Geriatric Palliative Care

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KEYWORDS

• Geriatrics • Geriatric palliative care • Dementia • Parkinson disease • Frailty • FAST scale • Polypharmacy • Slow medicine

KEY POINTS

- There are limited data that aggressive medical interventions are effective in the geriatric population, especially in those with high frailty scores.
- Palliative care in the elderly is primary care based and seeks to preserve function, reduce discomfort, and enable independence as people age.
- Many conditions, such as dementia, Parkinson, arthritis, pneumonia, and congestive heart failure, have better outcomes when treated with a palliative approach.
- Specific goals of a palliative approach are to reduce polypharmacy, reduce fall risk, prevent hospitalization, and treat patients without focusing on numbers.

In discussing palliative care in the geriatric population, the author addresses 2 issues. First, it must be ascertained which medical conditions benefit from a palliative approach rather than more aggressive treatment, which is often called "life prolonging." Second, the focus must be on what patients and their families want. Even if a certain intervention may increase the chance of survival, the price of that intervention to quality of life may sway patients and families away from being aggressive.

Very few medical interventions in the elderly have a significant benefit, and many have substantial side effects. In many cases, there is not a distinct line between palliative care and life-extending care in the elderly regarding clinically significant outcomes. It is important to provide patients with accurate information about the risks and benefits of what their options are, and to support a more palliative approach if that is what they choose.

THE ELDERLY: DEMOGRAPHICS AND EXPECTATIONS

Who are the elderly? If Medicare criteria are used, people over the age of 65 qualify, and the number of those people is increasing, expected to constitute 20% of the population by 2050.[1] For the purposes of this article, though, the age of 75 will be used as a cutoff. There are many reasons for this distinction, primarily because there are

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sparse data about health outcomes after this age. It is known that prognosis and the impact of intervention change at this age, as is clear in cancer screening. Similarly, the treatment of many chronic illnesses, such as diabetes and coronary artery disease, does not have good data to support aggressive treatment after age 75.

Because the vast amount of elderly die of and are disabled by chronic disease, that is where the focus should be when determining how to best care for them. Aggressive treatment of chronic illness leads a large number of elders to consume many medicines, see multiple specialists, and spend a significant amount of their last years in the hospital. There is evidence that aggressive treatment instigates deterioration in quality of life without necessarily prolonging life or ameliorating illness. The fact that almost half of the elderly spend time in the hospital during the last month of life is a testament to the fact that the expensive and aggressive care being touting is not effective.[2] More significantly, much of that care comes at a hefty price to the patient and health care dollars.

What do the elderly want? When asked, most suggest that the quality of their life is most important. Most want to die at home, not in the hospital.[3] Most do not want to be on so many medicines. Very often the pressures from family, from the medical system, or even from a lack of understanding of their options drive the elderly to pursue a more aggressive approach to care. Many elders also do not understand what palliative care is.[4] A large number associate it with end-of-life care and hospice. There is a natural assumption that those who take a palliative path are going to die more quickly than those who do not. If they understand the nature and effectiveness of palliation, many may pursue that route.

THE LIMITS OF AGGRESSIVE MEDICAL INTERVENTIONS IN THE ELDERLY

In their excellent book, *Medical Reversals*, Cifu and Prasad[5] make an important point that often is neglected by the medical community. Unless there is quality evidence that certain tests, procedures, or drugs help a specific population, then it should not be assumed that they do. In fact, it is often best to assume the opposite. Many standard treatments in younger people have not been demonstrated to be effective in the elderly, and few studies are done on patients older than 75 years old.[6] Also, elderly patients are a heterogenous group. Each is an individual with many chronic illnesses, symptoms, risks, and personal expectations. Even if a generic elderly population is studied, those results often do not help doctors care for the patient sitting in front of them.

A few examples are in order:

- Statin cholesterol medicines have been shown to prevent subsequent myocardial infarctions and cerebrovascular accidents in people with vascular disease or a high risk of having vascular disease.[7] However, does this also apply to the elderly? The answer is that despite some subgroup analysis, it is not known. It is known that statins can cause leg weakness, pain, and possibly falls, side effects particularly of concern to frail elders.[8]
- Although it was front-page news that ideal systolic blood pressure in the elderly should be pushed to less than 130, the data for such assumptions are moot. A single study found lower blood pressure to be efficacious in a younger group of elders who have very specific criteria,[9] whereas other studies in different populations found lower pressures to cause more death.[10] It is known that aggressive blood pressure control can cause dangerous hypotension, renal disease, falls, weakness, and worsening memory, among other issues related to the medicines themselves.[11]

- Although it is standard of care to give anticoagulation to avert strokes, the reality of that intervention is hazier. In fact, most studies do not even consider the impact of anticoagulation in people over the age of 80. Of the studies available, anticoagulation confers a benefit of preventing approximately 6 disabling strokes a year among 1000 people who use it, whereas 6 out of 1000 who use anticoagulation die or bleed in their brain and another 40 out of 1000 are hospitalized for major bleeds[12] (**Fig. 1**). In people prone to falling or bleeding, or in people who simply do not want to take a medicine with so little benefit, anticoagulation may not be appropriate, even if the patient wants to be aggressive in his or her care.

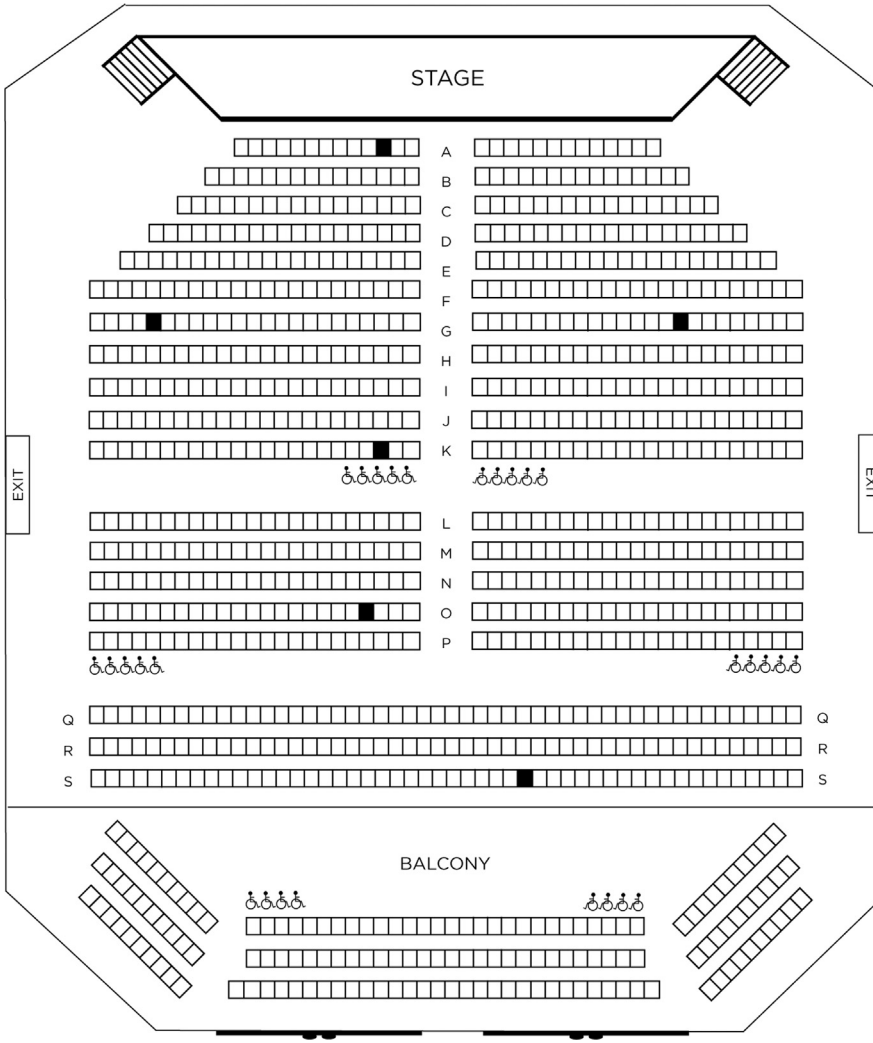

Fig. 1. Decision aids in medical discussions: The case of atrial fibrillation. Out of 1000 moderate-risk people in atrial fibrillation treated with anticoagulation compared with 1000 treated with aspirin, 6 will avoid a disabling stroke in a year, and 6 will either die or bleed in their brains.

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A final caveat must be added regarding frailty. As people become burdened by their chronic medical conditions, many decline physically and mentally. Frailty is a physiologic condition characterized by debilitating symptoms in the absence of any specific cause of those changes (**Box 1**). It is estimated that more than 35% of people at least 85 years old suffer from frailty.[13] It is also known that the frailer an elder is, the worse will be his or her outcome, and the less likely aggressive medical interventions will be of value. Because chronic disease and aging take a toll on human bodies as the number of years a person has left to live diminishes, then aggressive care will have diminishing returns in terms of life-saving potential, while having an increasing propensity to cause harm. That is why a palliative approach is often the most medially prudent path to take, not one that compromises longevity for quality, but rather one that improves both.

WHAT IS GERIATRIC PALLIATIVE CARE?

According to the *Geriatric Palliative Care* textbook, palliative care for the elderly "focuses on providing patients with relief from the symptoms, pain, and stress of a serious illness, whatever the diagnosis may be. The goal is to improve quality of life for both the patient and family."[14] In other words, we want our patients to feel better and be more functional rather than attempting to "fix" their diseases. Too often in the medical culture, we are all about measuring and fixing numbers rather than providing compassionate care. Dennis McCullough's book,[15] *My Mother, Your Mother*, uses a different term to describe palliation: "slow medicine." He argues that aggressive medical care in the elderly is often counterproductive, especially in those with many chronic illnesses and frailty. Rather, one should treat the elderly slowly and cautiously, focusing more on symptom management and a gentle approach to care.

As Olser said: "Listen to the patient; he is telling you the diagnosis." We do not know what the ideal numbers should be in each elderly patient we treat, nor do we know what medicines, tests, and procedures may help the patient in front of us. Very often fixing 1 problem (lowering the blood pressure, treating cholesterol) can exacerbate another (worsening renal disease, increased leg pain/weakness). Therefore, we must rely on what the patient tells us and what we can observe. In effect, this is palliative care.

HOSPITALIZATION IN GERIATRIC PALLIATIVE CARE

Hospitalization is an area in which a palliative approach may make the most sense. Although certainly in the case of a broken hip or infected appendix, aggressive care

Box 1 **Symptoms of frailty**
Muscle weakness
Fatigue
Weight loss
Slow performance
Low activity
Cognitive decline

in the hospital may be lifesaving, many cases of hospitalization do not serve so clear a purpose and in fact may cause more harm than good. As mentioned, almost 40% of elders die in the hospital,[16] receiving expensive and ineffective care for diseases that may be served by a gentler approach. To put an elderly patient in the hospital because of common occurrences like syncope exposes that person to medication errors, infection, and overly aggressive care by a squadron of doctors who typically do not know the patient, without any proven benefit.[17,18] If a patient has dementia, the hospital itself accelerates memory loss and functional decline and increases the risk of delirium.[19–21] If a patient is frail, hospitalization similarly can be dangerous; fast medicine, as Dennis McCullough labels it, can throw a well-compensated frail elder into a state of rapid decline. There are very few chronic conditions in which hospitalization has been proven to be more beneficial than being treated at home among elders.[22] In almost all cases, potential dangers outweigh risks, showing again how a palliative approach is often the most sensible path to take.

A good example is congestive heart failure (CHF). It is known that outcomes in elders with CHF who are hospitalized and who have aggressive care are abysmal, with almost half not alive in a year.[23] In hospitals, elders often are overdiuresed, have urinary catheters and intravenous lines, and are subjected to infections, delirium, and medical errors. A study of elders with CHF who are kept at home and treated with a palliative approach shows that, when compared with those treated in an aggressive way, they have fewer exacerbations and less discomfort, and they live longer.[16]

THE ROLE OF THE PRIMARY CARE PHYSICIAN IN GERIATRIC PALLIATIVE CARE

Initiating palliative care is a role often best served by a patient's primary care physician. A patient's doctor can best explain the risks and benefits of medical interventions in light of their understanding of their patient's unique medical conditions. The primary care physician can help the patient design a path forward that is both medically sensible and palliative in scope. Often, the two go hand in hand. A simple approach to a palliative care discussion includes the following:

- Elucidating the patient's goals and objectives in the medical records
- Creating and updating advanced directives and power of attorney
- In the case of patients with dementia, involving families early in the discussion
- Clearly and accurately describing the risks and benefits of an aggressive approach versus a palliative approach for each of their chronic problems. This should include discussing the benefits and risks of specialists, of hospitalization, and of using medicines/tests/procedures to monitor and treat their chronic conditions. In all cases, assuring care coordination among different doctors and providers is important
- Discussing alternative approaches to aggressive care
- Discussing issues of safety, fall risk, ability to self-medicate, and depression
- Caregiver support when necessary

Very often a palliative approach can coexist with a more aggressive approach; a patient may have different expectations for various conditions. It is important that patients understand the implications of their various decisions, and that their goals and expectations be updated regularly as their condition changes. It is also crucial in a geriatric setting to involve caregivers without infringing on a patient's own decision-making capacity until that patient is deemed to lack capacity. Ultimately, if a patient has set goals and objectives and comprehends the implications of their decisions, then a physician's role is to assure compliance with the patient's plan of care.

DEMENTIA AS AN EXAMPLE OF A PALLIATIVE APPROACH

The diagnosis and treatment of dementia are illustrative of how the palliative approach to disease management works and how the lines between aggressive care and palliative care are often blurred. Dementia is one of the most rapidly growing diseases of the elderly,[24] and it is devastating to patients and caregivers. There are several classes of dementia[25] (**Table 1**), and each is treated somewhat uniquely. However, in fact, dementia has unique manifestations in each person, and an individualized approach often makes the most sense, despite what type of dementia the patient is stated to have.

What would be an aggressive approach to dementia? Typically, those with dementia will have a series of evaluations, including laboratory tests and computed tomographic/MRI scans, and will often follow with a neurologist. They will take "disease-altering" medicines, such as Donepezil (Aricept) or Memantine (Namenda), or the more recent combination of both, based on the stage of dementia (**Table 2**). How effective is this approach? The workup of dementia typically is not helpful; 6 cases of reversible dementia are found out of 1000 people tested, [26] and most of the few revealing tests are ordered by a patient's primary care doctor. The efficacy of disease-altering medications is suspect. Studies show a tiny divergence from placebo with these medicines when formal testing is done, and no difference from placebo when caregiver scores are considered. All studies on these medications end in a year, at which time placebo and pharmaceutical treatment are identical.[27]

How does a palliative approach differ? After basic laboratory tests and imaging studies to rule out reversible causes are performed, the essential objective is to help a patient's function and memory with the goal of prolonging independence and maintaining safety and dignity. A pharmaceutical-based and specialist-centered approach should be eschewed; dementia medicines, in addition to being ineffective, do have potential side effects. A recent study points to several interventions that do impact memory and function: stress reduction, Mediterranean diet, physical exercise, and good sleep.[28] A palliative approach will advocate these approaches, while focusing on patient comfort, safety, and behavior. The provider may work on memory techniques (writing everything down), socialization, and tending to the needs of caregivers.

The Functional Assessment Staging (FAST) scale[29] (**Box 2**), among others, can help physicians to ascertain when a patient with dementia will benefit from hospice. This ascertainment is not always easy; dementia is slowly debilitating, and patients may live many years. By using FAST criteria with other clinical parameters (**Table 3**), 62% of patients are correctly identified and survive less than 6 months.

Table 1
Classes of dementia

Alzheimer disease (85% of dementias)	Slow onset, gradual but steady decline, no physical manifestations
Vascular (multi-infarct)	Variable onset, periods of rapid decline and then no decline, physical manifestation of stroke
Lewy body	Slow onset, fluctuating cognition, visual hallucinations, tremors, poor gait
Frontotemporal (Pick)	Younger onset, rapid progression, disinhibition, language problems, memory intact

Table 2
Stages of dementia

Mild, early stage	Forgetfulness easily hidden, no cognitive deficits, could be normal memory loss of aging
Moderate	Memory loss more common and not concealed, personality changes, needs reminders and help
Severe	Very forgetful, dependent on caregivers for activities of daily living (ADLs), speech issues, some physical issues

PARKINSON DISEASE AS AN EXAMPLE OF A PALLIATIVE APPROACH

Parkinson disease is a progressive neurologic condition that leads to debility (**Table 4**). Pharmaceutical treatment of Parkinson can help to improve symptoms, but nothing available slows or prevents the progression of the disease.[30] Therefore, palliating symptoms, medicine side effects, and dangers from Parkinson is most crucial. Patients and their families should discuss with their primary care doctor likely disease progression, develop advanced directives especially regarding feeding tubes and artificial fluids, and regularly review safety issues, fall risk, functional decline, and mental status changes that may occur. It has been shown that frequent physical therapy can help preserve function and reduce fall risk; both occupational and speech therapy can address common symptoms of Parkinson.[31,32] Also, given the very high prevalence of depression, memory loss, bladder dysfunction, and pain in Parkinson patients, these physical manifestations of disease should be addressed in a palliative way.

ARTHRITIS AS AN EXAMPLE OF A PALLIATIVE APPROACH

Arthritis is a leading cause of disability and pain in the elderly.[14] Consistent with palliation in the elderly in general, treatment of arthritis does not typically require specialty visits, radiographs, or hospitalization; rather it focuses on alleviation of pain and improvement in function. Physical therapy and exercise help achieve both goals, especially when coupled with occupational therapy and home evaluation.[33,34] If pharmaceuticals are used, these will need to be introduced judiciously, with risks and benefits assessed and discussed for each medicine considered. Assistive devices and fall-prevention strategies should be part of any arthritis program. Ultimately, rather than testing and looking for cause, a palliative approach for arthritis involves an individualized comprehensive program to address symptoms and their ramifications. Specialty consultation is most useful if joint injections and surgery are being considered.

Box 2
Functional assessment staging scale 1 to 6

1. No difficulty objectively or subjectively
2. Forgetting location of items, subjective work problems
3. Noticeable decline in job function, difficulty traveling to new locations
4. Decreased ability in performance of complex tasks
5. Requires assistance in choosing appropriate clothing
6. Occasionally or regularly improperly putting on clothing, bathing properly, toileting correctly; having urinary or fecal incontinence

Table 3
Functional assessment staging 7 and hospice criteria for dementia: 1 functional assessment staging scale 7 symptom (on left) plus 1 item (on right)

A: Speech limited to 6 or fewer words	Severe infection, such as sepsis or pyelonephritis
B: Speech limited to 1 word	Aspiration pneumonia
C: Unable to ambulate without assistance	Multiple pressure ulcers
D: Unable to sit up without assistance	10% weight loss or albumin <2.5
E: Unable to smile	
F: Unable to hold up head independently	

PNEUMONIA AND ASPIRATION AS AN EXAMPLE OF A PALLIATIVE APPROACH

Pneumonia is one of the most common causes of hospitalization and death in the elderly. An aggressive approach to care involves imaging, specialty consultation, and hospitalization usually with intravenous antibiotics. A study of elderly patients with frailty showed that a palliative approach to pneumonia, including home treatment, afforded better outcomes with more preserved function than did hospitalization.[35–37] Home-treated patients die less, have less delirium, and recover more quickly. Home oxygen, home health care, antibiotics, and relief of symptoms can all be accomplished in a home environment; hospitalization introduces substantial risk without proven benefit to frail and confused elders.

Aspiration pneumonia is common in patients with dementia, strokes, high levels of frailty, and various neuromuscular conditions. Speech therapy and dietary modification can help prevent aspiration in patients prone to it. The use of tube feeding in these patients does not improve outcome and leads to both discomfort and adverse events, and it should be avoided.[38] Often patients (or their families) seek to eat liberally despite the risk of aspiration; in such situations, comfort feeding can help people feel better, and symptoms can be controlled with medications, nebulizers, and oxygen.

UNIVERSAL PRINCIPLES OF GERIATRIC PALLIATIVE CARE

A truism of geriatric care is that less is better. Fewer medications, tests, consultants, procedures, and hospitalizations often translate to a better quality and quantity of life. It is known from Medicare data that elderly who have less access to specialty care and more primary care are likely to live longer and better.[39–41] Palliative primary care

Table 4
Stages of Parkinson disease

1. Unilateral tremor or movement disorder, changes in posture	Remains independent in ADLs
2. Bilateral tremor or movement disorder, rigidity, ataxia	Can live alone, some ADL impairment
3. Worse gait, high fall risk, slow moving	Independent with some home aides, occupational therapy
4. Limiting symptoms, needs assistive device to walk, hard to move	Needs physical help to live alone
5. Difficult to stand/walk, needs wheelchair, delusions, swallowing problems	Needs round-the-clock assistance

stresses shared decision making and an individualized patient-centric approach. A few concrete examples are as follows:

1. *Reduction of polypharmacy:* For every disease and symptom, there are multiple medications and supplements that are alleged to be either necessary or helpful. Many medications in the elderly have a marginal benefit, as was shown in the case of anticoagulation and statins. As William Osler says: "If you have a problem and you treat it with a medicine, now you have 2 problems." Still, because of the number of chronic diseases that inflict the elderly, and the number of specialists many of them see, elders typically are on large numbers of medicines/supplements. The average elder is on 12 medicines. When medicines are combined in an aged body, side effects are accentuated; studies show that the more medicines older people take, the more likely they are to suffer from weakness, falls, worse mentation, and depression among others.[42,43] Thus, a basic rule of palliative care is to use medicines that help people feel better and have increased function, but to avoid excessive medicines that are given to allegedly prolong life. Certainly, there are medicines one may use that do not adhere to those rules explicitly, such as medicines for blood pressure. However, if antihypertensives cause patients to feel worse, then a palliative approach would favor a higher pressure if that results in improved symptoms. Discussing the actual benefits and risks of pharmaceutical treatment with patients helps to shorten medication lists and improve patient well-being without necessarily impacting survival. Deprescribing medicines can be difficult and requires an accurate discussion of risks/benefits, consultation with specialists, and review of possible consequences of medication withdrawal[44] (**Table 5**).
2. *Fall prevention*: There is nothing more painful and more likely to cause functional decline in the elderly than falls. Falls are the fifth leading cause of death in the elderly and one of the top causes of disability and decline.[14] Any palliative approach to care must be cognizant of the need to prevent falls. The role of excessive medications in falls is of paramount concern.[45] When discussing risks and benefits of medicines, a provider needs to address the increased fall risk of medications and their combination. For instance, being on an anxiety medicine, a blood pressure medicine, and a statin all can increase the chance of falling, so a palliative discussion may lead to the reduction or removal of one or more of these medications if the patient has poor gait or poor judgment. In addition, a positive approach to fall reduction is crucial. Assessing a history of falls, the situation of a patient's home (clutter, throw rugs), and the need for an assistive device should all be done on a regular basis, often at the annual wellness visit, and more frequently if

Table 5
Strategies for deprescribing

Review the actual benefit of the medication	Use decision aids to show true benefits, individualized for patient's age and comorbidity
Review the potential risks of the medication	Discuss how the medication can cause harm and side effects, personalize it to the patient's condition
Review medicine interactions	This should be done with supplements as well
Work with specialist providers	Often specialists are less likely to deprescribe, and patients are reassured if they are involved
Discuss possible ramifications of deprescribing	Both real and placebo effects can occur when medications are stopped, discuss in advance

the patient has a fall. The use of grab bars, home health assessments, physical therapy, and exercise programs can also help to avert falls.

3. *Recognizing depression*: Both depression and anxiety are common conditions of the elderly, the prevalence being 5% to 10% and substantially higher in those who have chronic illness and frailty.[46] The aggressive and palliative approaches to these conditions are similar: the goal is to use medicines and psychological interventions to mitigate symptoms and help people to feel better. The symptoms of depression (fatigue, weakness, lack of interest, weight loss, sleep disorder) mimic those of frailty and chronic disease, so often it is difficult to distinguish one from another. Treating for depression with pharmaceuticals and psychotherapy has been shown to be effective in the elderly.[14] Often psychotherapy is not appropriate for those with dementia or other issues of memory loss, whereas medications have serious side effects that can impact mentation, fall risk, energy level, sleep, eating/weight, and organ function. An individualized approach to depression and anxiety is crucial; some elders do best with very low-dose medicines, whereas others need extremely high doses. Many elderly people have sleep disorders with or without depression; the prevalence can be as high as 50% to 70%.[47] Often this needs to be addressed independently of depression, focusing on sleep hygiene and cognitive behavior therapy.
4. *Achieving maximal functional status*: Surveys of elders consistently find that they are happiest if they stay at home.[48] To do this, they will need to be able to function independently or with some degree of assistance. A full assessment of their activities of daily living and independent assessment of daily living is a good way to start. When deficiencies are revealed, a plan can be put in place to help ameliorate them. For instance, if a patient has a difficult time getting dressed, then an occupational therapist can assess the home situation, providing solutions. In most cases, an exercise program and fall reduction plan are necessary to help people achieve maximal functional status. From a more social perspective, knowing how patients are able to buy and cook food, get to doctor appointments, buy/afford medicines, and carry out basic daily activities are important to assess at least once a year. Often for such discussions, caregivers should be involved.
5. *Reduction of discomfort*: The alleviation of pain is a paramount concern in any palliative approach. This could be physical or emotional discomfort. The author addresses some of these issues in discussing arthritis. Ultimately, pain is a salient barrier to function, memory, comfort, and quality of life. A few basic principles are as follows:
   - Searching for an underlying cause of discomfort is only important if finding and fixing that cause helps to alleviate the discomfort, and if the patient/family would want to pursue that approach.
   - Medicines for discomfort need to be assessed for their risks and benefits before being used, and generally the use of medicines with many side effects should be the last resort, especially if they cause falls, confusion, or loss of function. In fact, the reduction of medications can help to alleviate discomfort.
   - Often changes in environment, physical activity, socialization, and stress reduction can help with pain and mental anguish. Pain can be a manifestation of anxiety.
6. *Do not be aggressive*: When we are treating someone palliatively, we do not focus on tests and number measurements. Stressing tight control of sugar or blood pressure, measuring cholesterol and ordering multiple laboratory tests, and screening for cancer or carotid/heart disease in the absence of symptoms are counterproductive to a palliative approach. Excessive testing and measuring can lead to

stress and does not alleviate discomfort; there is little evidence this approach leads to life prolongation or the prevention of disease in the elderly. Similarly, as discussed, hospitalization often causes more distress and poorer outcomes than keeping a patient at home. Ultimately, medicines, tests, procedures, and hospital visits should be considered if they can help a patient feel better, function at a higher level, and avoid a deterioration of a chronic disease that may lead to disability or discomfort.

SUMMARY

In the elderly, there is scant evidence that aggressive medical care is always more effective that a palliative approach. Medicines, hospitalization, and other interventions should be discussed before prescribed. Palliative care addresses many of the issues that are most important for elders to remain comfortable, retain their functional capacity, and stay independent.

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