

care clinics in this change process, we developed a continuing education intervention, based on the KAER Model, using a live video format. Four evidence-based, 45-minute training modules presented core knowledge skills, including how to have difficult conversations, which are essential to diagnosing cognitive impairment. To overcome the obstacles to doing so in primary care, our team relied on a deep understanding of busy primary care practice. With a combined 35 years of direct experience in primary care, our collaborative interdisciplinary team was able to use the KAER Model to develop a highly acceptable intervention for primary care.

#### IMPLEMENTATION OF THE GSA KAER TOOLKIT IN A LARGE CLINIC SYSTEM: WORKFLOW MODIFICATIONS AND EMR TOOLS

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We implemented the KAER toolkit in the University of Washington primary care clinics. In this session we share the workflows implemented to promote the KAER model and share the tools we developed within EPIC, the system's electronic medical record (EMR). We collaborated with clinic staff to develop interdisciplinary workflows including: training patient service representatives, social workers, nurses, and medical assistants (MAs) about 'red flags;' training medical assistants to complete the Patient Health Questionnaire (PHQ-9) and Montreal Cognitive Assessment (MoCA); and assuring they are appropriately entered into flowsheets in EPIC. We created a checklist (EPIC 'SmartPhrase') and educated the clinics' interdisciplinary teams to utilize it within their scope of practice. Additionally, we created an order set (EPIC 'SmartSet') of commonly ordered tests and referrals to expedite evaluation of patients with suspected cognitive impairment. Lastly, we created a direct link from our EMR to our website containing community resources.

#### COGNITION IN PRIMARY CARE COMMUNITY RESOURCE DIRECTORY FOR INDIVIDUALS, CAREGIVERS, AND PROVIDERS

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A KAER Model recommendation is to refer individuals diagnosed with dementia to resources that help them prepare for the future and services that provide ongoing support. The purpose of this project was to locate local quality services

and develop a resource directory for persons with cognitive impairment for use by providers, staff, individuals, families, and caregivers. We worked with a Community Advisory Board and interviewed individuals and caregivers to understand what resources are useful and important to include in the resource directory. We built a web-based resource directory that allows users to query resources based on specific needs. We integrated the resource directory within the electronic health record for providers to include after visit summaries. A resource directory was deployed for community use, with goals of sustainability and longevity after this project is completed.

#### Session 3335 (Symposium)

##### APPROACHING MULTIMORBIDITY FROM A TRANSLATIONAL GEROSCIENCE PERSPECTIVE

Chair: Anne Newman

Multimorbidity describes the accumulated burden of chronic disease. Multimorbidity erodes physiologic reserve, increasing the risk of frailty, disability and death. Most older adults have at least one chronic health condition by age 65. Once established, many age-related conditions progress and accumulate with age. Geroscience holds that there are key biologic pathways that explain the increase with age in multimorbidity, frailty and disability Translation of geroscience principles to human studies requires careful assessment of biomarkers of these pathways and multisystem outcomes. In this symposium, translational researchers in geriatric medicine and gerontology will present current work to elucidate biologic underpinnings of aging and potential intervention targets. We will address whether blood biomarkers of aging processes are prognostic using combinatorial techniques and explore the potential for proteomics to identify novel pathways for health aging. New insights into the role of inflammation will be discussed with an emphasis on its relationship to multimorbidity. Brain aging will be considered with respect to the interactions between external stressors and resilience evaluating the role of ketone bodies which have immunomodulatory effects particularly on innate immune cells. Finally, the role of multimorbidity as an intervention target and potential intermediate outcomes including biomarkers will be presented with discussion of next steps needed to realize the potential for translational geroscience clinical trials to improve health span.

##### OPERATIONALIZING HEALTHSPAN AS AN OUTCOME FOR CLINICAL TRIALS IN GEROSCIENCE

Jamie Justice, *Wake Forest School of Medicine, Wake Forest School of Medicine, North Carolina, United States*

Efforts targeting biological aging pathways are advancing interventions which could extend healthy lifespan. Design of clinical trials to test such interventions necessitates an operational definition of healthspan, such as slowed accumulation or progression of multiple chronic diseases, functional decline, and disability. In this talk we explore these composite measures of healthspan proposed as outcomes for clinical trials in aging. This will be examined in example cases including multimorbidity and deficit accumulation frailty indices in an 8-Year intensive lifestyle intervention trial, and an update on multimorbidity, functional, and biomarker