Dynamic new software improves care of aging brain, study shows

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Innovative medical records software developed by geriatricians and informaticians from the Regenstrief Institute and the Indiana University Center for Aging Research will provide more personalized health care for older adult patients, a population at significant risk for mental health decline and disorders.

A new study published in *eGEMs*, a peer-reviewed online publication recently launched by the Electronic Data Methods Forum, unveils the enhanced Electronic Medical Record Aging Brain Care Software, an automated decision-support system that enables care coordinators to track the health of the aging brain and help meet the complex biopsychosocial needs of patients and their informal caregivers.

The eMR-ABC captures and monitors the cognitive, functional, behavioral and psychological symptoms of older adults suffering from dementia or depression. It also collects information on the burden placed on patients' family caregivers.

Utilizing this information, the software application provides decision support to care coordinators, who, working with physicians, social workers and other members of the health care team, create a personalized care plan that includes evidence-based non-pharmacological protocols, self-management handouts and alerts of medications with potentially adverse cognitive effects. The software's built-in engine tracks patient visits and can be used to generate population reports for specified indicators such as cognitive decline or caregiver burnout.

"The number of older adults is growing rapidly. Delivering personalized care to this population is difficult and requires the ability to track a large number of mental and physical indicators," said Regenstrief Institute investigator Malaz Boustani, M.D., MPH, associate director of the IU Center for Aging Research and associate professor of medicine at the IU School of Medicine. He is senior author of the new study. "The software we have developed will help care coordinators measure the many needs of patients and their loved ones and monitor the effectiveness of individualized care plans."

In clinical trials over the past decade, Regenstrief and the IU Center for Aging Research investigator-clinicians developed and demonstrated the efficacy of an Alzheimer's disease collaborative care model called the Aging Brain Care Medical Home. A hallmark of the ABC-MedHome is the employment of care coordinators who help clinicians identify and manage processes and protocols for Alzheimer's patients who receive care in local primary care physician offices. The ABC-MedHome has been shown to improve the quality of Alzheimer's care and decrease its burden on the health care system.

Within the ABC-MedHome program, Dr. Boustani and colleagues have now developed, tested, implemented and improved software that is sensitive to the clinical needs of a multispecialty team of professionals who provide care to complex patients across a variety of settings. The new software allows tracking of individual patient health outcomes as well as the ability to follow the status of an entire patient population with key quality, health and cost metrics.

"Integration of the eMR-ABC program within Wishard-Eskenazi Health was pivotal to our receipt in 2012 of a [Health Care](#) Innovation Challenge award from the Centers for Medicare & Medicaid Services to expand from care of 250 patients to 2,000 patients plus caregivers," said Dr. Boustani, who is medical director of the Wishard Healthy Aging Brain

Center and also an IU Health geriatrician. "New models of care, supported by population health management tools, are needed if we are to provide improved quality of care and encourage better health outcomes for our patients and be cost sensitive. We are using health information technology to manage high-risk populations while achieving the triple aim of better health and better care at lower cost."

  More information: "Development and Implementation of an Electronic Decision Support to Manage the Health of a High-Risk Population: The enhanced Electronic Medical Record Aging Brain Care Software (eMR-ABC)" *eGEMs*, 2013.

Provided by Indiana University

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