Name of Project: The UCSF Brain Health Assessment for the Detection of Cognitive Impairment Among Diverse Populations in Primary Care

Investigator(s). (Include phone numbers and email address, indicate PI and primary contact)

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Research question(s):

(1) What are barriers and enablers to the implementation of the Brain Health Assessment (BHA), a rapid cognitive impairment (MCI and dementia) screening tool designed for primary care?

(2) What impact does the Brain Health Assessment have on primary care provider confidence and practices when assessing and managing patients with cognitive impairment?

Brief Background/Significance:

Patients with Alzheimer's disease and related dementias (ADRD) are frequently underdiagnosed, misdiagnosed, or experience delay in diagnosis. Failing to detect ADRD can lead to delays in treatment of reversible underlying causal conditions, and can delay referrals to specialists, the identification of supportive services, and critical planning for those who have dementia while they still have capacity and for their families. Furthermore, dementia is a "clinically dominant condition," meaning that managing a patient's dementia can have an impact on all other comorbid conditions and areas of patient care. While primary care providers (PCPs) are typically the first to recognize that a person may have cognitive impairment, PCP action around the detection and management of ADRD remains at low levels (17-32%).

Efficient and user-friendly neurocognitive screens are needed in primary care. The UCSF Brain Health Assessment was developed to efficiently measure the cognitive domains that can be affected in the earliest stages of neurocognitive decline, including memory, executive functions / speed, visuospatial skills, language, behavior, and function. Four subtests and an optional informant survey are administered in 10 minutes via an appealing tablet interface and with automated scoring that directly populates into the Electronic Medical Record, and includes provider feedback. Validation studies indicate excellent combined sensitivity and specificity to cognitive impairment, much higher than commonly used tools such as the MoCA (eg, see Possin et al., 2018, JAGS, also see memory.ucsf.edu/tabcat).

The primary goal of **the proposed work** with DGIM is to evaluate and address barriers to detecting cognitive impairment in primary care. The proposed DGIM project is part of a larger NINDS UG3/UH3 funded project (see DetectCID.org). If successful, this project will lead to increased detection of cognitive impairment in everyday community settings, which is essential to enable differential diagnosis and to improve medical management for people with cognitive impairment, including dementia.

Inclusion/exclusion criteria (list)

We are proposing: (1) a quality improvement project (implementing the UCSF Brain Health Assessment in DGIM to improve the process of dementia assessment over currently-used tools such as the MoCA and the MMSE); and (2) a related research study with DGIM primary care providers and clinical staff who agree to participate, and who will serve as the participants of the study. DGIM patients will not be research participants in this project. We aim to include as many primary care providers and supporting clinical staff as are willing to participate and who are expected to be at the practice for 1 year

or more. Our target sample size is 15 providers. We would like to start with 2-3 and expand based on the satisfaction of those providers. We are open to adjusting this plan.

Inclusion: The population that will be studied are primary care providers and members of their clinical support teams who are expected to be in the practice for 1 year or more. These include MDs, nurse practitioners, and other clinical staff.

Exclusion: Those who are not primary care providers or primary care team members.

Method of contact/recruitment (be specific): Dr. Yank and the other investigators will approach DGIM providers via email, phone, in person, and/or through a presentation by the study team at a staff meeting.

Benefits/burden for participants (clearly identify potential for harm)

Benefits: There will be no direct benefit to participating in this study. However, we hope that information gained from the project will help health professionals and health educators better understand how to assess for cognitive impairment in primary care settings.

Burdens:

1. Discomfort: It is possible that answering questions about clinical practice will be stressful. PCPs and supporting clinical staff will be able to stop an interview or take a break at any time.
2. Confidentiality: Participation in research may involve a loss of privacy; however all information will be handled as confidentially as possible. All data collected from providers will be stored in a secure database and information transmitted by electronic mail will be protected by password or encryption. Participants' names will not be used in any published reports about this study. If information collected for this research is required by federal or state laws to be reported to appropriate officials, such as elder abuse, the researchers will follow such legal guidelines.

Any benefits or burden to DGIM practitioners? See response to prior question, as DGIM practitioners are the research subjects in this study.

Timeline for recruitment (projected start and stop dates): 11/1/19 – 10/1/20.

Funding source: The National Institute of Neurological Disorders and Stroke

Potential for DGIM collaborators?

A major goal of this project is to involve PCPs as collaborators. The project thus far has involved participation from primary care providers through focus groups and feedback sessions that have helped shape the design of the Brain Health Assessment materials (informational website, report generated from the test, and anticipated workflow). We are enthusiastic about including any interested DGIM providers, fellows, and residents as collaborators. We have already identified two members of DGIM faculty who are interested in partnering with us. Dr. Veronica Yank already serves as a Co-I, and Dr. Maria Garcia has also agreed to play a role in our work. We would ideally include additional partners from DGIM.

Do you agree to notify us when recruitment is completed? Yes.

Date form completed: 8/9/2019