ANTIPSYCHOTIC MEDICATION USE AND HEALTH OUTCOMES AMONG ADRD NURSING HOME RESIDENTS: OWNERSHIP STRUCTURES AND PAYMENT DISPARITIES

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Abstract

In this paper, we examine the use of Anti-Psychotic Medications (APM), how they are impacted by nursing home ownership changes, and their association with health outcomes (falls, ED use, hospital use and mortality) in Nursing Homes over the last decade, among all residents, residents with Alzheimer's and Related Dementia (ADRD), Severe Mental Illness (SMI) or other conditions where APM are indicated or considered potentially medically necessary (psychosis, Parkinson's, Bipolar and for populations with CMS exemptions).

There is longstanding concern regarding the quality of long term care for patients with Alzheimers and Related Dementia (ADRD), especially if reimbursement adjustments do not adequately account for the extra care burdens placed on Nursing Homes. Studies have found that patients with ADRD appear to be discharged to lower quality Nursing Homes following hospitalization (Kosar et al., 2023), perhaps indicating that higher quality NHs are unable to provide care at the prevailing reimbursements. Nursing homes may also turn to other strategies to lower the cost of providing care to patients with ADRD, including the use of antipsychotic medications. A gap exists between best-practice evidence and actual clinical practice related to pharmacological and non-pharmacological care for persons with dementia and behavioral and psychological symptoms of dementia.

In our research using the Minum Data Set from 2011-2017 (to be updated to 2019 before time of presentation), we first explore time trends in APM use (Table 1 Figure 1), how they differs by ownership structure of the NH and the share Medicaid and other nursing home characteristics, with adjustment for patient characteristics, and by major categories of patients (ADRD status). We explore racial disparities in these relationships, examining those disparities with and without controls for certain individual and NH characteristics, such as age, ownership structure. Last, we examine how changes in ownership structures that have been spurred by policy, such as in states that provide supplemental Medicaid payments for non-state government owned nursing homes, are causally related to APM use and health outcomes.

1 Introduction

There is longstanding concern regarding the quality of long term care for patients with Alzheimers and Related Dementia (ADRD), especially if reimbursement adjustments do not adequately account for the extra care burdens placed on Nursing Homes. Studies have found that patients with ADRD appear to be discharged to lower quality Nursing Homes following hospitalization (Kosar et al., 2023), perhaps indicating that higher quality NHs are unable to provide care at the prevailing reimbursements. Nursing homes may also turn to other strategies to lower the cost of providing care to patients with ADRD, including the use of antipsychotic medications. A gap exists between best-practice evidence and actual clinical practice related to pharmacological and non-pharmacological care for persons with dementia and behavioral and psychological symptoms of dementia. (Huryk, 2016) surveyed nursing home staff and found they believe pharmacological interventions are more effective than non-pharmacological interventions to manage challenging behaviors. Dementia is a complex disease with multiple presentations and causes. Non-cognitive behavioral and psychological symptoms of dementia (BPSD) are often present and often the focus of care, and are associated with antipsychotic use and nursing home placement.

Caring for persons with dementia (PWD) experiencing BPSD is a major challenge in the community and LTC facilities, with limited evidence of the effectiveness of non-pharmacological strategies and only one recent FDA approved pharmacological intervention which is not yet covered by Medicare. Antipsychotic medications (APM) are frequently used to manage BPSD, despite the evidence of modest clinical benefit, serious adverse effects and the public health advisories. Many research studies have demonstrated mortality risk of antipsychotic use among persons with BPSD (Huybrechts et al., 2011; Liperoti et al., 2009; Hui et al., 2016; Tampi et al., 2016). Dementia care has been under scrutiny by the federal and state governments in the USA for decades due to dangerous side effects and poor outcomes with pharmacological interventions for BPSD.

In 2010, CMS examined the use of antipsychotic medications in long-term care, and led a national initiative to reduce the use of antipsychotics by 15% through 2012 (Centers for Medicare and Medicaid Services, 2012). The National Partnership to Improve Dementia Care in Nursing Homes has reduced off-label medication use in nursing homes by 40.1% since 2011, with a prevalence of 14.3% in 2020 (Crystal et al., 2020). There is increasing evidence that non-pharmacological interventions are effective with limited adverse effects compared to pharmacological treatment for BPSD, but nursing staff still use antipsychotic drugs as first line treatment for BPSD. Most PWD will develop BPSD over the course of their disease,

Tables and Figures

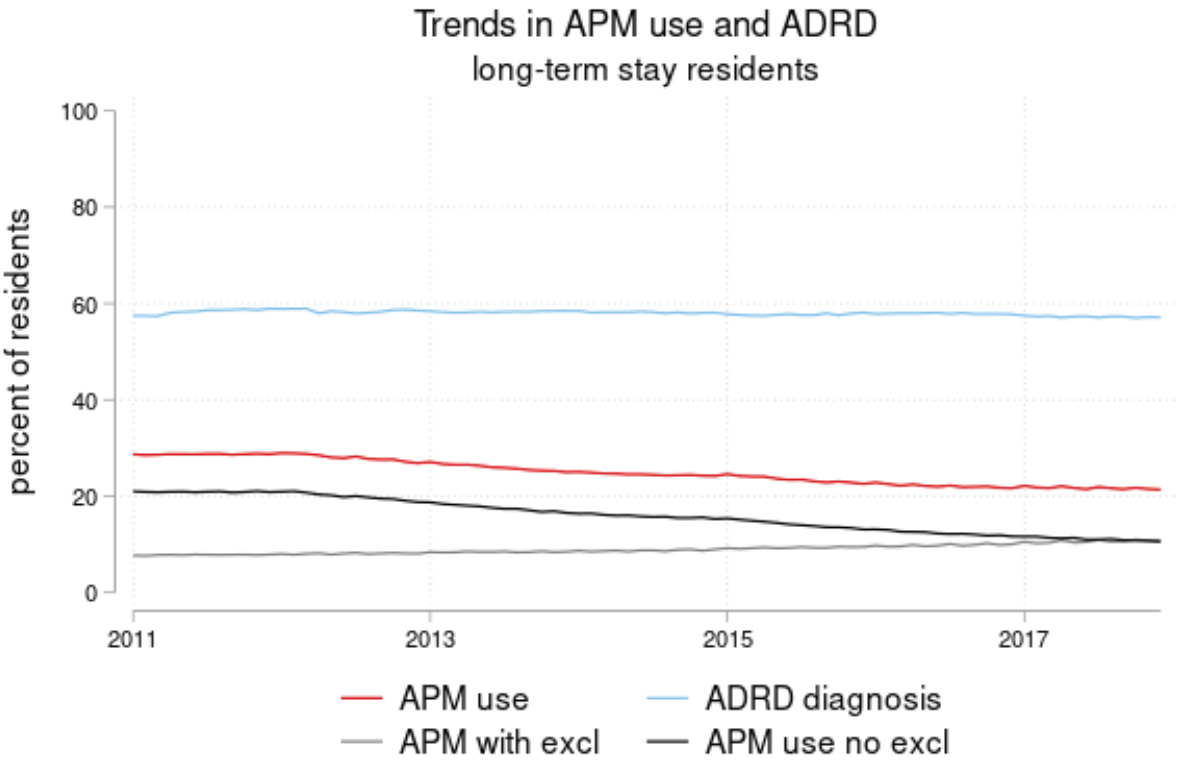


Figure 1: Trends in the Utilization of APMs and the diagnosis of ADRD among long-term stay residents

Mean APM prescribing rates and ADRD diagnosis among long-term stay residents is derived from CMS' Minimum Data Set nursing home data archive's Minimum Savings Rate quality data. Measures were assembled for years 2011 to 2018 and restricted to unique provider numbers.

Table 1: Summary statistics of ADRD and APM prescriptions

	Full Panel		2011		2017	
	mean	sd	mean	sd	mean	sd
All Facilities						
ADRD Diagnosis	0.58	0.49	0.58	0.49	0.57	0.49
Medications: Antipsychotic	0.25	0.43	0.29	0.45	0.22	0.41
Joint ADRD with APM use	0.16	0.36	0.19	0.39	0.13	0.34
Observations	23770700		3407588		3277756	
	mean	sd	mean	sd	mean	sd
First Quartile						
ADRD Diagnosis	0.60	0.49	0.61	0.49	0.60	0.49
Medications: Antipsychotic	0.19	0.39	0.22	0.42	0.16	0.37
Joint ADRD with APM use	0.14	0.34	0.17	0.37	0.11	0.32
Observations	5959421		805914		870932	
	mean	sd	mean	sd	mean	sd
Fourth Quartile						
ADRD Diagnosis	0.53	0.50	0.53	0.50	0.53	0.50
Medications: Antipsychotic	0.34	0.47	0.38	0.49	0.30	0.46
Joint ADRD with APM use	0.18	0.39	0.21	0.41	0.16	0.36
Observations	5941321		841019		845518	

Summary statistics of long-term stay patients with ADRD, APM prescriptions, or both, by Medicaid coverage quartile. The first quartile of facilities have the smallest proportion of NH residents with Medicaid as primary payer, the fourth quartile has the highest proportion.