Research Highlights

Developing Quality of Care Indicators for the Vulnerable Elderly

The ACOVE Project

Far more people are surviving to old age than at any time in our history. Medical interventions can now prevent or postpone many of the health problems traditionally associated with old age. Furthermore, the goal of medical care for the elderly has progressed beyond survival to maximizing quality of life, yet little attention has been paid to the overall quality of medical care that older people receive. In fact, existing measures of quality or health status are often inappropriate for the elderly.

RAND Health has collaborated with Pfizer, Inc. to create the first quality-of-care assessment system for older persons. The goals of the Assessing Care of Vulnerable Elders (ACOVE) project were to define the population of vulnerable elderly, identify important medical conditions that affect this group, develop a set of evidence-based indicators of quality of care for this population, and design a tool to assess quality of care at the health system level.

Previous Measures of Quality of Care in the Elderly Focused on Only a Few Conditions Appropriate to Elders

In the past, measures of quality of care in the elderly focused only on specific diseases or aspects of care or targeted only a small proportion of the spectrum of older adults. Such focused approaches may not present a fair picture of overall quality, whereas broader systems of quality-of-care evaluation may exclude quality indicators for aspects of care that are most important to the well-being of older adults.

Quality of care may be more difficult to measure for older adults than for younger people. First, older adults show substantial variation in preferences for care. For example, older adults do not consistently prefer care that prolongs life, particularly if that care occurs at the expense of comfort. Second, many ill older adults cannot advocate for themselves and may have no family members or friends to do so on their behalf. The ACOVE project endeavored to consider the heterogeneity and special needs of this population in designing a comprehensive set of quality assessment tools.

Identifying Vulnerable Elders

We defined vulnerable elders as those persons 65 years of age and older who are at high risk for death or functional decline and devised a set of criteria to identify members of that group for measurement. We excluded the use of utilization data as selection criteria because selecting individuals solely on the basis of the health care they have received might miss an important component of the population—those who are undertreated or underdiagnosed. In addition, based on a longitudinal analysis of the Medicare Current Beneficiary Survey, we determined that self-rated functional status was a more important predictor of functional decline and death than are specific clin-

This Highlight summarizes RAND research reported in the following publications:

Annals of Internal Medicine. 2001;135(Suppl.):641–758 is devoted to the ACOVE indicators. Articles cover the project overview, methods for developing the indicators, and the evidence supporting the quality indicators for 11 of the topics.

American College of Physicians–American Society of Internal Medicine web site, ***www.acponline.org/sci-policy/acove***. Papers describe evidence supporting the other 11 topics.

ical conditions. We designed a brief telephone survey that assessed age, self-rated health, limitations in physical capability, and functional limitations. Individuals who were identified as vulnerable on the survey had more than four times greater risk of death or functional decline over a two-year period than did those who were not so identified. According to these criteria, 32 percent of a nationally representative sample of elders was defined as vulnerable.

Developing and Implementing the Quality-of-Care Indicators

To develop the system, a national panel of geriatrics experts identified the medical conditions prevalent among older adults that contribute most to morbidity, mortality, and functional decline; that could be measured; and for which effective methods of treatment or prevention are available. Using these criteria, our advisory committee chose 22 topics, including diseases, syndromes, physiological impairments, and clinical situations, for which quality-of-care indicators could be developed for this population (see box, "ACOVE Topics"). According to national surveys, the prevalence of the selected conditions ranged from 10 percent to 50 percent among community-dwelling older adults.

For each condition, the RAND team developed quality-of-care indicators. Quality of care can be measured using either processes of care or outcomes of care. We chose to use process measures because processes are a more efficient measure of quality of care and are amenable to direct change. However, associations between care processes and outcomes have been supported by high-quality research in only a few instances, and those studies often exclude vulnerable elders. As we developed our quality indicators, our clinical experts assessed the available evidence for its applicability to vulnerable elders.

A set of potential quality indicators was developed for each of the 22 topics using existing guidelines and expert opinion. These indicators covered four domains of care:

- Prevention
- Diagnosis
- Treatment
- Follow-up.

Our team performed structured literature reviews to assess the evidence supporting a link between each of the proposed care processes and improved outcomes in older adults. The proposed quality indicators and the supporting literature were reviewed by independent panels of experts in geriatric care and the medical specialties, who assessed their validity and feasibility using a variation of the RAND/UCLA Appropriateness Method for developing guidelines to measure the appropriateness of medical care. Based on the panels' ratings, we developed a set of 236 quality indicators covering the 22 topics (see box, "What Does a Quality Indicator Look Like?"). The quality indicators accepted by the panels, as well as the supporting literature reviews, were further evaluated by the American College of Physicians–American Society of Internal Medicine Aging Task Force before acceptance.

The ACOVE quality indicators reflect the concerns of the geriatric patient population they are intended to serve. Many of

ACOVE Topics

Appropriate Use of Medication
Continuity and Coordination of Care
Dementia
Depression
Diabetes Mellitus
End-of-Life Care
Falls and Mobility Problems
Hearing Loss
Heart Failure
Hospital Care
Hypertension
Ischemic Heart Disease
Malnutrition
Osteoarthritis
Osteoporosis
Chronic Pain
Pneumonia
Pressure Ulcers
Preventive Care
Stroke and Atrial Fibrillation
Urinary Incontinence
Visual Impairment

What Does a Quality Indicator Look Like?

Quality Indicator 1 for Dementia:
Cognitive and Functional Screening

IF a vulnerable elder is admitted to a hospital or is new to a physician practice, THEN multidimensional assessment of cognitive ability and assessment of functional status should be documented BECAUSE screening for dementia can lead to early detection and initiation of treatment that may delay further progression.

the indicators focus on the transfer of information between the provider and the patient or the patient's proxy; others focus on detecting and treating conditions that are underdetected in the elderly. These conditions include dementia, depression, and functional impairments. Furthermore, underlying the indicators are considerations such as advance care planning and informed consent to treatment.

To implement the quality indicators in care settings, we developed instruments to abstract medical records, interview patients or proxies, and evaluate administrative data. Pilot testing of most of the indicators was completed in two managed care plans. In recognition of the unique concerns of the vulnerable elders, we considered several factors that might mitigate the decision to apply a particular indicator to the care of a particular patient. These factors included patient preferences to avoid hospitalization or surgery and conditions such as advanced dementia or a documented terminal prognosis (which might lead providers to withhold some otherwise indicated elements of care). In addition, when implementing the indicators, evaluators considered local guidelines and resources available for care.

When the Indicators Can and Cannot Be Used

As we explained above, the ACOVE indicator system is the first quality assessment system specifically designed for the care of ill older adults. However, we must note two important features about the ACOVE indicators.

First, the indicators are not practice guidelines. Practice guidelines aim to define optimal or ideal care in the context of complex decisionmaking. In contrast, quality indicators set a minimal standard for acceptable care—standards that, if not met, almost ensure that the care is of poor quality.

Second, the ACOVE indicators are designed to evaluate health care at the system (or plan) level, not at the individual level. This means that they cannot be used to evaluate individual physicians. Furthermore, the indicators have not yet been tested with sufficient numbers of patients to assure their utility for evaluating the care of an individual patient or the treatment of a single condition. Rather, the indicators currently allow us to assess the overall care delivered to vulnerable elders by their health care plans or medical groups and thus could be used to identify areas in need of improvement.

What Next?

ACOVE has now entered its second phase. ACOVE-2 aims to improve the medical care physicians provide to older adults by testing interventions designed to increase performance on selected quality indicators. These indicators correspond to geriatric care processes that were the least well carried out in the ACOVE pilot, such as care for incontinence and falls. The goal of ACOVE-2 is to develop methods for changing clinical practice that will be tailored to specific practice settings.

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