REDUCTION IN ANTIPSYCHOTIC USE IN OLDER ADULTS THROUGH NON-PHARMACOLOGICAL INTERVENTIONS

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School of Nursing

CMS PARTNERSHIP TO NATIONAL PARTNERSHIP TO IMPROVE DEMENTIA CARE IN NURSING HOMES

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CMS data revealed that in 2010 more than 17% of nursing home residents had daily doses exceeding recommended levels. According to a report by the OIG, 22% of atypical antipsychotics were not administered in compliance with CMS standards.

CMS Partnership National Goals

- National goal of reducing use of antipsychotic drugs in nursing home residents by 15 percent by end of 2012
- Reduce the use of antipsychotic medications in long-stay residents by 25% by the year 2015 and 30% by the end of 2016

CM Exclusion Diagnoses for Inappropriate Use of Antipsychotics

- Schizophrenia
- Tourette Syndrome
- Huntington’s Disease
THE "WHY"

Pay Attention: Now or Later

Resident Related
- Falls; Injury
- Weight loss
- Infection
- Incontinence
- Impaired skin integrity
- Excess disability
- Psychological distress (fear, anxiety, withdrawal...)

Staff Related
- Injury
- Premature transfers to ERs and/or behavioral/or psychiatric treatment facilities
- Use of resources

Facility Related
- Staff turnover
- Customer service
- Morale
- Productivity

PSYCHOSIS: KEY POINTS

- Hallucinations
  - Perceptions without stimuli
  - Can occur in any sensory modality

- Delusions
  - Fixed or false perceptions or beliefs not in keeping with reality
  - Unfounded ideas that can be suspicious (paranoid), grandiose, somatic, self-blaming, etc.
  - Not the result of religious or cultural norms

Psychosis in the Elderly

- Commonly used to describe a severe mental illness in which delusions and hallucinations are prominent
- Can be seen in a wide range of conditions
- Psychotic symptoms of acute onset are usually the result of a delirium secondary to a medical condition, drug misuse, and drug-induced psychosis

Increased Risk of Psychosis in Elderly Persons: Contributing Factors

- Age related deterioration of frontal and temporal cortices
- Social isolation
- Sensory deficits
- Age related pharmacokinetic and pharmacodynamic changes
- Polypharmacy
Examples of Medical Conditions that May Cause Psychotic Symptoms

- Cerebrovascular disease
- CNS trauma
- Fluid or electrolyte imbalance
- Hepatic disease
- Hypo-hyperthyroidism
- Neoplasms
- Metabolic conditions
  - Hypoxia, hypoglycemia
  - Normal pressure hydrocephalus
  - Vitamin deficiency (B₁₂)
  - Huntington’s disease

Sudden Change in Behavior?
Urinary Tract Infection (UTI)

- Older adult and atypical response to illness, especially infections (including UTI)
- Often “silent”
- Family members may report:
  - “Mother is sleeping all day”
  - “She’s screaming and undressing in public”
  - “Sudden decline” or “She’s worst”
  - “I don’t know what happened. He’s more confused”

Atypical Antipsychotics and FDA Black Box Warnings

- In 2005 the FDA issued a black-box warning of increased risk of death associated with use of atypical antipsychotics in the elderly population with dementia
- Example of a Boxed Warning

> "Increased Mortality in Elderly Patients with Dementia-Related Psychosis – Elderly patients with dementia-related psychosis treated with atypical antipsychotic drugs are at an increased risk of death compared to placebo. Analysis of seventeen placebo-controlled trials (median duration of 10 weeks) in these patients revealed a risk of death in the drug-treated patients of between 1.6 to 1.7 times that seen in placebo-treated patients. Over the course of a typical 10-week controlled trial, the rate of death in drug-treated patients was about 4.5% compared to a rate of 2.6% in the placebo group. Although the causes of death were varied, most of the deaths appeared to be either cardiovascular (e.g., heart failure, sudden death) or infections (e.g., pneumonia) in nature. [This drug] is not approved for the treatment of patients with dementia-related psychosis. " (p. 4)

Black Box Warning Extended to Conventional Antipsychotics

- The FDA extended the black box warning to conventional antipsychotic drugs in 2008
- Elderly persons with dementia-related psychosis treated with antipsychotic drugs (conventional or atypical) are at ↑risk of death
- Neither class of drugs is FDA approved for use in treatment of dementia-related psychosis


- Evaluation requested regarding use of atypical antipsychotics in elderly NH residents
- Atypicals approved by FDA for use in treatment of schizophrenia and/or bipolar disorder
- Concern regarding use for off-label conditions (i.e., conditions other than schizophrenia and/or bipolar disorders) and/or for residents with the condition specified in the FDA boxed warning (i.e., dementia).

Side effect of atypical drugs include increased risk of death in elderly persons with dementia

Classes of Antipsychotics (Examples)

Typical
- Thorazine (chlorpromazine)
- Haldol (haloperidol)
- Mellaril (thioridazine)
- Proxlin (Fluphenazine)

Atypical
- Abilify (apripiprazole)
- Saphris (asenapine)
- Clozaril (clozapine)
- Zyprexa (olanzapine)
- Seroquel (quetiapine)
- Invega (Paliperidone)
- Risperdal (risperidone)
- Geodon (Ziprasidone)

Antipsychotic Drugs Side Effects Profile

<table>
<thead>
<tr>
<th>Brand Name</th>
<th>EPSs</th>
<th>Sedation</th>
<th>Orthostasis</th>
<th>Anticholinergic</th>
<th>Weight Gain</th>
</tr>
</thead>
<tbody>
<tr>
<td>Aripiprazole</td>
<td>+</td>
<td>+</td>
<td>+</td>
<td>+</td>
<td>+</td>
</tr>
<tr>
<td>Asenapine</td>
<td>++</td>
<td>+</td>
<td>++</td>
<td>+/-</td>
<td>+</td>
</tr>
<tr>
<td>Chlorpromazine</td>
<td>+++</td>
<td>+++</td>
<td>+++</td>
<td>+++</td>
<td>++</td>
</tr>
<tr>
<td>Clozapine</td>
<td>+</td>
<td>+++</td>
<td>+++</td>
<td>+++</td>
<td>+++</td>
</tr>
<tr>
<td>Haloperidol</td>
<td>+++</td>
<td>+</td>
<td>+</td>
<td>+++</td>
<td>+</td>
</tr>
<tr>
<td>Olanzapine</td>
<td>++</td>
<td>++</td>
<td>++</td>
<td>++</td>
<td>+++</td>
</tr>
<tr>
<td>Quetiapine</td>
<td>+</td>
<td>++</td>
<td>+</td>
<td>+</td>
<td>++</td>
</tr>
<tr>
<td>Paliperidone</td>
<td>++</td>
<td>+</td>
<td>++</td>
<td>+</td>
<td>+</td>
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<tr>
<td>Risperidone</td>
<td>++</td>
<td>+</td>
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<tr>
<td>Thioridazine</td>
<td>+++</td>
<td>+++</td>
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<td>+</td>
</tr>
<tr>
<td>Ziprasidone</td>
<td>++</td>
<td>++</td>
<td>+</td>
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<td>+</td>
</tr>
</tbody>
</table>

Relative side effect risk: ± negligible; + low; ++ moderate; +++ moderately high; ++++ high

Potential Side Effects of Antipsychotic Medications

Extrapyramidal
- Akathisia
- Drug induced Parkinsonism
- Dystonia
  - Acute dystonic reaction
- Tardive dyskinesia

Anticholinergic
- Dry mouth, blurred vision
- Constipation
- Urinary hesitancy/retention
- Impairment in cognitive functioning and hallucinations

http://www.mdqio.org/docs/Antipsychotic_Tool.pdf
### Extrapyramidal Side Effects (EPSEs)

<table>
<thead>
<tr>
<th>Side Effect</th>
<th>Hallmark Features</th>
</tr>
</thead>
<tbody>
<tr>
<td>Akathisia</td>
<td>• Subjective feeling of restlessness or discomfort – usually in lower limbs; inability to sit still, pacing; rocking back and forth if seated in chair</td>
</tr>
<tr>
<td></td>
<td>• Critical to distinguish between increased anxiety or psychotic agitation</td>
</tr>
<tr>
<td>Drug induced Parkinsonism</td>
<td>• Tremors, rigidity, excessive salivaution, and bradykinesia</td>
</tr>
<tr>
<td></td>
<td>• Mental effects: bradypnhenia and cognitive impairment</td>
</tr>
<tr>
<td></td>
<td>• Increased susceptibility to aspiration or injury due to falls</td>
</tr>
<tr>
<td>Acute Dystonia</td>
<td>• Tightening of jaw, stiff neck, swollen tongue</td>
</tr>
<tr>
<td></td>
<td>• Later signs: Severe and bizarre muscle contractions</td>
</tr>
<tr>
<td></td>
<td>• Can be painful and very frightening</td>
</tr>
<tr>
<td></td>
<td>• Accurate observation promotes prompt recognition and treatment; may be a factor in medication non-adherence</td>
</tr>
<tr>
<td>Tardive Dyskinesia</td>
<td>• Abnormal involuntary face and tongue movements (i.e. grimacing, lip chewing, smacking) and check puffing</td>
</tr>
<tr>
<td></td>
<td>• Atypical antipsychotics tend to carry a lower risk</td>
</tr>
</tbody>
</table>

Example of objective EPSE assessment tool: The Abnormal Involuntary Movement Scale (AIMS)

### Target Symptoms

- Target symptoms should be clearly identified prior to antipsychotic treatment and carefully monitored over the course of treatment.
- Medication intervention for poorly defined eccentricities provide limited clinical benefit and unnecessary exposure to medication risks and poor health outcomes.

### Antipsychotic Drugs and Inappropriate Treatment Targets

- Unsociability, Poor self-care
- Restlessness, Impaired memory
- Inattention or indifference to surroundings, Wandering
- Uncooperativeness
- Mild anxiety
- Verbal expression or behaviors not representing a danger or threat to others
- Nervousness, Fidgeting


### Prior to Using Antipsychotic Drugs: Checklist

- **Rule out:**
  - Medication side effect
  - Underlying medical condition
  - Social and physical environment
    - sensory overload
    - sensory deprivation
  - Result of unmet need(s)
  - Life-long personality traits
- Important to use non-pharmacological interventions as front-line approach
Points to Remember

- Hallucinations and delusions that do not cause distress do not require pharmacological intervention
- Correcting auditory and visual deficits may improve symptoms

Paradigm Shift in Dementia Care

Biomedical Model
- Defined in terms of pathological changes
- Inevitable decline; incurable
  - Progressive cognitive and functional decline
- Centered around deficits - expectation of loss of competency
- As communication and cognitive functioning are affected by the disease progression, care is aimed at meeting basic biologic needs

Person-Centered Care
- Knowledge of individual's personal history, life-long patterns, standing personality traits, and coping patterns
- Aimed to maximize existing strengths
  - Abilities oriented care – retained abilities; prevention of excess disability
  - Modification of environment to support and enhance safety
  - Adaptation of environment to meet changing needs
  - Social engagement
  - Personal preferences, likes, dislikes

REMEMBER: A “Person”-Centered Approach Builds on Individual Strengths and Abilities to Maximize and Promote Independence

Honors importance of keeping the “Person” at the center of care planning and decision making

“Person” supported in achieving a maximal level of physical, mental and psychosocial well-being

Promotes choice, purpose and meaning in daily life of the “Person”

Premium placed on active listening to and observing the “Person”

The Progressively Lowered Stress Threshold (PLST) Model

- Major premises:
  - Internal and environmental stressors beyond a person's threshold for coping lead to increased disability
    - Examples: fatigue; adverse effects of medications; noise; pain; multiple competing stimuli
  - Environmental modifications will reduce environmental stressors and prevent or lessen behavioral symptoms

(Stein, Geshke, Hall, & Backwater, 2004)
Needs Driven Dementia Compromised Behavior

- Provides a different way of viewing behaviors
- Examines source of behaviors
  - Expression of unmet needs
  - Unmet needs manifest in behavioral symptoms
- Key is to identify root cause of behavior
  - All behavior is meaningful
  - Triggers
  - Focus on treating, reducing, eliminating or modifying factors that cause or contribute to behaviors

(Algare et al., 1996)

Common Behavioral Triggers

Environmental
- Poor lighting with shadowing effect, glare
- Excessive noise
- Clutter
- Uncomfortable temperatures

Psychological
- Anger
- Fear
- Loneliness
- Boredom
- Frustration

Physical
- Hunger
- Pain
- Thirst
- Constipation
- Fatigue
- Infection

Examples of Behavioral and Psychological Symptoms of Dementia (BPSD)

- Agitation
- Aggression
- Psychosis
- Wandering
- Sleep disturbance
- Apathy/Indifference

Points to Remember

Most Behavioral and Psychological Symptoms of Dementia (BPSD) are Responsive to Non-Pharmacological Approaches (NPA)

Selection of NPA Should Always Be Based on an Assessment of Predisposing and Precipitating Factors
Challenging Behaviors

- More severe in moderate to severe stages of disease
- Can contribute to falls, weight loss, infection, and incontinence
- Can cause significant stress in caregiver resulting in caregiver stress and premature institutionalization, and poor health outcomes for person with dementia

Core Principles in Viewing Challenging Behaviors

- ALL BEHAVIOR IS MEANINGFUL!!
  - Behaviors are a form of communication
  - Can result from an unmet need(s)
  - Important to identify “root-cause” or reason for behavior
  - Focus on reducing, eliminating, or modifying factors that cause or contribute to behaviors

Core Principles in Viewing Challenging Behaviors

- Symptoms are often multidimensional and can result from more than one cause
  - Confusion should always be investigated, particularly in a person who has previously been alert and responsive and suddenly becomes confused
  - In the presence of a disease process, i.e. dementia, a sudden change of worsening of symptoms must also be investigated and not automatically accepted as a progression of the disease

Aim of this evaluation: to rule out potential underlying physiological causes, psychiatric or emotional factors, and environmental or pharmacological triggers

3 Step Approach to Identify Common Behaviors and their Causes

1. Examine the Behavior
2. Explore Potential Causes
3. Try a Different Response
ABC Approach to Managing Challenging Behaviors

- **Antecedents**: Situations or events that trigger or give rise to the behavioral occurrences.
  - Anything that precedes or happens before or "sets the stage" for the behavior to occur.
- **Behavior**: Examined
- **Consequence**: Anything that happens directly following or after the occurrence of a challenging behavior.

Aggression and Anger

- Figure out the immediate cause
- Rule out pain
- Focus on feelings, not facts
- Try not to get upset
- Avoid sensory overload – limit distractions
- Consider a different activity
- Assess the level of danger
- Avoid using restraint or force
- "Know thy self"
- Talk your feelings out with someone that you trust and have a good relationship with

Classifications of 4 Main Categories of Behaviors

- **Physical aggression**: (Examples: pushing, kicking, or biting)
- **Physical non-aggression**: (Examples: hiding things, acting restless, dressing or undressing inappropriately)
- **Verbal aggression**: (Examples: cursing, screaming, making strange noises)
- **Verbal non-aggression**: (Examples: whining, complaining, or constantly seeking attention)

Behavioral Approaches: Agitation

- Learn to recognize early warning signs
  - Note pattern of behavior and clues
  - Is the behavior event related, sudden, or escalates?
- Identify source of frustration – Look and Listen
- Provide frequent calming reassurance

The Cohen Mansfield Agitation Inventory
Behavioral Approaches: Agitation

- Provide structure and consistency – involve in meaningful activities that reflect:
  - Earlier life interests, hobbies, previous career
  - Consider 1:1 versus small group related activities
- Modify the environment
- Provide outlets for energy

Behavioral Approaches: Suspicion

- Don’t argue with, attempt to convince, or force person to accept reality
- Use a “matter of fact” approach
- Simple response
- Distract and redirect
- Identify “hiding places”
- Duplicate items – have extras on standby
- Don’t take it personal!

Wandering

**Environmental Modifications**
- Minimize noise
- Disguise or camouflage doors/exits
- Place activity boxes near doorways
- Cautious use of electronic monitoring devices
- Unique door identifier

**Interventions**
- Movement and exercise balanced with periods of rest
- Walks in secure outdoor areas
- Ensure that basic needs are met
- Involve in meaningful activities
- Utilize calming, preferred music
- Use reassurance and redirection
- “Element of surprise”
- Consider finger foods
- Safe Return and Comfort Zone

http://www.alz.org/comfortzone/about_comfort_zone.asp

Sundowning

- Increased confusion, anxiety and agitation beginning late in the day or evening
- Typically peaks in middle stage of dementia
Benefits of Sleep

- Brain tissue restoration
- Body restoration
- Energy conservation
- Memory reinforcement
- Regulation of immune function
- Metabolism and regulation of certain hormones
- Thermoregulation

Non Drug Measures to Promote Sleep

- Warm milk, soothing, preferred music, aromatherapy, light message
- Eliminate intake of caffeine in late afternoon and evening, offer opportunity for toileting prior to retiring for sleep
- Encourage periods of interaction between family and staff during daytime

Healthy Brain Versus Alzheimer’s Brain

http://blog.thealzheimerssite.com/understanding-alzheimers-in-three-minutes/

Challenging Behaviors and what You can do

- Because disruptive behaviors are a result of the disease, remarks or behaviors should never be taken personally
  - Try to understand that the person is not acting that way on purpose
  - Avoid finger-pointing, scolding, or threatening
  - Validate that the person appears upset over something and reassure that you want to help and that you love him/her
  - Examine your reaction or your approach to the behavior(s)
  - Seek available assistance and support. Help is available
Communication Tips

- Be patient and supportive – active listening, positive regard
- Offer comfort and reassurance
- Avoid criticizing or correcting
- Limit distractions
- Focus on feelings, not facts
- Encourage unspoken communication
- Don’t take it personally!

http://www.alz.org/care/dementia-communication-tips.asp

Communication Tips

- Identify yourself
- Call individual by name
- Short, simple words and sentences
- Speak slowly- wait patiently for response
- Calm, unhurried approach
- Repeat information or questions as needed
- Avoid vague statements
- Turn negatives into positives
- Give visual cues, gesturing
- Avoid quizzing or asking “Don’t you remember?”
- When feasible, write notes
- Treat with dignity and respect

http://www.alz.org/care/dementia-communication-tips.asp

Communication Validation vs Reality Orientation

- Don’t argue with, attempt to convince or force person to accept reality
- Use a matter of fact approach
- More effective to address the person’s feelings in relation to what they perceive as reality

☑ Responding to the emotional content of what the person is saying, rather than presenting “factual reality” is more beneficial and less likely to result in increased agitation or a catastrophic reaction.

Sensory Enhancement Measures Examples

- Landscaped outdoor gardens – outdoor activities
- Soothing environmental sounds (singing birds, waterfall, soft music)
- Provide for periods of exposure to natural lighting when possible
- Incorporate items in environment that stimulate the senses, i.e.
  - (visual) memory books and scrap books containing family pictures
  - (touch) different textures such as cotton balls
  - (Smell) perfumes, citrus odors, smells from plants such as lavender, roses and fresh flowers, baking smells, freshly brewed coffee or tea
### Measuring to Prevent Sensory Overload

**Examples**
- Decrease environmental stimuli (noise generated from TVs, stereos, cell phones, and background noise from loud conversations)
- Avoid use of large mirrors
- Use appropriate level of lighting to prevent casting of shadows in environment
- Comfortable room temperature
- Assess for unmet physical needs such as toileting, hunger, thirst, pain, constipation
- Utilize therapeutic communication strategies to prevent catastrophic reactions
- Maintain a calm, non-hurried approach to care
- Allow for periods of rest between challenging activities

### Resistance to Care During Bathing

**Nursing Approaches**

<table>
<thead>
<tr>
<th>Person-Centered Care Approaches</th>
<th>Communication Strategies</th>
<th>Environmental Modifications</th>
</tr>
</thead>
<tbody>
<tr>
<td>Requires knowledge of lifelong bathing preferences, individual rituals surrounding bathing, and awareness of cultural considerations</td>
<td>Calming voice</td>
<td>↓ background noise</td>
</tr>
<tr>
<td>“See” through the eyes of the person with dementia</td>
<td>Simple, step by step, directions and instructions</td>
<td>Soft, relaxing, preferred music</td>
</tr>
<tr>
<td>Focus on “individual” not the task being performed</td>
<td>Avoid use of “elderspeak”</td>
<td>Avoid bright lights, glare or shadows</td>
</tr>
<tr>
<td>Avoid hurried movements</td>
<td>Engage in “pleasant” conversations on topics of interest</td>
<td>Maintain comfortable room and water temperature</td>
</tr>
<tr>
<td>Allow participation in care to the degree possible</td>
<td>Verbal cueing, sequencing, gesturing, priming, or mirroring</td>
<td>Remove clutter and items that could be distracting or frightening</td>
</tr>
</tbody>
</table>

### Examples of Stage Related Symptoms and Non-Pharmacological Interventions

<table>
<thead>
<tr>
<th>Stage</th>
<th>Symptoms</th>
<th>Interventions</th>
</tr>
</thead>
<tbody>
<tr>
<td>Mild</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>Forgetfulness</td>
<td>Memory books</td>
</tr>
<tr>
<td></td>
<td>Generalized anxiety</td>
<td>Reminiscence therapy</td>
</tr>
<tr>
<td></td>
<td>Restlessness, pacing</td>
<td>Meaningful structured activity/exercise</td>
</tr>
<tr>
<td></td>
<td>Isolation or withdrawal from usual activities</td>
<td>Indoor/outdoor gardening</td>
</tr>
<tr>
<td></td>
<td>Apathy</td>
<td>Music therapy (individual preferred)</td>
</tr>
<tr>
<td></td>
<td>Depression</td>
<td></td>
</tr>
</tbody>
</table>

*Note: Interventions from either stage can be used based on individualized needs/response*
Examples of Stage Related Symptoms and Non-Pharmacological Interventions

<table>
<thead>
<tr>
<th>Stage</th>
<th>Symptoms</th>
<th>Interventions*</th>
</tr>
</thead>
<tbody>
<tr>
<td>Severe</td>
<td>❖ Repetitive vocalizations</td>
<td>❖ Soft, calming music</td>
</tr>
<tr>
<td></td>
<td>❖ Screaming, yelling, crying</td>
<td>❖ Snoezelen® (multisensory)</td>
</tr>
<tr>
<td></td>
<td>❖ out, moaning</td>
<td>❖ Simulated presence therapy</td>
</tr>
</tbody>
</table>

*Note: Interventions from either stage can be used based on individualized needs/response

TimeSlips™

A creative Story Telling Process for Persons with Dementia or other Cognitive Impairments

- Opens avenue for meaningful connection and engagement
- Shift from managing behaviors towards engaging the individual
- Research has shown:
  - Increase in quality and quantity of interactions between residents and staff
  - Improved affect and communication
  - Increased social engagement

“Stories serve as creative outlets…
Chances to imagine and build stories. There is no right or wrong responses.

TimeSlips™

- What should we name him?
- What is he doing?
- How does he feel?
- Where should we say this takes place?
- What is in the package? Why?
- What sounds do you hear?
- To whom is he delivering?
- How do they feel?
- What happens next