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Kathryn Dere

Lynn M. Wilson DO

Nyann Biery MS

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# Dementia Screening at Annual Medicare Wellness Visits

Kathryn Dere, MS, Lynn Wilson, DO, Nyann Biery, MS



Lehigh Valley Health Network, Allentown, Pennsylvania

## Background

Dementia encompasses multiple disease processes that involve loss in cognitive functions such as memory, attention, thinking, and/or language. It is estimated that 5.8 million Americans live with Alzheimer's disease, which accounts for 60-80% of all cases of dementia. That number is expected to increase to 13.8 million in 2050.<sup>1</sup>

Early diagnosis of dementia is essential in providing both patients and their families with better care. However, it can sometimes be difficult to differentiate between normal aging and a pathologic decline in cognitive function, and 27-81% of patients with dementia remain undiagnosed in a primary care setting.<sup>2,3,4</sup>

It was anticipated that detection of cognitive impairment would improve with the Medicare Annual Wellness Visit (AWV), which became effective in 2011. Beside a number of required components such as the Health Risk Assessment (HRA), the AWV also requires assessment of cognitive impairment by "direct observation, with due consideration of information obtained by way of patient report, concerns raised by family members, friends, caretakers, or others."<sup>5</sup>

The extent to which the AWV has impacted dementia diagnosis and care remains unclear. A recent study found that although AWVs correlated with increase in some measures of lab testing for reversible causes of cognitive impairment, they did not have a substantial effect on its detection; only 6% of the AWV cohort received an incident Mild Cognitive Impairment (MCI) or dementia diagnosis.<sup>6</sup>

## Problem Statement

This study examines how the Medicare Annual Wellness Visit (AWV) has impacted dementia diagnosis and follow-up in a community health network setting.

## Methods

This was a retrospective chart review conducted at family medicine and internal medicine practices within LVHN. Data were extracted from electronic medical records on EPIC.

The data came from patients who had completed at least one AWV between 1/1/2017 and 6/16/2019. From those patients came two categories:

1. Patients who had completed an AWV and had an associated HRA flowsheet (78,652 patient encounters)
2. Patients who had completed at least one Folstein Mini-Mental Exam (MMSE) or Montreal Cognitive Assessment (MoCA), either within the setting of the AWV or not (8,583 patient encounters)

While these two subsets were treated as separate, there was some overlap as some of the encounters with an HRA flowsheet also had an associated MoCA or MMSE. The HRA flowsheet is comprised of several questions, including "Do you or any of your friends or family members have any concerns about your memory?"

Chart review was performed on the subset of data that included all encounters with associated MoCAs or MMSEs. Encounters were coded into:

- Provider type categories (primary care, specialist, hospital)
- Dementia or Mild Cognitive Impairment diagnosis status (no diagnosis, new diagnosis, old diagnosis)
- Follow-up (assessment with a MoCA or MMSE, or referral to a specialist within 6 months).

Data were analyzed using Microsoft Excel. The project was classified as Quality Improvement and did not require Institutional Review Board oversight.

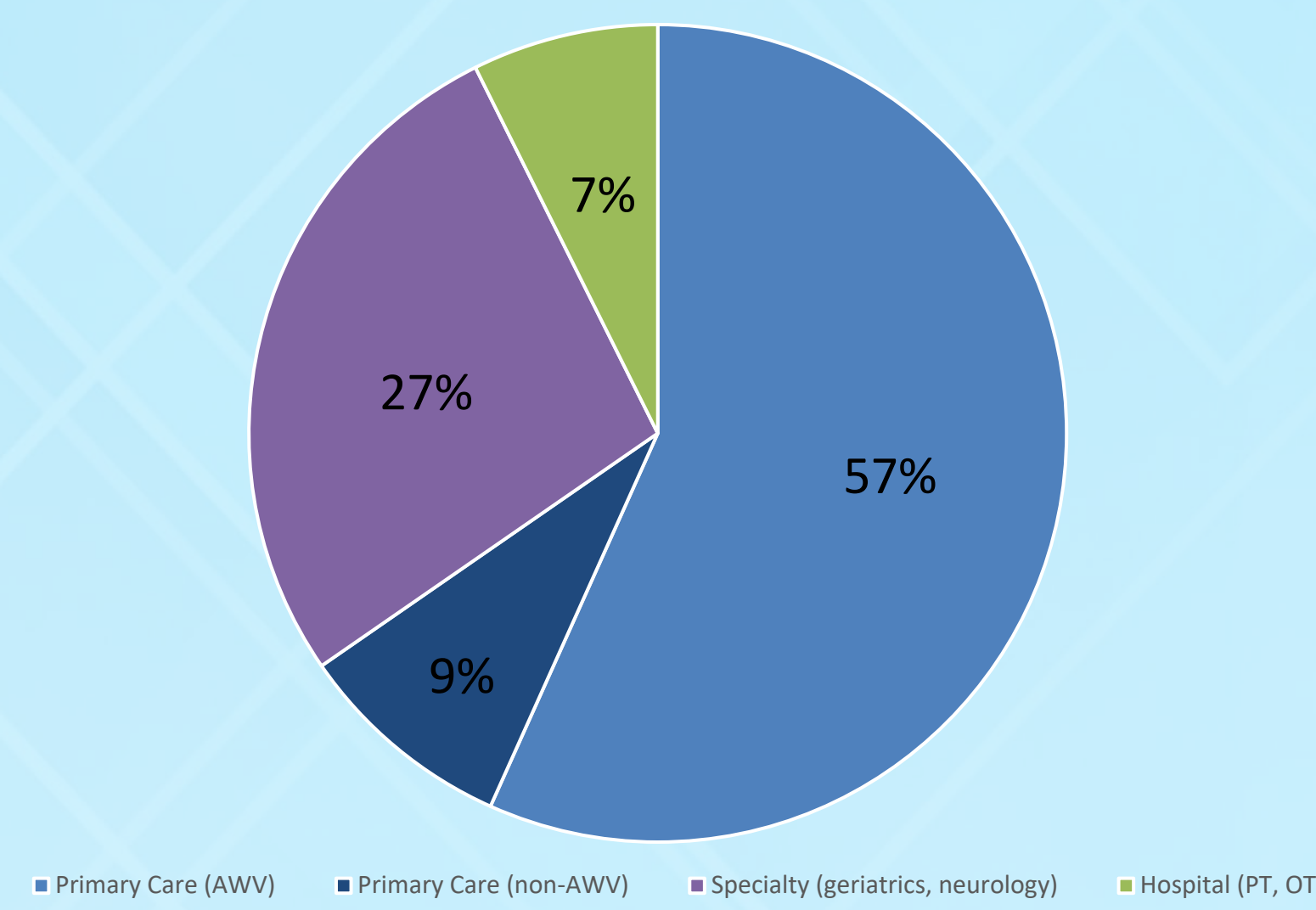
## Results

234 encounters from the dataset, representing 143 unique patient charts, were reviewed. Three encounters were excluded from statistical analyses because on three separate occasions, duplicate MMSEs were documented for the same encounter.

The median patient age at the time of assessment was 76 years.

Both the MoCA and MMSE are scored out of 30, with a score of 26 and above considered normal. The mean score for MoCAs and MMSEs administered was 24, while the median was 26.

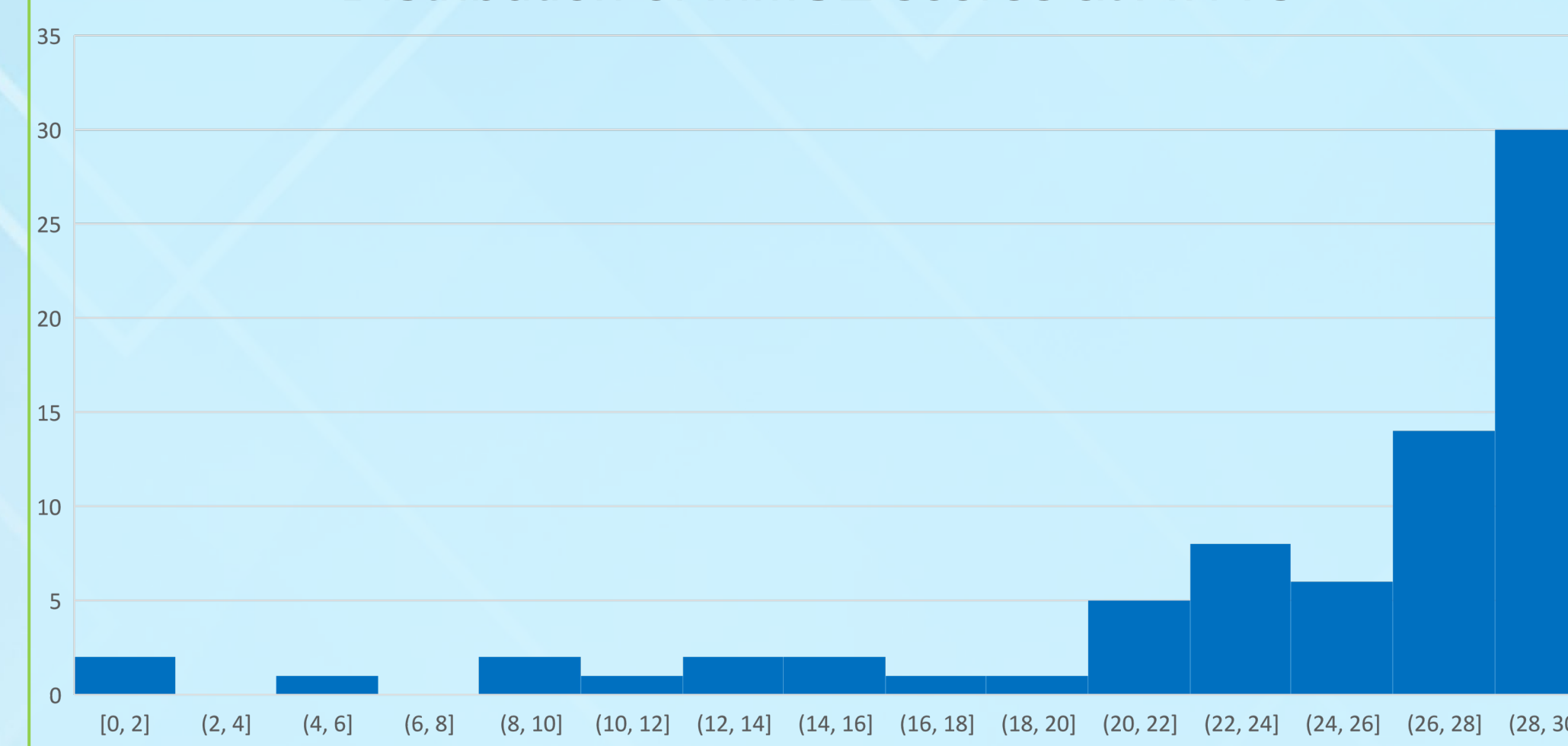
MoCA and MMSE administration settings



Of the 231 encounters analyzed, primary care visits accounted for 151 (66%) encounters. 131 of the 151 primary care encounters were AWVs, representing 103 unique patient charts.

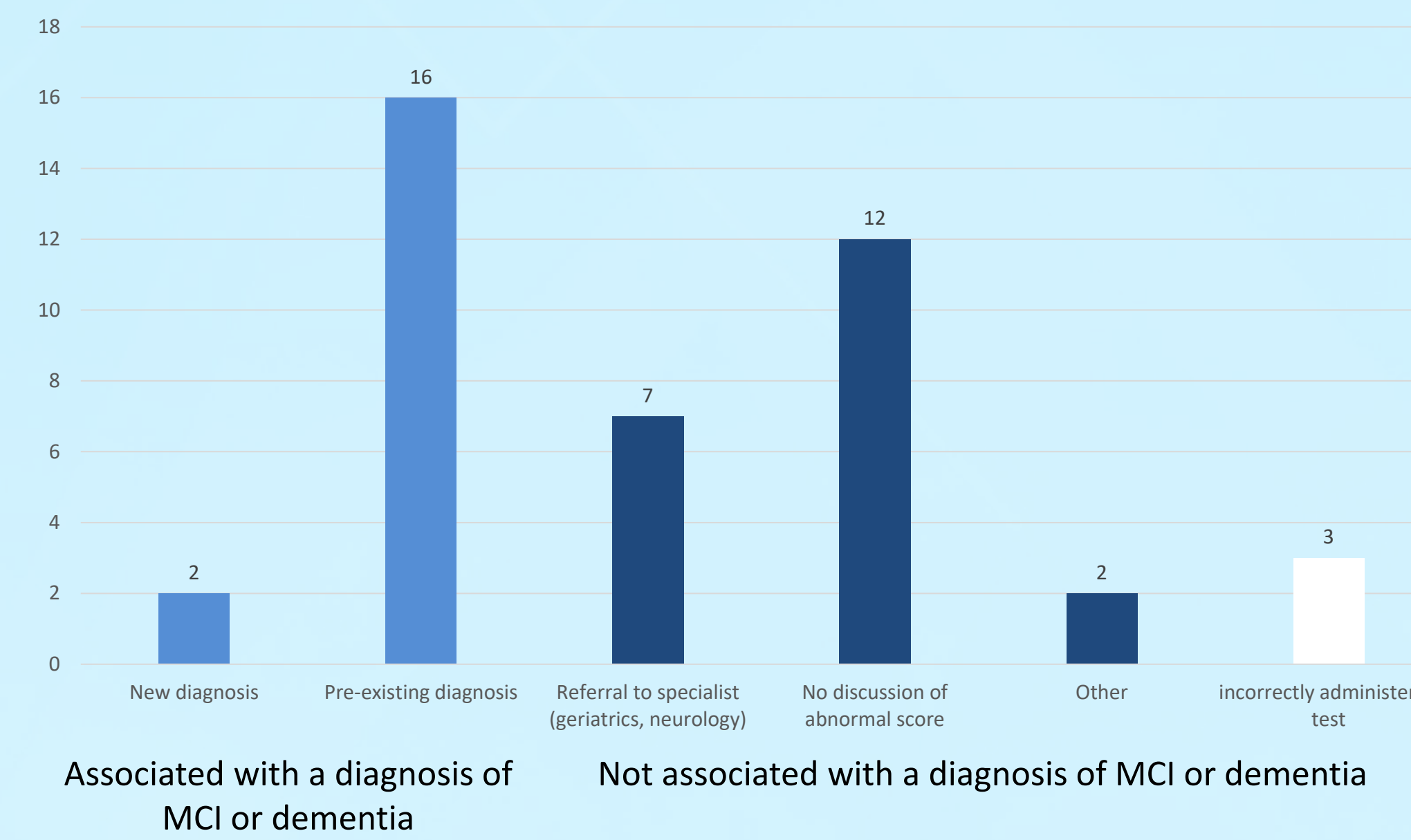
All assessments conducted at AWVs were MMSEs. The median score was 28/30.

Distribution of MMSE scores at AWVs



42 of the tests done at AWVs resulted in abnormal scores (less than 26/30). 3 tests were administered incorrectly and had falsely low scores. 2 patients had abnormal scores that were attributed to other processes, such as depression or grief. 12 patients with no preexisting diagnosis of dementia received abnormal scores and apparently no follow-up.

Outcomes of abnormal MMSE scores at AWVs



109 of 131 AWV patients expressed concerns about their memory on their HRA questionnaire. 22 AWV patients did not express concerns about their memory, but still completed a MMSE or MoCA assessment. One such patient who did not express concerns about memory had an abnormal MMSE score of 23, and consequently received a geriatrics referral.

## Discussion

Within the AWV, 2 patients received new diagnoses and 7 patients received referrals to specialists. This suggests that as many as 9 of 103 patients (8.7%) were newly recognized as having dementia. However, since this study excluded AWVs not associated with a MoCA or MMSE, this diagnosis rate is likely falsely elevated.

This project focuses on the Health Systems competency of SELECT, and aims to evaluate the dementia diagnosis gap in the context of a Medicare intervention. There are a number of reasons why the AWV has failed to substantially increase diagnosis of dementia.

- Inadequate uptake of the AWV by Medicare users: in 2014, only 15.6% of eligible Medicare users had an AWV, and the most vulnerable patients were least likely to make an appointment.<sup>7,8</sup>
- Incorrect use of cognitive assessments
- Time constraints within the AWV

### Future directions

- Shorter and easier to administer screening tools may be more suited to the AWV than longer diagnostic assessments such as the MoCA or MMSE. The GPCOG (General Practitioner Assessment of Cognition), Mini-Cog, and MIS (Memory Impairment Screen) all take 5 minutes or less to administer and can easily be used to identify at-risk patients.<sup>9</sup>
- Create flowsheets in the electronic medical record (EMR) that prompt providers to administer certain tests, such as the Mini-Cog
- Utilize more sophisticated tools integrated into the EMR that help leverage available data to identify high-risk patients who have not yet scheduled an AWV, and who would benefit most from cognitive screening.

## Conclusions

- The use of cognitive testing in AWVs can lead to diagnosis of dementia.
- The presence of incompletely administered tests should warrant further investigation into the flowsheet documentation process.
- A standardized process for flagging abnormal scores may address the issue of inconsistent follow-up.
- The AWV should be seen as an opportunity to screen, rather than diagnose, dementia. More widespread use of shorter tests such as the Mini-Cog may make it more feasible to perform informal cognitive screenings during an AWV while also creating a dialogue for future follow-up.

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