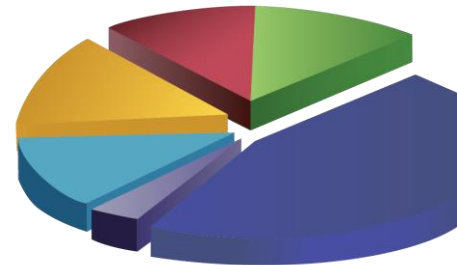# Effect of CMS's Measure of Antipsychotic Prescribing Practices for Nursing Facilities on Utilization and Changing Diagnostic Practices

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Presenters

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Nursing Facilities in the U.S.

- Nearly 1.2 million individuals resided in nursing facilities in the U.S. in 2017

  - 83.97% were age 65 or older

  - More than 50% had a diagnosis of Alzheimer's Disease or other dementia

  - 4.56% had a diagnosis of schizophrenia *without* Alzheimer's or Non-Alzheimer's Dementia

  - 3.69% had a diagnosis of schizophrenia *and* Alzheimer's or non-Alzheimer's Dementia

  - 5.4% had a diagnosis of bipolar disorder

  - 19.62% received an antipsychotic medication within the past 7 days

SMHA Involvement in Nursing Facilities

- According to 2015 State Profiles Data:

  - 26 SMHAs are solely responsible for providing mental health services to individuals with mental illnesses in nursing facilities; 22 share the responsibility with another state agency.

  - 12 SMHAs share responsibility with another state agency to provide services to individuals with Alzheimer's disease

  - 28 SMHAs provide long-term services to individuals with mental illnesses in nursing facilities

  - 2 SMHAs fund nursing facilities *not specialized in mental illness* to provide services to individuals with mental illness

  - 8 SMHAs provide oversight to nursing facilities that provide mental health services

  - 22 SMHAs provide training to nursing facilities that serve individuals with mental illnesses

Behavioral and Psychological Symptoms of Dementia

- Behavioral and psychological symptoms of dementia (BPSD) are similar to symptoms of psychosis, including agitation, delusional beliefs, repetitive questioning, hallucinations, and wandering (Reus, et al).

- Addressing the needs of individuals experiencing BPSD can be challenging. From our research, we identified an informal consensus among physicians that treating BPSD with antipsychotic medications is an acceptable first-line treatment for some individuals with dementia (Reus, et al).

- However, the US Food and Drug Administration *has not* approved the use of any antipsychotic medications for the treatment of BPSD, and the potential severity of side-effects caused the FDA to apply a "black-box" warning for all antipsychotic medications.

- Therapeutic interventions are available that lead to improved outcomes without the use of antipsychotic medications.

Efforts to Reduce Inappropriate Use of Antipsychotics in Nursing Facilities

- 2011 FDA Black Box Warning for all antipsychotics.

- 2012 National Partnership to Improve Dementia Care in Nursing Homes.

- CMS's Five-Star Quality Rating System evaluates all CMS-certified nursing facilities and assigns an overall rating based on health, staffing, and resident's quality of care. In 2015, CMS added a measure to monitor antipsychotic prescribing practices, allowing the use of antipsychotics only for those individuals with schizophrenia, Tourette syndrome, and Huntington's disease.

- Rates of antipsychotic use in nursing facilities have declined across all regions of the U.S. since 2011, decreasing by 34.1% between the Q4 of 2011 and Q1 of 2017.

- Policy makers are concerned the decrease may be due to other factors (e.g., underreporting, adding inappropriate diagnoses, etc.).

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NASMHPD TAC Paper

- *Effect of CMS's Measure of Antipsychotic Prescribing Practices for Nursing Facilities on Utilization and Changing Diagnostic Practices*

- Jessica Ogarek, Kristin Neylon, Emily Gadbois, Ph.D., Cynthia Zubritsky, Ph.D., Aileen Rothbard, Ph.D., Shekinah Fashaw, and Ted Lutterman

- In 2015, CMS updated its Five-Star Quality Rating System for nursing facilities with the goal of reducing inappropriate antipsychotic use. The purpose of our study was to determine if the inclusion of a measure of antipsychotic prescribing practices in the Five-Star Quality Rating System is associated with changes in schizophrenia diagnoses and prescribing practices in nursing facilities.

Findings from the Article

- Changes in nursing facility (NF) resident characteristics and antipsychotic prescribing were evaluated from 2011 to 2017

- Minimum Data Set (MDS), version 3.0 was used to build two cross-sectional analytic samples

  - Prevalent Sample: All individuals residing in a NF on the first Thursday of April, 2011-2017

  - Admissions Sample: All NF admissions, 2011-2017

Findings from the Article

Prevalent Sample Characteristics	2011	2012	2013	2014	2015	2016	2017
Sample N	1,260,093	1,258,812	1,245,483	1,245,100	1,228,408	1,210,833	1,185,898
Demographics (%)							
Age, Mean(SD)	79.7 (13.6)	79.7 (13.7)	79.5 (13.6)	79.4 (13.7)	79.2 (13.7)	79.1 (13.6)	78.9 (13.6)
Female	68.32	67.91	67.35	66.81	66.16	65.73	65.08
White	77.88	77.66	77.31	76.59	75.98	75.70	75.10
Characteristics (%)							
Admitted from acute hospital	75.50	76.52	76.98	79.97	77.59	77.58	77.98
Admitted from psychiatric hospital	2.12	2.15	2.25	2.30	2.27	2.21	2.16
Long Stay	73.05	72.91	72	73.05	72.07	72.92	72.02
Schizophrenia NO Alz/Dem	4.04	3.99	4.16	4.24	4.35	4.41	4.56
Alz/Dem NO Schizophrenia	49.38	49.33	48.38	48.01	47.13	48.54	46.35
Alz/Dem AND Schizophrenia	2.41	2.57	2.68	2.83	2.98	3.41	3.69

Findings from the Article

Admissions Sample Characteristics	2011	2012	2013	2014	2015	2016	2017
Sample N	3,210,228	3,197,561	3,235,200	3,300,829	3,508,186	3,418,105	3,357,114
Demographics (%)							
Age, Mean(SD)	77.9 (12.6)	77.7 (12.7)	77.5 (12.7)	77.3 (12.7)	77.3 (12.6)	77.1 (12.6)	77.2 (12.6)
Female	62.24	61.78	61.16	60.66	60.04	59.5	59.02
White	81.09	80.44	79.56	78.33	78.15	77.61	77.11
Characteristics (%)							
Admitted from acute hospital	89.03	88.81	88.81	89.2	89.75	89.72	89.82
Admitted from psychiatric hospital	0.98	0.95	0.95	0.88	0.81	0.78	0.72
Schizophrenia NO Alz/Dem	1.77	1.82	1.84	1.86	1.9	2.08	2.19
Alz/Dem NO Schizophrenia	25.52	23.98	23.33	22.5	22.56	22.93	22.8
Alz/Dem AND Schizophrenia	0.66	0.65	0.66	0.67	0.73	0.87	0.92

Findings from the Article

Proportion of Residents Receiving Antipsychotic in Last 7 Days								Test of Trend: 2011 to 2017
	2011	2012	2013	2014	2015	2016	2017	Odds Ratio* (95% CI)
Prevalent Sample								
Nursing Facility Overall	26.06	25.92	24.11	22.67	21.88	20.65	19.62	0.6927 (0.6851, 0.7003)
Schizophrenia NO Alz/Dem	3.6	3.56	3.68	3.73	3.8	3.8	3.9	1.0872 (1.0538, 1.1217)
Alz/Dem NO Schizophrenia	14.65	14.6	12.88	11.6	10.8	10.04	9.01	0.8858 (0.8777, 0.8939)
Alz/Dem AND Schizophrenia	1.98	2.13	2.18	2.28	2.37	2.69	2.88	1.4678 (1.4326, 1.5039)
Admissions Sample								
Nursing Facility Overall	14.06	13.69	13.16	12.81	12.45	12.51	12.5	0.8734 (0.8637, 0.8831)
Schizophrenia NO Alz/Dem	1.5	1.52	1.53	1.54	1.57	1.71	1.8	1.2026 (1.1602, 1.2466)
Alz/Dem NO Schizophrenia	6.84	6.3	5.84	5.46	5.17	5.19	5.04	0.8621 (0.8538, 0.8705)
Alz/Dem AND Schizophrenia	0.54	0.53	0.54	0.54	0.59	0.7	0.74	1.3792 (1.3337, 1.4263)

Odds Ratio is clustered on nursing facility ID to account for facility effects on antipsychotic use. No other numbers in this table are adjusted.

Summary of Results

- Population with schizophrenia (w/ and w/o AlzDem) increased while population w/ AlzDem alone decreased in both samples

- Proportion of NF receiving antipsychotics decreased

- Proportion of residents with AlzDem w/o schizophrenia receiving antipsychotics decreased

- Proportion of residents with schizophrenia receiving antipsychotics increased

- Reasons for increasing schizophrenia diagnoses is unclear with this study design

Opportunities for Future Research

- Incident diagnoses of schizophrenia after NF admission, timing of antipsychotic prescribing

- Cohort study: follow residents who were in the NF before and after the CMS rule change to see if diagnoses change over time

- Level of agreement and consistency between schizophrenia diagnoses and Pre-Admission Screening and Resident Review (PASRR) assessments

- Examination of variation across and within states

- Investigation of best practices in states and NFs that have successfully reduced antipsychotics

Policy/Practice Implications

- Although not possible to determine reason for schizophrenia increase, is possible method of avoiding penalization

- Regardless of reason for diagnostic shift, non-pharmacological alternatives are needed (e.g., staff training/education, reimbursement changes that facilitate person-centered care, behavioral interventions)

A State's Perspective

Dena Stoner
Director, Innovation Strategy
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A Parallel Evolution

Mental Health / Long Term Services and Supports (LTSS)

- Increasing emphasis on data, measurement
- Evidence-based, **practice-**improvement
- Research partnerships with academic institutions
- Partners are key to developing, implementing, sustaining improvements
  - Data analysis
  - Study / Project design
  - Development, testing and continuing dissemination of evidence-based practices to improve care through centers of excellence

The Call to Action

- Texas nursing facilities frequently used antipsychotics to treat dementia patients. In 2011, TX had highest rate of use in the US.

- Texans with serious mental illness (SMI) live 29 years less than other Americans.[1] People with SMI enter nursing facilities earlier in life.[2]

- Over 7000 people in Texas nursing facilities in 2007 were former clients of the state's BH system.

- Over 350 people (most under age 65) were discharged from Texas State Hospitals to nursing facilities in 2005.

1. Lutterman T, Ganju V, Schacht L, Shaw R, Monihan K, et.al. Sixteen State Study on Mental Health Performance Measures. DHHS Publication No. (SMA) 03-3835. Rockville, MD: Center for Mental Health Services, Substance Abuse & Mental Health Services Administration, 2003
2. Bagchi, A.D., Simon, S.E. & Verdier, J.M. (2009). How many nursing home residents live with a mental illness? Psychiatric Services, 60(7), 958-964.

Improving Dementia Care

- Dementia care
  - OASIS Dementia Training Academy Developed for Texas
  - Virtual Dementia Tour
  - Person Centered Thinking Training
  - Trauma-informed care
  - Regional academies
  - Online and print resources

- Appropriate Use of Antipsychotic Medications
  - Music and Memory
  - One a month campaign
  - T.R.A.I.N. – Texas Reducing Antipsychotics in Nursing Homes

- University of Texas School of Nursing Center of Excellence

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Money Follows the Person Behavioral Health Pilot

- Implemented in central Texas

- Transition adults with mental illness from nursing facilities to communities using evidence-based practices

- Evidence-based MFP intervention developed tested and implemented by university partner (Cognitive Adaptation Training)

- Independent evaluation of MFP by another university partner

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Results

- **40%** reduction in antipsychotic use in nursing facilities by 2018 (from 51st to 10th in nation)

- 65% of the 450+ MFP Pilot participants remained in community, with
  - sustaining improvements in functioning,
  - Significant personal recovery achievements
  - Savings to Medicaid ($24.5 million)

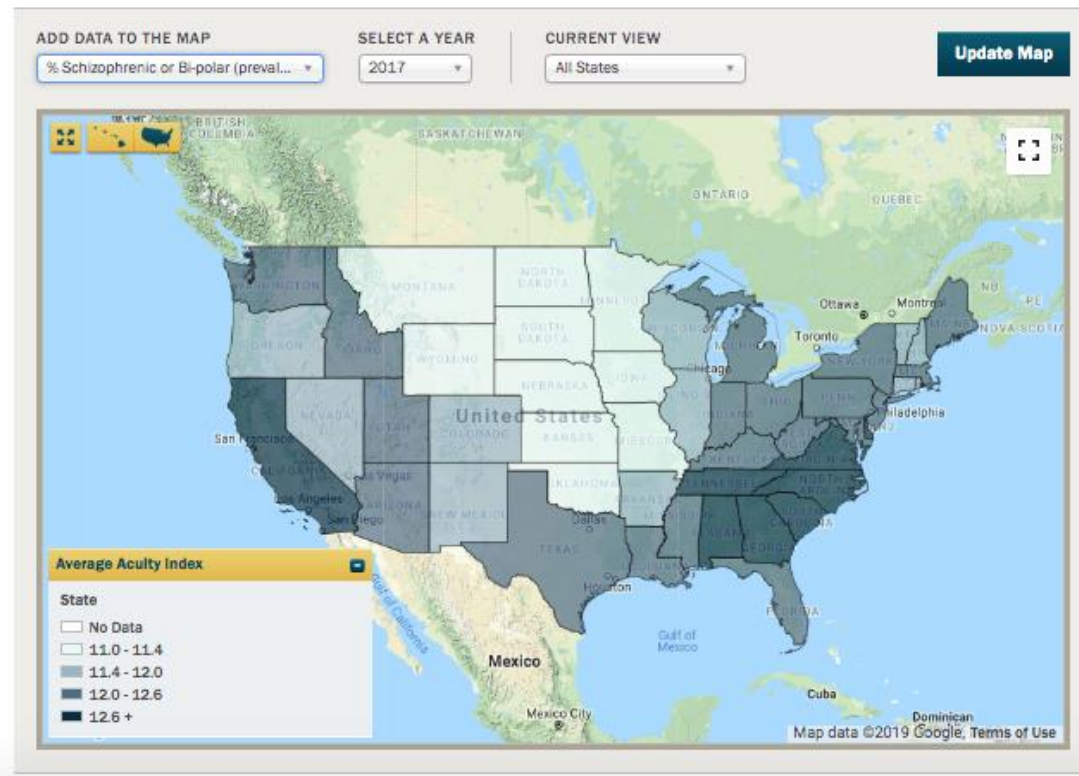- Work continues – Texas Joint Position Statement on dementia (06/2019)

Resources

- Dementia - https://hhs.texas.gov/doing-business-hhs/provider-portals/long-term-care-providers/nursing-facilities/quality-monitoring-program/evidence-based-best-practices/alzheimers-disease-dementia-care

- Money Follows the Person BH - https://iceebp.com/

- dena.stoner@hhsc.state.tx.us

http://LTCFocus.org
Long-Term Care: Facts About Care in the U.S.

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Thank you!

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