

Dementia Screening: The ORPRN Rural Oregon Adult Memory Study (ROAM)

4th Biennial Mental Health and Primary Care Conference

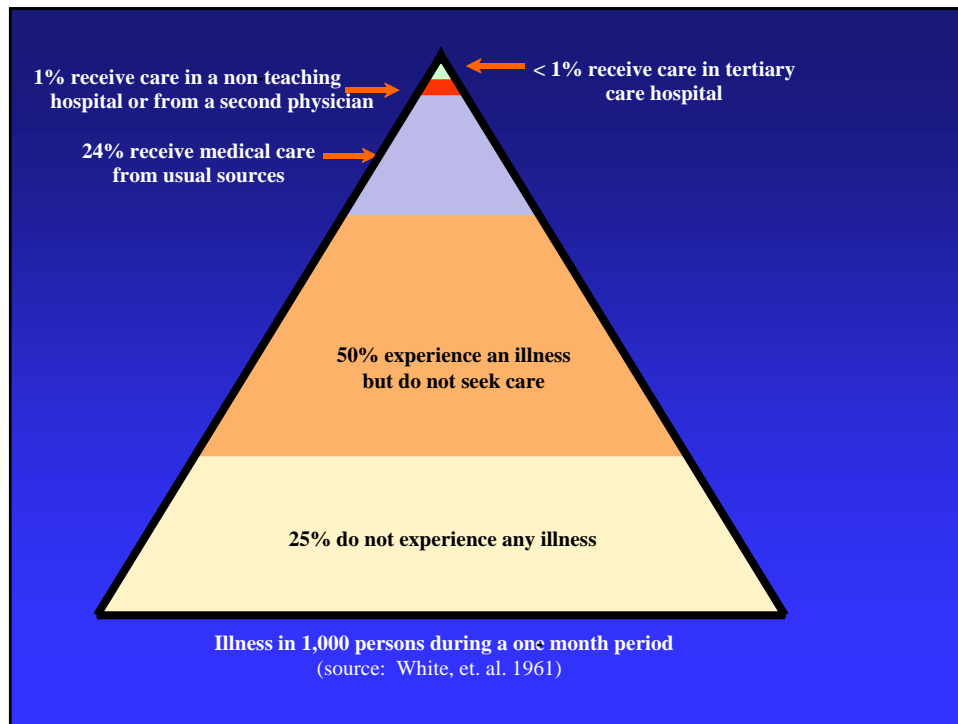
Bend, OR

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Collaboration of OHSU Layton Aging & Alzheimer's Disease Center and the Oregon Rural Practice-based Research Network





Primary care Practice-Based Research Networks (PBRNs)

- A group of ambulatory primary care practices affiliated to investigate questions related to community practice
- Uses the community and practice as a laboratory
- Access to important, neglected phenomena
- Links questions from practice to answers for practice

The Reach of Research

- It is estimated that it takes an average of 17 years to turn 14% of original research to reach practice and benefit the patients they care for.
(Balas and Boren. *Yearbook of Medical Informatics* 2000:65-70)
- A 1998 review of published studies on the quality of care found that only 3 of 5 patients with chronic conditions receive recommended care.
(Schuster M, McGlynn E, Brook R. How good is the quality of health care in the United States? *Milbank Quarterly* 1998;76:517-63)

Rural Older Adult Memory Study: A feasibility study to improve dementia diagnosis in rural primary care (ROAM)

(Funded by Agency for Healthcare Research & Quality, R03- HS16007-01)

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Rationale for Project

- 10 - 16% of persons 75 or older have dementia
- High rates of under-diagnosis of dementia in primary care
- Many clinicians consider dementia diagnosis a low priority, especially in early stage dementia
- Families often report that they wish they had known sooner that their relative had dementia
- Some causes of cognitive impairment are reversible
- Although treatments have limited effect on many patients with dementia, preparing the patient and family for care needs, addressing safety concerns, and decision-making about future care are best addressed early in course of disease

ROAM Study Participants

Clinicians

Dunes Family Health Clinic, Reedsport

Robert Law, MD, Janet Patin, MD,
Ron Vail, MD

Health Associates of Peace Harbor, Florence

Ronald Shearer, MD, Michael
Hodulik, MD

Bayshore Family Medicine, Pacific City

Craig Brown, MD, Albert
Thompson, MD

Rinehart Clinic, Wheeler

Harry Rinehart, MD, Breeanna Van
Cott, PA-C, John Prata, PA-C, Cris
Rettler, PA-C

Pacific Family Medicine, Astoria

Katherine Merrill, MD, Angela
Nairn, MD

OHSU Family Health Center, Scappoose

Erika Lemke, PA-C, Jessica Lyon,
FNP, Michael Yetter, PA-C, Johanna
Warren, MD, Kar-yee Wu, MD,
Kirsten Roberts, FNP, Bruin Rugge,
MD

ROAM Intervention

- Clinical setting: Oregon Rural Practice-based Research Network, a statewide network of 47 primary care practices in 37 communities which serve approximately 220,000 patients
- We chose 6 clinics on and near Coast for ease of travel and communication.
- All patients 75 and older seen within a 3 month period were eligible for study
- Web-based education conducted for participating clinicians and staff

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ROAM Intervention – Adapted from ACOVE (Assessing Care of Vulnerable Elders) Model

- Practice-change model developed by UCLA and Rand
- Four methods of changing medical practice
 - Efficient collection of condition-specific clinical data
 - Medical record prompts to encourage performance of essential care processes
 - Patient education and activation
 - Physician decision support and physician education

ROAM Clinical Process

- Medical Assistants screen patients aged 75 or older
- For patients who screen positive, ROAM MEMORY EVALUATION and SCREEN FORMS were placed on chart
- Physician schedules dementia workup
- Physician carries out clinical evaluation, makes diagnosis
- Follow-up as needed

Screening Tool- Administered by MA

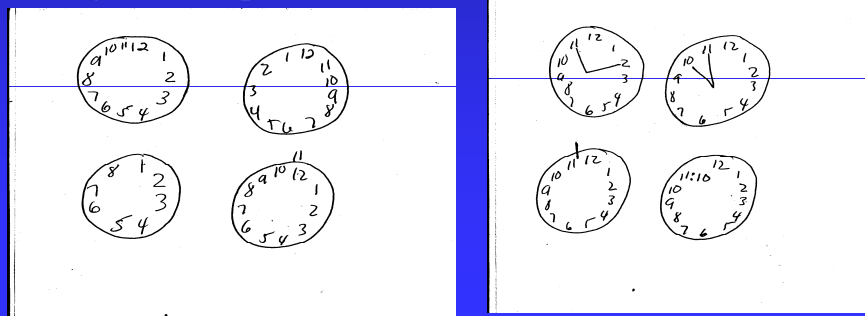
1. Patient excluded from Screening?
 Yes If yes, reason:
 Too ill Diagnosis of dementia
 Taking dementia medications
 2. Patient noted change in memory?
 Yes No Refused to answer
 3. Family member/companion noted change in memory?
 Yes No
 Family member/companion refused to answer
 No family member/companion present
 4. Number of screening words recalled:
 2 or 3 words 1 word 0 words
 Patient refused test
 5. Screener concerns related to memory or confusion?
 Yes No Unable to determine
- Please describe: _____

MMSE

- Tests orientation, memory, visual-spatial, verbal fluency
- See MMSE form for age and educational level normal values. Be sure to ask the patient how far they progressed in school
- The MMSE doesn't test all areas of cognitive function, so other cognitive testing must be done to determine what type of dementia a patient has

Clock-Draw Test

- Tests memory, visual-spatial, executive function, abstraction
- Bottom line-if not perfect, patient has some cognitive impairment



Language, Abstraction, Judgement

- Verbal Fluency: name as many animals as you can in 60 seconds
 - Age <80 years old Normal 14 animals
 - Age >80 years old Normal 10 animals
 - Watch for perseveration
- Abstraction: Similarities (Ask: How are these similar?)
 - Bicycle-train (abstract answer: transportation, concrete answer: wheels)
- Judgment: What would you do if you saw a 2 year old playing alone in the street?

Clinician Resources

- Mini-Mental State Examination (MMSE)
- Clock-Draw Test
- Verbal Fluency
- Abstraction and Judgment Test
- Get Up and Go Test
- Activities of Daily Living/Independent Activities of Daily Living
- Geriatric Depression Scale
- Caregiver Burden Assessment
- Prescribing for cognitive and psychiatric symptoms in dementia patients
- Driving Brochure

Patient and Caregiver Resources

- Alzheimer's Association: Fact Sheet
- The ABC's of Coping with Alzheimer's Disease
- Alzheimer's Association Bookmark
- Layton Center Brochure
- Safe Return Flyer
- Driving Fact Sheet

ROAM Memory Evaluation Form- Administered by Clinician

1. POTENTIAL DEMENTIA SYMPTOMS

- Missed 2 or 3 items in the 3 item recall
 Patient reports memory concerns
 Family member/companion reports memory concerns
 Clinician or staff concern

Patient Name: _____
 Date of visit: _____
 Clinician: _____

Medical Assistant Clinician Other staff

2. EXAMINATION

a. Cognition:

- Memory (MMSE): MMSE: ____/30 Normal Impaired
 Visual/Spatial (Clock Draw): Correct Incorrect
 Verbal fluency: Number: ____ Normal Impaired
 Abstraction: (How are these similar? rose-tulip; bicycle-train; hammer-corkscrew) Normal Impaired
 Judgment (Scenario): (What would you do if you saw a child playing in the street?) Normal Impaired

b. Neurologic exam:

- Gait (Get up and Go Test): Normal Impaired Finding: _____
 Motor function: Normal Impaired Finding: _____
 Reflexes: Normal Impaired Finding: _____
 Other neurologic findings: _____

c. ADL functioning: Normal Impaired

d. IADL functioning: Normal Impaired

e. Mood (Often feel sad/blue/depressed?): NO YES → GDS score: ____
 Normal Impaired

f. Tests to order if memory problems detected:

- TSH Serum B₁₂ Folate Syphilis testing (if indicated) Brain MRI/CT
 CBC Complete Metabolic Panel Other tests ordered: _____

3. DIAGNOSIS

- Normal Exam
 Mild Cognitive Impairment: Schedule follow-up? YES NO
 Probable Dementia:
Type: Alzheimer's Vascular Lewy body Mixed Other: _____
 Other Contributing Medical Conditions (e.g. depression, medications): _____
 Uncertain (Consider referral to dementia clinic, neuropsychologic testing)

4. TREATMENT PLAN (DO NOT COMPLETE IF NORMAL EXAM)

- Care Plan Discussed Family member NOT present
 Caregiver Burden Assessment
Who besides the patient is aware of the diagnosis of dementia? Name: _____
Relationship: _____
Phone Number (clinic use only) _____
Does this person live within hour's drive of patient? YES NO
 Does the patient have enough help at this time? YES NO
 Referred to the Alzheimer's Association YES NO
 Other Referrals (list) _____
 Patient/Surrogate Counseled re: _____
 Medications Discussed
 Medications Prescribed (list) _____

When this form is complete, please rip off the top copy and put it in the ROAM study box.

Focus of Analysis

Feasibility and acceptability of ROAM model for clinicians and clinic staff

Was ROAM protocol acceptable to patients?

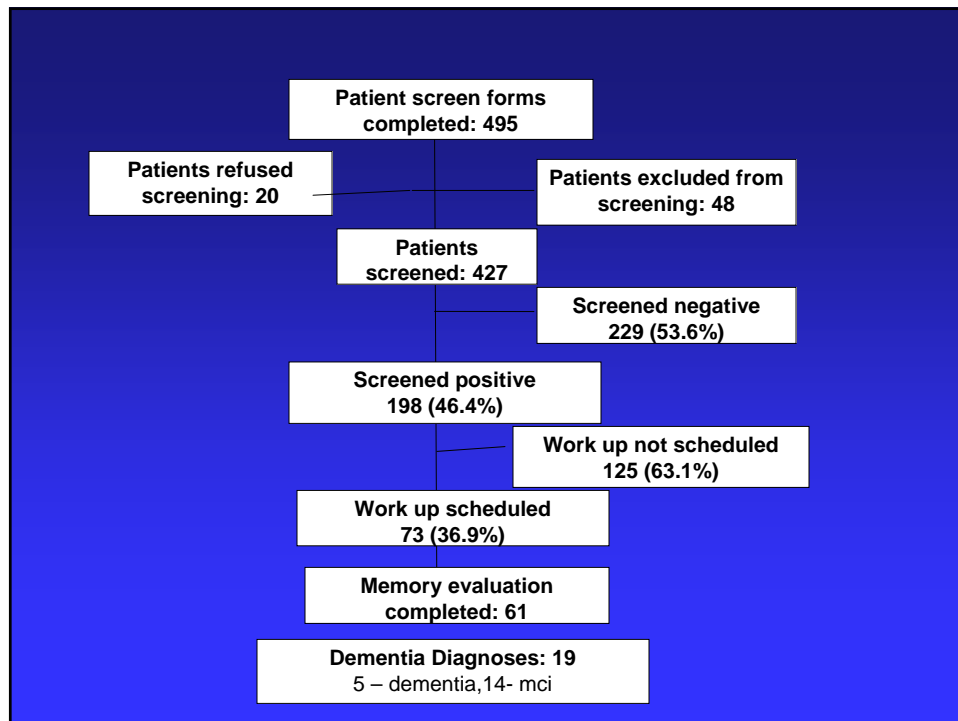
Did ROAM increase--

- Clinician confidence in diagnosing and managing dementia?
- Incident diagnoses of dementia?
- Referrals for community resources?

Develop ideas for improved care management

Evaluation Tools

- ROAM Assessment forms (screen and memory evaluation)
- Chart reviews for period prior to intervention
- PCP pre- post- confidence surveys/focus group interviews
- Patient satisfaction surveys



Results of Screening

Patients screened (N=427)

- Patients meeting 1 or more criteria for possible dementia: 198/46.4%
 - ✦ Patient reported memory concerns 166/198 84%
 - ✦ Delayed Word Recall (missed 2 or 3 wds) 36/198 18%
 - ✦ Screener reported concerns 35/198 18%
 - ✦ Family reported memory concerns 72/97 74%

Clinician Confidence in Diagnosis

Change in clinician confidence in dementia assessment/diagnosis (n=15) (8-item Dementia Care Confidence Scale*)

- Significant improvement in differentiating delirium and dementia (Wilcoxon Signed Ranks Test, $p=.034$)
- Significant improvement in differentiating depression and dementia (Wilcoxon Signed Ranks Test, $p=.003$)
- Trends towards improvement in diagnosing dementia, treating dementia, advising pts/families, and disclosing dx to patient

*Meuser, Boise, Morris. (2004) Clinician beliefs and practices in dementia care: Implications for health educators. *Educational Gerontology*, 30:491-516.

Summary of Results

- Increased clinicians' confidence in diagnosing dementia
- Significant increase in dementia diagnosis (chi-square=5.5410, 1 df, $p<.02$)
- The protocol was easy to implement by clinicians and medical assistants.
- Ninety-eight percent of patients reported being "pleased" or having "no concerns" about being screened for cognitive impairment.
- Of the screening items, screener concern was most associated with increased rate of scheduling assessment and most associated with dementia diagnosis

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Limitations

- Not all patients screened
- Many patients who had a positive screen were not assessed
- Screening tool low specificity?

Next Steps

- Better screening tool
- Evaluate dementia assessments to ensure clinicians are learning skills
- Follow patients to see if evaluation and diagnosis enhances care
- Develop longer term interventions --
 - Enhanced role of Medical Assistants
 - Link clinicians with community resources
 - Engage family members in partnership for dementia care
 - Possible interactive computer support for families

Mental Health Research and Rural Oregon Practice

- What are the relevant and priority research questions/topics?
- What changes are needed to improve mental health care delivery in rural Oregon with an emphasis on feasibility and sustainability?
- How do we make change happen?