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Texas: Reducing Antipsychotics In Nursing Homes

TEXAS Department of Aging and Disability Services

Quality Improvement Organizations
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TMF Health Quality Institute

Antipsychotics: What's the Big Deal?

Joann Murtagh, RPh

Pharmacist Quality Monitor

DADS Quality Monitoring Program

Objectives

1. Summarize the pharmacology of the antipsychotic drug class
2. Describe how the use of antipsychotic medications burden the quality of life in the elderly
3. Explain the CMS appropriate use of antipsychotic medications in the long-term care setting
4. Describe the dementia disease process
5. Describe strategies to monitor and target behaviors in the long-term care population

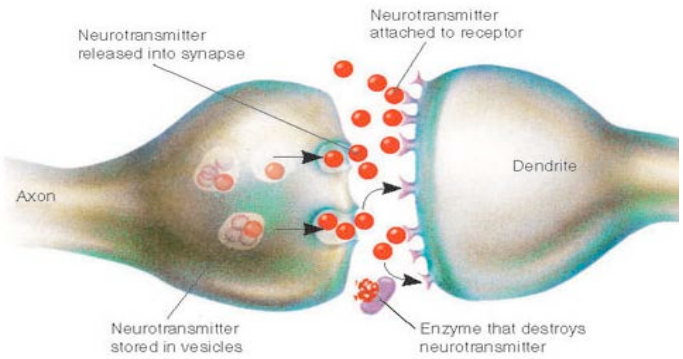
What's the Big Deal?

Antipsychotics are:

- extensively used in nursing homes
- prescribed for the off-label for dementia-related illnesses where effectiveness is little and use is unsupported

Antipsychotic Mechanism of Action

- Block neurotransmitters in the brain at dopaminergic, histaminic, cholinergic, and serotonergic receptors in the brain
- A specific antipsychotic drug may be prescribed over another due to varying activity at these brain receptor sites
- The main action is to block dopaminergic pathways to reduce the core symptoms of psychosis: hallucinations, delusions, and paranoid ideation



Treatment for Schizophrenia-Related Disorders

- Antipsychotics have been the first-line treatment since the 1950's with first-generation antipsychotics (i.e. the typical antipsychotics)

- The down-side risk of blocking dopaminergic receptors is the occurrence of extrapyramidal side effects (EPS)

Common Typical Antipsychotics

Haloperidol (Haldol®)

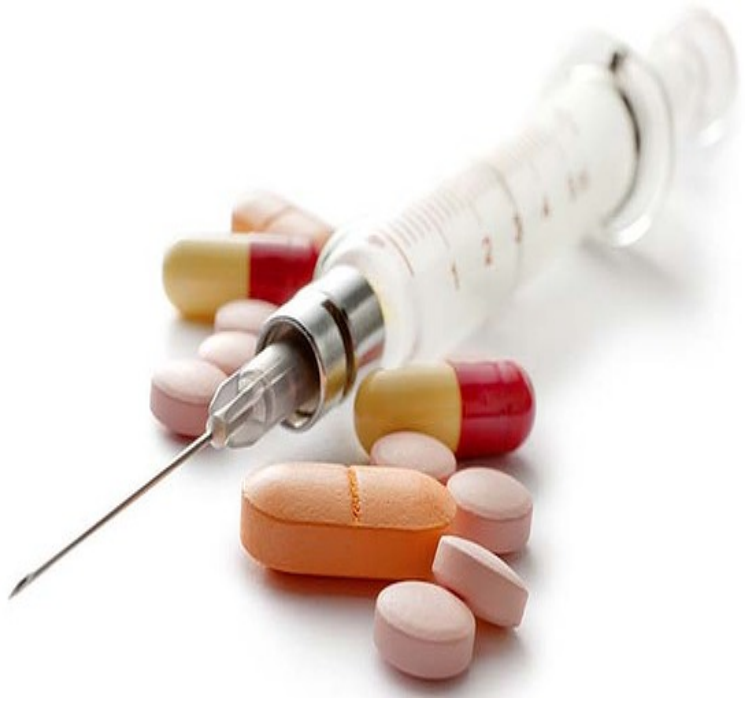
Chlorpromazine (Thorazine®)

Fluphenazine (Prolixin®)

Perphenazine (Trilafon®)

Thioridazine (Mellaril®)

Thiothixene (Navane®)



Atypical Antipsychotics

- Second-generation antipsychotics were developed in the 1980's with the first being Clozapine (Clozaril®)

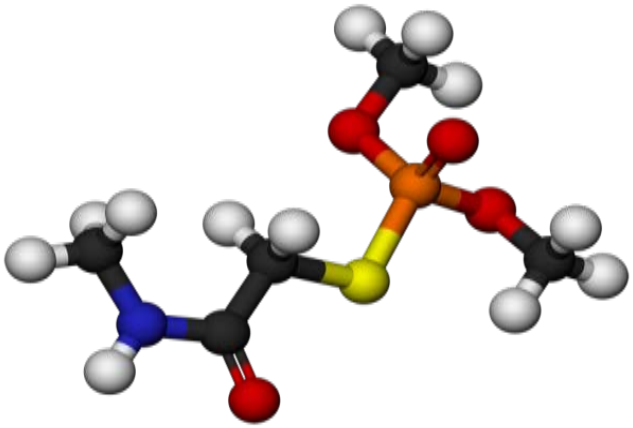
- Atypicals commonly seen in the long-term care setting:

  Aripiprazole (Abilify®)
  Olanzapine (Zyprexa®)
  Quetiapine (Seroquel®)
  Risperidone (Risperdal®)
  Lurasidone (Latuda®)
  Paliperidone (Invega®)
  Ziprasidone (Geodon®)

Atypical Antipsychotic Design

Along with treating hallucinations and delusions these newer drugs have a better side effect profile and greater effects on other symptoms seen in schizophrenia:

- emotional withdrawal/blunted affect
- suspiciousness or persecution
- grandiosity
- hostility
- poor impulse control
- active social avoidance
- anxiety
- somatic concerns



Antipsychotic Side Effects

- sedation; drowsiness/dizziness; disorientation
- confusion; memory or functional impairment
- risk of delirium

- fall risk; orthostatic hypotension (sudden drop in blood pressure when standing)
- constipation, urinary retention, dry mouth; blurred vision
- restlessness; inability to sit still; anxiety; sleep disturbances

Antipsychotic Side Effects

- tremor; slowed movements; muscle rigidity; strong muscle spasms (neck, tongue, face, or back); drooling
- tardive dyskinesia
- low white blood cell count; irregular heart rate; seizures; metabolic issues; neuroleptic malignant syndrome; increased risk of sudden cardiac death

Atypical Prescribing Considerations

- Quetiapine and aripiprazole cause the least amount of extrapyramidyl side effects (EPS). Quetiapine or aripiprazole are often a choice in Parkinson's disease
- Quetiapine and risperidone have a higher risk of orthostatic hypotension (a significant factor in fall risk)
- Olanzapine has the highest risk factor for obesity, hyperglycemia, and dyslipidemia
- Aripiprazole, quetiapine, and risperidone have a risk factor of QT prolongation (dangerous heart arrhythmias)

Atypical Prescribing & Decision Making

"The American Psychiatric Association (APA) currently recommends that selection of an antipsychotic medication should be based on a patient's previous responses to the drug and its side-effect profile".

FDA Approved Non-Schizophrenia Related Conditions

- Bipolar disorder (some as monotherapy & some as adjunct)
- Tourette's syndrome
- Nausea, vomiting, and hiccups

- Major depressive disorder (adjunctive with antidepressants)
- Short-term treatment of generalized non-psychotic anxiety
- Management of manifestations of psychotic disorders

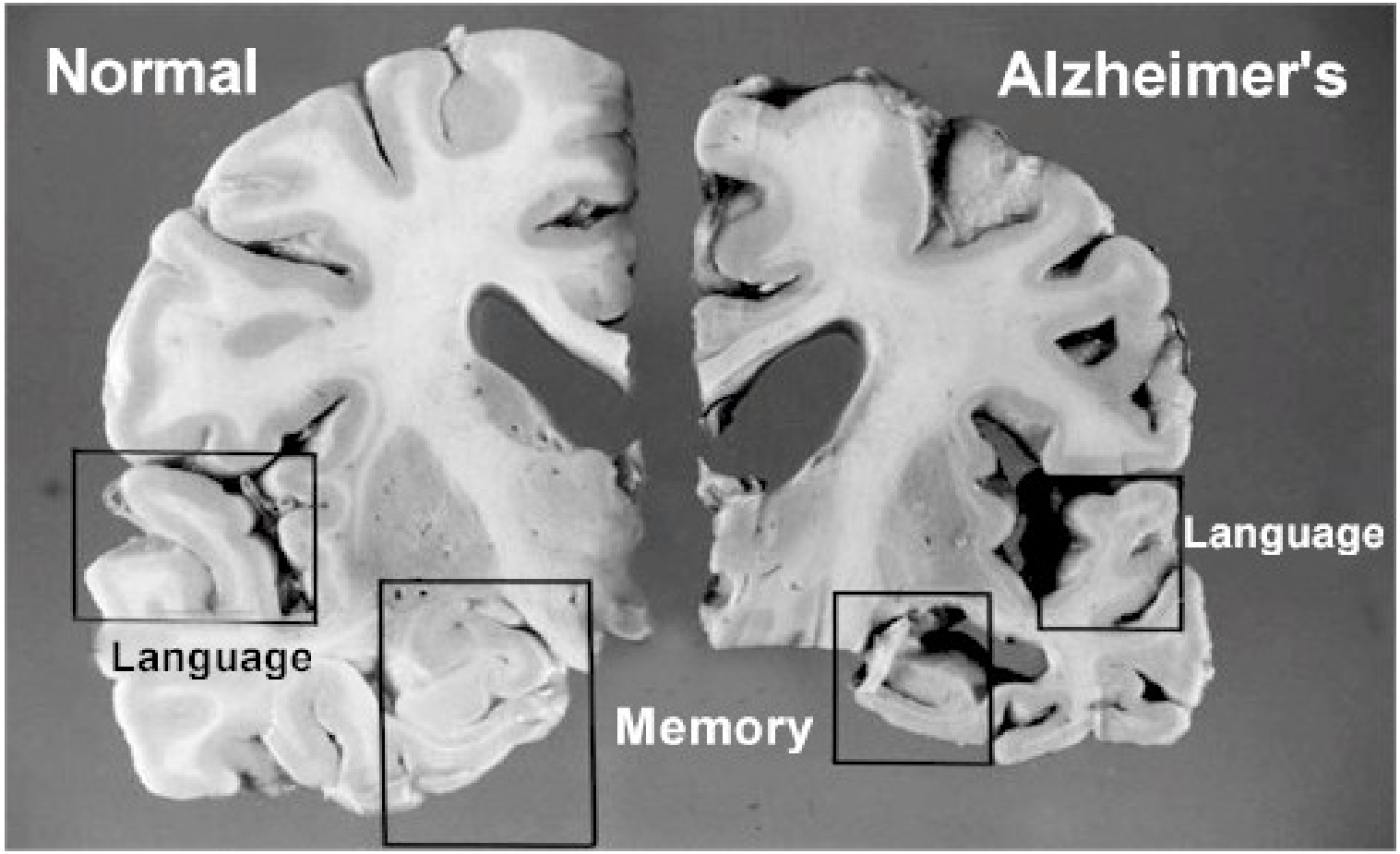
Antipsychotics: Off-label Prescribing

- Off-label: a drug company does not have FDA approval to market or advertise a medication to treat a specific disorder or condition
- Physicians can prescribe drug off-label to treat any condition, disorder, or diagnosis
- Physicians will normally prescribe within the currently accepted standards and principles found in medical literature
- **In dementia care, there are no current medications available to treat the behavioral and psychological symptoms of dementia (BPSD)**

Antipsychotics are NOT Approved to Treat Dementia

FDA Black Box Warning:
Increased Mortality in Elderly Patients with Dementia-Related Psychosis

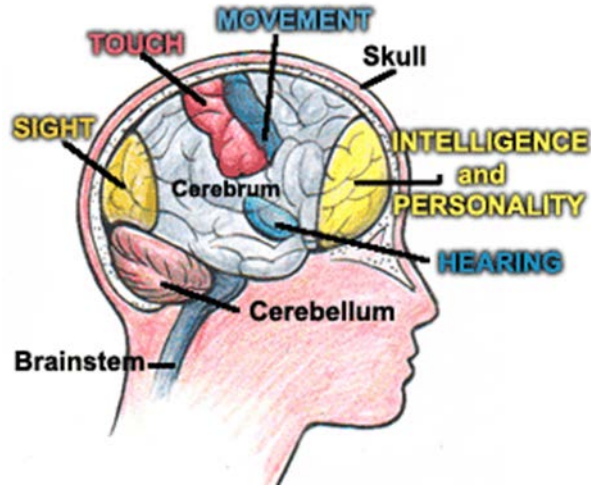
Alzheimer's vs. Dopamine Pathway



Understanding Dementia

Symptoms of dementia depend on the location of damage in the brain:

- Frontal Lobe
- The Hippocampus
- Occipital Lobe
- Temporal Lobe
- Parietal Lobe



Dementia Disease Process

- Permanent degenerative changes in the brain
  - Lack of acetylcholine presence
  - Beta-amyloid plaques causing inflammation and brain cell death
  - Tau protein tangles causing brain cell dysfunction and cell death
- The “psychosis-like” symptoms seen in dementia are unlike the psychoses in chronic mental illness (e.g. schizophrenia)
- Disturbances arise from short-term memory/recall problems causing disorientation to time, place, and environment

Advanced Stages of Dementia

- Confusion of surroundings (disorientation)
- Inability to communicate or find the words to express unmet needs
- Wandering or pacing
- Sleep-wake cycle disturbances
- Emotional distress
- Disrobing or dressing inappropriately in public places

Advanced Stages of Dementia

- Delusions
- Hallucinations (auditory and/or visual)
- Agitation (irritability, restlessness, anxiety)
- Aggression (lashing out, verbal outbursts or cursing, resisting care, sexually inappropriate behaviors)

Dilemmas of Dementia

- BPSD is troublesome, irregular, disturbing, and difficult to manage
- 80% of dementia residents will develop neuropsychiatric symptoms over the course of the disease
- Behavioral disturbances cause caregiver stress, burden, possible injury
- Behavioral disturbances can worsen the functioning of other residents or the resident themselves

"The strongest people are not those who show strength in front of us, but those who win battles we know nothing about."

-Unknown

Antipsychotic Challenges

- Behavioral disturbances tend to be episodic and can diminish spontaneously
- Antipsychotics are likely to be prescribed with comorbid conditions and many medications
- Antipsychotics are more likely to be prescribed for those already on psychotropic medications
- Over time, antipsychotics are barely more effective than placebo

Prescribing Precautions: Advanced Age

- Less muscle mass, less body weight, and are prone to malnutrition affecting drug transport and drug distribution

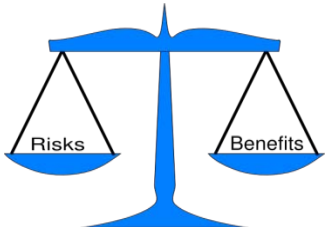
- Less liver and kidney capacity to metabolize and excrete medications, along with dehydration, urinary retention, and urinary infections, can cause drugs to build up in the body

Prescribing Precautions: Advanced Age

- All medications have the potential to interact with other medications or medical conditions
- Adverse reactions can resemble symptoms of acute illness which may be overlooked
- Polypharmacy (9 or more meds*) with comorbid conditions put individuals at higher risk for adverse events and status decline

* CMS SOM Appendix PP

CATIE-AD Project



- When atypical antipsychotics are prescribed in dementia care, they are risky and are only modestly effective
- Side effects can cause both direct and indirect factors that contribute to decreased health and well being
- Steady and significant declines in both cognition and functional ability can increase the need for care, and can diminish overall quality of life.

Antipsychotics Risks

- Worsening or complications with dysphagia
- Increased risk of aspiration pneumonia and upper respiratory infections
- Increased risk of urinary tract infections
- Contribute to the risk of developing delirium
- Increased risk for pressure ulcers

Antipsychotics Risks

- Declines with decision-making capability (think about safety awareness)
- Increased risk of falls
- Decreased ability to be understood/understand
- Declines in functional ability and independence

Burdens on Quality of Life: Cognitive Decline

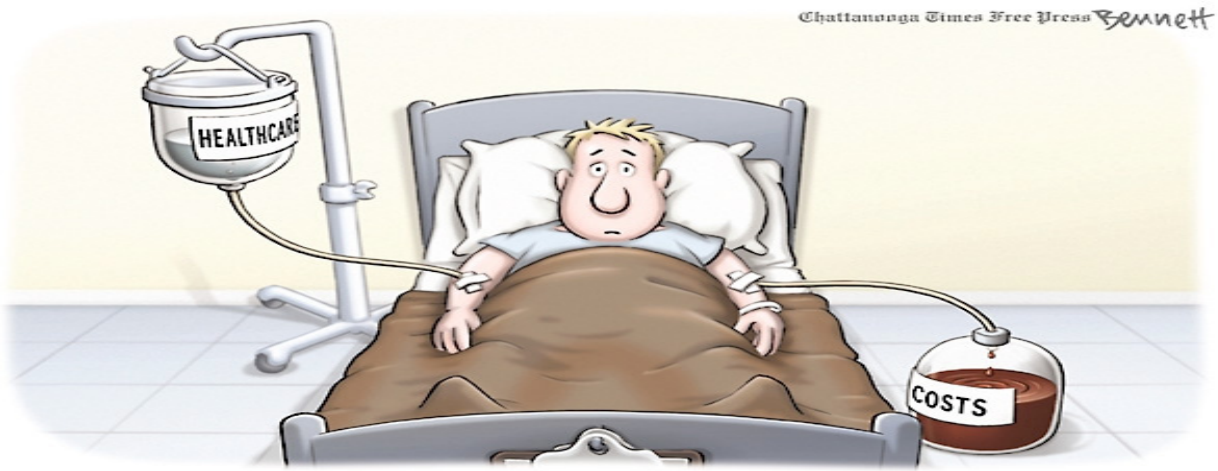
- Decreased ability to self-report illness and infection
- Decreased ability to communicate pain/discomfort
- Decreased recognition of the need for toileting
- May be unaware of thirst or unable to communicate the need for drink (dehydration risk) or food (weight loss)
- possible decreases in socialization with other residents, staff, family & friends

Burdens on Quality of Life: Functional Decline

- Decreased independence (this can increase staff burdens)
- Decreased mobility (ability to walk properly or self-propel)
- Decreased ability to reposition oneself properly or in a timely manner
- Possible physical changes in functional eating & drinking
- Decreased enjoyment due to sedation/drowsiness

Avoidable Re-Hospitalizations

Individuals with dementia on antipsychotics either 6 months before or after hospital admission were more likely to be readmitted back to the hospital than those without an antipsychotic in their drug regimen



Reference: L.A. Daiello, et al. Archives of Gerontology and Geriatrics, July-August 2014

CMS Approved Diagnoses

- Chronic conditions

Schizophrenia

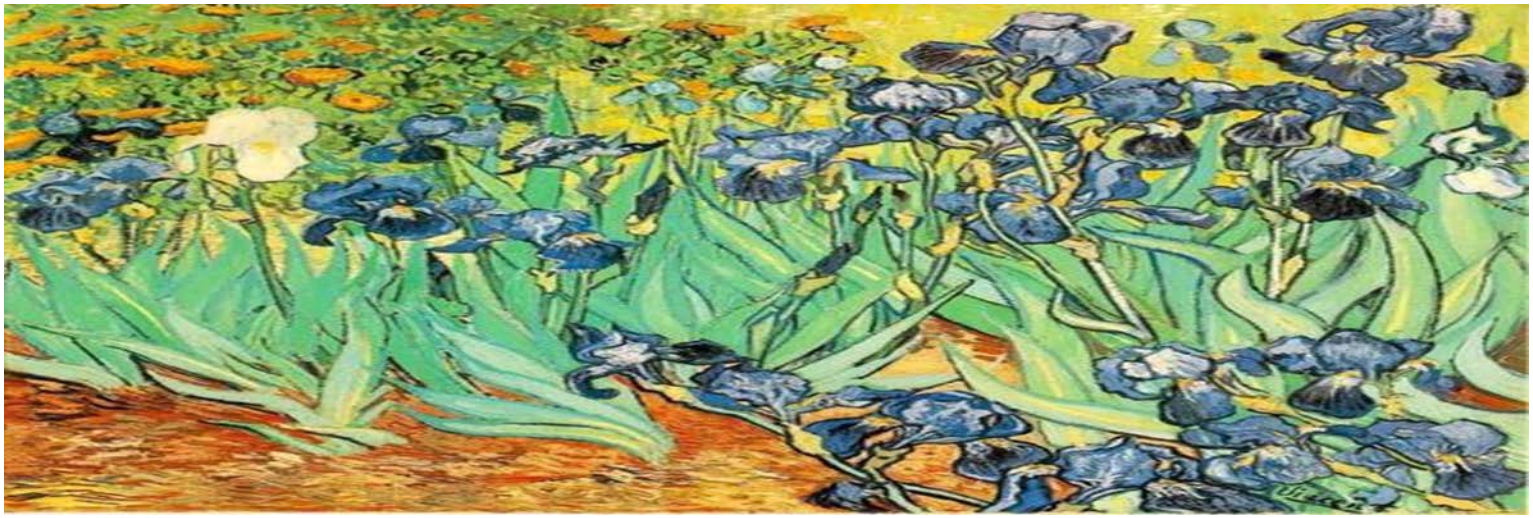
Delusional disorder

Tourette's disorder

Schizo-affective disorder

Mood disorders

Huntington's disease



CMS Approved Diagnoses

- Acute conditions
  - Psychosis in the absence of dementia
  - Medical illness with psychotic symptoms and/or treatment related psychosis or mania
  - Hiccups
  - Nausea and vomiting with cancer/chemotherapy

End-of-Life Care

Off-label as a comfort measure in end-of-life care

This is not CMS or FDA approved, but during hospice the goals are to promote sedation, stabilize the individual, and maintain comfort

Warnings

"When antipsychotic medications are used without an adequate rationale, or for the purpose of limiting or controlling behavior of an unidentified cause, there is little chance that they will be effective."

"The problematic use of medications, such as antipsychotics, is part of a larger growing concern. This concern is that nursing homes and other setting (i.e. hospitals, ambulatory care) may use medications as a "quick fix" for behavioral symptoms or as a substitute for a holistic approach that involves a thorough assessment of underlying causes of behaviors and individualized person-centered interventions."

Avoid Antipsychotics with BPSD

- Antipsychotics should only be used when clinically necessary to treat targeted behaviors that are causing harm or significant distress to others or the resident themselves.

- Antipsychotics should be used at the lowest dose and for the shortest period of time to treat specific targeted behavior(s), and are subject to gradual dose reduction.

- **Non-pharmacological interventions and therapeutic approaches are considered first-line therapy for BPSD.**

Pre-psychotropic Assessment and Care Planning

- Target the behavior as a problem/risk in the care plan
- Discuss interventions and approaches with all members of the interdisciplinary team and obtain input from family members
- Document individualized person-centered non-pharmacological interventions and therapeutic approaches in the care plan
- Implement those interventions and approaches across various disciplines

Recognize Disturbances Early

- Rule out potential medical & psychiatric causes first
- Behaviors are commonly triggered by the actions, inactions, or the reactions of others
- Behaviors can arise from frustrations that are caused when choices or personal preferences limit independence
- Recognize harmful or significantly distressing behaviors, as opposed to the behavioral and psychological disturbances

Problem Solving Requires New Approaches

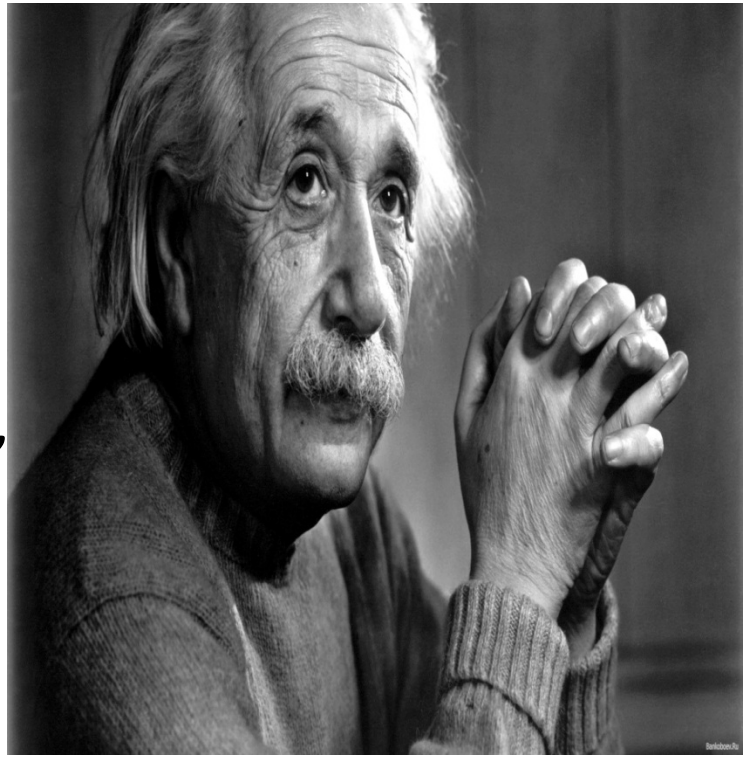
'Insanity:

Doing the same thing

over and over again, and

expecting different results.'

-Albert Einstein



Become a Detective

- **Are there any physical or functional limitations that can be remedied?** Promote independence with cueing, repositioning, or simple adjustments may be needed

- **What is the resident seeing, hearing, smelling, touching, or tasting that may be leading to behaviors?** Review environmental considerations

Become a Detective

- **Does the resident need emotional support?** If they are seeking reassurances, they probably need more emotional support (medication may not be needed)

- **Do the activities offered match the cognitive and functional abilities of the individual?** Structure them to promote meaningful active participation

Address Depressive Symptoms

- Depression
  - Highly prevalent in the nursing home setting
  - Can worsen cognition and functioning potentially leading to an acceleration of the dementia disease process
  - Can worsen the experience of pain and discomfort
  - can precipitate ruminating thoughts of worry

Address Depressive Symptoms

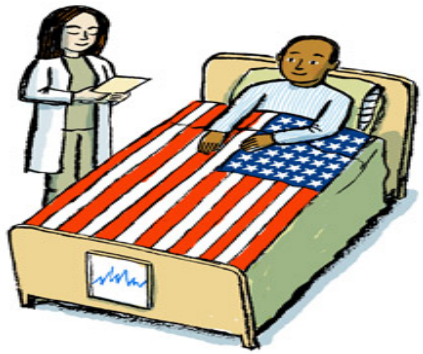
- Antidepressants (SSRIs and SNRIs)
  - Therapy is often necessary with extended use, but only at the lowest dose needed to treat depression
  - Avoid the use of multiple antidepressants unless clinically indicated
  - Caution: fall risk is highest during the first 2 weeks of initiation or with increasing dosages

Serial Trial Intervention Approach

- Individuals may not be able to express that they are having pain and discomfort
- Behaviors can be easily misconstrued and treated with psychotropic medications
- The STI recognizes that routine mild analgesia should be started as a comfort measure when behaviors are exhibited
- Monitor for a response such as decreased behaviors and improved mood
- If analgesia is successful, don't forget to continue other non-pharmacological interventions

CMS Definition of Monitoring

"The ongoing collection and analysis of information (such as observations and diagnostic test results) and comparison to baseline and current data in order to ascertain the individual's response to treatment and care, including progress or lack of progress toward a goal. Monitoring can detect any improvements, complications or adverse consequences of the treatments; and support decisions about adding, modifying, continuing, or discontinuing any interventions." -RAI Manual



Monitoring Psychotropic Medications

- Target specific behavior(s) and linking them with treatment of a specific medication
- At least daily, monitor (shift-by-shift is suggested) for presence of targeted behavior(s)
- Document non-drug interventions implemented for targeted behavioral occurrences
- Periodically evaluation (quarterly, but more often is recommended) of targeted behavior(s), effectiveness of non-drug interventions and/or drug therapy with considerations for gradual dosage reductions

Reducing Unnecessary Antipsychotic Medications

Gradual Dosage Reduction: GENERAL GUIDELINES

- Monitor dosages regularly; consider adverse reactions, resident's response and level of functioning
- Review and trend behavior from monitoring system
- Titrate drug reduction slowly
- Monitor behavior stabilization

Reducing Unnecessary Antipsychotic Medications

Gradual Dosage Reduction

- The physician may order dosage titrations downward at 1 to 2 week intervals.
- Everyone must “know” titration is happening to increase surveillance
- Keep documentation- what’s working and what’s not working
- Allow intervals of adjustments and continue to perform non-pharmacological interventions.

Care Planning

- Recognition or identification of the problem/need (target)
- Ongoing assessment (root-cause analysis & triggers)
- Identification of a diagnosis/cause
- Development of management techniques and/or treatments (non-pharmacological interventions / adjunct medications)
- Monitoring the efficacy and adverse consequences of those techniques and treatments
- Periodic reviewing, re-evaluating, and revising those techniques and treatments

“It’s not that caregivers have so much time, it’s that they have so much heart.”

-Elizabeth Andrew

What's the Bottom Line?

- Identify ALL residents on antipsychotic medications
- Determine which antipsychotic medications are clinically appropriate
- Implement gradual dose reduction as needed/indicated
- Manage unmet needs (behaviors) through improved dementia care using person-centered care

Changing the Culture of Prescribing in Dementia Care

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Resources

- www.AHRQ.gov. Agency for Healthcare Research Quality
- www.CMS.gov. Centers for Medicare and Medicaid Services
- www.fda.gov. Food and Drug Administration
- Reference: “Pharmacological treatments for neuropsychiatric symptoms of dementia in long-term care: a systematic review” Dallas P. Seitz, et al. Int Psychogeriatr. Feb 2013; 25(2): 185–203.
- Cheryl L.P. Vigen, Ph.D. et al. “Cognitive Effects of Atypical Antipsychotic Medications in Patients with Alzheimer’s Disease: Outcomes from CATIE-AD”. Am J Psychiatry. 2011 August ; 168(8): 831–839.
- http://www.nursinghometoolkit.com/#!clinical/c7ax

Resources

- “The association of psychotropic medication use with the cognitive, functional, and neuropsychiatric trajectory of Alzheimer’s disease” P. B. Rosenberg, et al. Int J Geriatr Psychiatry. Dec 2012; 27(12): 1248–1257
- State Operations Manual Appendix PP @ https://www.cms.gov/Regulations-and-Guidance/Guidance/Manuals/downloads/som107ap_pp_guidelines_ltcf.pdf
- http://www.nursinghometoolkit.com/#!clinical/c7ax
- Nursing Home Compare: www.medicare.gov
- “Use of Antipsychotics among Older Residents in Veterans Administration Nursing Homes” WF Gellad, et al. Med Care. 2012 Nov; 50(11):954-60.