tr>
<td>Aripiprazole</td>
<td>7.5</td>
<td>Tab, liquid, IM, disk melt (SL)</td>
<td>Little data for delirium</td>
</tr>
</tbody>
</table>
De-prescribing of Antipsychotics in Nursing Home Patients: Current CMS Guidelines

**Audience Response Question**

- Which is NOT an appropriate indication for antipsychotic use per CMS regulations?
  A. Nausea
  B. Insomnia
  C. Hiccups
  D. Huntington’s chorea

Unti Expert Rev Neurother 2016

**Antipsychotics for Hiccups**

- Hiccups
  - Observational data for chlorpromazine (25-50mg IV q 2-4hr)
    - 1 case study for risperidone (3mg)
  - Better data for baclofen (5-10mg TID) and gabapentin (900-1200 mg/d)
  - Case reports for sipping or intranasal vinegar

Steger AP&T 2015; Nishikawa Ann Gen Psychiatry 2015; Gonella JPM 2015
Antipsychotics for Nausea

- Most studies in chemotherapy-induced nausea and vomiting
  - Olanzapine 5-10mg qd
  - Haldol 1-2 mg qd-qid
  - Typically combined with steroids
- May also help with opioid induced nausea
- ABH gel is not effective


Antipsychotics for pain?

- Some case studies in cancer pain
  - Most commonly olanzapine (2.5-7.5 mg/d)
- Some studies with fibromyalgia
  - Theorized improved depression, anxiety, sleep
- Are we just treating unrecognized anxiety or delirium?

Khojainova JPSM 2002; Calandre CNS Drugs 2012
De-prescribing of Antipsychotics in Nursing Home Patients: Current CMS Guidelines

**IA-ADAPT Training and Resource Website**

- Iowa Geriatric Education Center
  - [http://www.healthcare.uiowa.edu/igec/IAADAPT](http://www.healthcare.uiowa.edu/igec/IAADAPT)
- Series of brief lectures with supporting evidence reviews
- Decision aids: pocket guides, mobile device app, hard copies can be ordered
- “Ask the Expert” Q&A section
  - Plus portal to submit new questions
- Free CE/CME for physicians, pharmacists, nurses

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**Thank you!**

- Please complete the post event survey. You will be directed to a link following the webcast. Your feedback would be greatly appreciated.

- Questions regarding the presentation?
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