

Preferred Language and Delirium in Hospitalized Older Adults With Dementia: An EHR-Based Cohort Study

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INTRODUCTION

- Delirium is a frequent and harmful complication of hospitalization among older adults with Alzheimer's disease and related dementias (ADRD).
 - Language-discordant** care may influence delirium prevention, recognition, management, and documentation.
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- These language barriers create pathways for increased risk and misclassification of delirium.
 - This study evaluates whether a preferred language other than English is associated with delirium during hospitalization in older adults with ADRD.

METHODS

1 COHORT SELECTION

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- Tertiary academic hospital EHR data (2014–2023)
 - Retained earliest admission for patients aged ≥65 with ICD-9/10 dementia codes

2 LANGUAGE PREFERENCE

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- Pragmatic EHR marker
 - Categorized by preferred language: **English** vs. **not English**.

3 DELIRIUM IDENTIFICATION

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- Positive inpatient screen using NU-DESC, CAM, CAM-ICU, 4AT, or related fields
 - Primary analysis restricted to completed screens

4 STATISTICAL ANALYSIS

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- Summary of characteristics by group
 - Multivariable logistic regression adjusting for demographics, comorbidities (Charlson index), and clinical factors

RESULTS

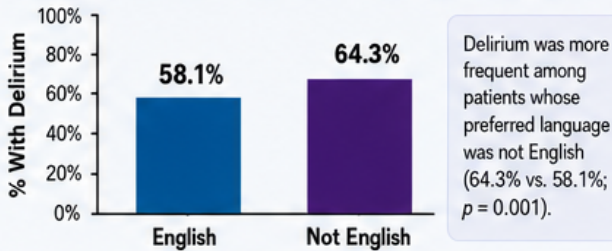
7,216 hospitalized older adults with ADRD.
Baseline characteristics were similar across groups.

Characteristic	English (n = 4,710, 65%)	Not English (n = 2,506, 35%)
 Mean age, years (SD)	79 (7.3)	79 (7.6)
 Female, n (%)	2,649 (56%)	1,379 (55%)
 Mean Charlson index (SD)	3.0 (2.3)	3.0 (2.4)
 Medical services, n (%)	2,404 (51%)	1,276 (51%)
 Infection diagnosis, n (%)	2,861 (61%)	1,495 (60%)



Among **patients** with completed Yes/No delirium screens: **60% screened positive**.

HIGHER DELIRIUM RATE AMONG PATIENTS WHOSE PREFERRED LANGUAGE WAS NOT ENGLISH



In adjusted models, preferred language other than English was associated with higher odds of delirium (OR=1.26, 95% CI: 1.08–1.47), with consistently elevated estimates across specifications.



Patients whose preferred language was not English were also more likely to have Unknown/unable-to-assess delirium status (OR=1.14, 95% CI: 1.01–1.28) and higher observed antipsychotic and restraint use.

CONCLUSION



Preferred language other than English was independently associated with **higher delirium odds** and more frequent **uncertain assessment status** among hospitalized older adults with ADRD.



These findings may reflect true risk from disrupted **communication, recognition challenges** during language-dependent screening, and documentation disparities.



Future studies should evaluate **interpreter availability, language concordance, caregiver communication, and language-aware delirium bundles** to reduce inpatient disparities.



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