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

Key findings:

- Little attention has been paid to the quality of health care that vulnerable elders and other older adults receive.

- RAND has developed a set of indicators to measure the quality of care received for 22 conditions that affect older adults.

- These indicators can be used to assess whether health plans are delivering care that meets minimum standards for quality.

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

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This Highlight summarizes RAND Health 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.

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 clinical 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 were more than four times as likely to die or experience functional decline over a two-year period as 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

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ACOVE Topics

Appropriate Use of Medication

Chronic Pain

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

Pneumonia

Pressure Ulcers

Preventive Care

Stroke and Atrial Fibrillation

Urinary Incontinence

Visual Impairment

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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

> ### What Does a Quality Indicator Look Like?
> **Quality Indicator 1 for Dementia:**
> *Cognitive and Functional Screening*
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> 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.

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 indica-
tors 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 the indicators focus on the transfer of informa-
tion 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. Further-
more, 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, inter-
view 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 impor-
tant 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 indi-
vidual physicians. Furthermore, the indicators have not yet
been tested with sufficient numbers of patients to ensure their
utility for evaluating the care of an individual patient or the
treatment of a single condition. Rather, the indicators cur-
rently allow us to assess the overall care delivered to vulner-
able elders by their health care plans or medical groups and
thus could be used to identify areas in need of improvement.

What Next?
RAND researchers have now implemented the ACOVE
indicators to assess the quality of care received by vulnerable
elders who live at home and are enrolled in one of two man-
aged care organizations throughout the United States. The
researchers assessed the quality of care for both geriatric and
general medical conditions. Also assessed was the quality of
pharmacological care—prescribing medications—for vulner-
able elders. A follow-up research highlight, "The Quality of
Care Older Adults Receive," reviews their findings.

Currently, ACOVE is in its second phase. ACOVE-2
aims to improve the medical care physicians provide to older
adults by developing and testing interventions to increase
performance on selected quality indicators. These indicators
correspond to geriatric care processes that were the least
well carried out in the quality assessment phase. The goal of
ACOVE-2 is to develop methods for changing clinical prac-
tice that will be tailored to specific practice settings. ■