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IMPLEMENTATION OF THE VERMONT MINI-COG

Colchester Family Medicine

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March – April 2019

Mentor: Alicia Jacobs, M.D.

Problem identification: The need for cognitive impairment screening

- Cognitive impairment is defined as a noticeable and measurable decline in memory and thinking skills¹
- Approximately 80% of people with amnesic cognitive impairment go on to develop Alzheimer's disease, the most common form of dementia, within seven years²
- At present, cognitive impairment and dementia are clinical diagnoses¹
 - While it is an active area of research, there are currently no neuroimaging, laboratory, or genetic testing means of diagnosis
- Per the USPSTF, 29-76% of patients with dementia in the primary care setting are undiagnosed³
- Cognitive impairment screening can lead to earlier detection and thus the ability to make diagnostic and treatment decisions, manage comorbid conditions, treat reversible causes of dementia, and plan for the future
- Cognitive impairment screening is mandated as part of the Medicare Annual Wellness Visit
- Many practitioners do not routinely screen for cognitive impairment and there is no consensus screening tool⁴

Public health considerations: The rising cost of dementia

- Globally, 46 million people have dementia⁵
- The global economic cost of Alzheimer's disease is estimated at over 600 billion dollars annually¹
- Alzheimer's disease is the 6th leading cause of death in the United States²
- The number of people with Alzheimer's disease in the US is expected to triple by 2050⁶
- In 2018, 16.3 million individuals provided 18.5 billion hours of unpaid dementia care¹

Community perspective: Why screen for cognitive impairment?

“[Screening for cognitive impairment and dementia] is important from the perspective of early treatment intervention, and also to assist patients and their families as they plan for the future, and make decisions about how they want to conduct the rest of their lives”

“The rationale for the screening tool was focused by the advent of the [Affordable Care Act] which mandates screening for cognition as part of the Medicare Annual Wellness [Visit]”

- William Pendlebury, M.D., Director of the UVMMC Memory Center

“Benefits include earlier detection for services”

- Sean Maloney, M.D., Medical Director at Colchester Family Medicine

“I have been surprised at some patients’ significant deficits that I might not otherwise have been aware of as early”

- Candace Fraser, M.D., Colchester Family Medicine, Family Medicine Clerkship Director

Community perspective: Why screen with the Vermont Mini-Cog?

“The addition of category fluency was my idea to broaden the cognitive domains tested. Category fluency is believed to test for both verbal ability (temporal lobe) and executive control (frontal lobe). So, its addition does make the screening tool more complete”

- William Pendlebury, M.D., Director of the UVMMC Memory Center
- The Mini-Cog© screening tool, from which the Vermont Mini-Cog was developed, evaluates encoding and short-term recall (three-word recall) and visuospatial functioning (clock drawing)

The UVMMC Medical Home Leadership team is working on building a new template for the Medicare Annual Wellness Visit. They have chosen the Vermont Mini-Cog as the standardized screening tool that will be used at UVMMC Family Medicine and Internal Medicine clinics in the future

- Information from Alicia Jacobs, M.D., Colchester Family Medicine, Vice Chair for Family Medicine Clinical Operations

Community perspective: What barriers exist to cognitive impairment screening?

“The barrier [is] time. It can take nearly an entire visit just to do the MoCA and discuss the results and plan”

- Melissa Barrup, APRN, Colchester Family Medicine
- The Montreal Cognitive Assessment (MoCA) is another cognitive impairment screening tool

“[Barriers are that screening] takes time, it’s one more thing on the long list of screenings we are expected to do, and can annoy people”

- Marga Sproul, M.D., Colchester Family Medicine

“Not in Epic”

- Travis Robillard, PA, Colchester Family Medicine

Intervention and methodology

- Researched the background of the Vermont Mini-Cog and the current status of cognitive impairment screening at UVMHC
- Surveyed Colchester Family Medicine providers about their current cognitive impairment screening practices, the barriers to screening that they encounter, and the benefits and harms of screening that they perceive
- Developed and presented a training module to Colchester providers that provided contextual information on cognitive impairment screening in general and the Vermont Mini-Cog specifically
 - The training addressed the barriers and perceived benefits and harms noted by providers
 - Informational materials including administration and scoring instructions and a video on how to perform the screening were created
 - Training module link:
<https://drive.google.com/drive/folders/1z7QPr4c9JCCLHmzoNf6NI2VqvljyXQpu?usp=sharing>
- Providers who attended the lunchtime presentation of the training module were provided an anonymous paper survey assessing their response

Results

- **6/7** providers surveyed indicated that they are now **very or extremely likely to screen** patients for cognitive impairment during Medicare Annual Wellness Visits
- **7/7** providers indicated that they are **more or much more likely to screen** for cognitive impairment **compared to their current practices**
- **5/7** providers indicated that they are now **very or extremely likely to use the Vermont Mini-Cog** as their cognitive impairment screening tool
- **5/7** providers **agree or strongly agree** with the statement that **routine cognitive impairment screening is beneficial** to patients
- Training module created and distributed for future use at Colchester Family Medicine

Evaluation of effectiveness

Initial results:

- All surveyed providers indicated that they are more likely to screen for cognitive impairment after participating in the training
- The majority of providers surveyed are very likely to use the Vermont Mini-Cog to screen
 - Anecdotally, providers were happy that the Vermont Mini-Cog takes only ~3 minutes to perform, in contrast to 7-10 minutes for other screening tools
- The majority of providers surveyed feel that routine cognitive impairment screening is beneficial

Future evaluation of effectiveness:

- Primary outcomes
 - At what rate are providers screening for cognitive impairment?
 - At what rate is the Vermont Mini-Cog being used as the screening tool?
 - Compare to existing rates, if possible
- Secondary outcomes
 - How many follow-up visits are being scheduled after a patient has a positive cognitive impairment screening?
 - How many referrals to the Memory Center are being made?
 - How many diagnoses of cognitive impairment or dementia are being made in Colchester Family Medicine patients, either in the office or at the Memory Center?
 - Compare to existing rates, if possible
- Tertiary outcomes
 - Do Colchester Family Medicine patients experience health benefits associated with earlier diagnosis of cognitive impairment and dementia?

Potential limitations

- The revised Annual Medicare Wellness Visit template is not yet available
 - There will likely be some loss of knowledge and momentum around the topic before the visit template becomes available
- Many providers are more comfortable or familiar with another screening tool
- Time concerns still exist – there are MANY topics that providers need to address during a visit
- Anecdotally, providers are concerned about routinely screening patients who appear cognitively intact
 - Is 65 too young to start routine screening?
- Providers also have concerns about accessibility of appointments at the Memory Center
- The USPSTF recommendation for routine cognitive impairment screening in older adults is Grade I

Future recommendations

- Continue work on the development of the new Medicare Annual Wellness Visit template and integration into Epic
- Retrain Colchester Family Medicine providers and staff as the new template becomes available
- Make the training module available to providers outside of Colchester
- Ensure the smooth and timely transition of care from the primary care office to the Memory Center in patients who warrant further evaluation and services

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Interview consent form

Thank you for agreeing to be interviewed. This project is a requirement for the Family Medicine clerkship. It will be stored on the Dana Library ScholarWorks website. Your name will be attached to your interview and you may be cited directly or indirectly in subsequent unpublished or published work. The interviewer affirms that she has explained the nature and purpose of this project. The interviewee affirms that he/she has consented to this interview.

Consented:

- Melissa Barrup, APRN, Candance Fraser, M.D., Alicia Jacobs, M.D., Sean Maloney, M.D., William Pendlebury, M.D., Travis Robillard, PA, Marga Sproul, M.D.