OBJECTIVE:
Assess the effect of screening on diagnosing cognitive impairment in a primary care setting.

SIGNIFICANCE/BACKGROUND
Dementia is a common, costly, and often unrecognized problem in older adults; primary care setting is critical.

Even in older adults with cognitive impairment that does not meet criteria for dementia, healthcare outcomes at 5 years are worse than for those with no cognitive impairment.[5]

Early identification and intervention holds the promise of improving overall care for affected persons[6] and reducing healthcare costs.[7]

Dementia differs from other chronic diseases: those who have it often lack awareness of its symptoms and signs, and the value of current medical therapies for cognitive deficits can be invisible providers

Individuals with dementia come for medical care because of mismanaged comorbid illness, safety concerns, or the behavioral and psychological symptoms that may be associated with brain disease.

A review of the VISN 23 medical records revealed that the majority of veterans with dementia are not readily identified and that the total annual cost to the VISN of caring for those identified is high (more than $16,000 per patient in 2005). The VISN 23 pilot dementia care model aimed to improve recognition, diagnosis, and management of dementia. The model assumed that screening in primary care settings, combined with further evaluation, would identify unrecognized cases of cognitive impairment; targeted interventions would improve care for those identified.

Rationale in literature not to screen
Population (vs primary care practice) screening not recommended: poor tests performance, universal guidance for subsequent workup unclear, Treatment benefit is limited, screening may have negative benefit, a careful management program should accompany screening, burden to physicians (Brayne, Carol . Dementia Screening in Primary Care. JAMA 2007; 298: 2049). Also see Annals of Int Med 2003: 927)
SETTING: Seven Veterans Affairs Medical Centers in VISN 23.

PARTICIPANTS:
Eligible veterans were aged 70 or older, in generally stable health (not acutely or terminally ill), able to complete the screen (e.g., adequate sight and hearing), and without a prior diagnosis of cognitive impairment.

DESIGN:
Quality improvement initiative. The model employed advance practice registered nurses (APRNs) as dementia care coordinators (DCCs). The DCCs led interdisciplinary teams that included a lead physician, clerk, social worker, clinical pharmacist, occupational therapist, and psychologist. Offered a detailed further evaluation, conducted by the DCC, to those who failed the screen: 90 minute appt with the DCC with several elements including the MOCA (see page 212).

Conference call or video conferencing to review further evaluations in a consensus conference

MEASUREMENTS:
A Mini-Cog score <4/5 represented failure. Five alternate word lists for the mini cog were paired with three alternate clock times. The 15 new versions were were randomly ordered in blocks of 16 for presentation.

Veterans completing the evaluation were reviewed in a consensus conference and assigned a diagnosis of dementia; cognitive impairment, no dementia (CIND), or no cognitive impairment.

STATISTICAL ANALYSES AND ISSUES

Total numbers of screens, associated scores (0-5), and the consensus diagnoses were tallied. New cognitive impairment diagnoses were also tracked for veterans who passed the screen but requested further evaluation, failed but declined further evaluation, or were not screened. Primary care provider satisfaction with the program also was assessed.

RESULTS:

See Fig 1 for patient selection and flow issues and figure in the appendix.

Of 8,342 veterans (2/3 rd of those eligible) offered screening, 8,063 (97%) accepted, and 2,081 (26%) failed the screen, 580 (28%) agreed to further evaluation, and 540 (93%) were diagnosed with cognitive impairment, including 432 (75%) with dementia and 108 (19%) with CIND. See Table 1.

For screen passes requesting further evaluation, 87% (103/118) had cognitive impairment, including 70% (82/118) with dementia. Screen failures declining further evaluation had 17% (259/1,501) incident cognitive impairment diagnosed through standard care, bringing the total newly documented cognitive impairment in all screens to 11% (902/8,063), versus 4% (1,242/28,349) in similar VISN clinics without this program.
Eighty-two percent of primary care providers in clinics with this program agreed that it provided a useful service.

Among veterans who failed the screen and refused further evaluation (n = 1,501), the number of new diagnoses of cognitive impairment subsequently received in standard care was 17.3% (259/1501), consistent with the findings of a non-VA primary care screening study[12] but much higher than for veterans in comparable VA primary care clinics not exposed to this demonstration project (1,242/28,349; 4.4%; see Appendix.

Note that in the mini cog, the three different word lists led to different failure rates.

CONCLUSION:

Screening combined with offering further evaluation increased new diagnoses of cognitive impairment in older veterans two to three times. Veterans accepted screening well, and providers found the program useful.

Screening should be considered in all older adults.

The interview and examination skills necessary to make a conclusive diagnosis of dementia, however, are not something that can be introduced into a routine clinic visit. Simple Quiz (MOCA) is insufficient.

The concept of “treatment” must be broadened to include the psychosocial interventions that promote safety, independence, and better quality of life.

REVIEWER’S CRITIQUE

1. Strengths: clear aims, strong rationale, appropriate design, appropriate analytical techniques.

2. Concerns: selection bias of clinic, not all veterans offered screening, high resource needs (acknowledged), no data given on significance of the diagnosis: eg. function, QOL, health care utilization.

PRACTICE IMPLICATIONS

Screening for dementia requires the resources for a subsequent systematic evaluation.

Screening can be accomplished in an unobtrusive manner

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The VA Midwest Health Care Network, also known as Veterans Integrated Service Network (VISN) 23, is one of 21 Veteran Integrated Service Networks within the Department of Veterans Affairs (VA) Veterans Health Administration.
The Network serves more than 400,000 enrolled Veterans residing in the states of Iowa, Minnesota, Nebraska, North Dakota, South Dakota and portions of Illinois, Kansas, Missouri, Wisconsin and Wyoming. Health care services are delivered through an integrated system of 8 hospitals, 56 community based outpatient or outreach clinics, 8 community living centers and 4 domiciliary residential rehabilitation treatment programs.