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"This award will provide me with structured mentorship and training in external validation and implementation science to deploy novel EHR-based instruments that improve the timeliness of dementia recognition in the emergency department, and to ultimately facilitate earlier diagnostic referrals and severity-appropriate clinical decision support."

Dr. Festa is an assistant professor in medicine within the Section of Geriatrics at Yale School of Medicine. Her research applies routinely collected healthcare data to improve the identification and care of people living with dementia (PLWD). As a sub-investigator within the NIA-funded Geriatric Emergency Care Applied Research (GEAR) Network, she led the development of novel electronic health record-based instruments designed to address the substantial burden associated with the underrecognition of Alzheimer's disease and related dementias in emergency department settings. Through this Career Development Award, Dr. Festa seeks to acquire expertise in external validation, implementation science, and embedded pragmatic clinical trial design to evaluate whether these instruments, once validated, improve outcomes for PLWD.

External Validation of Instruments to Improve Detection of Undiagnosed Dementia

Over half of people living with dementia (PLWD) lack or are unaware of a formal diagnosis. The emergency department (ED) is a critical yet underutilized setting for identification, as it disproportionately serves individuals who are prone to underrecognition. There is a need for automated EHR-based instruments that can identify probable dementia and differentiate diagnosed from undiagnosed disease in this setting. This project will externally validate two complementary instruments, COMPASS-ED and REMIND, designed to differentiate diagnosed from undiagnosed dementia, and grade its severity within a national Veterans Health Administration (VHA) ED cohort. This Career Development Award will provide Dr. Festa with training in external validation of electronic health record (EHR) based instruments, implementation science, and embedded pragmatic clinical trial (ePCT) design necessary to become an independent physician-investigator capable of leading trials that improve disease recognition and care for PLWD within the ED. This training will support the following Specific Aims: (1) To externally validate COMPASS-ED, a severity-stratified computational phenotype for probable Alzheimer's disease and related dementias (ADRD), within a national VHA ED cohort, and (2) To externally validate REMIND, a severity-stratified predictive model for undiagnosed ADRD, within the same cohort. This work will establish the evidentiary basis for the scalable deployment of COMPASS-ED and REMIND within multicenter ePCTs across the VHA and the Geriatric Emergency Care Applied Research (GEAR) Network, positioning these instruments to trigger severity-appropriate interventions at the point of care in the ED. Their prospective deployment will, in turn, enable Dr. Festa to lead trials evaluating whether interventions triggered by these instruments improve outcomes for PLWD.