ahca American Health Care Association

ncal National Center for Assisted Living

A PERSPECTIVE ON CMS'S ANTIPSYCHOTIC REDUCTION INITIATIVE

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Faculty Disclosure

- Dr Gifford has no financial, other relationship or other support from the pharmaceutical industry related to antipsychotic medications
- Dr Gifford will be discussing the evidence related to the off-label use of antipsychotic medications

Learning Objectives

- Able to describe the magnitude of the risks and benefits of antipsychotics for individuals with dementia residing in nursing homes
- Interpret and use the CMS quality measures on the use of antipsychotic medication in your practice
- Strategies to safely reduce the use of these medications in long term care setting

National Priority

- CMS is making the reduction of off-label use of antipsychotic medications a national priority
- Don Berwick, Director of CMS has asked professional associations to work together and with CMS to reduce the off-label use of antipsychotic medications in nursing homes

Antipsychotic Medications

- Conventional
  - Compazine
  - Haldol
  - Loxitane
  - Mellaril
  - Moban
  - Navane
  - Orap
  - Prolixin
  - Stelazine
  - Thorazine
  - Trilafon
- Atypical
  - Aripiprazole
  - Asenapine
  - Clozapine
  - Iloperidon
  - Olanzapine
  - Paliperidone
  - Quetiapine
  - Risperidone
  - Ziprasidone

FDA approved diagnoses

- Schizophrenia
- Bi-polar Disorder
- Irritability associated with Autistic Disorder (Aripiprazole & Risperidone)
- Treatment Resistant Depression (Olanzapine)
- Major Depressive Disorder (Quetiapine)
- Tourettes (Orap)

When prescribed to a patient without an FDA approved diagnosis; the prescription is considered as an “off-label use”, which is allowed by FDA and Medical Boards

Common Off-label uses

- Dementia with behavior difficulties
  - Agitation
  - Abusive, violent
  - Wandering
- Acute Delirium
- Obsessive-compulsive disorder
- Psychotic symptoms (e.g. hallucinations, delusions) with neurological diseases
  - Parkinson's disease
  - Stroke

Effectiveness in Dementia

- Antipsychotic effect takes 3-7 days to start working
  - Very sedating medication so acute effect is most likely due to sedating effect not the antipsychotic effect
- Randomized controlled trial (RCTs) is the gold standard method to evaluate the effectiveness of medications
  - RCTs randomized dementia patients to either receive an antipsychotic or a placebo and clinicians are blinded to who gets the meds when rating outcomes
- Meta-analysis is method that combines the results from multiple RCTs

Scales to assess Behavior in Dementia

- **Cohen-Mansfield Agitation Inventory (CMAI) scale**
  - Assesses 29 types of agitated behavior (pacing, verbal or physical aggression, performing repetitious mannerisms, screaming, and general restlessness.) on a seven-point scale.
- **Behavior Pathology in Alzheimer's Disease Rating Scale (BEHAVE-AD)**
  - Assesses seven clusters of behavior: paranoid/delusional ideation; aggressiveness; hallucinations; activity symptoms; diurnal rhythm symptoms; affective symptoms; and anxieties and phobias using 25 questions rated on a four-point scale.
- **NeuroPsychitatric inventory (NPI)**
  - Assess 12 behaviors: delusions, hallucinations, agitation/aggression, depression, anxiety, euphoria, apathy, disinhibition, irritability, aberrant motor behavior, sleep, easting disorders scored on a4 point scale.
- **Clinical Global Impression of Change (CGI-C)**
  - Assesses overall patients change in condition on a seven point scale (1 – very much improved; 4 - no change; 7 - very much worse)

Effectiveness in Dementia is weak Meta-Analysis (JAMA 2011)

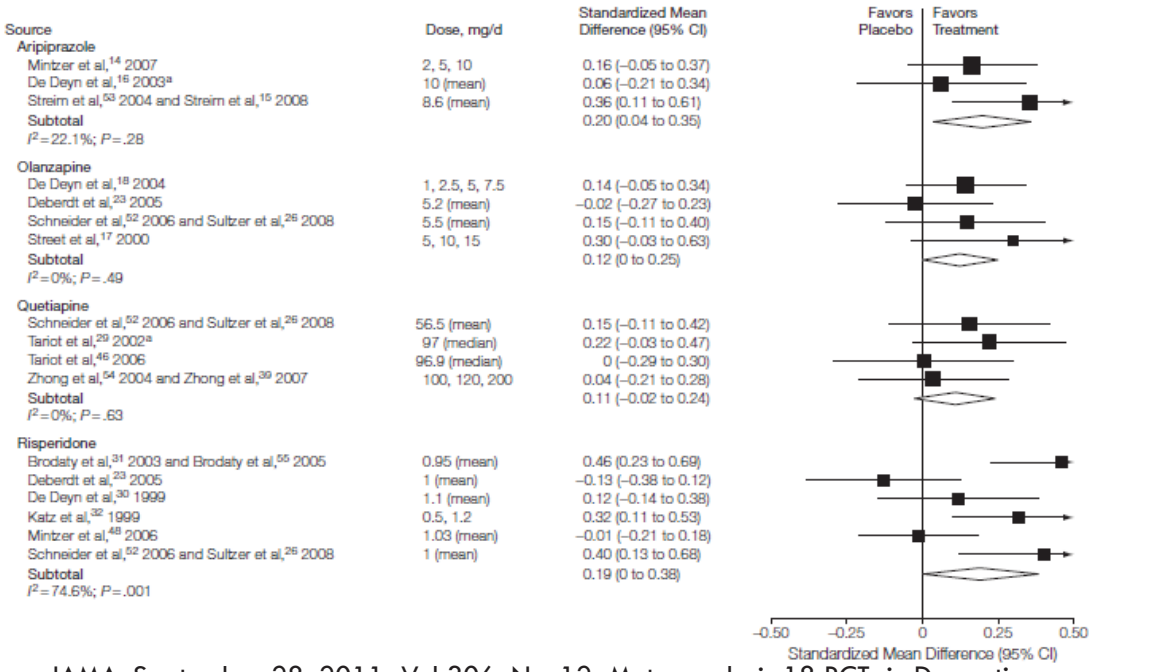
- Olanzapine, Risperidone and Aripiprazole, had a small but statistically significant effect (12 – 20% got better) when compared to placebo
- Quetiapine did not have a statistically significant effect
- Antipsychotics led to an average change/difference on the NeuroPsychiatric Inventory (NPI) of
  - 35% from a patient's baseline
  - 3.41 point difference from placebo group

  (note: a 30% change and 4.0 difference is the minimum threshold needed for a clinically meaningful result)
- No conclusive evidence was found regarding the comparative effectiveness of different antipsychotics

Source: JAMA 306:1359-69 2011; Meta-analysis 38 RCTs in dementia

Antipsychotic vs Placebo Results

Figure 1. Controlled Trials of Patients Taking Atypical Antipsychotic Medications vs Placebo



Source: JAMA, September 28, 2011; Vol 306, No. 12; Meta-analysis 18 RCTs in Dementia

Effectiveness in Treating Aggression in Dementia (Cocharane Review 2012)

Evaluated 16 randomized controlled trials with atypical antipsychotics vs placebo although only 9 had sufficient data to include in meta-analysis.

Conclusions:

- Statistically significant improvement in aggression with risperidone and olanzapine when compared to placebo
- Statistically significant improvement in psychosis with risperidone
- Significant increase in drop-outs in risperidone (2 mg) and olanzapine (5-10 mg) treated patients

Source: Cohcrane Review 2012; Meta-analysis 16 RCTs in dementia

Effectiveness of Antipsychotics in Dementia

Drug	% improvement in symptom scale	% treatment discontinuation
olanzapine	32%	24%
quetiapine	26%	16%
risperidone	29%	18%
placebo	21% (p=0.22 for trend)	5% (p=0.009 for trend)

Source: Scheurer D. Antipsychotic use in Primary care: limited benefit, sizable risk Independent Drug Information Service (IDIS) 2012.

Associated with adverse outcomes

- Off-label use of antipsychotics in nursing facility residents are associated with an increase in:
  - Death
  - Hospitalization
  - Falls & fractures
  - Venothrombolic events
- Conventional antipsychotics are worse than atypical antipsychotics

Dose for Antipsychotics Used in Dementia

Medication	Low Dose	Normal Dose
Aripiprazole	<2 mg/d	2-15 mg/d
Olanzapine	<5 mg/d	5-10 mg/d
Quetiapine	<50 mg/d	50-100 mg/d
Risperidone	<1 mg/d	1-2 mg/d

Effectiveness with Low Dose

- Low dose Resperidone <1 mg/d) has small positive effective but also has increase risk of adverse events
- Low dose Olanzapine (5 mg/d) has no positive effect but does have increase risk of adverse events
- Low dose Aripiprazole and Quetiapine effectiveness are unknown but Quetiapine at normal dose ineffective

Source: Cochrane Review 2012; Meta-analysis 16 RCTs in dementia

Odds of having an adverse event after receiving an Respiridone 1 mg/d compared to placebo

Adverse Event	Odd Ratio	95% Confidence Interval
Mortality	**1.25**	0.73 to 2.16
Somnolence	**2.40**	1.70 to 3.20
Falls	**0.84**	0.63 to 1.14
Extrapyramidal disorder	**1.78**	1.00 to 3.17
UTI	**1.40**	0.92 to 2.13
Edema	**2.75**	1.51 to 5.03
Abnormal Gait	**5.31**	2.24 to 12.62
Urinary Incontinence	**13.6**	1.81 to 101
CVA	**3.64**	1.72 to 7.69
Drop out (had to stop meds)	**1.43**	1.01 to 2.03

Source: Cochrane Review 2012; Meta-analysis 4 RCTs in dementia

Odds of having an adverse event after receiving an Olanzapine 5-10 mg/d compared to placebo

Adverse Event	Odd Ratio	95% Confidence Interval
Mortality	**2.31**	0.66 to 8.13
Somnolence	**3.72**	1.90 to 7.25
Falls	**1.52**	0.79 to 2.91
Abnormal Gait	**4.76**	1.67 to 13.57
Urinary Incontinence	**9.60**	1.27 to 72.85
CVA	**5.24**	0.29 to 95.69
Drop outs	**3.34**	1.69 to 6.59

Source: Cochrane Review 2012; Meta-analysis 3 RCTs in dementia

Net effectiveness

"For every 100 patients with dementia treated with an antipsychotic medication, only 9 to 25 will benefit and 1 will die"

Drs Avorn, Choudhry & Fishcher

Harvard Medical School

Dr Scheurer

Medical University of South Carolina

Source: Independent Drug Information Service (IDIS) Restrained Use of antipsychotic medications: rational management of irrationality. 2012

FDA Black Box Warning

- Issued in 2005
- Warning: Increased Mortality in Elderly Patients with Dementia-Related Psychosis
  - Elderly patients with dementia-related psychosis treated with antipsychotic drugs are at and increased risk of death. [Name of Antipsychotic] is not approved for the treatment of patients with dementia-related psychosis.

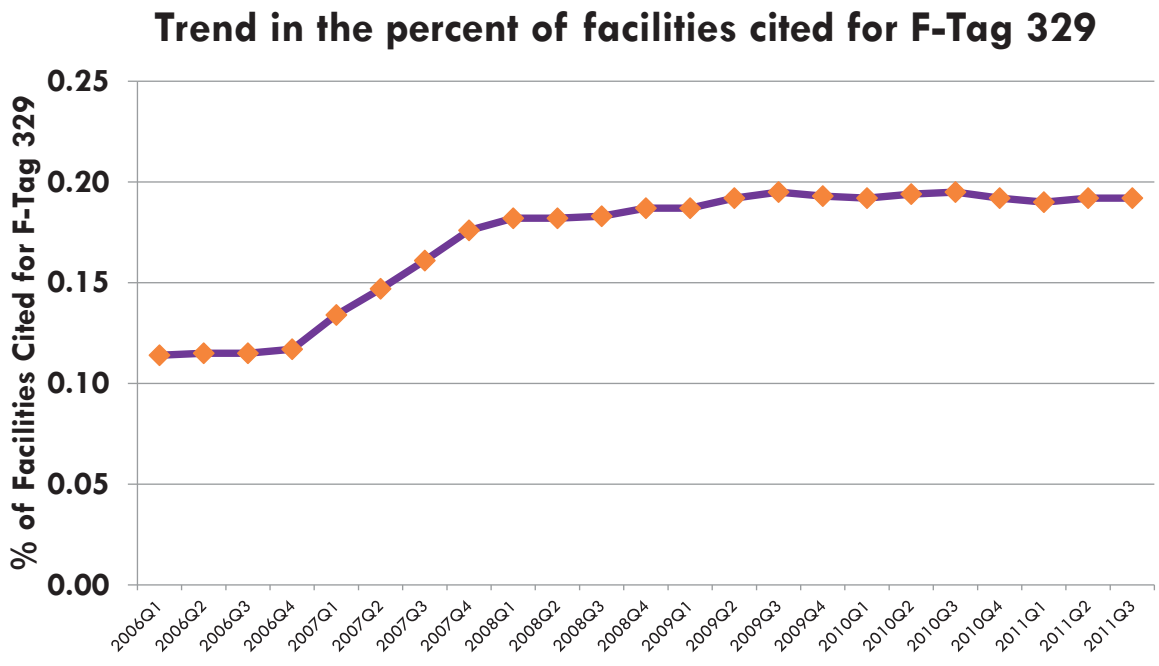
WARNING

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. Analyses of seventeen placebo-controlled trials (modal 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 about 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 infectious (e.g., pneumonia) in nature. [this drug] is not approved for the treatment of patients with dementia-related psychosis.

F-Tag associated with off-label use

- F-Tag 329: Unnecessary Drugs
  - Residents should have drug regimens that are free of unnecessary drugs defined as
    - There in an excessive dose including duplicate therapy
    - There is an excessive duration of being on the drug
    - There is inadequate monitoring of the drug
    - There is inadequate indication for the use of the drug
    - There are adverse consequences
    - A combination of the reasons above
  - Specific conditions for antipsychotic drugs
    - The facility must ensure that residents have not used antipsychotics previously, are not given these drugs unless the drug therapy is necessary, and recorded in the clinical record
    - In an effort to decrease the use of antipsychotics residents must receive gradual dose reduction and alternate therapies, unless they are counter-indicated

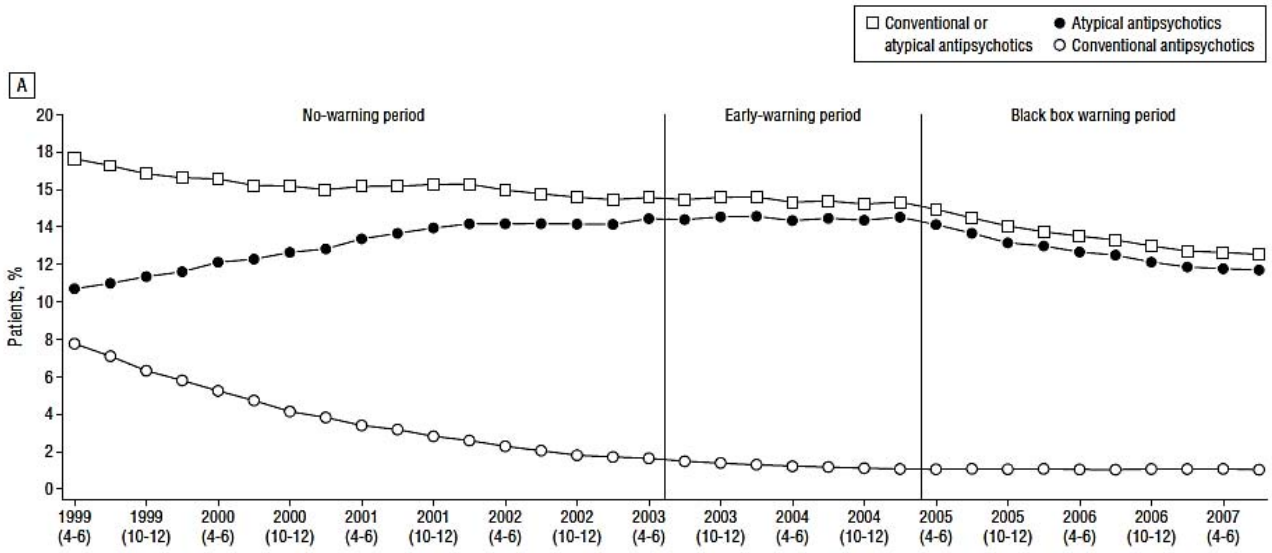
Trends in F-Tag 329 unnecessary Meds



Trends in use following FDA Black Box

- 1990s there was a shift from conventional to atypical antipsychotics
  - Atypical antipsychotics have lower rates of Parkinsonism and Tardive Dyskinesia
- The outpatient use of antipsychotics started to decrease before the FDA black box warning
- 5% increase in the use of antidepressants, anxiolytics, and anticonvulsants after the FDA black box warning

Patients with dementia which outpatient antipsychotic use



Helen C. Kales; Kara Zivin; Hyungjin Myra Kim; Marcia Valenstein; Claire Chiang; Rosalinda V. Ignacio; Dara Ganoczy; Francesca Cunningham; Lon S. Schneider; Frederic C. Blow. **Trends in Antipsychotic Use in Dementia 1999-2007**.*Arch Gen Psychiatry*. 2011;68(2):190-197.

OIG Report 2011

- OIG report
  - Reviewed 600 medical records
  - Medicare claims data for Part B and Part D and MDS data from January 1st to July 31st, 2007 was used to identify payments for atypical antipsychotic drug use for elderly nursing home residents
- Major Findings
  - 14% of elderly nursing home residents had Medicare claims for atypical antipsychotic drugs
    - Off-label conditions accounted for 83% of these claims
  - Over ½ of the Medicare claims for antipsychotic drugs for elderly nursing home resident were incorrect
  - Medicare reimbursement criteria was not met for 726,000 of the 1.4 million claims
  - 22% of the atypical antipsychotic drugs were not administered in accordance with CMS standards

CMS quality measures

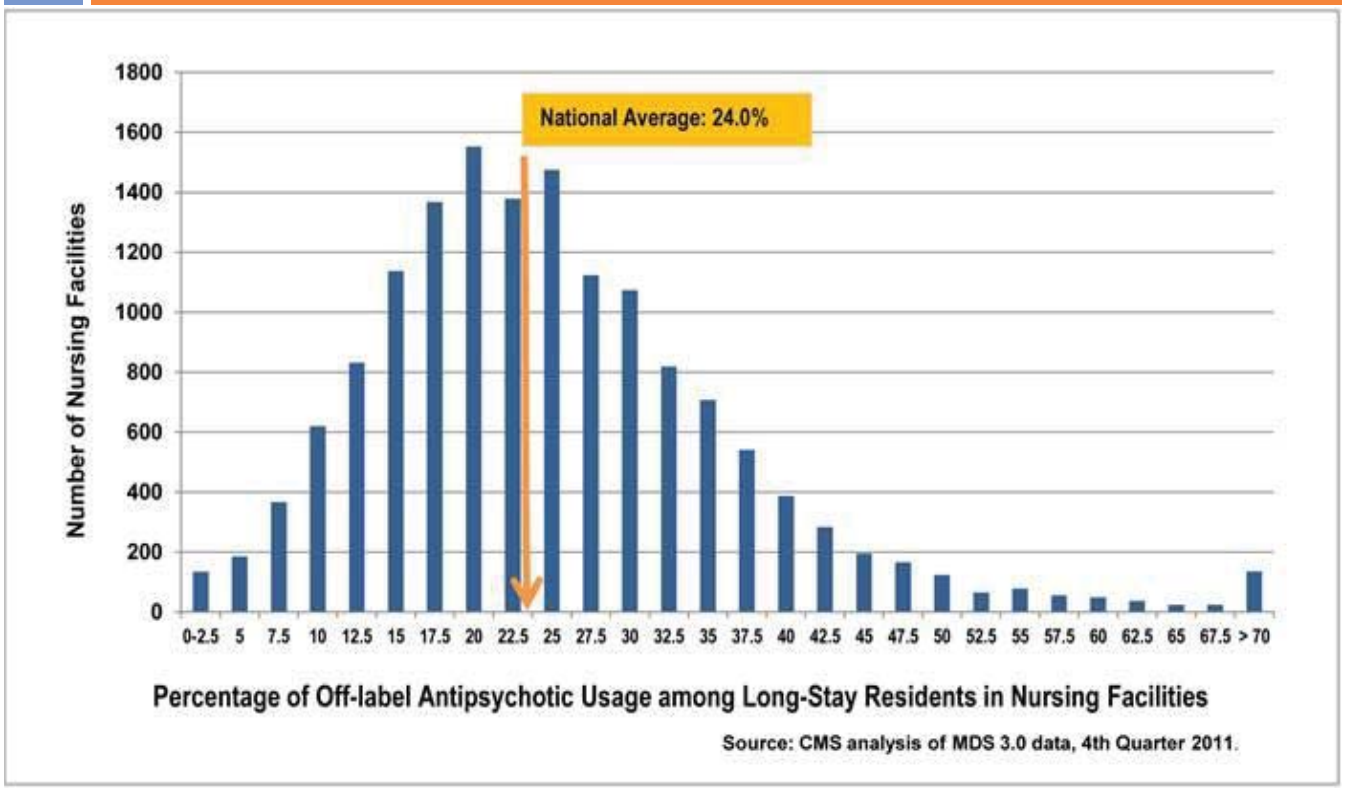
- % started on medication following admission
  - % of individuals in a facility for $\leq$100 days who were not admitted on the medication but who have it started during their 100 day stay excluding individuals with schizophrenia, Tourette's and Huntington's disease
- % long stay residents who receive the medication
  - % of individuals in a facility for > 100 days who are receiving the medication excluding individuals with schizophrenia, Tourette's and Huntington's disease

CMS measures

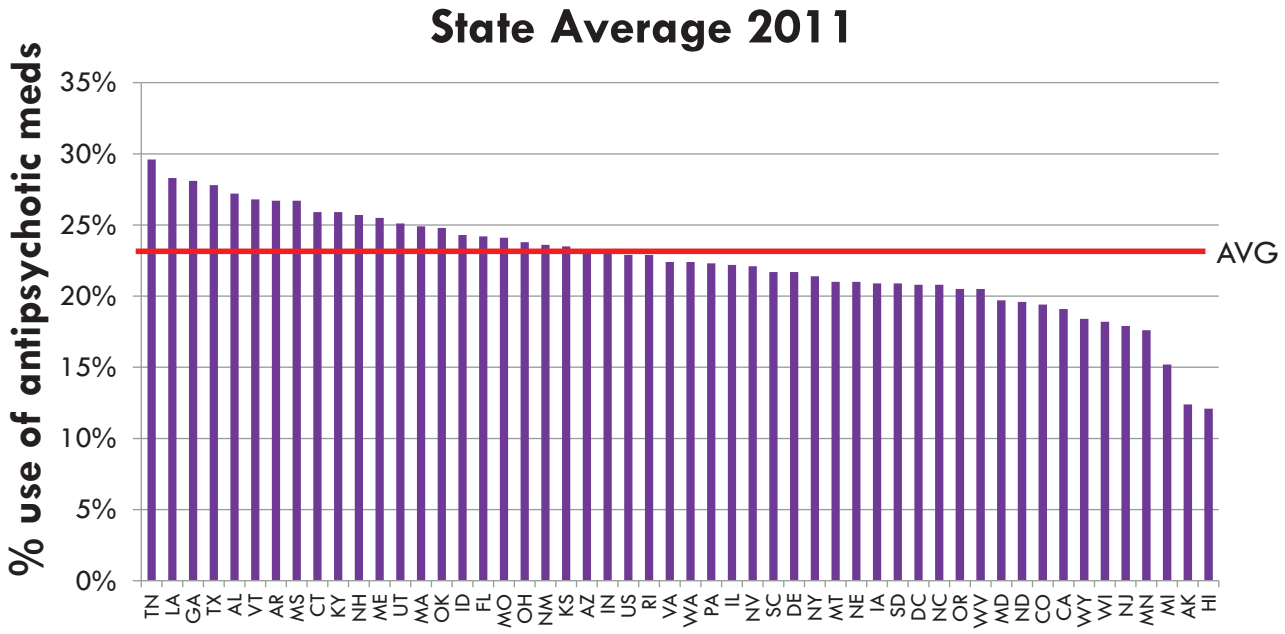
- Failure to include other FDA approved diagnoses such a bipolar disorder
- % Started during 100 days[1] = 3%
- % Receiving medication long stay[1] = 24%
- % Receiving medication on admission[2] = 12%

[1]Source: CMS Nursing home compare reported July 2012 using data from 4th Quarter 2011
[2]Source: MDS 2.0 data 2010 analysis of admission assessments excluding schizophrenia and bipolar disorder

Off-Label Use of Antipsychotic Meds



Off-Label Use of Antipsychotics



AHCA Quality Initiative Goals

- ***Reduce Hospital Readmissions***
  - By March 2, 2015 at 12:00 p.m., reduce the number of hospital readmissions within 30 days during a SNF stay by 15 percent
- ***Increase Staff Stability:***
  - By March 2, 2015 at 12:00 p.m., reduce turnover among clinical staff (RN, LVN, CNA) by 15 percent
- ***Reduce the Off-Label Use of Antipsychotics:***
  - By December 31, 2012 at 12:00 p.m., reduce the off-label use of antipsychotics by 15 percent
- ***Increase Resident Satisfaction:***
  - By March 2, 2015 at 12:00 p.m., increase the number of customers who would recommend the facility to others up to 90%

AHCA Strategies to reduce use of antipsychotics in nursing facilities

- Phase I: immediate steps facilities can take that will show results in the near term
  - Focus on withdrawal or gradual dose reduction of antipsychotics
- Strategies
  - Identify residents with off-label use of antipsychotics
  - Review records to assure compliance with CMS SOM
  - Use evidence based approaches for gradual dose reduction (GDR) to discontinue patients from antipsychotics
    - Work with the medical director and consultant pharmacist to guide the GDR process and promote GDR to physicians, staff and families.
  - Educate families about prevalence of dementia, use of antipsychotics and alternate treatment options

Immediate steps to reduce antipsychotics

- No role for PRN only antipsychotic medications
- Evaluate the need for continuing antipsychotics at admission & those on very low doses
- Evaluate need for antipsychotics started on residents during the evening/night shift or over the weekend
- Look at discontinue or gradual dose reduction for residents on medications for greater than 12 weeks (3 months), particularly those with no change in dose or frequency

Can you stop antipsychotics safely?

2. If individuals with dementia on low dose antipsychotics were randomized to either continue their meds or switched to a placebo, would the placebo group's behaviors compared to continued meds group be?

a. a lot worse

b. somewhat worse

c. no different

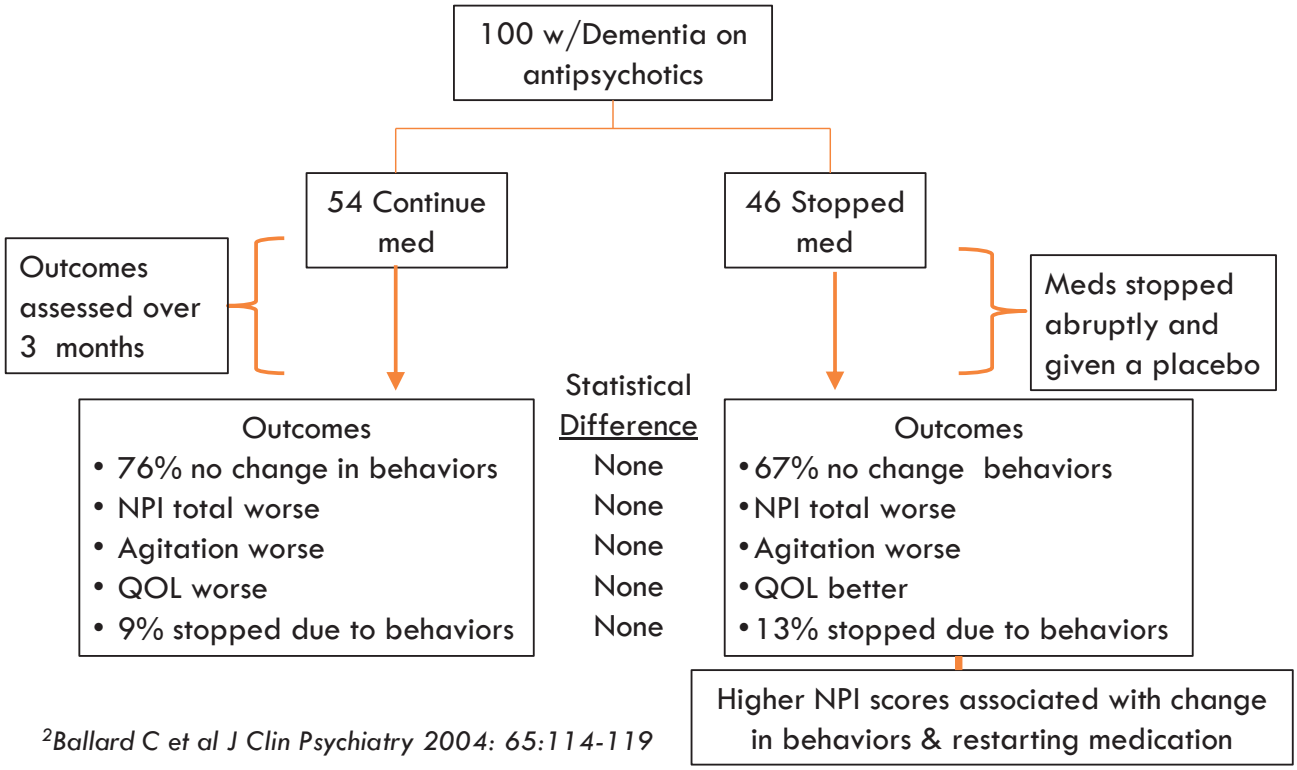
d. somewhat better

e. a lot better

Evidence based for Discontinuing Meds at lose dose

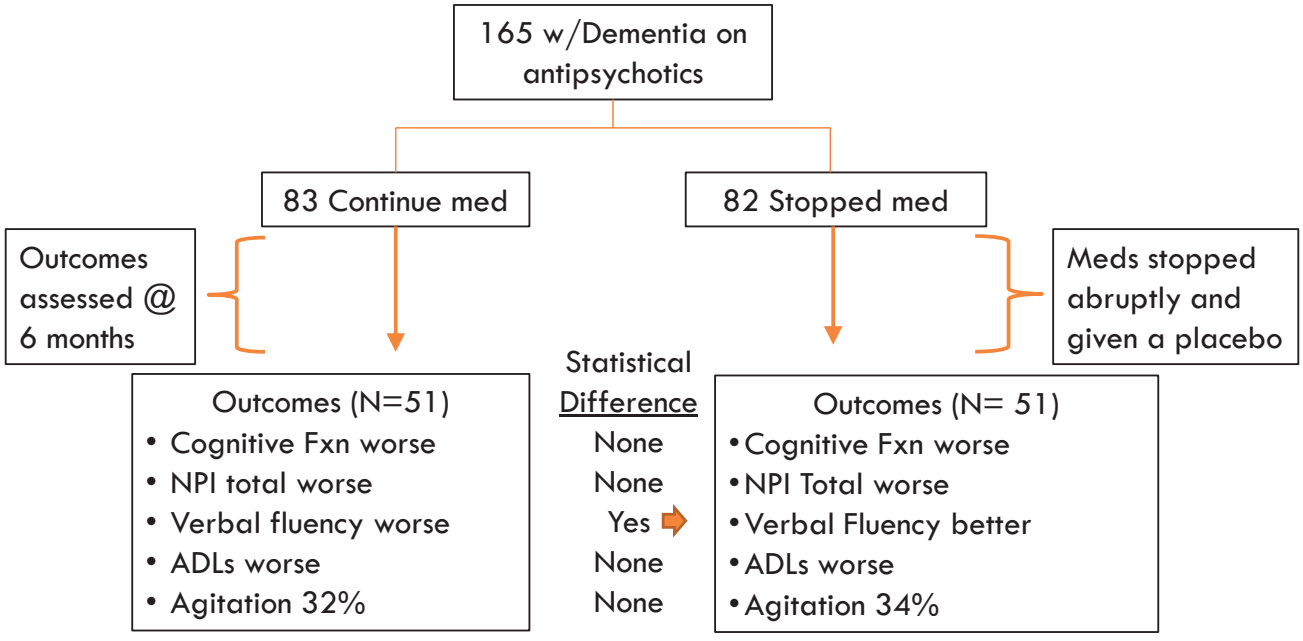
- RCTs comparing withdrawal of medication to continuing antipsychotics show
  - No difference in outcomes between placebo group and continued medication group
  - About 75% people remain off the drug after the trial
    - Less than 25% need to be restarted on antipsychotic
  - Placebo group (drug withdrawal) have fewer adverse events

RCT to withdraw antipsychotics[2]



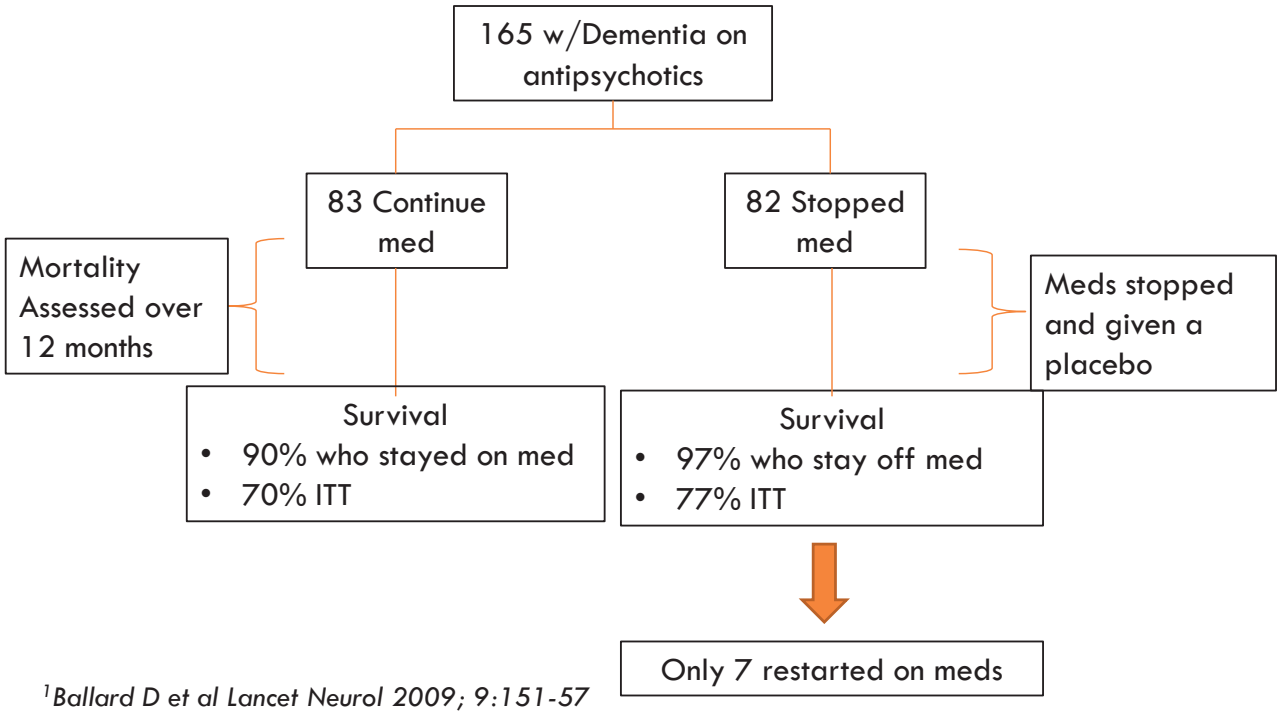
[2]*Ballard C et al J Clin Psychiatry 2004: 65:114-119*

RCT to withdraw antipsychotics[3]



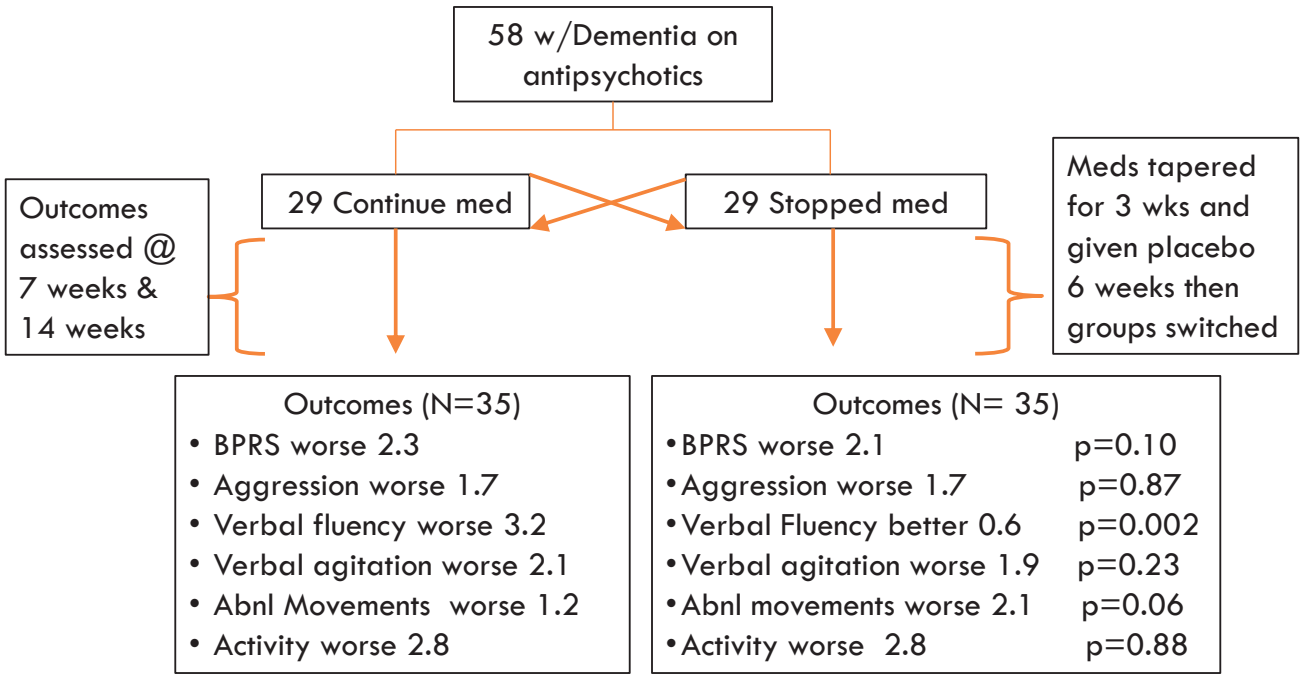
[3]*Ballard C et al Plos Medicine 2008; 5:e76: 587-599*

RCT to withdraw antipsychotics[1]



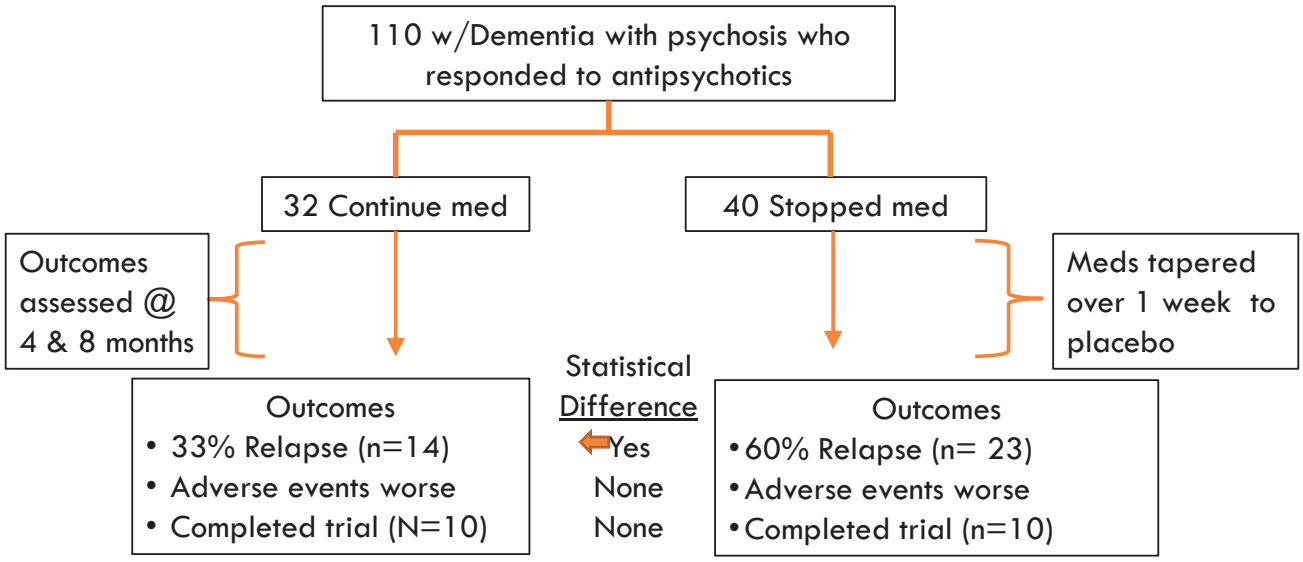
[1]*Ballard D et al Lancet Neurol 2009; 9:151-57*

RCT to withdraw antipsychotics[4]



[4]*Cohen-Mansfield et al Arch Int Med 1999; 159:1733-1740*

RCT to withdraw antipsychotics[4]



[4]*Devandand DP et al NEJM 2012; 367:1497-1507*

Clinical Practice Tools

- See ASCP, AMDA, AHCA, Advancing Excellence
- AHCA Tools to facilitate GDR/discontinuation:
  - Nursing Process
  - SBAR
- University of Iowa/Iowa Geriatric Education Center resources:
  - Videos
  - Pocket guides to evidence-based practices
  - Decision algorithms
  - Fact sheets for professionals & families

Primary Challenge is Changing Beliefs

- Most health care professionals and families believe

  (1) dementia "behaviors" are abnormal & need to be treated

  (2) antipsychotics medications are effective

Strategies to reduce use of antipsychotics in nursing facilities

- Phase II: steps that will take longer to implement but need to be started now
  - Focus on implementing programs to minimize the off-label use of antipsychotics by promoting
    - Non-pharmacologic strategies to manage individuals with dementia
    - Changes to how we view dementia behaviors as attempts to communicate unmet needs
- Strategies
  - Staff training on interacting with individuals with dementia
  - Adopt policy on minimal use of medications with dementia residents
    - Educate families about this policy
  - Implement consistent assignment
  - Compare facility off-label antipsychotic use to others
    - Learn from other facilities

Dementia re-examined

- Experiencing the world in a different way
- What are "behaviors"?
  - Medical symptoms?
  - Predictable human responses to the situation perceived?
- Key questions to ask:
  - What is this person trying to tell me?
  - What is distressing this person?
  - What does he or she need to be in well-being?

Questions to ask for new Rxs

- What did you do to try and figure out why the resident was doing <fill in the blank>?
- What is resident trying to communicate to us about their <fill in blank>?
- What is reason for resident doing <fill in blank>?
  - Unacceptable answer (Dementia or sun-downing)
- What did you try before requesting medications?

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