Antipsychotic prescribing patterns in a Medicare Advantage population of older individuals with dementia

Rachel Kester, DO, Jürgen Unützer, MD, MPH, MA, Diane Hogan, DNP, MA, RN, CCM, Hsiang Huang, MD, MPH

Introduction

Dementia is a multidimensional syndrome associated with neurodegenerative brain diseases characterized by progressive decline in function, behavioral disturbances and psychotic symptoms.

According to the World Health Organization, 47.5 million people worldwide are living with dementia and this number is projected to nearly double in the next 6 years as there are 7.7 million new cases every year[1].

The estimated total cost of dementia in 2010 was 604 billion US dollars with costs set to increase as the prevalence of this illness increases[1].

The behavioral and psychiatric symptoms of dementia (BPSD) are a large factor in the Care Management of these patients, often leading to caregiver burnout and long term facility placements.

Antipsychotic medications are widely used to treat BPSD, however, multiple studies have shown that antipsychotic use in patients with dementia is associated with risk of side effects.

Aim

The aim of this descriptive study is to examine the antipsychotic prescribing patterns for patients with dementia enrolled in a Medicare Advantage program and identify opportunities for improvement in care for this high-risk population.

Methods

Study Design

This was an observational study using claims data from a Medicare Advantage population.

Inclusion and Exclusion Criteria

People 65 years of age or older, had medical insurance from Humana between November 2008 and January 2010, who had an International Classification of Diseases-9 (ICD-9) diagnostic code for dementia (290) and who received Humana At Home care management services for at least 180 days were included in the study. Those with ICD-9 diagnostic codes for schizophrenia or bipolar disorder were excluded from the study.

Description of Care Management Program

People are referred to the Humana At Home care management based on criteria including claims-based data and member-reported challenges. The goal of the service is to help people remain independent at home by addressing 7 domains of functioning: health, cognitive, financial, function, environment, psychosocial, and behavioral. Care managers call and/or visit individuals to advocate for needed medical, financial and psychosocial support services, make home a safer place to live, improve health literacy and facilitate communications across supports. Humana At Home also provides skilled nursing, homecare and other in-home support. Prior research has shown that people participating in these care management services than their eligible counter parts who do not participate.[2]

Methods (continued)

Measurements

The primary outcome for this study was receipt of an antipsychotic medication. Independent variables included age, gender, hierarchical condition category score, insurance type, and region of the country. Psychiatric co-morbidities based on ICD-9 diagnostic codes for depressive disorders and substance use disorders were also included.

Statistical Analysis

Descriptive analysis was performed for beneficiaries with dementia who received and did not receive first and second generation antipsychotic medications. In order to describe the correlates of antipsychotic exposure, logistic regression models were used. All data were analyzed using STATA version 11. This study was approved by the institutional review board at the University of Washington, Seattle.

Results and Conclusions

Of the 8688 participants in this study with a diagnosis of dementia, 1061 (12.2%) were prescribed antipsychotic medications.

Dual eligibility for both Medicare and Medicaid and co-morbid depression or substance use disorders were positively associated with antipsychotic medication use in patients with dementia.

There were also regional variations in antipsychotic prescribing for dementia. Participants with dementia living in the Midwest and West were less likely to receive an antipsychotic medication.

Discussion and Implications

Beneficiaries who are dually eligible for both Medicare and Medicaid have lower incomes and may have fewer resources for and/or be less aware of evidence-based non-pharmacological interventions for BPSD, resulting in an increased likelihood of being prescribed an antipsychotic medication.

Those with dementia and substance abuse issues or depression likely have more complex medical and mental health problems, which could lead to increased antipsychotic prescribing.

Benefit design structures can influence whether patients receive antipsychotics. Antipsychotics are a protected class under Medicare Part D, meaning that plans are required to cover them. However, some antipsychotics are deemed high risk medications defined by CMS Stars measures, meaning there are efforts to ensure they are only used in appropriate situations. Reported abuse of antipsychotics as a chemical restraint in institutionalized elderly is also a concern.

Integrated care models for treating mental disorders in the elderly have begun to take shape in the U.S. Medicare Advantage programs may leverage such collaborative care approaches by utilizing Care Managers and in-home technologies to help dementia patients and their families more effectively and safely manage BPSD.

Table 1. Characteristics of sample with dementia diagnosis

Sociodemographic characteristics	No antipsychotic medication (n=7,627)	Antipsychotic medication (n=1,061)
Mean age ± SD	80.8 ± 7.3	81.3 ± 7.5
Female, % (n)	61.2 (5320)	61.0 (647)
Mean hierarchical conditional categories score ± SD	1.9 ± 1.4	2.0 ± 1.5
Dual eligible, % (n)	21.5 (1641)	30.5 (324)
Region, % (n)		
Northeast	3.5 (266)	3.0 (32)
Midwest	26.7 (2033)	23.1 (245)
South	59.5 (4538)	66.2 (702)
West	10.4 (790)	7.7 (82)
Psychiatric diagnoses, % (n)		
Depressive disorder	43.1 (3288)	59.2 (628)
Substance use disorder	10.2 (777)	13.4 (142)

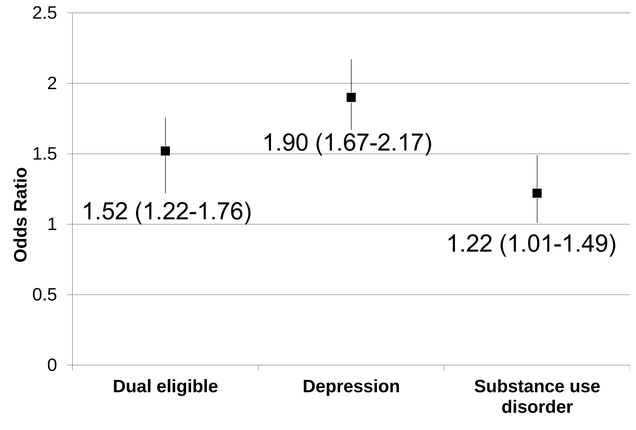
SD=standard deviation

Table 2. Logistic Regression Models for the Correlates of Receiving Antipsychotic Medications for Patients with Dementia

	Unadjusted OR	Adjusted OR*
Female gender	0.99 (0.87-1.13)	0.88 (0.77-1.01)
Hierarchical conditional categories	1.04 (0.99-1.09)	1.00 (0.96-1.05)
Dual eligible	1.60 (1.39-1.85)	1.52 (1.22-1.76)
Region (South is reference)		
Northeast	0.78 (0.53-1.13)	0.79 (0.54-1.15)
Midwest	0.78 (0.67-0.91)	0.77 (0.66-0.90)
West	0.67 (0.53-0.85)	0.69 (0.54-0.88)
Psychiatric diagnoses, % (n)		
Depressive disorder	1.91 (1.68-2.18)	1.90 (1.67-2.17)
Substance use disorder	1.36 (1.12-1.65)	1.22 (1.01-1.49)

*Adjusted for time enrolled in program; OR=odds ratio

Figure 1. Significant Correlates of Receiving Antipsychotic Medication for Patients with Dementia



1. World Health Organization 2015 Dementia Fact Sheet. Available at: http://www.who.int/mediacentre/factsheets/fs362/en

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