Improving Health Care for Assisted Living Residents

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Purpose: The purpose of this article is to explore how medical care is delivered to older people in assisted living (AL) settings and to suggest ways for improving it. Design and Methods: We present a review of the limited research available on health care for older AL residents and on building testable models of better ways to organize primary health care and other health services for AL residents. Results: AL residents are frequently frail older persons who need good chronic care. The predominant care models today do not respond adequately to this challenge. Medical care for AL residents is currently practiced very much like that for persons living in the community. The potential for using the aggregation of patients has not been effectively tapped. We review some managed care models from other elements of long-term care to look for ways that might be adapted. However, the current funding approach emphasizes living settings rather than inherent client characteristics. Implications: A research agenda might include ways to improve communication between AL and medical providers and to get AL staff more actively involved in daily care. Research support might produce the data necessary to entice the Centers for Medicare & Medicaid Services into changing its current reimbursement policies to create a climate better suited to delivering good chronic disease care in AL facilities.

Key Words: Chronic care, Managed care, Nurse practitioners, Proactive primary care, Special needs populations

Assisted living (AL) lies somewhere between community care and the nursing home. Not surprisingly, medical care for AL residents has some elements of both. In essence, AL offers some potential advantages in congregating residents to make them more geographically accessible, but it leaves the choice of physicians and the responsibility for care largely in the hands of each resident. The medical structures found in nursing homes are not typically available in AL. As described elsewhere in this issue, all AL facilities (ALFs) are not the same; they cover a broad spectrum in terms of their structures and clientele. The role of medical care and the potential for creative new partnerships will depend on where along the spectrum of service a given ALF is located and the nature of the clientele it serves.

Methods

This article examines the patterns of care appropriate for AL residents. We have written it in the form of an essay, drawing on the literature from a variety of sources, especially a systematic literature review done on chronic care (Kane, Priester, & Totten, 2005). The article begins with the premise that most AL residents suffer from multiple chronic diseases and hence would be ideal candidates for more organized and effective chronic disease care. It examines models of successful medical care in nursing homes to see what can be extrapolated and offers a research agenda of possible next steps. In effect, this analysis addresses the art of the possible. If ALFs prefer to serve less ill residents and transfer them elsewhere when their conditions deteriorate, the case for a closer linkage with medical services evaporates. However, for those ALFs that seek to be a part of the care system for persons with substantial disability, there are opportunities for new partnerships and new approaches to care.

The Chronic Disease Model

Although researchers have focused little attention on medical and health outcomes for elderly AL residents, the correlates examined have tended to be descriptors of the facilities and their staff rather than
of the medical and health care provision itself (Zimmerman et al., in press). Some sense of basic functional levels of AL residents is available. Zimmerman and her colleagues identified three classes of residential care/AL: those with fewer than 16 beds, traditional board-and-care facilities with 16 or more beds, and a new model that reflects the purpose-built ALFs. Table 1 shows the characteristics of residents in each of these AL types based on the Zimmerman survey in four states (Florida, Maryland, New Jersey, North Carolina) compared to a national sample of nursing home residents (Zimmerman et al., 2003). The nursing home residents show more functional and cognitive deficiencies but fewer behavioral problems; however, the small board-and-care institutions seem to have the most severe caseloads among the ALFs. Table 2, derived from a large national study of AL, also suggests that ALF residents are less disabled than those in nursing homes (Hawes, Philips, & Rose, 2000). More than three fourths receive help with medications.

People enter AL for many reasons, but a substantial number of residents are frail older persons facing difficulties associated with multiple chronic illnesses (Carpenter, Bernabei, Hirdes, Mor, & Steel, 2000; Sligh & Vicioso, 2001). Thus, organizing medical care for AL residents requires the same diligence that must be directed toward chronic care management in general (Kane et al., 2005). AL residents need the full range of medical services required by any group of frail older persons. These include both primary and specialty care.

Various authors have enunciated the principles of good chronic disease care (Institute of Medicine, 2001; Kane, 2006; Wagner, Austin, & Von Korff, 1996). The main features include the following:

- a recognition that care is best measured in episodes rather than events;
- a commitment to proactive primary care, designed to avoid clinical catastrophes by managing early manifestations of disease exacerbations aggressively;
- a willingness to invest in up-front efforts to prevent subsequent high-cost events;
- a definition of success based on comparing actual expected change;
- a need to involve patients (and their caregivers) actively and meaningfully in their care;

### Table 1. Variation in Functional Conditions Across Different Types of Assisted Living and Nursing Home Residents

<table>
<thead>
<tr>
<th>Condition</th>
<th>Assisted Living</th>
<th></th>
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</thead>
<tbody>
<tr>
<td></td>
<td>&lt;16 Beds</td>
<td>Traditional</td>
<td>New Model</td>
<td>Nursing Home&lt;sup&gt;a&lt;/sup&gt;</td>
</tr>
<tr>
<td>% Age 85+</td>
<td>46</td>
<td>57</td>
<td>52</td>
<td>49</td>
</tr>
<tr>
<td>% Heart condition</td>
<td>38</td>
<td>48</td>
<td>49</td>
<td>48</td>
</tr>
<tr>
<td>% ADL impairment&lt;sup&gt;b&lt;/sup&gt;</td>
<td>37</td>
<td>15</td>
<td>25</td>
<td>83</td>
</tr>
<tr>
<td>% Cognitive impairment&lt;sup&gt;c&lt;/sup&gt;</td>
<td>42</td>
<td>23</td>
<td>35</td>
<td>51</td>
</tr>
<tr>
<td>% Behavioral impairment&lt;sup&gt;d&lt;/sup&gt;</td>
<td>49</td>
<td>37</td>
<td>39</td>
<td>30</td>
</tr>
</tbody>
</table>

Notes: Source: Zimmerman et al., 2003, Table 4.
<sup>a</sup>From the 1996 National Nursing Home Survey (Krauss & Altman, 1998).
<sup>b</sup>Impairment in at least one of six activities of daily living (ADLs; transferring, locomotion, dressing, eating, using the toilet, and bathing).
<sup>c</sup>For the residential care/assisted living cohort, cognitive impairment was scored as moderate or severe dementia as reflected in a Mini-Mental State Examination (Folstein et al., 1975) score < 17 or a score > 3 on the Minimum Data Set–Cognition Scale (Harmsmaier et al., 1994), or a reported diagnosis of dementia. For the nursing home cohort, dementia was based on Minimum Data Set information.
<sup>d</sup>At least one form of inappropriate or dangerous behavior, based on the Cohen-Mansfield Agitation Inventory (Cohen-Mansfield, 1986).

### Table 2. Health and Functional Characteristics of a National Sample of Assisted Living Residents (N = 192,046)

<table>
<thead>
<tr>
<th>Characteristic</th>
<th>%</th>
</tr>
</thead>
<tbody>
<tr>
<td>Self-reported health</td>
<td></td>
</tr>
<tr>
<td>Excellent</td>
<td>7</td>
</tr>
<tr>
<td>Very good</td>
<td>19</td>
</tr>
<tr>
<td>Good</td>
<td>35</td>
</tr>
<tr>
<td>Fair</td>
<td>29</td>
</tr>
<tr>
<td>Poor</td>
<td>10</td>
</tr>
<tr>
<td>Health service use (past 12 months)</td>
<td></td>
</tr>
<tr>
<td>Hospital</td>
<td>32</td>
</tr>
<tr>
<td>Emergency room</td>
<td>24</td>
</tr>
<tr>
<td>Health events</td>
<td></td>
</tr>
<tr>
<td>Stroke</td>
<td>6</td>
</tr>
<tr>
<td>Heart attack</td>
<td>3</td>
</tr>
<tr>
<td>Hip fracture</td>
<td>3</td>
</tr>
<tr>
<td>Fall</td>
<td>37</td>
</tr>
<tr>
<td>Supervision of physical assistance in activities of daily living</td>
<td></td>
</tr>
<tr>
<td>None</td>
<td>79</td>
</tr>
<tr>
<td>One or two</td>
<td>13</td>
</tr>
<tr>
<td>Three to five</td>
<td>8</td>
</tr>
<tr>
<td>Cognitive impairment</td>
<td></td>
</tr>
<tr>
<td>None/mild</td>
<td>73</td>
</tr>
<tr>
<td>Moderate</td>
<td>13</td>
</tr>
<tr>
<td>Severe</td>
<td>14</td>
</tr>
<tr>
<td>Incontinent of urine</td>
<td>32</td>
</tr>
<tr>
<td>Received help with medications</td>
<td>77</td>
</tr>
</tbody>
</table>

Source: Hawes et al., 2000.
the centrality of effective information systems that alert clinicians to changes in patients’ status and focus the clinicians’ attention on salient clinical information; and

• creative use of clinical personnel.

The evidence to demonstrate the benefits of this chronic care model is still sparse. Studies have demonstrated that investing in intensive care at critical junctures can avert hospitalizations (Naylor et al., 1999). Proactive primary care has shown results (Beck et al., 1997). Activating patients has proven effective (Lorig et al., 1999). However, efforts to organize systematic approaches to address chronic disease in the United Kingdom did not show advantages over regular care, although the exposure time for many clients was short (Gravelle et al., 2006).

Challenges to Implementing the Chronic Disease Model in AL

Ideally, health care for AL residents would follow the principles of sound chronic disease management, which involves proactive investing in close observations and early interventions that prevent complications and exacerbations, which in turn can lead to costly hospital care (Kane et al., 2005). It would actively involve the patients in meaningful roles as observers and self-carers. These roles would be supported by AL staff, who could provide additional assistance to those residents who could perform the functions on their own. For some AL residents, staff might need to play a more active role, making the observations and reporting the findings. AL staff would collaborate with primary caregivers to plan treatments and establish expected clinical trajectories, deviation from which would alert the caregivers to act. Information would readily flow in both directions; instructions from caregivers would be used as the basis for AL staff care planning, and observations from AL staff would alert primary caregivers to the need for more intensive evaluations. AL staff could be recruited to provide extra care when a minor illness or exacerbation occurs, allowing the resident to remain in the ALF.

The current situation fails these criteria in many ways. Most of the medical care for AL residents is intermittent, with intervening observations and treatments left to either the resident or the AL staff. Relationships between AL staff and medical providers can thus become very crucial. The lack of concentration of medical oversight in the hands of a small group makes such interactions problematic. One might suppose that having access to many people in the same congregate setting could generate some economies of scale, which would facilitate better care. However, residence in AL does not necessarily involve using the services of a given physician. Most AL residents are free to see whomever they wish. More often than not, care for AL residents resembles that of any other older person living the community. However, the AL resident’s underlying frailty may mean many more trips to the emergency room and hospital admissions.

In some ways, AL could be a good site for delivering the new version of chronic care, but so far, AL has not lived up to its promise (Kane & West, 2005). Several factors stand in the way of providing better care to AL residents. Perhaps the greatest impediment has been the reluctance of AL to see itself as a medical venue. AL staff have hesitated to take on responsibility for monitoring residents’ medical status (Kane & West, 2005). Many ALFs are not prepared to mount a proactive effort to monitor the health status of their residents. Because they see themselves primarily as in the housing business, few ALFs have pursued developing any form of moderately sophisticated medical record keeping. Nor do most have any arrangements with physicians to develop strong working partnerships. Most physicians have small caseloads in any given ALF and hence are not motivated to establish the sorts of proactive observational systems needed. Moreover, no payer covers the costs of such an approach to care. Perhaps fearing coming under the severe regulatory scrutiny applied to nursing homes, some ALFs have instead distanced themselves as much as possible from medical care responsibilities; but others have played a more proactive role. Wanting to avoid the consequences of having their residents traumatized by a hospital stay, some ALFs are seeking ways to manage their residents in their facilities, thereby avoiding a trip to the emergency room.

Given the heterogeneity of AL and the availability of staff, the extent of overall coordination required to establish such an operation will vary greatly. Those ALFs that view themselves as largely residential will be much less likely to accept a proactive role in monitoring residents’ clinical status.

The opportunity for more consolidated care requires that patients agree to change physicians. Many AL residents may be reluctant to give up their doctors when they enter the ALF. Experience from Program of All-inclusive Care for the Elderly (PACE) suggests that the requirement to change doctors is a major impediment to recruiting clients (Kane & Huck, 2000). However, some clinicians may not want to continue to serve AL residents, even if these patients are transported to their offices. The greater their chronic disease burden, the more likely the resident may be viewed as too frail and demanding.

Medical directors in nursing homes are quick to point out that many critical tasks are either poorly reimbursed or not covered at all (Stone & Reublinger, 1995). Physicians are not paid for the time they spend working with staff or talking to families. Although managed care offers more flexibility, it will not be workable unless experts can create some method to create an appropriately
risk-adjusted capitation payment. An intermediate solution might be to pay for specific services under a fee-for-service (FFS) arrangement. These could include physician time for working with staff and family members. The FFS could cover specific case management arrangements, which could be tied to savings in hospital and emergency room care.

ALFs worry about increasing their role in care. If they become more active partners in monitoring residents’ health status, how will this affect their liability? Are they adequately staffed to assume such responsibilities? Such quandaries reflect the indeterminate role of AL in the long-term-care spectrum.

It is even possible that some AL residents might be worse off if their physicians incorrectly expect that AL staff (a) will attend to changes in the residents’ status and notify them of such changes or (b) are committed to carrying out therapeutic regimens. Physicians placing undue confidence in AL staff may actually put their patients at risk by being too complacent, under the assumption that their patients are receiving more oversight than they are.

**Current State of AL Care**

**Medication Management**

One symptom of inadequate primary care is poor use of drugs. A study of 193 ALFs found that most residents were taking five or more medications, of whom 16% were receiving inappropriately prescribed medications (Sloane, Zimmerman, Brown, Ives, & Walsh, 2002). At the same time, there was also considerable evidence of undertreatment. Residents were not receiving the most effective drugs for their conditions, and more than half were not receiving any medication treatment for conditions that warranted medical attention (Sloane et al., 2004). Medications are likewise a major concern among nursing home patients, among whom the case mix may be more severe and the numbers and potency of medications even greater. Several studies have uncovered prescribing errors (Briesacher, Limcangco, Simoni-Wastila, Dioshi, & Girwitz, 2005; Lau, Kasper, Potter, & Lyles, 2004; Liu & Christensen, 2002).

**Mental Health**

Many AL residents display symptoms of dementia and other mental health problems. The study of medical management noted earlier found that more than one third of AL residents exhibited one or more mental symptoms at least once a week, and more than half were taking some type of psychotropic medication (Gruber-Baldini, Boustani, Sloane, & Zimmerman, 2004). A study of the prevalence of dementia in AL found that more than two thirds of the residents examined had diagnosable dementia. Most cases had been recognized by families or caregivers and had been adequately evaluated (Rosenblatt et al., 2004). Although this level is likely high, because of sampling issues, it nonetheless points to the need to more actively address these conditions (Ruckdeschel & Katz, 2004). Some ALFs have specifically targeted dementia. Some have created special dementia units. The evidence on the effectiveness of these units is still scarce, but many others have developed policies to discharge demented persons once their behaviors become troublesome. Researchers have enunciated principles for improving mental health care among this population (G. D. Cohen et al., 2003). Principles include the following:

- staff attention to residents’ strengths to personalize care and maximize independence;
- alertness for symptoms of mental illness;
- recognition that mental problems can be treated effectively;
- active surveillance for mental health problems, especially depression and cognitive impairment;
- environmental adaptations that minimize limitations of autonomy, relieve emotional distress, and prevent dysfunctional behavior due to cognitive impairment;
- adequate access to mental health professionals; and
- close coordination between the mental health and primary care clinicians.

**End-of-Life Care**

It is feasible to view AL as a care location that can last a lifetime. Comparisons of end-of-life care between ALFs and nursing homes suggest that the former provides as supportive a death as the latter (Sloane et al., 2003), but neither may achieve the goals residents might hope for. Much remains to be done to create a more supportive environment, including establishing a more active role for hospice teams (Dixon, Fortner, & Travis, 2002). One promising model for such palliative care is the TLC (tender loving care) model, which tries to introduce this concept earlier on and more effectively in the dying process, essentially merging it with better primary care. In this conception, palliative care does not begin with a terminal prognosis but is incorporated into ongoing chronic care. It involves comprehensive assessment and the active involvement of patients. Such an assessment was able to identify more than 250 recommendations for care improvements in 50 elderly AL residents (Jerant, Azari, Nesbitt, & Meyers, 2004). An important part of palliative care is pain management. Although no direct information about the degree of pain control is available for AL residents, the observations of failures in the nursing home setting (Bernabé et al., 1998) suggest a likely need for more attention in AL as well (American Geriatrics Society, 1998).
Managed Care as a Model for AL Care Delivery

The underlying principle of good chronic care is to detect problems early on and intervene in order to prevent clinical and economic catastrophes. As noted previously, this approach may call for extensive monitoring at a distance with personal visits only when a change in status is noted. There is a serious question about whether FFS payment for medical care, which pays only for selected services provided (usually only in-person), is consistent with these principles. Managed care, which pays a fixed amount regardless of the intensity of the care, seems better suited to redistributing effort to conform to the chronic disease model. At least in theory, managed care is compatible with philosophy of investing in more intensive primary care with the expectation of staying off more expensive hospital care.

Managed care has two primary strategies: prevention and substitution. Prevention is really better management of extant disease. It implies that more aggressive proactive primary care with close attention to subtle changes in patients’ status can trigger early intervention that can prevent an exacerbation from becoming a catastrophe requiring an emergency room visit and possibly hospitalization. Substitution implies that when a problem arises it is treated on site rather than after transporting the patient to the hospital. Managing a medical problem on site, the equivalent of home care, requires having sufficient nursing staff to monitor and attend to the patients and a medical support system that visits regularly and responds rapidly to crises. Such a system is feasible in some nursing homes, but it would be harder to establish in less well staffed ALFs.

Several models of effective chronic care are available for adaptation to AL, but there are barriers for each. In the world of nursing home care, one model that has research has shown to reduce hospital use was developed by Evercare, which is a wholly owned subsidiary of the large, diversified health care organization UnitedHealth Group (Kane, Keckhafer, Flood, Bershadsky, & Siadaty, 2003). In essence, Evercare operates as a Medicare managed care organization, voluntarily enrolling long-stay nursing home residents in a Medicare Advantage program (the term now used to describe managed care programs under Medicare). It is preferable to concentrate Evercare services in homes with high penetration and where the care is consolidated among only a few physicians. Evercare can take advantage of a high capitation rate for nursing home residents to provide extensive primary care. It has established an efficient approach to providing medical services by employing nurse practitioners (NPs) who, in effect, augment the primary care team by providing first-hand, hands-on care on a frequent basis (Kane, Flood, Keckhafer, & Rockwood, 2001). These NPs work with nursing home staff to encourage them to make more astute and systematic observations and respond quickly to requests for help. The NPs work under the direction of existing primary care physicians, many of whom devote a substantial proportion of their practice to caring for nursing home residents. Thus, there is an opportunity for the NPs to develop a relationship with the supervising physicians, which often grants them considerable leeway in managing patients.

Because Evercare is offered under a capitated arrangement whereby the organization receives a fixed sum in exchange for providing all of the care Medicare would ordinarily cover, there is a strong incentive to minimize the use of hospitals. Under Evercare, nursing homes make substantial efforts to manage cases whenever feasible in the home, without transferring residents to the hospital. As an added inducement to discourage transferring residents who develop medical problems to the hospital, Evercare pays the nursing homes a fee, called an intensive service day, which is intended to reimburse them for the costs of additional nursing staff needed to manage the resident in the nursing home. By contrast, an ALF may perceive incentives to call emergency medical technicians at the first sign of trouble and to press them to transport the resident at risk to the emergency room. Such action absolves the ALF of any responsibility and makes few demands on the AL staff. Moreover, the ALF continues to receive payment while the resident is in the hospital.

Evercare clients use much less hospital care and the savings more than cover the added costs of the NPs (Kane, Keckhafer, et al., 2003). The bulk of this reduction in hospital use occurs because of a shift in the location of care rather than prevention of the occurrence of the problem. Residents who would otherwise be transferred to the hospital are treated in the nursing home. However, there is at least some indication that more aggressive primary care prevents some problems from occurring. One study found that the rate of so-called preventable hospital admissions was lower than that for controls. Evercare clients, and especially their families, are very happy with the care because the NPs interact actively with the families (Kane, Flood, Keckhafer, Bershadsky, & Lum, 2002).

Evercare operates as a Medicare Advantage program payment (i.e., a managed care program that receives a fixed payment from Medicare for each beneficiary who elects to join). The Medicare Modernization Act changed Medicare Advantage payment by mandating a new level of care directed at Special Needs Plans, which are specialized Medicare Advantage plans that serve identified population groups such as dually eligibles (for Medicare and Medicaid), people living in institutions or in the community with similar needs, and persons with severe or disabling chronic conditions (Bringewatt, 2006; Bringewatt & Stefanacci, 2005). Although this definition does not specifically recognize ALFs, these
facilities could work with managed care plans to target at least some of their heavier care residents.

There are effectively two payment systems: one for community-living Medicare recipients (which includes AL) and one for those in for nursing homes (as Medicare certified). Each payment system is nearly identical. Each derives a score from two parts—demographic data plus a diagnosis-related adjustment (based on the hierarchical condition categories [HCC]) methodology. Because diagnoses account for a smaller part of cost variability in the nursing home model than in the community model, the nursing home model is more heavily weighted on the demographic factors. In fact, under the current system the payment for community-living residents with multiple chronic diagnoses may exceed that for nursing home residents. Such an arrangement makes it feasible to establish partnerships between ALFs and Medicare Advantage plans.

Work is continuing on the HCC adjuster. Many observers feel that it underpays for the highest risk people. Experts have created a “frailty factor” to improve the model, but its implementation is not yet clear.

PACE is another Medicare-certified managed care program, but it targets clients who are dually eligible for both Medicare and Medicaid, who are nursing home certifiable, but who live in the community (Kane, 1999). The capitation rate for PACE is also substantially higher because the enrollees are assumed to be eligible for nursing home care (Branch, Coulam, & Zimmerman, 1995). This higher capitation rate provides a fiscal resource to use as an investment in more active primary care.

Evercare and PACE share another characteristic. They concentrate the primary care in the hands of a few physicians. PACE contracts with, or hires, physicians who work for the organization. These physicians, either by self-selection or adaptation, adopt PACE’s fundamental care philosophies. Evercare tries hard to work with nursing homes where the medical care is concentrated in a few physicians who must agree to contract with Evercare.

Other managed care programs serving frail elderly clients that did not concentrate their physician care have not been as successful in changing health care patterns. The Wisconsin Partnership Program is a PACE variant wherein medical care is allowed to continue with the client’s own physician, and team management is provided by an interdisciplinary team of NP, nurse, and social worker. The former acts as the liaison with the physician. On average, Wisconsin Partnership Program physicians have only about half a dozen clients in the program, not nearly enough to warrant changing their practice styles. The Wisconsin Partnership Program has not been as effective as PACE in controlling utilization (Kane, Homyak, & Bershadsky, 2006).

The Minnesota Senior Health Options (MSHO) contracts with managed care organizations to manage dually eligible older clients. These plans also allow clients to choose their physicians, and, again, the extent of concentration is weak. MSHO physicians also have only about six clients on average. The effect of MSHO on utilization for community-living clients has been minimal. In contrast, nursing home MSHO residents showed substantially less hospital use than controls, but many of the MSHO nursing home clients were managed by Evercare (Kane, Homyak, Bershadsky, Flood, & Zhang, 2004).

The basic Evercare model is not unique to the program marketed by UnitedHealth Group. Several different variations are available nationally. Each relies on the favorable conditions currently available to induce managed care for nursing home residents. Managed care corporations who serve nursing home residents receive a capitated rate that is substantially higher than the average Medicare rate. This higher rate is based on the observation that nursing home residents on average use substantially more care than do typical Medicare beneficiaries. This higher capitation rate provides the resources to develop the special care programs noted.

In theory, AL could use a similar approach. However, two major barriers intervene. First, medical care of AL residents is usually not consolidated within a few physicians; hence the physician may not be oriented toward such care or eager to work closely with NPs. Second, many AL staffs do not view themselves as being in the active caring business. They do not want to assume the responsibility for either actively monitoring residents or caring for them when they become ill. Many do not have the nursing staff to assume even modest care responsibilities.

Building on the Evercare Model

The challenge then is how to reproduce the strengths of the Evercare approach in a situation in which the payment system is less rich. The first step should be to consolidate the care. If physicians are to change their practice patterns, it cannot create disruption to do so. At a minimum, the change should affect enough of their practice to make it feasible. A new approach to primary care implies doing things differently. No physician can be expected to practice schizophrenically, with one set of rules for some patients and another for the rest. The physicians will need help; ideally they can recruit NPs to share some of the burden, but either they will have to use the NPs judiciously or the volume of the practice will have to be high enough to make this addition affordable.

The ALF staff need to buy into a proactive model of care, whereby they monitor residents closely and notify medical staff about changes in condition. Some ALF residents may be able to do their own...
monitoring, but others will need assistance and oversight. ALF staff need to see themselves as active members of a care team.

Some additional case management may be needed. If NPs prove too expensive for extensive duty, some of their roles can be filled by nurses with less training, who can serve as the frontline workers to monitor change in status and take first-level steps in response.

In either case, an information system capable of recording client status on a regular basis and prompting alerts to changes in status will be needed. This system will likely come from the medical team overseeing the client’s care, but ALF staff must be trained and competent to use it. The medical care team will develop and underwrite the medical information system as part of the costs of doing business in this new way, but the ALF staff should be prepared to play an active role in using the system to communicate with the medical team regularly. The intensity of staff participation can vary from facilitating AL residents’ reporting on their own health status to doing the reporting for those unable to communicate effectively.

Some work has gone into developing clinical information systems for nursing home use, but most of these systems have been based on the mandatory Minimum Data Set. Such a design is extremely limited because it relies on information that is infrequently collected. The Minimum Data Set is updated only every 3 months or when a change in condition occurs. A useful clinical system must be sensitive to subtle changes in a patient’s status and provide, in effect, an early warning system that allows a clinician to intervene in a timely manner to prevent a more serious exacerbation. One such system is the clinical glidepath, which compares observed and expected clinical courses for defined parameters that correspond to common chronic conditions. The patient or his or her caregiver records basic status observations daily, and the system alerts the clinician when the observed pattern deviates significantly from what has been predicted (Kane, Ouslander, & Abrass, 2003).

The underlying information technology need not be very complex. Devices equivalent to personal digital assistants can be programmed to record salient clinical information and to transmit that information (via modem) to a central computer, which can interpret trends and calculate deviations from preprogrammed bounds. The computer can notify relevant clinicians and the ALF staff when a boundary has been crossed. This notification would trigger a visit by a clinician (often an NP), who would assess the situation to ascertain whether (a) the data were correct, (b) the patient had not followed the prescribed regimen, or (c) a new problem had arisen.

If none of these are present, a full workup is indicated.

### Proactive Primary Care

The basic principle of good chronic disease management is proactive primary care. Good primary care does not simply treat problems promptly when they arise; it looks for signs of problems while they are small and treats them early to prevent their becoming catastrophes. People living in AL should be able to get at least the same level of care that they would receive if they were living at home with family members. Such care requires no special training.

One of the cardinal principles of chronic disease management is to track the status of disease closely and intervene at early signs of change to prevent the onset of catastrophic exacerbations. Experts have proposed various systems to monitor the status of these chronic diseases. Some involve elaborate technology and telemedicine. Some can be applied quite simply. The common theme to all of them is systematic observation and action when the observed pattern deviates by some predetermined amount.

AL staff should be able to play a central role in making systematic, regular observations about the residents. These observations might include simple physiological measures, like weight, but would primarily be recording symptoms (e.g., shortness of breath, lack of appetite, fatigue, or lethargy). These observations can be captured in simple flow sheets that contain instructions about when to notify the primary care providers about an observed change in pattern.

Such an approach requires two key elements: (a) a willing staff and (b) a supportive primary care system. At present, both elements seem to be missing in many instances. As noted earlier, AL staffs are very reluctant to assume any responsibility that might place extra burdens on them or render them vulnerable to litigation for neglect. At the same time, the lack of organized medical care for AL residents means that these persons have little chance of being cared for by care systems that are prepared to invest the time and effort to install and maintain a proactive observational approach. Indeed, under the current FFS payment arrangements, these care systems have no incentive to do so. They are not paid for such services, and the effective implementation of such a program might even decrease the number of events that are reimbursable. Modern communication technology makes it conceptually easy to keep primary care providers in close touch with AL staff and quickly apprised of any changes in their patients’ conditions.

NPs may well become the dominant primary care providers of the future. The shortage of physicians entering primary care and the growing recognition that NPs can handle many primary care tasks well (Mundinger et al., 2000) suggest an active role for NPs in primary care in general and especially in long-term care. However, it may not be any easier to attract nurses into geriatric careers than it has been...
to attract physicians (Cooper, 1995; Warshaw, Bragg, Shaull, & Lindsell, 2002). Beyond the Evercare model, NPs have made a substantial contribution to improving care in the nursing home setting (Buchanan et al., 1990; Garrard et al., 1990; Kane et al., 1991). They have at least as much potential to play an active role in caring for AL residents.

NPs seem to be the ideal candidates for becoming the case managers for AL residents. They can intervene as well as oversee. However, if the reimbursement for medical care to AL residents is substantially lower than that for nursing home residents, it is unlikely that NPs will be used for this purpose. Instead, the care is more likely to come from registered nurses.

AL shares with the rest of society the problem of a medical care system that is more attuned to responding to acute events than managing the prevalent chronic diseases (Kane et al., 2005). Most of the elements that make up good geriatric care, even those that have been shown to have promise in improving the outcomes of care, do not make good economic sense in the current FFS reimbursement climate. At the same time, managed care has not proven to be a panacea. Many managed care efforts have been reluctant to take on high-cost clients without appropriate case-mix payment adjustments. Medicare capitation rates are currently based on nursing home residency rather than actual clinical status. If AL could harness the PACE precedent of using equivalency as the rationale for extending capitation rates, managed care might be more attracted to AL. In other words, there is no business case for good medical care for AL residents.

Activities like comprehensive geriatric evaluations, which have benefit (Stuck, Siu, Wieland, Adams, & Rubenstein, 1993) but have been challenged as well (H. J. Cohen et al., 2002), are not well reimbursed on their own; they need to be subsidized by organizations that would benefit by subsequent reductions in heavy care use. Group visits, which could be readily organized in an AL environment, work well in managed care (Scott et al., 2004) but are not reimbursable per se. Monitoring patients’ clinical status by telephone is not currently a reimbursable cost.

What Can Be Done Today?

There is a growing sense that good chronic disease care is difficult to achieve under an FFS payment structure. The incentives are misplaced. Chronic care requires investment to avoid expensive catastrophes. FFS requires payment for each activity at the time it is performed. Catastrophes are income generating. Nonetheless, several projects are currently underway to test models of chronic care that might be applied in the FFS setting. These include disease management and better coordination of care.

At a larger level, Medicare or even Medicaid (although the medical care cost burden for ALF residents falls primarily on Medicare) could become de facto managed care organizations, creating payments systems that would reward practitioners for proactive care and offsite monitoring (Wolff & Boult, 2005). This might be done by direct payment (although there would be active concerns about exploitation) or it might be accomplished by some form of risk sharing. Some of the demonstration projects called for under the Deficit Reduction Act point in these directions, paying for care coordination (creating what is now termed a medical home). Another approach could use pay-for-performance incentives to make caring for AL residents with heavy medical needs more attractive and rewarding those who provide good care for them.

Research Agenda

Research projects could proceed at several levels. Work is already underway to identify models of care that are commensurate with the lower capitation rates for AL. Various versions of case management might be adapted from community models for application in AL. The Visiting Nursing Service of New York, for example, has a care management model designed for Medicaid recipients living at home that works with a wide variety of physicians and does not require them to make special home visits. Something similar could be developed for AL. NPs might be more widely used as primary caregivers. It is not clear that substituting NPs for physicians will reduce costs per se (this would depend on how the NPs were reimbursed), but NPs might be more effective in working with AL staffs.

Some support to test the role of client status tracking systems and early warning approaches is certainly warranted. Ultimately, because any benefits in lower utilization will accrue to Medicare, that agency must be involved in developing the reimbursement system, but the Centers for Medicare & Medicaid Services has shown recent interest in creating various incentive systems that have the potential to save money. Developing more empirical data demonstrating such effects might induce such an investment.

It would be worthwhile to see how much of an impact a medical director might have in creating a new model for ALF medical care. Establishing such a position might include making some efforts to consolidate (at least voluntarily) the care of residents to the point where some services might be delivered economically on site.

Research on improving medical care for AL residents could proceed at two levels. A series of demonstrations could be launched to establish the technical feasibility and benefits of various strategies to approach such care more systematically and
proactively. The major challenge is to find a model that is affordable without the augmented capitation rate provided to nursing home residents and those deemed to be nursing home certifiable. A considerable degree of scaling down will be necessary. The big question is how to retain effectiveness under these more austere conditions. The models described here (or variations of them) could be applied to the AL setting.

Presumably, such demonstrations would provide adequate funding to support the tests, but ultimate implementation would depend on creating an economic climate that would support such care and ideally make it financially desirable. At first blush, the most compatible approach would be some form of capitated care. Hence, research should also be directed toward developing methods to create a capitation rate that adequately captures the real risks associated with the factors that underlie many people in AL. Such a rate might induce managed care corporations to create a product that would consolidate medical care and employ innovative approaches.

Another level of research falls under the general heading of culture change. AL management and staff need to become convinced that their roles extend beyond hospitality. The so-called wellness nurses should be harnessed to become more actively involved in resident care. ALFs must come to view themselves as having a caring role, which includes being involved in care activities to the full level that their skills and training permit. They need to move away from practices based on risk reduction to a mode that rewards problem solving and creativity.

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Received April 10, 2006

Accepted March 27, 2007

Decision Editor: Susan L. Hughes, DSW