

# Inpatient safer aging through geriatrics-informed evidence-based practices quality enhancement research initiative

<b>Submission date</b> 09/10/2025	<b>Recruitment status</b> Not yet recruiting	<input checked="" type="checkbox"/> Prospectively registered <input type="checkbox"/> Protocol
<b>Registration date</b> 28/10/2025	<b>Overall study status</b> Ongoing	<input type="checkbox"/> Statistical analysis plan <input type="checkbox"/> Results
<b>Last Edited</b> 10/10/2025	<b>Condition category</b> Other	<input type="checkbox"/> Individual participant data <input checked="" type="checkbox"/> Record updated in last year

## Plain English summary of protocol

### Background and study aims

The Safer Aging through Geriatrics-Informed Evidence-Based Practices (SAGE) QUERI was established to support the VA's commitment to be the largest Age-Friendly Health System (AFHS) in the U.S. More than 4 million Veterans are aged 65+. Many experience inappropriate care and unmet care needs, leading to increased harms, worse quality of life, more health care utilization, and increased costs. SAGE 1.0 sought to reduce these negative outcomes by rigorously testing implementation strategies for 4 evidence-based practices (EBPs) focused on the AFHS's 4 "Ms" (what Matters, Mentation, Medication, and Mobility), focusing on outpatient and home-based settings. After reaching more than 8,000 Veterans in VISN 4, in Inpatient SAGE ("iSAGE"), this research now turns its attention to the hospital setting. The preliminary analysis found nearly 700,000 Veterans received "4Ms" care in 2024, but only 58,000 (8%) were from inpatient hospital settings, and 3 VA sites accounted for 90% of these episodes. This proposed renewal seeks to address this gap by bringing 3 of the tested EBPs to the hospital setting for the first time. The impact goal of iSAGE is to build on and expand SAGE QUERI 1.0's work by implementing and spreading 3 AFHS-aligned EBPs from SAGE 1.0 to VA hospital settings within VISNs 4, 5, 6, and 8, to improve older Veteran outcomes at scale. The Eliminating Medications through Patient Ownership of End Results (EMPOWER) deprescribing intervention engages older adults in their own medication management to stop potentially harmful medications. This holds substantial promise, as it was found that more than 24,000 older Veterans who are admitted to VISN 4 and VISN 8 hospitals annually are receiving high-risk medications. The Surgical Pause (SP) intervention, supported by the National Surgery Office, screened thousands of older Veterans for frailty and addressed goals in preoperative outpatient clinics, and this research proposes to extend it to the more than 26,000 frail older Veterans who are admitted to the hospital and face urgent and emergent surgeries each year. In SAGE 1.0, the Tailored Activity Program (TAP-VA) intervention reduced caregiver burden, improved quality of life for Veterans with dementia, and filled a gap in care that frontline clinicians perceived as critically important. More than 100,000 Veterans with dementia were hospitalized in 2023, and extending implementation to the hospital (TAP-H) will allow us to reach more caregivers and address uncontrolled dementia behaviors that often lead to hospitalization. For each EBP, a hybrid type 2 effectiveness-implementation randomized trial will be conducted to test standard versus

enhanced implementation strategy bundles across VA medical centers in VISNs 4, 5, 6, and 8, randomizing at the VAMC level.

Who can participate?

Veterans age 65 or older who are enrolled in a VA Medical Center or within participating VA medical centers in Veterans Integrated System Networks (VISN) 4, 5, 6, and 8 can participate. Additional project-specific requirements apply.

What does the study involve?

The trial will occur in three phases: (1) Pre-Implementation (6 months), (2) Implementation (9 months), and (3) Maintenance by clinical partners (12 months). Our primary effectiveness outcomes are: 1) EMPOWER: cessation of targeted medications after discharge; 2) Surgical Pause: reduction in observed to expected mortality among high-risk patients (with expected mortality >2.5%); and 3) TAP-H: unplanned hospital readmissions; and our primary implementation outcome is reach. Using the QUERI Implementation Roadmap and support from 4 Cores (Operations, led by MPI Burke; Implementation and Data, led by MPI Hall; Partnership, led by MPI Brown; Mentoring, led by MPI Werner) and a Rapid Response Team, our Specific Aims are to: (1) Rigorously compare Standard vs. Enhanced Implementation Bundles to: (a) reduce days spent elsewhere than home in the 90 days after discharge and (b) expand the reach of AFHS-aligned evidence-based practices; (2) Train the next generation of leaders in the principles and practices of implementation science and Age-Friendly Health Systems; and (3) Build capacity to respond to the needs and priorities of operational partners. This work represents some of the first efforts to rigorously implement AFHS-aligned EBPs in the inpatient hospital setting. It aligns directly with QUERI priorities to optimize the quality and efficiency of inpatient care, ensure aging Veterans receive interventions to prevent harm, and drive a culture of innovation.

Depending on project eligibility, participation might include consultation of goals before an elective surgery (The Surgical Pause), receiving a mailed pamphlet on reducing medication harms (EMPOWER), or engaging in a program that provides dementia education and instruction on engagement in meaningful activities for a Veteran and their caregiver.

What are the possible benefits and risks of participating?

There are no direct benefits of participating. Possible risks are dependent on specific study participation but could include withdrawal symptoms from reducing medication. Consultation with your primary care physician prior to reducing or stopping medication is recommended.

Where is the study run from?

iSAGE QUERI staff are based out of the Corporal Michael J. Crescenz VAMC and the Pittsburgh VA Medical Center. iSAGE programs are being implemented in self-electing clinics and medical centers within the VISNs 4, 5, 6, and 8.

When is the study starting and how long is it expected to run for?

May 2025 to September 2030

Who is funding the study?

The Department of Veterans Affairs (USA)

Who is the main contact?

Robert Burke, MD, MS, robert.burke5@va.gov

## Contact information

**Type(s)**

Scientific, Principal investigator

**Contact name**

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Public

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## Additional identifiers

**Clinical Trials Information System (CTIS)**

Nil known

**Protocol serial number**

eRA#1I50HX004156; QUE 25-037

## Study information

**Scientific Title**

Implementing the Age-Friendly Health System in the VHA inpatient setting: using evidence-based practices to improve outcomes in older adults

**Acronym**

iSAGE QUERI

## **Study objectives**

iSAGE's impact goal is to build on and expand SAGE QUERI 1.0's work by implementing and spreading 3 AFHS-aligned evidence-based practices (EBPs) from SAGE 1.0 to VA hospital settings in VISNs 4, 5, 6, and 8, to improve older Veteran outcomes at scale. More than 4 million Veterans are aged 65+. Many experience inappropriate care and unmet care needs, leading to increased medical harms, more frequent health care utilization, and increased costs. The VA has committed to being the largest Age-Friendly Health System (AFHS) in the U.S. through addressing 4Ms (what Matters, Medication, Mentation, and Mobility) in clinical encounters with older adults, but a national dashboard focused on 4Ms care delivery shows that only 8% of the VA 4Ms assessments occurred in hospitals. iSAGE addresses this gap by expanding on our prior work in outpatient and home-based settings in SAGE 1.0 and bringing 3 EBPs to the inpatient hospital setting. Our Specific Aims are to: (1) Rigorously compare Standard vs. Enhanced Implementation Bundles to: (a) reduce days spent elsewhere than home in the 90 days after discharge and (b) expand the reach of AFHS-aligned evidence-based practices; (2) Train the next generation of leaders in the principles and practices of implementation science and Age-Friendly Health Systems; and (3) Build capacity to respond to the needs and priorities of operational partners.

## **Ethics approval required**

Ethics approval not required

## **Ethics approval(s)**

This project has been approved as non-research, 15/05/2025, by Scotte R. Hartronft, MD, MBA, FACP, Executive Director, VA Office of Geriatrics & Extended Care, Veterans Health Administration.

## **Study design**

Cluster-randomized parallel-arm hybrid type 2 effectiveness-implementation trial

## **Primary study design**

Interventional

## **Study type(s)**

Treatment

## **Health condition(s) or problem(s) studied**

Improve inpatient, age-friendly care by implementing age-friendly EBPs within the inpatient hospital setting at VAMCs in VISNs 4, 5, 6, and 8 with Veterans 65+years old.

## **Interventions**

iSAGE will be implementing 3 age-friendly, evidence-based practices in VAMC hospital settings:

1. Eliminating Medications through Patient Ownership of End Results (EMPOWER) is a deprescribing intervention supported by GEC and pharmacy leadership. It has been a powerful tool to help older adults stop potentially harmful medications: for every 3 brochures mailed in SAGE QUERI 1.0, 1 older adult stopped their high-risk medication. In assessing the need for inpatient implementation of the program, we found that more than 24,000 of the older Veterans admitted to VISN 4 and VISN 8 hospitals annually are receiving high-risk medications, and that existing medication reconciliation processes in the hospital offer exceptional opportunities to engage Veterans in deprescribing.

2. The Surgical Pause (SP), supported by the National Surgery Office, screens older Veterans for frailty and assesses what matters to align surgical decision-making with patient goals. Of the thousands of older Veterans screened for frailty in outpatient clinics during SAGE 1.0, more than 500 had robust goals-of-care conversations to ensure their treatment was aligned with “what Matters.” We propose to extend SP to the more than 26,000 frail older Veterans who are admitted to the hospital and face urgent and emergent surgeries each year.

3. Tailored Activity Program-Hospital (TAP-H) will extend a successful intervention for Veterans with dementia (TAP-VA) to the hospital setting and pair it with an app called Plans4Care that extends help beyond the initial inpatient program session. In SAGE 1.0, TAP-VA, which is supported by GEC, reduced caregiver burden, improved quality of life for Veterans in the community, and filled a gap in care that frontline clinicians perceived as critically important. More than 100,000 Veterans with dementia are hospitalized annually in VA, and extending implementation to the hospital (TAP-H) will allow us to reach more caregivers and address uncontrolled dementia behaviors that often lead to hospitalization.

We also anticipate synergistic improvements in care. For example, EMPOWER may be particularly helpful when used in conjunction with Surgical Pause (SP) and Tailored Activity Program (TAP-H), through proactive engagement about any new high-risk medications (e.g., pain medication after a procedure) and offering an alternative to medications through behavioral and environmental interventions to treat disruptive behaviors in Veterans with dementia.

To help understand the how and why of implementation, we will pay particular attention to representativeness across our secondary implementation outcomes and EBPs. For example, for reach, adoption, and maintenance, we will compare characteristics of those who do and do not receive, implement, and sustain the EBP, respectively, at either the Veteran, staff, surgical line, and/or VAMC level, as appropriate. This will also help us identify areas for targeted focus in enhanced implementation during the crossover period.

## **Intervention Type**

Behavioural

## **Primary outcome(s)**

1. Implementation Outcome – Reach: Reach will be measured as the number and proportion of eligible Veterans enrolled in each evidence-based program (EBP) over time
2. Process Outcome – 4Ms Template Completion: Completion of the 4Ms note template will be measured for Veterans receiving each intervention at the time of care delivery
3. Effectiveness Outcomes – EBP-Specific:
  - 3.1. EMPOWER: Cessation of targeted medications will be measured after hospital discharge
  - 3.2. Surgical Pause: Reduction in observed-to-expected mortality will be measured among high-risk patients with expected mortality greater than 2.5% at the time of surgical outcome assessment
  - 3.3. TAP-H: Unplanned hospital readmissions will be measured within the post-discharge period

## **Key secondary outcome(s)**

1. Cross-EBP Secondary Effectiveness Outcome: Days elsewhere than home (DEH) will be measured for Veterans receiving each EBP during the follow-up period
2. EBP-Specific Secondary Effectiveness Outcomes:
  - 2.1. EMPOWER:
    - 2.1.1. Medication dose reduction will be measured following discharge
    - 2.1.2. Reduced falls will be measured during the post-intervention monitoring period

## 2.2. Surgical Pause:

2.2.1. Quality of goal clarification documents (“What Matters” conversations) will be assessed at the time of documentation

2.2.2. Hospital and ICU lengths of stay will be measured post-consultation

2.2.3. Perioperative complications will be measured during the surgical recovery period

## 2.3. TAP-H:

2.3.1. Caregiver burden, including “time on duty,” will be measured during the caregiving period

2.3.2. Veteran readmission rates and skilled nursing facility utilization will be measured during the post-discharge period

## Completion date

30/09/2030

# Eligibility

## Key inclusion criteria

Veterans are eligible for inclusion if they are:

1. Inpatients admitted to one of the VAMCs in VISNs 4, 5, 6, and 8\* participating in iSAGE implementation

2. Aged 65+ years

3. Meet EBP-specific inclusion criteria

3.1. EMPOWER: 1) Receiving one or more medication classes targeted by EMPOWER brochures prior to or during inpatient admission prescribed by VA or non-VA provider; and 2) not enrolled in hospice

3.2. TAP-H: 1) Diagnosis of dementia (using ICD-10 codes and dementia-specific medications); and 2) caregiver aged 18+ willing to participate (in-person or virtually), identified by CPRS facesheet

3.3. SP: 1) Admitted to an inpatient general, vascular, or orthopedic surgical service \*or\* to a non-surgical service with new surgery consult for general, vascular, or orthopedic surgery; AND 2) RAI $\geq$ 37 \*or\* one of 6 Preoperative Acute Serious Conditions (PASC) \*or\* admission to hospital from a non-home environment (e.g., SNF)

\*EBPs being implemented at participating VAMCs:

VISN 4: Altoona (EM, TAP), Butler (EM, TAP), Coatesville (EM, TAP), Erie (EM, TAP), Lebanon (EM, TAP), Philadelphia (EM, TAP, SP), Pittsburgh (EM, TAP, SP), & Wilkes-Barre (EM, TAP), PA; Wilmington, DE (EM, TAP)

VISN 5: Baltimore, MD (EM, TAP); Martinsburg, WV (EM, TAP); Washington, DC (EM, TAP)

VISN 6: Richmond, VA (SP)

VISN 8: Miami (EM, TAP, SP), Bay Pines (EM, TAP, SP), Gainesville (EM, TAP, SP), Tampa (EM, TAP, SP), West Palm Beach (EM, TAP), & Orlando, FL (EM, TAP, SP)

## Participant type(s)

Patient, Carer

## Healthy volunteers allowed

No

## Age group

Senior

## Lower age limit

65 years

**Sex**

All

**Key exclusion criteria**

1. Receipt of hospice care or being in long-term nursing home care
2. Veterans with severe mental illness will be excluded from EMPOWER
3. Veterans without a caregiver will be excluded from TAP-H

**Date of first enrolment**

01/10/2026

**Date of final enrolment**

30/09/2030

**Locations**

**Countries of recruitment**

United States of America

**Study participating centre**

**James E. Van Zandt Veterans Administration Medical Center**

2907 Pleasant Valley Boulevard

Altoona

United States of America

16602

**Study participating centre**

**Butler VA Medical Center**

325 New Castle Road

Butler

United States of America

196001

**Study participating centre**

**Coatesville VA Medical Center**

1400 Black Horse Hill Road

Coatesville

United States of America

19320

**Study participating centre**

**Erie VA Medical Center**  
135 East 38th Street  
Erie  
United States of America  
16504

**Study participating centre**  
**Lebanon VA Medical Center**  
1700 South Lincoln Avenue  
Lebanon  
United States of America  
17042

**Study participating centre**  
**Corporal Michael J. Crescenz Department of Veterans Affairs Medical Center**  
3900 Woodland Avenue  
Philadelphia  
United States of America  
19104

**Study participating centre**  
**Pittsburgh VA Medical Center-University Drive**  
University Drive C  
Pittsburgh  
United States of America  
15240

**Study participating centre**  
**H. John Heinz III Department of Veterans Affairs Medical Center**  
1010 Delafield Road  
Pittsburgh  
United States of America  
15240

**Study participating centre**  
**Wilkes-Barre VA Medical Center**  
1111 East End Boulevard  
Wilkes-Barre  
United States of America  
18711

**Study participating centre**  
**Wilmington VA Medical Center**  
1601 Kirkwood Highway  
Wilmington  
United States of America  
19805

**Study participating centre**  
**Richmond VA Medical Center**  
1201 Broad Rock Boulevard  
Richmond  
United States of America  
23249

**Study participating centre**  
**Baltimore VA Medical Center**  
10 North Greene Street  
Baltimore  
United States of America  
21201

**Study participating centre**  
**Martinsburg VA Medical Center**  
510 Butler Avenue  
Martinsburg  
United States of America  
25405

**Study participating centre**  
**Washington VA Medical Center**  
50 Irving Street, Northwest  
Washington  
United States of America  
20422

**Study participating centre**  
**C.W. Bill Young Department of Veterans Affairs Medical Center**  
10000 Bay Pines Boulevard  
Bay Pines

United States of America  
33744

**Study participating centre**

**Bruce W. Carter Department of Veterans Affairs Medical Center**  
1201 Northwest 16th Street  
Miami  
United States of America  
33125

**Study participating centre**

**Malcom Randall Department of Veterans Affairs Medical Center**  
1601 Southwest Archer Road  
Gainesville  
United States of America  
32608

**Study participating centre**

**James A. Haley Veterans' Hospital**  
13000 Bruce B. Downs Boulevard  
Tampa  
United States of America  
33612

**Study participating centre**

**Thomas H. Corey VA Medical Center**  
7305 North Military Trail  
West Palm Beach  
United States of America  
33410

**Study participating centre**

**Orlando VA Medical Center**  
13800 Veterans Way  
Orlando  
United States of America  
32827

**Sponsor information**

**Organisation**

United States Department of Veterans Affairs

**ROR**

<https://ror.org/05rsv9s98>

**Funder(s)****Funder type**

Government

**Funder Name**

U.S. Department of Veterans Affairs

**Alternative Name(s)**

Department of Veterans Affairs, United States Department of Veterans Affairs, US Department of Veterans Affairs, U.S. Dept. of Veterans Affairs, Veterans Affairs, Veterans Affairs Department, VA, USDVA

**Funding Body Type**

Government organisation

**Funding Body Subtype**

National government

**Location**

United States of America

**Results and Publications****Individual participant data (IPD) sharing plan**

The datasets generated during and/or analyzed during the current study are not expected to be made available due to confidentiality.

**IPD sharing plan summary**

Not expected to be made available