Pharmacologic Interventions for Challenging Behaviors in Dementia

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Disclosures

• IA-ADAPT is funded by AHRQ R18 HS19355-01, and I am supported by HRSA (Iowa Geriatric Education Center).

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

• No drug is FDA approved to treat neuropsychiatric/behavioral disturbances in dementia.
The Challenge

• Very few drugs help for problem behaviors or psychosis in dementia

• Antipsychotics are the main drug treatment
  – 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
The Problem

- ~22% of 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

• **Consistent across all antipsychotics**

• **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

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

Other Stressors

Environment

Drugs

Problem Behaviors or Psychosis

Severity and Type of Dementia

Depression/Anxiety/Insomnia

Medical Conditions

Unmet Needs
Need-Driven Model

**Background/Individual factors**
- Cognitive function
- Physical function
- Longstanding personality
- Habits, traits

**Proximal/Environmental factors**
- Physical needs
- Psychological needs
- Social environment
- Physical environment

**Behavioral & Psychological Symptoms**

Algase et al, J Alz Dis 1996;11(6):10-19
Approach to Problem Behaviors or Psychosis in Dementia

Establish
- dangerousness of situation
- clear diagnosis/etiology
- severity and frequency of symptoms

Explore
past treatments and outcomes

Discuss
risks and benefits of potential treatments

Meeks and Jeste, Current Psychiatry 2008;7(6):50-65
Mrs. Annabel Klein

- 71 yo female
- Moderate dementia
- PMH: Constipation, urinary incontinence
- Medications:
  - Prescribed at home and continued in nursing home
    - Docusate Sodium 100 mg BID
    - Oxybutynin ER 10 mg QHS
    - Multivitamin QD
Mrs. Annabel Klein

• 10 days after admission to the nursing home
  – Became quiet and withdrawn, irritable at meal times, intermittent refusal of meals and poor fluid intake

• What assessments do you recommend?
Assess the Person & Situation

• *Proximal Factors* → Identify, assess, treat, eliminate Antecedents and/or Triggers to problem behaviors
  – Unmet physical needs
  – Unmet psychological needs
  – Environmental causes
  – Psychiatric causes
Caring for People with Dementia and Problem Behaviors:
A Step-by-Step Evidence-Based Approach

This approach begins with evaluation and treatment of common causes of behaviors, then uses non-drug approaches to management. Antipsychotics are reserved for severe cases due to potential side effects, which include death. Document all behaviors, symptoms, interventions, and outcomes. Sections are color-coded to help guide you to accompanying resources, which are italicized in bold. Blue=Evaluation, Yellow=Non-drug. Pink=Antipsychotics.

1. Evaluation
   - Clearly characterize and document behavior or symptom, including frequency, severity, triggers, and consequences.
   - Consider environmental factors and triggers. Are they modifiable?
   - Perform medical evaluation (delirium, medical conditions, pain, depression, drugs). See Common Causes of Problem Behaviors (on other side), Delirium Assessment and Management, and Drugs that May Cause Delirium or Problem Behaviors. Address these causes if they are identified.
   - Discuss with family any history that may explain or manage the behavior, e.g., patient habits, preferences, activities they enjoy.

2. Manage with non-drug approaches
   - Engage in meaningful activities, redirect, clear communication, etc. See Non-Drug Management.

3. Does the behavior pose risks to the resident or others, or is the resident severely distressed?
   - If yes, non-drug approaches fail, and medical work-up does not reveal another cause, consider drug therapy targeted at behaviors. See Antipsychotic Prescribing Guide.


5. Consider antipsychotic dose reduction or discontinuation if the drug is not effective, side effects occur, or the behaviors have been manageable. See Antipsychotic Prescribing Guide. Re-assess need for drug therapy periodically, at least twice a year.

6. Use prevention and maintenance approaches to reduce further exacerbations
   - Clear communication, meaningful activities, etc.
   - Simplify and create a calm environment
   - Manage medical conditions, depression, pain, etc.
   - See Non-Drug Management

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>Pain</td>
<td>Anxiety, fear, depression</td>
<td>Caregiver approaches</td>
</tr>
<tr>
<td>Constipation, urinary retention</td>
<td>Boredom</td>
<td>Institutional routines, expectations and demands</td>
</tr>
<tr>
<td>Hunger</td>
<td>Impaired speech, frustration</td>
<td>Over/under-stimulation</td>
</tr>
<tr>
<td>Fatigue, insomnia, poor sleep</td>
<td>Autonomy/privacy</td>
<td>Changes from normal routine</td>
</tr>
</tbody>
</table>

Dellirium, secondary to medical issues such as:

- Medication side effects
- Infections
- Metabolic/electrolyte disturbances
- Dehydration

Consider the Following Assessments

Check Vitals:
- Temperature, pulse, blood pressure, respiration, oxygen saturation

Physical Assessment:
- Signs of constipation or urinary retention
- Changes in breath sounds
- Peripheral edema
- Fluid status: orthostatic blood pressure, mucous membranes

Common Sources of Pain:
- Bed sores, other skin lesions, eye pain from corneal abrasion
- Joint pain, other musculoskeletal pain, foot pain (poorly fitting shoes)
- Oral pain related to dentures/mouth ulceration

Sensory:
- Hearing: check hearing aids, ear wax
- Vision: check glasses

Delirium Assessment:
- See Delirium Assessment and Management

Urinalysis, or other urinary symptoms

Blood glucose, CBC with differential, electrolytes if appropriate

Drug side effects:
- See Drugs that May Cause Delirium or Problem Behaviors

Recent changes: environmental, routine, family, drugs, medical
Delirium Assessment and Management

**Definition of Delirium**
Acute onset of impaired attention, cognition (memory, orientation, language), consciousness, perception, behaviors, and/or emotions that may fluctuate, have a medical cause, and are not due to dementia. Often called “acute confusion.” Terminal delirium: irreversible and can occur in the days before dying; antipsychotics used more liberally for comfort in these cases.

1. Is the person more confused today than usual? If yes, the person might have delirium and a brief cognitive assessment should be done.

2. Brief Cognitive Assessment: People with the level of dementia indicated can usually perform these attention-based tasks, while those with delirium cannot. Severe dementia is difficult to test. Change in cognitive status is usually determined by observation. Compare vs. recent baseline.
   - **Mild Dementia**: list days of week and months of year backwards.
   - **Moderate Dementia**: count backwards from 20 to 1.

3. Delirium Screening: See the screening tool, derived from the Confusion Assessment Method (CAM), CAM-ICU, and MDS, on the other side.

4. If the screening suggests delirium, assess and treat possible causes:
   - **Vitals**: pulse, blood pressure, temperature, respiratory rate, pulse-oximetry, pain.
   - Physical examination to diagnose infections or other acute medical conditions such as constipation, pneumonia, pressure ulcers, MI (heart attack), CV/THI (stroke).
   - **Basic laboratory evaluation**: urinalysis, creatinine, sodium, potassium, calcium, glucose, CBC with differential.
   - Review medications with particular attention to anticholinergics, benzodiazepines, or new medications (see Drugs that May Cause Delirium or Problem Behaviors). Discontinue if benefit does not outweigh potential harm.
   - **Review restraints** (foley catheter, IV lines, other tethers) and discontinue if benefit doesn’t outweigh potential harm.
   - **Assess pain**: is pain management adequate and appropriate?

5. Use non-drug management:
   - **Sleep**: Allow continuous sleep at night. Keep noise down. Recognize that an altered sleep-wake cycle is often a symptom of delirium.
   - **Orientation**: Orient to date and place. Clock and calendar in room. Light on from 7 a.m. to 7 p.m. (sunrise to sunset). Always introduce yourself.
   - **Environment**: Keep hearing aids and glasses accessible. Offer beverage of choice frequently for hydration. Encourage low-key family visits.

6. Use antipsychotic short-term for agitation or distressing psychotic symptoms, e.g., hallucinations. See Antipsychotic Prescribing Guide.
   - E.g., haloperidol 0.5 mg PO/IM q1h PRN agitation or distressing hallucinations. Can double dose if ineffective. Schedule once or twice daily dose based on the total amount needed to achieve treatment goal in 24 hours. When delirium resolves, discontinue the antipsychotic.

Delirium Screening Tool

**Suspect delirium if answer is yes on items 1 + 2 + (3 or 4) below. First perform a Brief Interview of Mental Status, Staff Assessment, or brief cognitive test described on other side.**

1. **Acute onset** [yes] [no] [uncertain]*
   - Is there evidence of an acute change in mental status from the person’s baseline?
   * If uncertain, gather more information.

2. **Inattention** [yes] [no] [uncertain]*
   - Does the person have difficulty focusing attention (i.e., easily distracted or can’t follow what is being said)?
   * If uncertain, perform an Attention Screening Examination (ASE):
   - **Directions**: Say to the patient, “I am going to read you a series of 10 letters. Whenever you hear the letter ‘A,’ indicate by squeezing my hand.” Read letters from the following letter list in a normal tone.

   **SAVE A H A A R T**
   - **Scoring**: Errors are counted when patient fails to squeeze on the letter “A” and when the patient squeezes on any other letter other than “A.” Inattention is present if 3 or more errors are observed.

3. **Disorganized thinking** [yes] [no] [uncertain]*
   - Is the person’s thinking disorganized or incoherent, as evidenced by rambling or irrelevant conversation, unclear or illogical flow of ideas, unpredictable switching from subject to subject?
   * If uncertain, conduct the following question/command assessment:
   - **Questions**:
     1. Will a stone float on water?
     2. Are there fish in the sea?
     3. Does one pound weigh more than two pounds?
     4. Can you use a hammer to pound a nail?
   - **Score**: Patient earns 1 point for each correct answer out of 4.
   - **Command**: Say to patient: “Hold up this many fingers” (Examiner holds two fingers in front of patient then puts them back down) “Now do the same thing with the other hand” (Not repeating the number of fingers).
   - **Score**: Patient earns 1 point if does entire command.
   - Disorganized thinking is present if combined scores are less than 4.

4. **Altered Level of Consciousness** [yes] [no]
   - Is the patient anything other than alert, calm and cooperative (at current time)? This may include vigilant (easily startled), lethargic (frequently dozed off when asked questions), or stuporous (very difficult to arouse and keep aroused), or comatose (could not be aroused).
   - **Psychomotor retardation**: sluggishness, staring into space, staying in one position, moving slowly may also count as a “yes” for this domain.
Drugs that May Cause Delirium or Problem Behaviors

This reference card lists common and especially problematic drugs that may cause delirium or contribute to problem behaviors in people with dementia. This does not always mean the drugs should not be used, and not all such drugs are listed. If a patient develops delirium or has new problem behaviors, a careful review of all medications is recommended. Be especially mindful of new medications.

<table>
<thead>
<tr>
<th>Anticonvulsants</th>
<th>Psychiatric</th>
</tr>
</thead>
<tbody>
<tr>
<td>Carbamazepine — Tegetrol</td>
<td>All psychiatric medications should be reviewed as possible causes, as effects are unpredictable. Notable offenders include:</td>
</tr>
<tr>
<td>Gabapentin — Neurontin</td>
<td><strong>Benzodiazepines e.g.</strong></td>
</tr>
<tr>
<td>Levetiracetam — Keppra</td>
<td>-Alprazolam — Xanax</td>
</tr>
<tr>
<td>Valproic acid — Depakote</td>
<td>-Clonazepam — Klonopin</td>
</tr>
<tr>
<td>Pain</td>
<td>-Lorazepam — Ativan</td>
</tr>
<tr>
<td>All opiates can cause delirium if dose is too high or increased too quickly.</td>
<td><strong>Stimulants e.g.</strong></td>
</tr>
<tr>
<td>Codiene — Empirin, many others</td>
<td>-Methylphenidate — Ritala</td>
</tr>
<tr>
<td>Fentanyl — Duragesic</td>
<td><strong>Hynotics (Sleep Medications) e.g.</strong></td>
</tr>
<tr>
<td>Hydrocodone — Lortab</td>
<td>-Eszopiclone — Lunoesta</td>
</tr>
<tr>
<td>Hydromorphone — Palladone, Dilaudid</td>
<td>-Zaleplon — Sanoita</td>
</tr>
<tr>
<td>Meperedine — Demerol</td>
<td>-Zolpidem — Ambien</td>
</tr>
<tr>
<td>Morphine — MS Contin, MS IR</td>
<td><strong>Tricylic Antidepressants e.g.</strong></td>
</tr>
<tr>
<td>Oxycodeone — OxyContin</td>
<td>-Amitriptyline — Elavil</td>
</tr>
<tr>
<td>Tramadol — Ultram</td>
<td>-Doxepin — Silenor, Sinequan</td>
</tr>
<tr>
<td>Parkinson’s/Restless Legs</td>
<td>-Nortriptyline — Pamelor</td>
</tr>
<tr>
<td>Most Parkinson’s disease medications can cause psychosis.</td>
<td><strong>Antibiotics/Antivirals</strong></td>
</tr>
<tr>
<td>Amantadine — Symadine, Symmetrel</td>
<td>Difficult to distinguish drug effects from effects of infection. Others may contribute as well.</td>
</tr>
<tr>
<td>Bromoscriptine — Parlodel</td>
<td><strong>Antiviral</strong></td>
</tr>
<tr>
<td>Levodopa — Sinemet, Stoletico</td>
<td>-Acyclovir — Zovirax</td>
</tr>
<tr>
<td>Pramipexole — Mirapex</td>
<td>-Valacyclovir — Valtrex</td>
</tr>
<tr>
<td>Rasagiline — Azilect</td>
<td><strong>Fluoroquinolones e.g.</strong></td>
</tr>
<tr>
<td>Ropinrole — Requip</td>
<td>-Levofoxacin — Levaquin</td>
</tr>
<tr>
<td>Rotigotine — Neupro</td>
<td>-Ofloxacin — Cipro</td>
</tr>
<tr>
<td>Selenilide — Eldipril, Emsam, Zelkapar</td>
<td><strong>Metronidazole — Flagyl</strong></td>
</tr>
<tr>
<td>Steroids</td>
<td><strong>Vancocycin — Vancovin</strong></td>
</tr>
<tr>
<td>Corticosteroids e.g.</td>
<td></td>
</tr>
<tr>
<td>-Prednisone — Deltason, etc.</td>
<td>Antiarrhythmics</td>
</tr>
<tr>
<td>Testosterone — Androgel, etc.</td>
<td>Digoxin — Digitex, Lanoxicin</td>
</tr>
</tbody>
</table>

Drugs that May Cause Delirium or Problem Behaviors

**Anticholinergics**—all drugs on this side of the card. May impair cognition and cause psychosis. Drugs available over-the-counter marked with *

<table>
<thead>
<tr>
<th>Tricyclic Antidepressants</th>
<th>Bladder Antispasmodics</th>
</tr>
</thead>
<tbody>
<tr>
<td>Amitriptyline — Elavil</td>
<td>Darifenacin — Enablex</td>
</tr>
<tr>
<td>Clomipramine — Anafranil</td>
<td>Flavoxate — Ursox</td>
</tr>
<tr>
<td>Desipramine — Norpramin</td>
<td>Oxybutynin — Ditropan</td>
</tr>
<tr>
<td>Doxepin — Sinequan</td>
<td>Solifenacin — VESicare</td>
</tr>
<tr>
<td>Imipramine — Tofranil</td>
<td>Tolterodine — Detrol</td>
</tr>
<tr>
<td>Nortriptyline — Pamelor</td>
<td>Trospium — Sancturo</td>
</tr>
</tbody>
</table>

**Antihistamines / Allergy / Cough & Cold Medicines**

*Azelastine — Astepro  
*Brompheniramine — Bromax, Bromfed, Lodoxine  
*Carboxamine — Rondec  
*Chlorpheniramine — Chlor-Trameton  
*Clemastine — Taris  
*Cyclophosphamide — Periactin  
*Dextromethorphan — Drixoral  
*Dexchlorpheniramine — Polaramine  
*Diphenhydramine — Benadryl  
*Hydroxyzine — Aatarax, Vistaril  
*Olopatadine — Pataday, Patanol  
*Promethazine — Phenergan  
*Triprolidine — Triacin-C  

**Insomnia / Sleep**

*Diphenhydramine — Somnex, Tylenol PM, others  
*Doxylamine — Unisom, Medi-Sleep  

**Stomach and GI Tract**

*Clarithromycin — Togamet  
*Glycopyrrolate — Robinil  
*Ranitidine — Zantac  

**GI Antispasmodics**

Atropine — Sol-Tropine, Atrea  
*Belladonna Alkaloids — Dominal, Bellamine S, BeI-Tabs, B&O supraptets  
Clidinium — Librax  
Diclofylmide — Bentyl  
Hyoscyamine — Levvin, Anospaz, Cytospaz  
*Methscopolamine — Pamiine, Pamiine Forte  
Propantheline — Pro-Banthine  

**Anticholinergic Antipsychotics**

Chlorpromazine — Thozarine  
Clzapine — Clozaril  
Loroxapine — Loxane  
Olanzapine — Zyprexa  
Pimozide — Orap  
Quetiapine — Seroquel  
Thioridazine — Mellaril  

**Motion Sickness / Dizziness / Nausea**

*Dimenhydrinate — Dramamine  
*Meclizine — Antivert, Dramamine less drowny  
Promethazine — Phenergan  
*Scopolamine — Scopace, Transderm -Scop, Maldemar  
Trimethobenzamide — Tigan  

**Movement Disorders**

Benzotropine — Cogentin  
Trihexyphenidyl — Artane  

**Ulcet and Reflux**

*Cimetidine — Tagamet  
Glycopyrrolate — Robinil  
*Ranitidine — Zantac  

**Chlorpromazine**

Chlorpromazine — Thozarine  
Clzapine — Clozaril  
Loroxapine — Loxane  
Olanzapine — Zyprexa  
Pimozide — Orap  
Quetiapine — Seroquel  
Thioridazine — Mellaril
Non-Pharmacological Approaches

- Overall person-centered approach
  - Consider behavior as a form of communication of an unmet need
    - Psychosocial
    - Physical
    - Etc.
  - Try to meet that need
    - Individualized activities
    - Treatment of medical problem
    - Etc.
Non-Pharmacological Approaches

• Social Histories
  – What did they do for a living?
  – Did they work evening/night?
  – Did the family experience any behavioral problems?
  – What were their habits?
  – What were their interest?
  – What was their average day like?
Non-Pharmacological Approaches

• Assessment, Identify and Treat Contributing Factors:
  – Focus on one behavior at a time
  – Identify what leads to or triggers problems
  – Reduce, eliminate things that lead to or trigger the problem
  – Document outcomes
Non-Pharmacological Approaches

- Behavioral disturbances can be produced by problems with other residents, staff, or the environment
- Behavioral abnormalities require a thorough assessment of the physical and mental health
  - Determine if there is a new medical or psychiatric problem
- Changes in living environment or staffing can also change resident behavior
Non-Pharmacological Approaches

• Focus on one behavior at a time:
  – Unmet physical needs:
    • Pain, illness, hungry, thirsty, sleep disturbance, constipation, incontinence, elimination needs, medications
  – Unmet psychological needs:
    • Loneliness, boredom, apprehension, worry, fear, lack of socialization, loss of intimacy, lack of enjoyable activities
  – Environmental causes:
    • Level/type of stimulation, noise, confusion, lighting, caregiver approach, institutional routines/expectations, lack of cues
  – Psychiatric causes:
    • Depression, anxiety, delirium, psychosis, other mental illness
Non-Pharmacological Approaches

• Interventions
  – Select interventions based on the type of problem and assessment of retained abilities, preferences and resources:
    • Cognitive level
    • Physical function level
    • Long-standing personality, life history, interest/abilities
    • Preferred personal routines and daily schedule
    • Personal/family/facility resources
Non-Pharmacological Approaches

• Intervention
  – Adjust caregiver approaches
    • Personal approach, daily routines, communication style, unconditional positive regard, involvement/engagement
  – Change the environment
    • Eliminate misleading stimuli, reduce environmental stress, adjust stimulation, enhance function, involve in meaningful activities, adapt the physical setting
  – Use evidence-based interventions
    • Agitated/irritable, resistant to care, wandering/restless/bored, disruptive vocalization, apathetic/withdrawn, repetitive questions/mannerisms, depression/anxiety
Non-Pharmacological Approaches

- **Staffing**
  - Train staff to use selected interventions appropriately.
  - Tailor interventions to individualized needs.
  - Develop a person-centered plan:
    - Adjust caregiver approaches
    - Adapt/change the environment
Non-Pharmacological Approaches

• Monitor outcomes & adjust as needed:
  – Track behavior problems
  – Assure adequate “dose” (intensity, duration, frequency) of interventions
  – Adapt/add interventions as needed to get the best possible outcomes
  – Make sure all people working with the person understand and cooperate with the treatment plan and are trained as needed.
Non-Pharmacological Approaches

- Questions to ask before using an antipsychotic:
  - What did you do to try and figure out why the resident was doing ____________?
  - What is the resident trying to communicate to us?
  - What is the reason for resident doing _________?
    - Unacceptable answer (Dementia or sun-downing)
  - What did you try before requesting medications?

From Lisa Uhlenkamp, RN, BA, LHNA: IHCA/ICAL
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 bad, 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, hunger/thirst, other needs?
- Psychological: loneliness, boredom, nothing to do?
- Environment: too much/too little going on; lost?
- Psychiatric: depression, anxiety, psychosis?

REDUCE, ELIMINATE things that lead to or trigger the problems
- Treat medical/physical problems
- Offer pain medications for comfort or to help cooperation
- Address emotional needs: reassure, encourage, engage
- Offer enjoyable activities to do alone, 1:1, small group
- Remove or disguise misleading objects
- Redirect away from people or areas that lead to problems
- Try another approach; try again later
- Find out what works 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**

CONSIDER retained abilities, preferences, resources
- Cognitive level
- Physical functional level
- Long-standing personality, life history, interests
- Preferred personal routines, daily schedules
- Personal/family/facility resources

DEVELOP a Person-Centered plan
- Adjust caregiver approaches
- Adapt/change the environment
- Select/use best evidence-based interventions tailored to the person’s unique needs/interests/abilities

**STEP 2: SELECT & APPLY INTERVENTIONS, CONTINUED**

ADJUST your approach to the person
- Personal approach: cue, prompt, remind, distract; focus on person’s wishes, interests, concerns; use/avoid touch as indicated. Do not try to reason, teach new routines, or ask to “try harder.”
- Daily routines: simplify tasks and put them in a regular order; offer limited choices; use long-standing patterns & preferences to guide routines & activities
- Communication style: simple words and phrases; speak in short sentences; speak clearly; wait for answers; make eye contact; monitor tone of voice and body language
- Unconditional positive regard: do not confront, challenge or explain misbeliefs (hallucinations, delusions, illusions); accept belief as real to the person; reassure, comfort, and distract

ADAPT or CHANGE the environment
- Eliminate things that lead to confusion: clutter, TV, radio, noise, people talking; reflections in mirrors/dark windows; misunderstood pictures or decor
- Reduce things that cause stress: caffeine; extra people; holiday decorations; public TV
- Adjust stimulation: if overstimulated—reduce noise, activity, and confusion; if under-stimulated (bored)—increase activity and involvement
- Help with functioning: signs, cues, pictures help way-finding; increase lighting to reduce misinterpretation
- Involve in meaningful activities: personalized program of 1:1 and small group or large group as needed
- Change the setting: secure outdoor areas; decorative objects; objects to touch and hold; homelike features; smaller, divided recreational and dining areas; natural and bright light; spa-like bathing facilities; signs to help way-finding

SELECT and USE evidence-based interventions
- Work with the team to fit the intervention to the person
- Check care plan for additional information
- Contact supervisor with problems/issues

**STEP 3: MONITOR OUTCOMES & ADJUST COURSE AS NEEDED**

- Track behavior problems using rating scale(s)
- Assure adequate “dose” (intensity, duration, frequency) of interventions
- Adapt/add interventions as needed to get the best possible outcomes
- Make sure all people working with the person understand and cooperate with the treatment plan and are trained as needed
Algorithm for Treating Behavioral and Psychological Symptoms of Dementia (aka Problem Behaviors)

**Step 1: Identify, Assess, and Treat Contributing Factors**
- Identify, assess, or eliminate antecedents and triggers.

**Unmet physical needs?**
- Pain
- Infection/illness
- Dehydration/nutrition
- Sleep disturbance
- Medication side effects
- Sensory deficits
- Constipation
- Incontinence/retention

**Unmet psychological needs?**
- Loneliness
- Isolation
- Appetition, worry, fear
- Emotional discomfort
- Lack of enjoyable activities
- Lack of socialization
- Loss of intimacy

**Environmental cause?**
- Level of stimulation (noise, confusion, lighting)
- Caregiver approaches
- Institutional routines, expectations
- Lack of care, prompts to function & way-finding

**Psychiatric cause?**
- Depression
- Anxiety
- Delirium
- Psychosis
- Other mental illness

Monitor outcomes to assess full treatment response.
- If problem behavior persists after antecedents are adequately treated, use NON-DRUG INTERVENTIONS.

**Step 2: Select and Apply Non-Drug Interventions**
- Select interventions based on the type of problem and assessment of patient abilities, preferences, and resources.
  - Cognitive level
  - Physical function
  - Long-standing personality, life history, interests
  - Preferred personal routines and daily schedule
  - Personal/family/facility resources
- Train staff to use selected interventions appropriately following best practice and evidence-based guidelines.
- Tailor interventions to individualized needs, combining approaches and interventions to promote comfort and function.
- Monitor outcomes using rating scales to quantify behaviors.

Adjust caregiver approaches:
- Personal approach: care, presence, charm, distract
- Daily routines: techniques; either limit choices; use long-standing history & preferences to guide
- Communication style: simple words, phrases; speak clearly; wait for response; make eye contact; monitor tone of voice; verbal and nonverbal messages
- Unconditional positive regard: do not correct, challenge or "replace" misbehavior, (alternative emotions, behaviors); accept belief "as it is" to the person; reassure, comfort
- Involvement/Engagement: active involvement; reduce boredom; individualized social and leisure activities

**Change the environment**
- Eliminate misleading stimuli: clutter, TV, radio, noise, people talking, reflections in mirrors, dark windows, meaningless pictures, etc.
- Reduce environmental stress: caffeine, extra people, holiday decorations, public TV.
- Adjust stimulation: reduce noise, activity, confusion if over-stimulated, increase activity to environment/under-stimulate
- Enhance function: signs, cues, pictures to promote way-finding; increase lighting to reduce misinterpretation
- Involve in meaningful activity: personalized program for small and large group
  - Adapt for physical setting: secure outdoor areas, decorative tactile objects, home-like features; smaller, segmented recreational and dining areas, natural and bright light, spa-like bathing facilities, signage to promote way-finding

Use evidence-based interventions:
- Arousal/Brinkl: Calm, soothing, distract
  - Individualized music
  - Aromatherapy (e.g., lavender oil)
  - Simple pleasures
  - Pet therapy
  - Physical exercise/steady activities
- Restorse to care: Identify source of stress; change routines and approaches
  - Wandering/restless: Engage, distract
    - "Race conditions" in pacing paths
    - Adapt environment to reduce anti-seeking
    - Physical activity/steady movement
    - Simple pleasures
  - Disruptive vocalization: Distract, engage
    - Individualized music; nature sounds
    - Presence therapy; songs of family
  - Anaphoric withdrawal: Stimulate, engage
    - Individualized music
    - Simple pleasures
  - Repetitive questions/monotones: Reassure, address underlying issue, distract
    - Validation therapy; therapeutic lying
    - Simple pleasures
- Depression: Activate: Reassure, engage
  - Physical exercise
  - Pleasant activities
  - Cognitive stimulation therapy
  - Wheelchair biking

**Step 3: Monitor Outcomes and Adjust Course as Needed**
- Quantify behavioral symptoms using rating scale(s)
- Assess adequate “dose” (intensity, duration, frequency) of interventions
- Provide/tensor staff training and development activities to assure full understanding and cooperation in daily care
- Adapt/add interventions as needed to promote optimal outcomes
- Consider antipsychotics for persistent and severe cases that meet criteria for use. See Antipsychotic Prescribing Guide.

**Examples**
- Diverse symptoms must be assessed and treated individually to assure optimal outcomes.
- Caregiver and contributing factors must be fully assessed and treated before psychotropic medications are used. Ongoing monitoring of these factors is essential to high-quality care. Antecedents or triggers are things that happen before a problem behavior. These may be causal or contributing factors.
- Use evidence-based interventions require full understanding of the protocol and appropriate application to assess optimal outcomes.
- For more information about Simple Pleasures, see: [http://www.health.ny.gov/diseases/conditions/dementia/pleasures/interventions/simple/index.htm](http://www.health.ny.gov/diseases/conditions/dementia/pleasures/interventions/simple/index.htm)
Managing a Crisis

Caring for a person with dementia and problem behaviors can be challenging and stressful. The purpose of this document is to help caregivers learn to manage difficult situations, especially when the person with dementia is upset, angry, or scared.

1. First, tune into your own ATTITUDES and FEELINGS about what is going on.
   -- Getting angry won't help and will probably make things worse.
   Remember: Being caught off guard puts you at risk for "feeling the fire" (e.g., the first time it happens you "fight back" vs. assess and problem-solve through the crisis).
   Likewise, if you are angry or resentful about past experiences with the person, you probably won't be effective.
   -- Try to remain calm, cool, and collected.
   -- Use positive self-talk to get yourself under control. For example, remind yourself:
     "This person is uncomfortable and needs my help."
     "I can handle this. I don't need to get upset too."
     "They're not really angry with me. They're just upset and I'm in the way."
   -- Avoid words or actions that might threaten the person even more.
   -- If you can't get your own feelings under control, leave the area immediately, alerting other staff if needed.

2. Keep track of what you are doing with your body and what that might mean to the person.
   -- Don't surprise them; move slowly and steadily.
   -- Keep your hands out where they can see them, palms up and open, which is non-threatening.
   -- Respect their "personal space," the more threatened they are, the more distance you should give them.
   -- Don't stand squarely in front of them (which is very confronting and threatening), turn slightly to one side.
   -- Be careful to not stare, glare, or otherwise challenge the person with eye contact.
   -- Don't turn your back on the person.
   -- Always leave yourself an escape route.
   -- Avoid standing over the person (if they are sitting or reclining), which can be very threatening.

3. Think about WHAT you say and HOW you say it.
   -- Speak in short, simple phrases.
   -- Use a normal tone of voice and talk at a normal rate.
   -- Communicate concern and caring.
   -- Avoid sarcasm, insulting remarks, and even humor (which can easily be misinterpreted).

4. Use DIRECTIONS or EXPLANATIONS that are APPROPRIATE for the person and the situation. For example:
   -- "I'm sorry if I upset you. That wasn't what I meant to do."
   -- "Your behavior worries (frightens, upsets) me."
   -- "How can I help you be more comfortable?"
   -- "Mr. Smith, let's go to your room (a quiet place, etc.)."
   -- "It's all right now. You are safe with me. I won't let anything bad happen to you."

5. Listen carefully to what they are saying and try to respond to the message they are trying to communicate.
   -- Check for meaning. "You're saying that ..."
   -- Avoid giving advice.
   -- Respond to the content of their message (the actual meaning), not the way it's being said.
   * Try to understand what they are upset about.
   * Respond to that unmet need or feeling.
   -- Don't assume that they have heard or understood you.
   * Our focus becomes very narrow when we're anxious.

6. Try to calm or soothe them, remembering that the first priority is to protect yourself and others.
   -- Leave the room or area if they continue to threaten you.
   -- Get assistance, even if you aren't sure if you really need it.
   -- Use physical control only as the last resort! Try everything else first!
Overview of RCT Evidence for Drugs

- Pain medications
- Anticonvulsants
- Antidepressants
- Benzodiazepines
- Cholinesterase inhibitors
- Memantine
- Antipsychotics
Pain Medications

• Empiric pain management protocol in nursing home residents with agitation
  – 8 week cluster RCT, n=352
    • Step 1: acetaminophen (68%)
    • Step 2: oral morphine (2%)
    • Step 3: buprenorphine patch (23%)
    • Step 4: pregabalin (7%)
  – Agitated symptoms improved at 8 weeks with treatment vs. usual care, and worsened in 4 week washout

Husebo et al, *BMJ*. 2011;343:d4065
Antidepressants

• **SSRIs**
  – 5 studies vs. placebo
  – 3 studies vs. typical antipsychotics
  – Possible small benefits on agitated symptoms

• **Other Antidepressants**
  – Trazodone
    • 2 studies = haloperidol, small N
    • 1 study = placebo

Seitz et al, Cochrane Reviews 2011;2;CD008191
Anticonvulsants

- **Divalproex**
  - 4 studies = placebo, poorly tolerated
  - Cognitive decline and hippocampal damage?
  - Not recommended

- **Carbamazepine**
  - Mixed evidence
  - Concerns of poor tolerability, drug interactions

Lonergan and Luxenberg, Cochrane Reviews 2009;3;CD003945
Tariot et al, Arch Gen Psychiatry 2011;68(8):853-61
Fleisher et al, Neurology 2011;77(13):1263-71
Benzodiazepines/anxiolytics

- Oxazepam, alprazolam, diphenhydramine, buspirone
  - 3 studies = haloperidol
  - No placebos, trial design problems, cognitive impairment issues with most of these drugs

- Not recommended for scheduled use

Meeks and Jeste, Current Psychiatry 2008;7(6):50-65
Pharmacologic Options for Behavioral Disturbances

• Cognitive enhancers
  – Very small benefits seen in studies for cognition
  – No benefit when studied for behavioral symptoms

• Miscellaneous
  – Transdermal estrogen in men: failed trial
  – Propranolol (average 106 mg/day)
    • 1 small positive trial

Meeks and Jeste, Current Psychiatry 2008;7(6):50-65
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

*available as less expensive generic

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

Maglione et al. Off-label use of atypical antipsychotics: an update.
Evidence for the Use of Antipsychotics for Behavioral Disturbances

• **CATIE-AD**
  – Time to discontinuation was primary outcome
    • Olanzapine, Quetiapine, Risperidone no better than placebo
  – Time to discontinuation due to lack of efficacy favored Olanzapine and Risperidone
  – Time to discontinuation due to adverse effects favored placebo

### 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><strong>Dementia-Overall</strong></td>
<td>++</td>
<td>+</td>
<td>+</td>
<td>++</td>
</tr>
<tr>
<td><strong>Dementia-Psychosis</strong></td>
<td>+</td>
<td>+/-</td>
<td>+/-</td>
<td>++</td>
</tr>
<tr>
<td><strong>Dementia-Agitation</strong></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
Potentially appropriate antipsychotic treatment targets

• Hallucinations

• Delusions (note: memory problems are often mistaken for delusions, e.g. thinks people are stealing lost items)

• Aggressive behavior (especially physical)
Appropriate antipsychotic treatment targets

- **If** the symptom presents a danger to the patient or others

- **Or**, causes the patient to experience
  - Inconsolable or persistent distress
  - Significant decline in function
  - Substantial difficulty receiving needed care
Inappropriate antipsychotic treatment targets

- Wandering
- Unsociability
- Poor self-care
- Restlessness
- Impaired memory
- Inattention or indifference to surroundings

- Verbal expressions or behaviors that do not represent a danger to the resident or others
- Nervousness
- Uncooperativeness
- Fidgeting
- Mild anxiety
Antipsychotics for Behavioral Problems in Dementia

• Clearly document treatment targets before starting drug therapy
  – Frequency
  – Severity
  – Time of day
  – Environmental or other triggers
• Use quantitative and qualitative descriptions
• Be specific (biting rather than agitation)
• Continue to document during use
Antipsychotic Choice

• If an antipsychotic is thought to be necessary, follow these steps
  – Does the patient have Parkinson’s disease, Lewy body dementia, or frontotemporal dementia?
• If yes, special considerations…..
Dementia Type-Specific Issues

• Parkinson’s Disease / Lewy Body Dementia
  – Tolerate antipsychotics poorly
  – Reduce antiparkinson med doses for psychosis
  – Cholinesterase inhibitors may reduce hallucinations (but beware of syncope)
  – Memantine may produce global improvements

• Frontotemporal Dementia
  – Preliminary data for trazodone and stimulants
  – Mixed data on paroxetine
    • May worsen cognition

Antipsychotic Choice

- Receptor Binding – and effects
- Consider adverse effect impact on patient comorbidities when choosing an antipsychotic
  - Metabolic Disease (Diabetes, Hyperlipidemia)
    - Avoid olanzapine
  - Parkinson’s Disease
    - Avoid haloperidol (quetiapine may be preferred, though evidence for efficacy is poor\textsuperscript{1,2})
- Start with a low dose

\textsuperscript{1}Suchoworsky 2006;66:968-75. \textsuperscript{2}Kurlan et al, Neurology 2007;68(17):1356-63.
## Antipsychotic Affinity for Neuroreceptors

<table>
<thead>
<tr>
<th>Receptor</th>
<th>Haloperidol * Haldol®</th>
<th>Aripiprazole Abilify®</th>
<th>Risperidone risperdal®</th>
<th>Olanzapine Zyprexa®</th>
<th>Quetiapine Seroquel®</th>
</tr>
</thead>
<tbody>
<tr>
<td>D$_2$ - Dopamine Antipsychotic/EPS</td>
<td>+++</td>
<td>+++ (partial agonist)</td>
<td>+++</td>
<td>++</td>
<td>0</td>
</tr>
<tr>
<td>5HT$_{2A}$ - Serotonin Anti-EPS</td>
<td>+</td>
<td>++</td>
<td>++++</td>
<td>+++</td>
<td>+</td>
</tr>
<tr>
<td>5HT$_{2C}$ - Serotonin Weight gain</td>
<td>0</td>
<td>++</td>
<td>+</td>
<td>+++</td>
<td>0</td>
</tr>
<tr>
<td>$\alpha_1$ - Adrenergic Sedation, Hypotension</td>
<td>++</td>
<td>+</td>
<td>+++</td>
<td>+</td>
<td>++</td>
</tr>
<tr>
<td>H$_1$ Sedation, weight gain</td>
<td>0</td>
<td>+</td>
<td>+++</td>
<td>++++</td>
<td>++</td>
</tr>
<tr>
<td>M$_1$ 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, $K_d > 5000 nM$, + $K_d = 25-45 nM$, ++ $K_d = 8.7-24 nM$, +++ $K_d = 0.8-5.2$. ++++ = most potent, $K_d 0.1-0.3 nM$. Richelson, J Clin Psych 2010, 71:9

PDSP Ki Database: http://pdsp.med.unc.edu/pdsp.php
<table>
<thead>
<tr>
<th>Drug (daily dose range)</th>
<th>Aripiprazole (2-10 mg)</th>
<th>Haloperidol (0.25-2 mg)</th>
<th>Olanzapine (2.5-7.5 mg)</th>
<th>Quetiapine (12.5-150 mg)</th>
<th>Risperidone (0.25-2 mg)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Brand Name</td>
<td>Abilify</td>
<td>Haldol</td>
<td>Zyprexa</td>
<td>Seroquel</td>
<td>Risperdal</td>
</tr>
</tbody>
</table>

### Movement Side Effects

- **Central Nervous System**
  - **Sedation**: ■■
  - **Confusion, delirium, other cognitive worsening**: ■
  - **Worsening psychotic symptoms**: 0

### Cardiovascular/Metabolic

- **Orthostatic hypotension**: ■?
- **Edema**: ■?
- **Weight gain/glucose ↑**: 0
- **Triglyceride ↑**: 0
- **Urinary incontinence/UTI**: ■■■■
Dementia Antipsychotic Prescribing Guide

General Guidelines:
1. Rule out reversible causes prior to using a drug.
2. Try non-drug management strategies first.
3. Clearly document treatment targets (symptoms) before and after a treatment strategy is tried.
4. Justify use of an antipsychotic. The treatment target symptom must present a danger to the person or others, or cause the patient to experience one of the following:
   - Inconsolable or persistent distress
   - A significant decline in function
   - Substantial difficulty receiving needed care
5. See Guidance for Special Populations, if the patient has frontotemporal dementia, Parkinson's disease, Lewy body dementia, renal impairment, or hepatic impairment.
6. Consider the impact of side effects on comorbidities when choosing a drug, and start with a low dose.
7. If the drug doesn't help, stop it (use appropriate tapering).

Appropriate antipsychotic treatment targets:
- Aggressive behavior (especially physical)
- Hallucinations (if distressing)
- Delusions (note: memory problems are often mistaken for delusions, e.g., thinks people are stealing lost items)
- Severe distress as described above in #4 General Guidelines

Inappropriate antipsychotic treatment targets:
- Wandering
- Unsocialability
- Poor self-care
- Restlessness
- Uncooperativeness without aggressive behavior
- Inattention or indifference to surroundings
- Verbal expressions or behaviors that do not represent a danger to the resident or others

*According to CMS regulations for long-term care facilities

Antipsychotic Efficacy

Evidence supports modest symptom improvements with aripiprazole, haloperidol*, olanzapine, quetiapine, and risperidone, but not with use of other antipsychotics in dementia. All antipsychotics appear to increase risk of death. The table below summarizes the strength of evidence supporting the efficacy of each atypical antipsychotic for different symptom domains.

<table>
<thead>
<tr>
<th>Symptom Domain</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>
<tr>
<td></td>
<td>++</td>
<td>++</td>
<td>/ -</td>
<td>++</td>
</tr>
</tbody>
</table>

Symbol explanation:
- ++ = moderate or high evidence of efficacy
- + = low or very low evidence of efficacy
- / = mixed results
- Haloperidol has shown efficacy for aggression in randomized trials

Adverse Effects Comparison Table

<table>
<thead>
<tr>
<th>Drug</th>
<th>Olanzapine</th>
<th>Quetiapine</th>
<th>Risperidone</th>
</tr>
</thead>
<tbody>
<tr>
<td>Aripiprazole</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Haloperidol</td>
<td>(10 mg/d)</td>
<td>(5 mg/d)</td>
<td>(1 mg/d)</td>
</tr>
<tr>
<td>Olanzapine</td>
<td>(10 mg/d)</td>
<td>(15 mg/d)</td>
<td>(10 mg/d)</td>
</tr>
<tr>
<td>Quetiapine</td>
<td>(250 mg/d)</td>
<td>(25 mg/d)</td>
<td>(5 mg/d)</td>
</tr>
<tr>
<td>Risperidone</td>
<td>(1 mg/d)</td>
<td>(3 mg/d)</td>
<td>(1 mg/d)</td>
</tr>
</tbody>
</table>

*WARN**: Suicidality, homicidality, agranulocytosis, agranulocytosis, agranulocytosis, agranulocytosis.
# Dementia Antipsychotic Prescribing Guide

## Dosing

**Timing:** Usually once daily at night or prior to sundowning. Beware of sedation-related adverse events if given earlier than bedtime.

<table>
<thead>
<tr>
<th>Drug</th>
<th>Starting Dose (mg/day)</th>
<th>Max Dose for Maintenance* (mg/day)</th>
<th>Special Dosage Forms**</th>
</tr>
</thead>
<tbody>
<tr>
<td>Aripiprazole</td>
<td>2.5</td>
<td>10</td>
<td>ODT, L, IM</td>
</tr>
<tr>
<td>Haloperidol</td>
<td>0.25</td>
<td>2</td>
<td>L, IM</td>
</tr>
<tr>
<td>Olanzapine</td>
<td>2.5-5</td>
<td>7.5</td>
<td>ODT, L, IM</td>
</tr>
<tr>
<td>Quetiapine</td>
<td>12.5-25</td>
<td>150</td>
<td>XR</td>
</tr>
<tr>
<td>Risperidone</td>
<td>0.25-0.5</td>
<td>2</td>
<td>ODT, L</td>
</tr>
</tbody>
</table>

*per CMS regulations for long-term care facilities. Doses for acute treatment sometimes exceed maintenance doses.

**ODT = orally dissolving tablet, L = liquid, IM = short-acting intramuscular, XR = extended release.

**Dosage forms:**
- Regular tablets can be crushed and mixed with food if needed.
- IM antipsychotics used only in emergencies when oral is refused.
- Topical forms, e.g., compounded creams, not recommended. No evidence to guide proper dosing. Absorption is unknown and unpredictable.

## Guidance for Special Populations

**Frontotemporal dementia:** Some evidence for trazodone. Mixed for SSRIs. See Iowa Geriatric Education Center website for details.

**Parkinson’s disease (PD) and Lewy body dementia (LBD):**
- Movement disorder treatments (dopamine agonists, carbipodopa-levodopa, anticholinergics) can cause psychosis or delirium. Prior to antipsychotic use, consider reducing the dose of these drugs to see if the psychosis or behaviors resolve or become manageable.
- People with PD and LBD are very sensitive to adverse effects, particularly movement side effects and neuroleptic malignant syndrome. If antipsychotics are used, expert guidelines recommend quetiapine or clozapine due to lower movement side effect risk.

**Renal Impairment:** Reduce risperidone dose. Titrate slowly.

**Hepatic Impairment:** Possibly reduce dose of olanzapine, quetiapine, risperidone. Caution with all.

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# Dementia Antipsychotic Prescribing Guide

## Monitoring for Response and Adverse Effects

**Monitoring for Response**
- Clearly document treatment target symptoms. If the drug does not help, discontinue the drug. These symptoms may also change over time, with or without drug treatment.
- Do not expect an immediate response. Sedation may explain much of any immediate effect that is seen. Response may take 2-4 weeks.
- Do not increase doses too quickly if the patient doesn’t respond right away. At a stable dose, drug blood levels may rise for several days to a week or more before reaching a steady state level. Increased doses lead to increased side effects.

**Monitoring for Adverse Effects**
Other possible adverse effects include: falls, constipation, urinary tract infection, urinary incontinence or retention, stroke, arrhythmias, and neuroleptic malignant syndrome.

<table>
<thead>
<tr>
<th>Side Effect</th>
<th>Monitoring</th>
</tr>
</thead>
<tbody>
<tr>
<td>Movement Side Effects</td>
<td>Observation for tremor, gait changes, difficulty swallowing, signs of parkinsonism, restlessness (akathisia), unusual movements (tardive dyskinesia).</td>
</tr>
<tr>
<td>Abnormal Involuntary Movement Scale (AIMS) at baseline, every 6 months, or if movement side effects are suspected.</td>
<td></td>
</tr>
<tr>
<td>Central Nervous System</td>
<td>Observations, sedation scale if needed.</td>
</tr>
<tr>
<td>Confusion, delirium, or other cognitive worsening</td>
<td>Observation for mental status or behavior changes.</td>
</tr>
<tr>
<td>Delirium screening tool, e.g., CAM (Confusion Assessment Method) if delirium is suspected.</td>
<td></td>
</tr>
<tr>
<td>Psychotic symptoms</td>
<td>Observation for worsening symptoms.</td>
</tr>
</tbody>
</table>

**Cardiovascular/ Metabolic**

<table>
<thead>
<tr>
<th>Condition</th>
<th>Monitoring</th>
</tr>
</thead>
<tbody>
<tr>
<td>Orthostatic hypotension</td>
<td>Observation for signs of dizziness or falls.</td>
</tr>
<tr>
<td>Orthostatic blood pressure (if feasible). Monthly, or if signs of dizziness occur. More frequent on initiation or after dose increase.</td>
<td></td>
</tr>
<tr>
<td>Edema</td>
<td>Observation for swelling of extremities.</td>
</tr>
<tr>
<td>Weight gain</td>
<td>Monthly weight. Consider weekly for 1 month if overweight. Watch for increased appetite.</td>
</tr>
<tr>
<td>Hyperglycemia/Diabetes</td>
<td>Blood glucose at baseline, 3 &amp; 6 months, then q6 months. Also PPN symptoms or mental status change. Monitor symptoms: increased thirst, urination, hunger, weakness.</td>
</tr>
<tr>
<td>Triglyceride ↑</td>
<td>Fasting lipid panel at baseline, 3 &amp; 6 months, then q6 months. Especially if patient has cardiovascular risk factors: e.g., obesity, diabetes, hyperlipidemia.</td>
</tr>
</tbody>
</table>
Monitoring Antipsychotic Use

• Start with a time limited trial

• Monitor for effectiveness
  – Specific target behaviors

• Monitor for adverse effects
Dementia Antipsychotic Guide

for Care Providers

General Guidelines:
1. Look for reversible causes of challenging behaviors or other target symptoms prior to asking for a drug to treat them. Examples include medical problems, drugs, modifiers, or other factors influencing behavior.
2. Try non-drug strategies first. Keep using these strategies even if antipsychotics are used.
3. Clearly document treatment targets (symptoms) before and after a strategy or drug is tried. Include frequency, severity, time of day, and environmental or other triggers of symptoms.
4. Use of an antipsychotic should be well-justified. The treatment target symptom must present a danger to the person or others, or cause the person to have one of the following:
   - Inconscionable or persistent distress
   - A major decline in function
   - Substantial difficulty receiving needed care
   Appropriate and inappropriate treatment targets from CMS are listed in the boxes below. Generally, antipsychotics should not be used for inappropriate treatment targets.
5. Monitor for effectiveness and side effects. (see other side)
6. If the drug doesn’t help, it should be stopped.

Appropriate Antipsychotic Treatment Targets:
- Aggressive behavior (especially physical)
- Hallucinations: seeing, hearing, smelling, tasting or feeling things that seem real to the person but not others. For example, hearing voices or seeing things that are not there.
- Delusions: false personal beliefs that a person has in spite of evidence they aren’t true. For example, thinks husband or wife is having an affair without reason, or family members are impostors.
- Other severe distress as described above in #4 General Guidelines

Inappropriate Antipsychotic Treatment Targets:
- Wandering
- Not being social or friendly
- Poor self-care
- Restlessness
- Uncooperativeness without aggressive behavior
- Not caring about what is going on around them
- Speech or behaviors that are not dangerous to the person or others

Dementia Antipsychotic Guide
Monitoring for Response and Side Effects

Monitoring for Response
- Clearly document treatment target symptoms and whether they improve. The drug should be stopped if it does not help. Symptoms may change over time, with or without drug treatment.
- Do not expect an immediate response. Sedation from the drug may explain much of any effect seen in the first few days.
- Do not ask for higher doses too quickly. It may take several days to a week or more to see the full effect, depending on the drug (talk to prescriber for details). Higher doses cause more side effects.

Monitoring for Side Effects

<table>
<thead>
<tr>
<th>Side Effect</th>
<th>Report to RN or prescriber if these problems occur</th>
</tr>
</thead>
<tbody>
<tr>
<td>Movement Side Effects</td>
<td>Tremors, tight muscles, changes in walking or falls, abnormal movements like face or eye twitching, drooling</td>
</tr>
<tr>
<td>Central Nervous System</td>
<td>Sleepiness, slow to respond, hard to wake up</td>
</tr>
<tr>
<td>Sedation</td>
<td>Worsening mental status compared to normal. Seem more confused, sad, or agitated; is confused, difficulty paying attention; slow movements or speech. These may be a sign of a serious medical illness or a drug side effect</td>
</tr>
<tr>
<td>Confusion, delirium, or other cognitive worsening</td>
<td>Worsening psychotic symptoms (delusions or hallucinations)</td>
</tr>
<tr>
<td>Worsening psychotic symptoms (delusions or hallucinations)</td>
<td>Hallucinations: seeing, hearing, smelling, tasting or feeling things that aren’t there. Delusions: false beliefs that a person holds in spite of evidence they aren’t true. Antipsychotics usually lessen these symptoms, but sometimes make them worse</td>
</tr>
<tr>
<td>Cardiovascular/Metabolic</td>
<td>Signs of dizziness or dizziness. Check and orthostatic blood pressure by checking the blood pressure when lying down then again shortly after standing. Drugs sometimes cause an unwanted drop in blood pressure</td>
</tr>
<tr>
<td>Rapid drop in blood pressure on standing</td>
<td>Swelling</td>
</tr>
<tr>
<td>Swelling</td>
<td>Swelling is most common in the legs and ankles, but can occur in other places</td>
</tr>
<tr>
<td>Weight gain</td>
<td>Big increases in appetite. Hungry even after eating. Unwanted increases in weight</td>
</tr>
<tr>
<td>High blood sugar</td>
<td>Confusion, increased thirst, frequent urination, unusual tiredness, blurred vision. Blood sugar can be checked to see if this might be the cause of these symptoms</td>
</tr>
<tr>
<td>Urinary Symptoms</td>
<td>Changes in frequency—increased, or decreased with urinary retention. Worsened incontinence. Pain on urination. May be infection or drug-related problem</td>
</tr>
<tr>
<td>Constipation</td>
<td>Fewer bowel movements. Hard stools. Poor appetite. Gut pain or distention</td>
</tr>
</tbody>
</table>
Discontinuing Antipsychotics

• Continue medication only if there is clear evidence of efficacy

• 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.
Relapse Risk

- RCT of DC in 110 risperidone responders after 16 or 32 weeks of treatment
  - 112/180 responded
  - Mostly outpatient or assisted living

Devanand et al, NEJM 2012;376:1497-507
Discontinuing Antipsychotics

• Use periodic gradual dose reductions to assess continued need
  – At least twice yearly

• 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
Initial Steps to Reduce Unnecessary Antipsychotics

• No role for PRN antipsychotic medications

• Look at discontinuation or gradual dose reduction for residents on medications for greater than 12 weeks (3 months)

• Evaluate need for antipsychotics being started on residents during the evening/night shift or over the weekend

(information reviewed from a presentation by Dr. David Gifford, AHCA/NCAL)
IA-ADAPT Training

- Case-based mini-lectures
- Pocket guides and algorithms
- Supporting written materials online
  - Explain rationale and evidence
- Dementia care online training course
  - Focused on caregivers, but good for anyone
  - Teaches the principles of non-drug management
  - Fulfills training requirement for dementia unit care providers
Pocket Guides and Algorithms

1. Overview of stepwise approach to management
   – Pocket guide, includes common causes of problem behaviors

2. Delirium screening and management
   – Pocket guide

3. Drugs that can cause delirium or problem behaviors
   – Pocket guide
Pocket Guides and Algorithms

4. Managing a Crisis
   - Tip sheet

5. Non-pharmacologic management algorithm
   - Poster and pocket guide

6. Antipsychotic Guides
   - Clinician version to guide prescribing and monitoring
   - Caregiver version focused on monitoring
Shared Decision Making on Antipsychotic Use

• Handout to help discuss the risks and benefits of antipsychotics with families
  – And patients if appropriate

• Written with a focus on health literacy

• Lawsuits are less likely if the family is involved with these decisions
Antipsychotic (An-tie-sy-COT-ick) Medicines for People with Dementia

When you have a loved one with dementia, it can be hard to make choices about their care. This hand-out can help you decide about using certain medicines for them.

**What is dementia** (de-MEN-shuh)? Dementia is an illness that makes it harder and harder for a person to remember things and live normally. There are many kinds of dementia. Alzheimer’s (ALTZ-hi-merz) is one kind. People with dementia may also:
- See or hear things that are not there. These are called hallucinations* (lahh-luh-sheens).
- Believe something that isn’t true, even when told otherwise. This is called a delusion* (dih-LOO-zhun).
- Get angry for no clear reason, or for a small problem.

These things can be very upsetting for people with dementia and their caregivers. It is important to comfort and support people with dementia. But sometimes medicines are needed.

**What are antipsychotic* (an-tie-sy-COT-ick) medicines?**
These medicines can help when people see or hear things, or believe things that are not true. But they can also have side effects (things that come from taking a medicine but are not part of the treatment). These medicines may cause a small increase in the risk of death. So it’s important to only use them when needed. And only if they help. Sometimes there are other ways to handle problems with dementia. They should be tried first.

**What can these medicines help?**
Antipsychotic medicines can help:
- Aggressive behavior, like hitting, kicking, or biting.
- Hallucinations, like hearing voices when there are none, or seeing people in the room who aren’t there.
- Delusions, like being suspicious (SUH-PI-shus) or thinking people are trying to hurt them. This is called being paranoid (PAIR-uh-noyd).
- Other things that can cause danger to the person or other people, or make it very hard to take care of the person.

**What will these medicines NOT help?**
Antipsychotic medicines do not help these problems:
- Not being social—when a person doesn’t want to be friendly to others
- Not taking care of their self
- Memory problems
- Not paying attention or caring about what is going on around them
- Yelling or repeating questions over and over
- Being restless—when it’s hard for a person to sit still

There may be other medicines or ways to help. So talk to the health care team.

**What are the possible benefits of antipsychotic medicines?**
They may help aggressive behavior, hallucinations, or delusions. This can make a person with dementia feel better. It might also make it safer for the person or others.

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*Words to Know*
Antipsychotic medicine — helps when people see or hear things, or believe things that are not true.
Delusion — believing something that is not true, even when told otherwise.
Dementia — an illness that makes it harder and harder for a person to remember things and live normally.
Hallucination — seeing or hearing things that are not there.
IA-ADAPPT Training and Resource Website

- Iowa Geriatric Education Center
- http://www.healthcare.uiowa.edu/igec/IAADAPT

- Hard copy laminated pocket guides and algorithms are $10 per set plus shipping (our cost)
- PDF copies free
- Free CE/CME for physicians, pharmacists, nurses
Special Thanks

• Content / Lecture Developers:
  – Marianne Smith, PhD, RN
  – Michael Kelly, BS, PharmD, MS
  – Jeff Reist, PharmD, BCPS, FASCP
  – Michelle Weckmann, MD, MS
  – Susan Schultz, MD
  – Susan Lenoch, MA

• Brian Gryzlak, MA, MSW: project manager

• The rest of the IA-ADAPT team

• All the participants who so kindly provided their input to improve the products
Summary (Thanks!)

• Quality person-centered caregiving approaches may reduce antipsychotic use
• Pain management may reduce behaviors
• When antipsychotics are needed, clearly document justification and monitor effects
• Antipsychotics differ in their effectiveness and side effects
  – Select based on patient characteristics
• Antipsychotics are not forever
  – or sometimes don’t need to be…. try to DC