Section I General approach to the care of the elderly

Chapter 1

Essential principles in the care of the elderly

William Reichel, MD, AGSF, Christine Arenson, MD, and Jan Busby-Whitehead, MD

The world is aging. Already in 2012, the US Census Bureau reported that 43.1 million people in the United States – 13.7% of the population – were 65 years or older.[1] The first baby boomers turned 65 in 2011, and 79.7 million Americans will be over the age of 65 by 2040. The oldest old – those 85 and older – are the fastest growing segment of the American population, and their number will reach 14.1 million in 2040. Further, 21% of those 65 and older are members of racial or ethnic minorities. Twenty-eight percent of those over 65 reported some earned income in 2012, while 9.1% lived below the proverty level. However, as calculated by the new Supplemental Poverty Measure, which takes into account regional variations in living costs, noncash benefits received, and nondiscretionary expenditures such as out-of-pocket medical expenses, 14.8% of those over 65 lived in poverty.[1]

The aging of the population, coupled with advances in chronic disease management; diffusion of "best practices"; increased attention to maintaining physical, cognitive, and psychological function; and availability of improved treatments for the most common causes of death and disability is likely to continue to extend both average life expectancy and years of active life. However, it must be noted that fully 35.9% of those over 65 reported at least one disability in 2012.[1] Moreover, an increasing awareness of persistent inequalities in our health-care system, a decreasing number of working adults to support dependent children and retirees, and an increasing burden on family caregivers are just some of the countervailing forces that continue to limit the promise of healthy, productive aging.

We certainly want good health care waiting for us in our golden years. But what is good care? In the care of the elderly patient, eleven essential principles should be considered: (1) the role of the physician as the integrator of the biopsychosocial-spiritual model; (2) continuity of care; (3) the bolstering of the family and home; (4) good communication skills; (5) a sound doctor-patient relationship; (6) the need for appropriate evaluation and assessment; (7) disease prevention and health maintenance; (8) intelligent treatment with attention to ethical decision making; (9) interprofessional collaboration; (10) respect for the usefulness and value of the aged individual; and (11) compassionate care. These essentials are closely related to the six health system redesign imperatives identified by the Institute of Medicine in its landmark 2001 report, *Crossing the Quality Chasm*.[2] More recently, Donald Berwick articulated the Triple Aim: improving the patient experience of care, improving the health of populations, and reducing the per capita cost of health care.[3] The embodiment of these eleven principles, along with the Triple Aim, represents a standard of excellence to which we can all aspire.

The physician as integrator of the biopsychosocial-spiritual model

The past 50 years have witnessed enormous growth in technology and options to cure acute illness and manage chronic conditions. However, one result of these changes has been increasingly complex, specialized care. Good care requires having a physician who provides leadership in the integration and coordination of the health care of the elderly patient. The current generation of older adults has witnessed amazing advances in research and great accomplishments in diagnostic and curative medicine, but we have also realized that scientific reductionism is not enough.

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The reforms in medical education, care, and research over the past century have too often resulted in fragmentation of medical thought and care. It is imperative that the health-care professional responsible for the care of older adults keeps the "big picture" firmly in mind – we must never forget that the patient is so much more than the sum of his or her organ systems.[4, 5]

What society is calling for are physicians who are committed to the person, and not just to a specific disease state or mechanism. The person is part of a family and a larger community (sadly, there are some elders who have no family and are isolated from the community). The first essential for the physician who cares for the elder is to act as an integrator of the biopsychosocial, and one may add, spiritual, model. To accomplish this, the physician must know the patient thoroughly. This is not to denigrate the excellence of the specialties and subspecialties that have achieved so much during the past few decades. But the ideal model of health care will exist only when the patient is seen not from a single specialty point of view, but with the full appreciation of other organ systems, emotional or psychosocial factors, information based on continuity over a period of time, and knowledge of the patient's family and community.

In recent years, medical specialty organizations, purchasers of care, and even third-party payers have begun to recognize the need to reintegrate coordinated, person-centered, comprehensive primary care as the foundation for an effective health-care system. The patient-centered medical home model for primary care practice redesign has been embraced by family medicine, internal medicine, and geriatric medicine as a framework for "continuous, caring relationships" and to restore a robust primary care infrastructure in the United States.[6] At the same time, it is clear that effective primary care must recognize and begin to address the social determinants of health as critical to achieving overall health for individuals and populations.[7]

Fortunately, important efforts are underway to reintegrate a fragmented health system and incorporate the goals of prioritizing patients and families in care plans. The palliative care and hospice movement, public calls for independence and dignity in aging and during the dying process, and enhanced focus on shared decision making are all enhancing the autonomy and supporting the values of patients. Other developed nations such as Canada, the United Kingdom, and Australia have already made significant strides in reinvigorating primary care and generalist practice. No population will benefit more from effective, coordinated, well-resourced primary care than older adults.

The primary care provider also must ensure the coordination, supervision, and interpretation that is vital for the older patient to navigate a complex system that often provides conflicting recommendations, and in which the vested self-interest of the "system" is not always secondary to the needs of the individual patient. The primary physician, then, acts as an advocate to obtain needed services, but also as an advisor and confidant. At times, the best advice is to avoid tests or treatments that have little or no potential benefit, and which pose significant potential to harm. Perhaps most important, this physician will come to know the patient as an individual, within a family and a community, with particular values, beliefs, and priorities. Thus, the physician comes to serve as interpreter and integrator, helping patients obtain health care that is most consistent with their own preferences and needs. This will most often be the role of a family physician, general internist, geriatrician, or nurse practitioner. However, for some patients, the role may be filled by a trusted oncologist, cardiologist, or other specialist. The key factors are the health-care provider's interest in and ability to see the patient as a whole person, not simply the sum of his or her organ systems, as well as the clinician's time and expertise to serve in this critical role.

We can expect more evidence in coming years that will clarify interventions that address the relationship of biological, psychological, social, and spiritual components to health. Already we know that clinical distrust, chronic stress, and depression have been linked with increased inflammatory markers that may result in higher rates of cardiovascular disease.[8] There is now overwhelming evidence that depression coexisting with diabetes leads to poor outcomes, including increased mortality.[9] In addition, one study has demonstrated that social support may have a protective effect with respect to interleukin-6 (IL-6) elevation and thus, potentially, result in a survival benefit in ovarian cancer patients.[10] The clinician in practice today is aware of the higher mortality in the first year after widowhood (more pronounced in the surviving widower than in the widow) and the higher morbidity and mortality seen

in the elderly person on relocation.[11] Thus, we still have much to learn about the dynamic relationship among wellness and disease, psychosocial factors, and the spiritual state.

Continuity of care

The ideal situation for the older adult may be a warm and supportive relationship with the same personal physician serving as advisor, advocate, and friend as the patient moves throughout the labyrinth of medical care. And yet, the realities of today's complex medical environment – that is, patients moving between office, home, hospital, specialized care units (coronary care units, intensive care units, stroke units, or oncology centers), nursing home, and hospice care – often make this ideal impossible. So, in many instances, patients receive the better care from physicians and other health professionals who instead focus their practice in these specialized environments. Thus, the medical intensivist provides the most up-to-date, skilled care in the ICU, and the physician in regular nursing home practice is more available to patients, staff, and families than the one who has a few nursing home patients scattered among several facilities.

The failure of physicians in the United States to make visits as necessary in the home and in long-term care facilities is related to several factors, including training, physician attitudes, and reimbursement systems. Our medical schools and residencies for generalist physicians continue to struggle with incorporating excellence in house calls and nursing home care as part of their educational program. Although reimbursement for visits to the home and nursing home have generally improved in recent years, high office overhead and productivity expectations have continued to limit the ability of physicians to practice in these relatively time in–efficient sites. Physician attitudes have also been a problem; doctors in the health-care system of the past few decades have been more interested in the acute aspects of care rather than in chronic and long-term care. These attitudes have been reinforced by the educational and reimbursement systems in place. Recent years have witnessed a marked increase in research and education initiatives designed to address the gap in chronic care knowledge as well as the attitudes of our students and residents.[12, 13]

Nevertheless, continuity of care remains an essential principle in the care of the older patient.[14] Recently, a wealth of literature documenting the critical importance of adequate communication among health professionals around transitions in care lends support to the notion that safe, effective, efficient, and patient-centered care can only occur when the in-depth knowledge and understanding of the personal physician is communicated to and incorporated by the specialized teams in the ICU, general hospital setting, long-term care facility, and even hospice setting.[15–17] Although electronic health records offer the promise of more effective and efficient communication within and across care teams and settings, that vision has not yet been fully realized.

We must recognize that optimum health care can only be provided to the older adult by an ever expanding team of professionals, including primary care and specialty physicians, hospitalists, nurses, therapists, social workers, and others. This does not mean we can abandon the concept of continuity. Rather, we must pay even more attention. Physicians, nurse practitioners, and others with a long-term relationship with a patient may remain active advocates and sounding boards, even when they are not the "provider of record" at a given point in time. Equally important, indeed critical, to the safety of our patients is increased attention to continuity at transition points in the care of the older patient – from home to hospital, from hospital to rehab unit or nursing home. The physician responsible for the care of patients at each of these junctures must communicate fully and accurately with the patient, family, and receiving health-care team to ensure that the patient's treatment plan, values, expectations, and preferences are known and honored every step of the way.

Bolstering family and home

Every physician should enlist whatever means are necessary to keep an elderly person either in the individual's home or in an extended family setting. It should certainly be our goal to keep elderly persons functioning independently, preserving their lifestyles and self-respect as long as possible. The physician should use the prescription for a nursing home as specifically as a prescription for an antibiotic or an antihypertensive medication.

A number of forces have resulted in patients going to institutional settings when other alternatives might have been possible. Between 1960 and 1975, a massive push toward institutionalization took place, creating

hundreds of thousands of nursing home beds. What are the forces that contributed to excessive institutional care? Funding mechanisms have been disproportionately directed toward reimbursement for institutional care rather than for other alternatives. With the increased mobility of families, there simply may not be family members available in the community to participate in the elderly person's care. Homes are architecturally based on a small, nuclear family and do not permit housing an elderly patient. Finally, the movement of women into the workforce has meant that fewer family members are available to remain at home with the impaired or disabled elderly person. In spite of these forces, rates of institutionalization have actually declined slightly in recent years; older adults and their families have overcome amazing obstacles to keep loved ones at home whenever possible. Additionally, a rapid growth in largely privately funded assisted-living facilities has provided an option for older adults with less extensive care needs and the financial resources to pay for a lower acuity, more homelike living situation.[18]

What alternative resources can the physician recommend to these caregivers of older adults? A simple list includes homemakers, home health aides, other types of home care, day care, aftercare, specialized housing settings, visiting nurses, friendly visitors, foster home care, chore services, home renovation and repair services, congregate and home-delivered meal programs, transportation programs, and shopping services. Personal physicians should also understand and utilize legal and protective services for the elderly whenever indicated.

Publicly financed programs such as the Program for All Inclusive Care of the Elderly (PACE) and home-based Medicaid waiver programs that support nursing home–eligible elders to remain in their homes have increased in recent years, as federal and state governments have recognized that supporting seniors' desire to stay in their own homes translates into better, less expensive care.[19] States have explored options to provide services in the homes of nursing home–eligible patients through a combination of medical assistance waivers and other programs. In addition, a growing body of research demonstrates the benefits of home-based interventions that target patient and caregiver priorities and teach problem-solving skills to maintain physically frail and demented individuals in their homes.[20, 21]

In spite of the pressure to contain institutional long-term care costs, funds have not been available for adequate expansion of publicly funded programs to support frail older adults in their own home. Further, many of the evidence-based interventions that might provide cost-effective strategies for supporting older persons in the community are not reimbursed by insurance. Thus, resources remain limited and disjointed. The role of health-care providers is to facilitate referrals, coordinate services, and become knowledgeable about general resources available and appropriate referral sources (i.e., care manager, area agency on aging) with expertise to help patients and their families navigate the system effectively.

Who are the caregivers in American society? Data from the Family Caregiver Alliance National Center on Caregiving document that 43.5 million Americans are providing care to someone who is 50 plus years old; 14.9 million care for someone who has Alzheimer's disease or other dementia.[21] Family/informal caregiver services were valued at $450 billion per year in 2009 (nearly equivalent to the total Medicaid spend [$509 billion] and similar to Walmart sales [$408 billion]) and continue to be the largest source of long-term care services to the population 65 and older. More women than men are caregivers, and women continue to shoulder more of the most difficult personal care tasks, such as bathing. The majority of caregivers have provided care for three years or more and spend an average of 20.4 hours per week on caregiving tasks. That increases to 39.3 hours per week when the caregiver lives with the care recipient. The average age of the caregiver providing care to someone over age 65 is 63 years, and one-third of these caregivers rate their own health as fair to poor. Forty to 70 percent of caregivers experience symptoms of depression, and caring for a person with dementia may negatively impact the caregiver's immune function for up to three years after the experience ends. Caregivers continue to experience adverse economic impacts, with many having to reduce their work hours or even stop working. Those caring for older adults lost an estimated $13 trillion in lost wages, pensions, retirement funds, and benefits. Employers of caregivers experience an average of 6.6 lost workdays and an 18.5% reduction in worker productivity.

Today, many families feel the burden of caregiving; the adults are sandwiched between the demands of their parents and of their children and

grandchildren. It has been said that the empty nest syndrome has been replaced by a crowded nest syndrome. Many caregivers experience extreme burden and stress, and sometimes the question is, Who is the real patient – the patient or the caregiver? The physician will often see that the caregiver is in more distress than the patient, and in fact develops serious physical and emotional problems as a result of the burden and stress encountered.[22, 23]

The belief that old people are rejected by their families is a much exploited social myth. Many families are struggling to cope with the needs of parents who are frail and debilitated. The family member, friend, or neighbor is often the crucial link in guaranteeing that the dependent elder will remain in the community. In repeated studies, the characteristics of the caregiver, more than those of the elderly patient, are essential in predicting institutional placement. Even when adult children and elderly parents are separated by distance, their quality of relationship may be unaffected, maintaining cohesion despite limited face-to-face contact.

Communication skills

Specific communication skills are critical in managing well the care of elderly patients. Most important to good communication are listening and allowing patients to express themselves. The physician should use an open-ended approach, interpreting what the patient is saying and reading between the lines. The physician can utilize intuition in deciding what the patient truly means. Why did the patient really come to see the physician? The elderly patient complaining of a headache or backache may be expressing depression or grief. We should not miss important verbal clues when the patient tells us, "Doctor, I really think these headaches started when I lost my husband."

It is helpful to leave the door open for other questions or comments by the patient, both at the conclusion of the visit and in the future. It is always helpful to say, "Are there other questions or concerns that you have at this time?" A physician anticipating a specific problem can make it easier for the patient to discuss the issue. For example, "You are doing well, but I know that you are concerned about your arthritis and whether or not you will be able to climb the stairs in your home. At some point, we may want to discuss the various alternatives that are open to you."

One important aspect of the aging American is the increasing diversity of older adults.[1] In the past, white English-speaking individuals comprised the vast majority of our older population. However, healthcare providers will increasingly need to be prepared to care for a racially, ethnically, and linguistically diverse population of elders. Physicians and other professionals caring for older patients need to provide culturally sensitive care, recognizing the unique and varied cultural contexts of their patients. Further, groups including the federal government have started to recognize the critical role of appropriate health translators in order to provide appropriate care to patients who are not proficient in English. All of these issues may be magnified in the care of older patients.

Just as the physician providing care to pediatric patients must deal with the children's parents, the physician providing care to elderly patients must be able to deal with their adult children. These children play a vital role in making decisions and providing support, and the physician, therefore, must possess skills in communicating with them and also in dealing with their emotional reactions, such as guilt or grief. The physician taking care of an elderly patient with cancer must be prepared when the adult daughter tells him: "Whatever you do, please don't tell my father that he has cancer," especially when it is apparent that the parent is totally and fully aware of all aspects of his illness.

The physician should be careful when meeting with an elderly patient who discusses his absent spouse or child, or when dealing with adult children or grandchildren who are discussing the parent or grandparent who is not present. The physician should not necessarily accept the assumptions that are stated about the absent family member. Physicians must be able to listen carefully, ask questions, and collect information; our opinion of the situation might be entirely different if we had an opportunity to hear the view of the absent family member.

Peabody, in 1927, said: "The good physician knows his patients through and through, and his knowledge is bought dearly. Time, sympathy and understanding must be lavishly dispensed, but the reward is to be found in that personal bond that forms the greatest satisfaction of the practice of medicine."[24] The physician who enters the patient's universe and understands the patient's perceptions, assumptions, values, and religious beliefs is

a tremendous advantage. Frankl, in *Man's Search for Meaning*, demonstrated how physicians can help patients understand the meaning and value of their lives.[25] Of course, how elders find meaning in their lives is related to how they found meaning during other stages in their lives. It is therapeutic for the patient to feel that the physician cares enough about that individual to understand his or her life, particularly the meaning and purposes of the patient's present existence. Frankl stated in *The Doctor and the Soul* that human life can be fulfilled, not only in creating and enjoying, but also in suffering.[26] He provides examples in which suffering becomes an opportunity for growth, an achievement, a means for ennoblement. Frankl's existential psychiatry or logotherapy is a useful psychologic method that helps the elderly patient appreciate the positive attributes, meanings, and purposes of his or her life.

Yalom defines existential psychotherapy as "a dynamic approach to therapy which focuses on concerns that are rooted in the individual's existence."[27] Many individuals are tormented by a crisis of meaning.[28] They may suffer an existential vacuum, experiencing a lack of meaning in life.[25–29] The patient experiencing an existential vacuum may demonstrate symptoms that will rush to fill it, in the form of somatization, depression, alcoholism, and hypochondriasis. The physician recognizing an existential vacuum can help the patient find meaning. Engagement or involvement in life's activities is a therapeutic answer to a lack of meaning in life. The physician can help guide the patient toward engagement with life, life's activities, other people, and other satisfactions.

Frankl provides advice to all physicians in utilizing hope as a therapeutic tool.[25, 26] The physician dealing with elderly patients must focus on the significant role of hope in daily practice. As physicians, we must eventually understand the biologic basis of hope. We do not yet comprehend sufficiently the biochemical, neurophysiologic, and immunologic concomitants of different attitudes and emotions, and how they are affected by what is communicated from the physician. Physicians have an opportunity to worsen panic and fear; physicians also have an opportunity to create a state of confidence, calm, relaxation, and hope.

In this day and age of increasing technology and subspecialization, the patient's recovery may still depend on the physician's ability to reduce panic and fear, and to raise the prospect of hope. Cousins describes the "quality beyond pure medical competence that patients need and look for in their physicians. They want reassurance. They want to be looked after and not just over. They want to be listened to. They want to feel that it makes a difference to the physician, a very big difference, whether they live or die. They want to feel that they are in the physician's thoughts."[30] For example, in building the doctor–elderly patient relationship, nothing is more effective than the physician's picking up the phone and calling the patient and saying: "I was thinking about your problem. How are you doing?" This expression of interest by telephone represents a potent method for cementing the relationship between doctor and patient.

Jules Pfeiffer's cartoon character, the "modern Diogenes," carries on the following discourse upon meeting an inquisitive fellow traveler through the sands of time.

"What are you doing with the lantern?" asks the traveler.
"I'm searching," replies Diogenes.
"For an honest man?" he asks.
"I gave that up long ago!" exclaims Diogenes.
"For hope?"
"Lots of luck."
"For love?"
"Forget it!"
"For tranquility?"
"No way."
"For happiness?"
"Fat chance."
"For justice?"
"Are you kidding?"
"Then what are you looking for?" he implores of Diogenes.
"Someone to talk to."
Help comes from feeling that one has been heard and understood.[31]

Doctor–patient relationship: what the doctor and patient bring to each encounter

The physician must understand what both he or she and the patient bring to each interaction, including positive and negative feelings. The patient may view old age negatively and fearfully, believing illness

signifies misery, approaching death, loss of self-esteem, loneliness, and dependency. The physician's own fears about aging and death may color the interview as well. The doctor may simply not view helping the older, impaired patient as worthwhile. The physician may have low expectations for success of treatment, writing off the elderly patient as senile or mentally ill, or as a hypochondriac. The doctor may have significant conflicts in his or her own relationship with parent figures or may feel threatened that the patient will die.

Knowing the patient

Several steps are recommended in building a sound doctor–patient relationship, particularly applicable to the elderly patient.[24] The first step toward building that relationship is for the physician to know the patient thoroughly; the second step is for the physician to know the patient thoroughly; and the third step is for the physician to know the patient thoroughly. The interested physician performs the first step in building a sound doctor–patient relationship by gathering a complete history – including the personal and social history – and doing a complete physical. Ideally, the physician should be a good listener, warm and sensitive, providing the patient ample opportunity to express multiple problems and reflect upon his or her life history and current life situation. Thus, the physician will be able to understand the meanings and purposes of the patient's present existence. But forces in the health-care industry oftentimes prevent the physician from being a good listener or warm and sensitive. The physician may not be listening as he or she is inputting information into an electronic health record system. The physician sadly may not be present for his or her patient.[32]

As stated earlier, family and friends represent the principal support system for the elderly and usually call for nursing home placement only as a last resort, after all alternatives have failed. However, the physician must be able to recognize the dysfunctional family. There are elderly people who have been rejected by their children. There are elderly people who have rejected a child for a variety of reasons. There are families with members estranged from each other for many years. The patient may have had a stable and supportive marriage, but increasingly older adults have had multiple marriages, or may be divorced, or partnered in a same-sex relationship. It is critical for the practitioner to have an accurate understanding of family dynamics and history in order to appropriately rally family support, and also to recognize when family dysfunction is harming the patient.

Creating a partnership with the patient

In all dealings with the patient, the physician should be frank and honest and share information truthfully. The patient should feel a sense of partnership with the physician. In this partnership, the doctor first reviews his or her perception of the patient's problems. Then, for each problem, alternative choices are considered, and decision making is shared with the patient. Although there are situations in which frankness is counterproductive, with most patients, frankness is helpful. There are also situations in which the elderly patient does not want to share in the decision making, but simply wants to surrender his or her autonomy to a relative such as spouse or adult child, or to the physician. Again, in most cases, the physician should attempt to enter a partnership with the patient and share as much of the decision making as possible.

As a society, we are beginning to realize that dying in America is often not optimal, and there is a crying-out for end-of-life care to be improved. The negative aspects of how the dying process is handled by the medical profession and by families and their community has created a demand for assisted suicide. But there are many alternatives to assisted suicide that can improve the care of the dying patient. The greatest danger of assisted suicide or euthanasia in the era of cost-cutting is that society or patients themselves will decide that a patient's life is not worth living. To paraphrase a line from Woody Allen's *Love and Death* (1975), think of death as cutting down on your expenses. At a time when cost-containment is paramount, we must fear for frail, debilitated elderly persons, those who have been marginalized as a result of Alzheimer's disease and other major disorders.

Some might consider physician-assisted suicide as the ultimate act of patient autonomy – the opportunity to define the conditions and time of one's own death. However, it is critical that discussions with the patient or family members be presented in a hopeful manner. As noted earlier, it is important for the physician to offer a positive approach whenever possible. His or her infusion of optimism and cheerfulness is

therapeutic. The physician should help patients appreciate such positive attributes or purposes in their lives as the role of religion and their religious community, relationships with children and grandchildren, the enjoyment of friends, or the enjoyment of the relationship with doctors, nurses, and other health professionals in the immediate therapeutic environment.

The physician should be cautious that discussions with family members be held with the patient's consent. If the patient is sufficiently mentally impaired, then it might be appropriate to deal with the closest relative or identified surrogate decision maker. Complex ethical and legal questions arise in the matter of confidentiality and decision making in regard to the elderly patient with partial mental impairment.

Need for thorough evaluation and assessment

The physician must avoid prejudging the patient. We must not allow preconceived notions of common patterns of illness to preclude the most careful individualized assessment of each patient. Conscientious history and physical examination are essential. Treatment choices should be considered only following a thorough evaluation. Judicious consideration of all factors may result in a decision to treat or not to treat certain problems in certain patients. Attention to lesser problems may be postponed according to the priorities of the moment, rather than complicate an already complex therapeutic program.

Physicians must avoid wastebasket diagnoses. The past concept of "chronic brain syndrome" or "senile dementia" is one such example. Not all mental disturbance in the elderly represents dementia; not all dementias in older people are Alzheimer's disease. Neuropsychiatric disturbance in the elderly might be placed into a wastebasket and casually accepted as both inevitable and untreatable when, in reality, a very treatable cause may be present. The physician must consider and seek out treatable disease.

For example, neuropsychiatric disturbance, including a dementia syndrome, may be caused by severe depression that is a very treatable disorder. Neuropsychiatric disturbance may also include delirium secondary to many types of medical illness or drug toxicity. Such delirious states can be helped if the primary disorder is recognized and treated; failure to do so may in fact lead to the hastened death of the patient.

It is often difficult to disentangle the physical from the emotional. Emotional disorder may present in the elderly as a physical problem, such as musculoskeletal tension being the principal manifestation of depression. Conversely, physical disease in the elderly might present as a mental disorder with confusion, disorientation, or delirium often being the first sign of many common medical ailments including myocardial infarction, pulmonary embolism, occult cancer, pneumonia, urinary tract infection, and dehydration. For this reason, it cannot be emphasized too many times that proper diagnosis is essential in order to make specific treatment plans, such as the treatment of urinary tract infection in the case of an acute delirious state, or the treatment of thyroid deficiency in the treatment of depression. Each of these is very specific. Treatment in each case would be irrational if a specific diagnosis were not known.

It is often not sufficient to know the organic or anatomic or psychiatric diagnosis; rather, we should seek a total understanding of the elderly patient. Many times, it is more important to assess the elderly patient's functional status, which might have greater significance than the diagnostic or anatomic label. For example, in the case of a cerebrovascular accident, knowledge of the precise anatomic lesion via MRI angiography may not help the patient as much as understanding the patient's functional state. It may be more important to know whether the patient can walk or climb stairs; can handle his or her own bathing, eating, and dressing; can get out of bed and sit in a chair, handle a wheelchair, or be in need of a cane or walker. All of these functional concerns must be considered in evaluating an elderly patient.

Affecting our diagnostic thinking in evaluating an elderly patient would be the consideration of what is physiologic versus what is pathologic. Aging itself can be defined as the progressive deterioration or loss of functional capacity that takes place in an organism after a period of reproductive maturity. The Baltimore Longitudinal Study of Aging since 1958 has studied this decline in each of several specific functional capacities, such as glucose tolerance and creatinine clearance.[33] There is a progressive deterioration of glucose tolerance with each decade of life. Indeed, hyperglycemia is so common in the elderly that to avoid labeling a disquietly high proportion of people as diabetics, Elahi, Clark, and Andres have formulated

a percentile system that ranks a subject with age-matched cohorts.[34] (Some individuals, however, show no evidence of deterioration of glucose tolerance or insulin tolerance to glucose with aging.) Although currently the accepted definitions allow the same diagnostic criteria to be applied at any age, it is recognized that treatment decisions must be individualized, especially for the frail or very old person.[35]

In fact, two major conclusions from the Baltimore Longitudinal Study of Aging emerge. Even when specific functional capacities change with age, health problems need not be a consequence of aging. Many of the most common disorders of old age result from pathological processes and not from normal aging. The second important finding is that no single chronological timetable of normal aging exists. Even within one individual, the physiological capacities of organs show aging at different rates. Between individuals, more difference is noted in older people than in younger people.[33]

Polypharmacy is a major problem in the care of the elderly patient. Many medications considered benign in younger individuals may cause significant delirium in elders. Altered renal and hepatic functions may affect drug elimination. In general, older individuals demonstrate greater variability and idiosyncrasy in drug response in comparison to younger persons. Prudence, therefore, is extremely important in prescribing drugs for the elderly individual. The physician must determine if the patient's overall function will be enhanced or harmed with pharmacologic treatment. Is this medication absolutely necessary? Might the new symptom in fact be an adverse drug reaction caused by a current medication? The skill of the physician is required in weighing benefit versus risk. The benefit–risk balance is more crucial and often more narrowly defined in the elderly patient than in younger people. The physician must attempt to keep the total number of medications to as small a number as possible. Tools such as the Beers Criteria for Potentially Inappropriate Medications in the Elderly are available to assist the clinician.[36]

Also affecting our diagnostic ability in the elderly is that signs and symptoms of disease in the aged may be slight or hidden. Pain, white blood cell response, and fever and chills are examples of defense mechanisms that may be diminished in older persons. The aged person may have pneumonia or pyelnephritis without chills or a rise in temperature.[37] Myocardial infarction, ruptured abdominal aorta, perforated appendix, or mesenteric infarction may be present without pain in the elderly patient.[38]

Multiple clinical, psychological, and social problems are characteristic of older people. Clinically and pathologically, an elderly patient may have 10 or 15 problems. Geriatric patients should benefit from the use of a problem-oriented approach to medical records. Medical records should include not only the medical problem, but they should demonstrate an understanding of functional, psychological, social, and family problems as well. The key feature of the problem-oriented record is the problem list, which serves as a table of contents to the patient's total medical history. Current electronic health records provide structured formats for the problem list, but it falls to the clinical care team to develop a comprehensive list of current and past conditions and concerns. Without a detailed problem list, we can easily lose track over time of the elderly patient's multiple problems – for example, that the patient in 1975 was hospitalized for a psychiatric problem or that, in 1995, the patient suffered a compression fracture of the T10 vertebra secondary to slipping on ice. These problems may be lost to memory without some form of problem-oriented system. In addition, care is enhanced by maintaining a medication list that is kept current at each patient visit.

Prevention and health maintenance

A tremendous revolution is taking place in the United States with emphasis on prevention, health maintenance, and wellness. Unfortunately, evidence for the care of frail or extremely old people is lacking. For example, less is known about primary and secondary prevention for heart disease and stroke for elderly patients than for younger adults. Clinicians caring for these patients need to be prepared to discuss the relative risks and benefits of screening tests and preventive medicine in the context of the patient's overall health status and preferences.

More and more physicians and nurses are emphasizing health maintenance and wellness in their practice and in their community educational programs. However, the drive for wellness is coming not only from the health professionals, but also from the public

itself. The personal physician has an opportunity to encourage preventive medicine and health maintenance at every age level and at each level of functional ability or disability.

A remarkable amount of new information is being discovered about the role of exercise and strength training in the prevention or reversibility of frailty and physiologic decline.[39] The health of many elders might be improved by regular prescriptions of exercise and physical activity. The next decade will see more advances in nutrition, exercise, and therapeutic measures to retard the aging process.

How do physicians and health professionals determine the standard for health screening and health promotion? *The Guide to Clinical Preventive Services* represents one standard for health screening guidelines.[40] However, evidence for screening and prevention in older adults is still often lacking, or controversial. For instance, the 2014 guide recommends against screening for prostate cancer, in spite of clear recommendations from the American Cancer Society that shared decision making between providers and patients should inform prostate cancer screening decisions.[41] It is clear that each practicing physician must follow the medical literature and evaluate the algorithms and guidelines that unfold in the decade ahead. For each question, new evidence is being generated and existing evidence is being reevaluated in light of changing professional and public understanding and new treatment options.

At any time, with the state of evidence-based knowledge that we do have in preventive medicine and health screening, there remains the differential between the physician's intellectual acceptance and awareness of these guidelines and the actual use of these guidelines on a regular, consistent basis. Increasingly, geriatric practice will rely on technology, such as electronic health records, to ensure consistent application of prevention and wellness guidelines. Adoption of quality improvement strategies to ensure consistent practice will continue to be driven both by the demands of our patients and, increasingly, the use of pay-for-performance strategies by insurers, including Medicare.

Intelligent treatment with attention to ethical decision making: choosing wisely

The common aphorism "First, do no harm" paraphrases the Hippocratic oath and provides a guidepost to the practice of medicine. It is particularly important in the care of older adults, where interventions may easily cause more harm than benefit without careful consideration of the whole patient. A similar concept was articulated more than 50 years ago by Seegal as the "principle of minimal interference" in the management of the elderly patient.[42] "First, do no harm" and the "principle of minimal interference" should be remembered when one reviews the abundant examples of iatrogenic problems that elderly patients experience.[43, 44]

The principle of minimal interference can be applied to many diagnostic and treatment decisions, including the use of diagnostic tests (the principle of diagnostic parsimony), surgical intervention, and decision making in regard to hospitalization or placement in a long-term care facility. The principle of minimal interference may result in decisions that are both humanistic and cost-effective: for example, a decision that a patient should remain in his or her own home, despite limited access to medical therapy, rather than reside in a long-term care facility; or a decision not to do a gastrointestinal workup in the evaluation of anemia when the patient is terminal as a result of a malignant brain tumor.

In the care of older people, there are times for minimal interference, and there are times for maximal intervention. Certainly the patient with dementia caused by myxedema deserves every effort to replace thyroid hormone carefully. The elderly patient with severe congestive heart failure secondary to rheumatic or congenital heart disease deserves full consideration for definitive treatment, including surgery, for his or her cardiac problems. The elderly patient with depression deserves specific treatment for this very treatable disorder.

Increasing national attention has been focused on these challenging decisions at the interface of clinical and ethical decision making. The Triple Aim (improving the experience of care, improving the health of populations, and reducing the per capita cost of care) has become widely accepted as a definition of successful health system redesign.[45] The Choosing Wisely initiative of the American Board of Internal Medicine Foundation has leveraged the concept of the Triple Aim and encouraged specialty societies to define key opportunities "to promote conversations between providers and patients by helping patients choose care that is supported by evidence, not duplicative of other tests or procedures