Dementia screening tests: value in assisted living facilities in NJ

Kristina Vishnevetskaya[1], Michael Toscani, Pharm.D. [2], Mary Wagner, Pharm.D., MS [3] Loretta Kaes, RN B-C, C-LA, LNHA, CALA[4]

Ernest Mario School of Pharmacy, Rutgers, The State University of New Jersey[1,2,3]; Rutgers Institute of Pharmaceutical Industry Fellowships[2], Health Care Association of New Jersey[4]

Background

- Dementia is defined as a cognitive impairment or decline in mental ability, which is associated with memory loss. It primarily affects individuals of ages 65+.
- The age group in assisted living facilities is highly at risk of developing dementia.
- This change often goes undetected, which leads to continued and often rapid decline in cognitive function.
- This problem could be mitigated if assisted living facilities implement a screening tool sensitive enough to catch mild forms of dementia and screen frequently.
- Making comparisons between different dementia screening tools in areas such as sensitivity, specificity, time and ease of administration, and areas of assessment is a way to determine if the test has value in an assisted living setting.

Objective

- The objective of this study is to survey assisted living facilities (ALFs) throughout NJ regarding the perceived advantages and disadvantages of using various dementia screening tests (Phase 1). A second goal is to determine if these facilities would change their policy based on the results of Phase 1 using a follow-up survey (Phase 2).

Methods

- This study was approved by the Rutgers Institutional Review Board.
- 200+ ALFs across the state recognized by the Health Care Association of NJ were given a Google Forms survey, 116 via e-mail and the rest as hard copies at local ALF meetings and training sessions.
- Following the Phase 1 data collection, a report was generated and sent to respondents, along with a follow-up survey to determine if these results led to a change in survey utilization at their facility (Phase 2).
- 70 individuals completed the Phase 1 survey (n=70) and 25 completed the Phase 2 survey (n=25).
- Descriptive statistics were used to describe the information obtained.

Demographics

Figure 3: Percentage of Residents with Dementia (n=70)

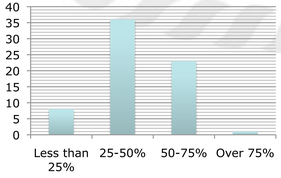
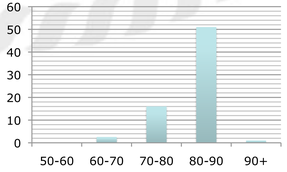


Figure 4: Age Range of Majority of Residents (n=70)



- The data set is representative of North, Central, and South Jersey across a majority of counties, with 81% (17/21) of NJ counties represented.

Results

Table 1: Respondent Results From Phase 1 Survey (n=70)

Average result from feedback	Meeting the Needs of the Facility	Difficulty of Administration	Difficulty of Scoring	Time Required for Administration	Sensitivity in Detecting Mild Dementia
Best	CADi (9)	CADi and Facility-Developed Test (1)	Mini-Cog and CADi (1)	CADi (3-5 minutes)	ADL (7)
Worst	Company-Modified MMSE (6)	SLUMS and Company-Modified MMSE (7)	BCAT (8)	BCAT, Mini-Cog (8-10 minutes), MMSE (5-10 minutes), and SLUMS (10+ minutes)	SLUMS (4), Mini-Cog, MMSE, and BCAT (5)

Meeting the Needs of the Facility, Difficulty of Administration, Sensitivity in Detecting Mild Dementia

- Based on a scale of 1-10, 10 being the most.
- The most prominent reported disadvantage for the MMSE was its lack of sensitivity (50%)

Cost

- All are free of charge, although 2 indicated MMSE has cost as a drawback.
- Unclear for ADL (1 indicated it is free of charge and 1 indicated it is not).

Informant Requirement

- MMSE, Company-Modified MMSE, BIMS, CADi, BCAT, ADL, Facility-Developed Test, and CAM do not require an informant
- Unclear for MMSE, BIMS, and CADi.
- Mini-Cog and SLUMS require an informant.

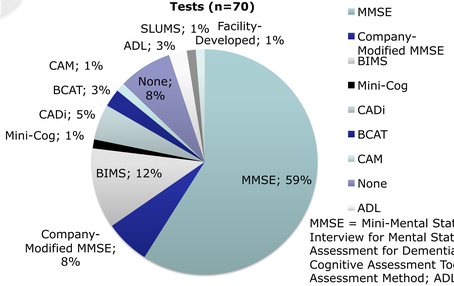
Possible Changes in Implementation

- 9% have plans to switch to a different test and 5% said the test that they switch to depends on the results of this survey.

Frequency of Screening

- 53% of facilities test every 6 months, and 29% test only as needed.
- 64% of facilities use a dementia screening test for placement.

Figure 6: Percentage of Facilities Using Dementia Screening Tests (n=70)



MMSE = Mini-Mental State Exam; BIMS = Brief Interview for Mental Status; CADi = Cognitive Assessment for Dementia, iPad Version; BCAT = Brief Cognitive Assessment Tool; CAM = Confusion Assessment Method; ADL = Activities of Daily Living

Figure 7: Percentage of Follow-Up Respondents Indicating Whether Possible Policy Change May Occur Due to Phase 1 Results (n=25)

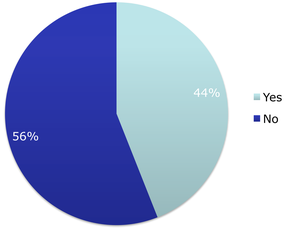
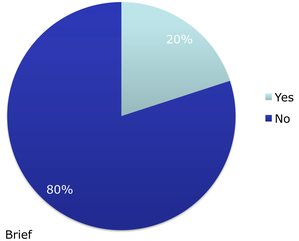


Figure 8: Percentage of Follow-Up Respondents Indicating Whether They May Begin to Screen for Dementia More Frequently Due to Phase 1 Results (n=25)



Results (continued)

Phase 2 Results (Follow-Up Survey)

- Initial Screening of Patients
  - Respondents who would switch based on survey results:
    - 4 may switch to the MMSE because it meets needs (3) and is easier to use (1).
    - 1 may switch to CADi because it is faster and easier to use.
- Ongoing Monitoring of Patients
  - Respondents who would switch based on survey results:
    - 1 may switch to ADL, aADL, BCAT, BIMS, Color-Shape Test (CST), or Early Dementia Questionnaire (EDQ) because they meet needs, are easier and faster to use, more sensitive, easier to score, and are free of charge.
    - 1 may switch to CADi because it is faster and easier to use and easier to score.
    - 1 may switch to SLUMS because it meets needs.
- 8% of respondents indicated that the dementia screening process within their facility has improved due to their participation in this study.

Limitations

- This survey could be completed by a number of different positions within an assisted living facility, and Google Forms does not have a method to prevent people with different e-mail accounts from completing the survey based on being employed within the same assisted living facility. Thus, more than one person per institution can respond to the survey, which means the number of responses we receive would not exactly correlate with the number of facilities that respond to the survey.
- Some respondents were lost to follow-up due to illegible or incorrect e-mail addresses provided on hard-copy surveys, or due to no longer being employed at the same facility.

Conclusions

- MMSE is the most common tool used (59%) and 4 may switch to it for initial screening
  - Disadvantages: longest time required for administration and lowest sensitivity in detecting mild dementia.
  - Advantages: meets needs and is easier to use.
- CADi is not commonly used (5%) and 1 may switch for initial and ongoing screening
  - Disadvantages: lack of sensitivity in detecting mild dementia
  - Advantages: meets needs, easiest to administer and score, and shortest time required for administration.
- 44% of follow-up respondents may change policy due to phase 1 results.
- 20% of follow-up respondents may screen more frequently due to phase 1 results.
- Further research is needed to identify the best screening test and measure the impact of this study.

Disclosures

Authors of this presentation have the following to disclose concerning possible financial or personal relationships with commercial entities that may have a direct or indirect interest in the subject matter of this presentation.

Kristina Vishnevetskaya: Nothing to disclose
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