Geriatric Rehabilitation. 1. Social and Economic Implications of Aging

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This self-directed learning module highlights the social and economic implications of aging. It is part of the study guide on geriatric rehabilitation in the Self-Directed Physiatric Education Program for practitioners and trainees in physical medicine and rehabilitation and geriatric medicine. This article specifically focuses on the epidemiology of aging, the economics of aging, informal and formal social support systems, ageism and societal issues, and care and treatment settings.

Overall Article Objective: To summarize the social and economic implications of aging in the context of physical medicine and rehabilitation.

Key Words: Ageism; Epidemiology; Geriatrics; Rehabilitation; Social support.

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1.1 Educational Activity: To advise a medical student on the demographics of the aging population for which he/she will be providing care.

In 1900, THERE WERE 3 million people in the United States at or over the age 65 years (4% of the total US population), while in 2000, 35 million (35%) people were age 65 or older. As the baby boom generation ages, it is predicted that 1 in 5 Americans will be 65 or older by the year 2030. The 85-and-older-age category is the most rapidly growing segment of the US population. It is estimated that this group will increase from 2% to 5% over the next 50 years. In the United States, life expectancy for a person reaching 65 years is 18 years; an 85-year-old person’s life expectancy is 6 to 7 years. The aging of the US population presents challenging issues for government, health care, and society.

There is no single universally recognized description, classification, or grouping of the older population. Although chronologic, biologic, physiologic, and emotional descriptors are often used, functional classifications, such as a person’s activities of daily (ADLs), his/her level of living dependency, number of concurrent medical morbidities, living arrangement, and employment status, may be more relevant to clinicians.

Chronologic age is probably the most universally accepted and most frequently used system. Old age is often defined as 65 years and older, but this is an arbitrary figure that is based on policy or societal norms. Terms that are used include aged, elderly, young old (60-74), old old (75-84), older adults (75+), and centenarians. Other descriptors of “old age” include older workers (60+) and eligibility to join the American Association of Retired People (AARP; 50y or older).

1.2 Educational Activity: To discuss the impact of the changing aging demographics on rehabilitation services needs with a resident in physical medicine and rehabilitation.

In 2001, national health care expenditures exceeded $1.4 trillion or 14.1% of the gross domestic product. The aging population is a high user of these health care services. In 1999, 25% of all physician office visits (192.2 million) in the United States were by adults 65 and older. The hospitalization rate in 1999 for adults between the ages of 65 and 74 years was 1.9 times higher than that for the overall population, whereas for people 75 and over, it was 2.7 times higher. Medicare is the largest singular payer for these services, and two thirds of Medicare spending is accounted for by 20% of its beneficiaries. This 20% of high end-users have 5 or more chronic conditions.

Because Medicare is the largest single payer of health care for the elderly US population, governmental policy plays a critical role in eligibility and services provided. In 1997, Congress passed the Balanced Budget Act (BBA), which has produced changes in the reimbursement systems for home health services, skilled nursing facilities (SNFs), and inpatient rehabilitation facilities (IRFs). These changes are predicted to produce $233.8 billion in Medicare savings between 1998 and 2007. The BBA (1997) changed the reimbursement pattern for home health services, and the frequencies of home health services dropped during 1997 and 1998 from 8277 to 5058 per 1000 enrollees. The Centers for Medicare and Medicaid Services now reimburses IRF for services based on a prospective payment system (PPS). The IRF-PPS is based on the assignment of patients to specific case-mix groups (CMG). The CMG assignment is determined by a patient’s primary diagnosis or rehabilitation impairment category (RIC) and his/her FIM or RIC. IRF-PPS is a prospective payment system that reimburses facilities according to a patient’s severity of disability and his/her required use of resources. The more disabled patients, who will have higher CMG scores within their RIC, are predicted to require a greater use of resources and, therefore, are assigned higher reimbursement.

In 1942, the American Geriatric Society (AGS) was developed. Their website offers important information and links. In 1974, Congress approved the National Institute on Aging (NIA) as a part of the National Institutes of Health.
The mission of NIA is to provide leadership in aging research, training, health information, information dissemination, and other programs for the older population. The Veterans Hospital Administration initiated the funding for training geriatric fellows in geriatric research and for clinical centers in 1980. In 1989, certification for added qualifications in geriatric medicine was sponsored by both internal medicine and family practice. In 1991, NIA developed an older Americans research program of independence centers (Pepper Centers). As these centers have developed, other agencies and advocacy groups for the elderly have grown. The AARP offers a resource book that contains research information provided by current agencies and programs and laws that are pertinent to the elderly.

1.3 Clinical Activity: To evaluate the formal and informal social support systems available for an 85-year-old widow who is living alone in her childhood home and has begun to develop functional decline.

Social support systems in the United States are comprised of both formal and informal networks. Formal structures include government-sponsored agencies and programs and services covered by private insurance. Formal care or service is paid by some third party, not by the user or the provider of the service. Medicare, a program sponsored by the federal government, pays for most of the health care provided to people 65 years or older. Part A of the Medicare program covers hospital services, whereas Part B covers physician services, durable medical equipment (DME), and home health. Medicare sets allowable charges and then reimburses providers 80% of those allowable charges. Medicaid is a state-administered program that pays for additional services if, because of his/her financial resources, a person meets the program definitions of being "medically indigent." Other formal supports can include agencies such as Adult Protective Services and Area Agencies on Aging, which are locally run and provide social services, advocacy, and guardianship.

Informal resources, which include families, church communities, and service clubs, generally provide nonreimbursed assistance. Most caregiving in the United States is informal, accounting for about 75% of all care provided to the elderly. Seventy percent of caregivers are women, either wives or daughters. Caregiving is generally provided daily, for 4 to 8 hours on average, lasting from weeks to a decade or more, and primarily involves "... emotional support, followed by help with shopping, transportation, household tasks, and personal care." Social dependency is more common in elderly women, who are more likely to be widowed because their life expectancy is longer than men's. Only 40% of women 65 years or older are married, compared with 80% of men in the same age group. Elderly men are more likely to have the support of a wife who is typically younger and in better health. The number of social supports an individual has directly impacts happiness and life satisfaction and is associated with better physical health and lower mortality.

Although gender influences social supports, race and ethnicity may also affect caregiving. A review of racial, ethnic, and cultural differences in caregiving of elders with dementia revealed that black caregivers were more likely to be an "adult child, friend, or other family member, while white caregivers were more likely to be a spouse." Social support systems, both formal and informal, can prevent institutionalization. Maintaining the integrity of support networks, particularly the informal supports, can make the difference between a person's living in the community or not. Helping to reduce caregiver burden by providing psychologic support, education, and respite care can prolong a person's community living. Social supports are a complex network of programs, services, funding, and people that serve the myriad of needs of elderly persons.

1.4 Educational Activity: To criticize the influence of ageism on the care of an 85-year-old retired physician with worsening arthritis who is being encouraged to stop driving because of wrist pain.

Ageism is the pejorative belief system, generally not supported by the literature, that old age is synonymous with dementia, depression, dependence, and debility. The negative societal view that aging necessarily represents pain, isolation, fear, and asexuality are ageist in their nature. Important issues within ageism include how elders view themselves and the larger societal expectations of people reaching their later years.

Ageism leads to discrimination against the elderly in the workplace, in social settings, and in medical care. Health care professionals must remain vigilant to combat negative attitudes that become manifest in medical care provision—for example, that pain in the elderly is not worth treating aggressively and that decreased function is inevitable with aging.

The ageist, negative self-perception of some elders impacts on their own health and function. People with positive self-perceptions of aging experience benefit on their functional health. Moreover, modifying negative stereotypes can benefit older people: common age-related gait changes were shown to be reversible with exposure of elders to positive images of aging.

Some aspects of ageism are generational. Societal expectations of aging will undoubtedly evolve with the aging and oncoming retirement of 76 million baby boomers, persons born between 1946 and 1964. The MacArthur Foundation studies summarized in Rowe and Kahn's Successful Aging present extensive evidence refuting common ageist stereotypes. Beyond the goals of merely avoiding disease and disability and prolonging longevity, appropriate lifestyle choices permit the positive anticipation of maintained cognitive and physical capacity into late life.

Counteracting ageism in health care will require a broader educational curriculum. Elderly persons should be involved in the planning and teaching. Medical school coursework must include issues of aging in all subjects. Clinical course work should include working with older adults across the clinical spectrum from acute care to nursing home to community settings. Residents and practicing physicians can benefit from readily available resources, including those from the AGS. The care that physiatrists and other health care professionals provide for the growing population of elderly must include proactive management of common sequelae of aging. In a sense, we medical professionals are training the providers of care for our own later years.

1.5 Clinical Activity: From the health care continuum, recommend a level of care that will best address the needs of an 85-year-old woman with a hip fracture who needs postsurgical rehabilitation.

Medicare is a federally sponsored program, so its coverage is uniform throughout the United States. Any person who has paid into the federal tax system for 40 quarters (or was ever married to someone who has) and meets any of the following 3 criteria is eligible for Medicare part A at no cost: (1) age 65 years or older, (2) disabled and on Social Security Disability Insurance for more than 2 years, or (3) has end-stage renal disease. Medicare reimburses inpatient and SNF rehabilitation services. Medicare Part B, which, for a monthly fee, is avail-
able to people on Medicare part A reimburses for physician services, home health services, and outpatient therapies. As noted, Medicare Part A insurance provides payment for acute medical and rehabilitation hospitalization and short-term skilled nursing care. Acute medical hospitalization is reimbursed in lump sum amounts based on diagnosis-related groups. Reimbursement for rehabilitation services in IRFs or SNFs is reimbursed under the PPS, also in lump sum amounts, based on the person's CMG. People who receive care for the same diagnosis at both an IRF and an SNF do not receive any additional reimbursement for the subsequent SNF stay (thus requiring the reimbursement to be shared). Beneficiaries are responsible for a copayment in each setting, often approximately 20% of the Medicare-determined total. Importantly, on average, 75% of Medicare patients admitted to an IRF must meet 10 established diagnoses for the IRF to qualify for payments. This "75% rule" unfortunately neglects many of the current rehabilitation diagnoses (e.g., post coronary artery bypass graft care, post total hip replacement) that were not commonplace when it was instituted more than 20 years ago. For people who need skilled nursing care (e.g., wound care, management of indwelling catheters), Medicare pays for 100 days of care after the beneficiary has been discharged after an acute hospital stay of at least 3 days and within 30 days of the hospital discharge. Medicare Part A pays for the first 20 days of skilled care with a coinsurance amount paid by the beneficiary on days 21 to 100. Coverage by Medicare is measured in benefit periods. A benefit period begins when the beneficiary is admitted to the hospital and ends when the beneficiary has been out of the hospital or skilled facility for 60 consecutive days. These individuals typically receive some rehabilitation services (e.g., physical therapy, occupational therapy, speech and language pathology) in addition to ongoing medical and nursing management. The condition requiring care in the skilled facility must be the same as the reason for hospitalization to qualify for Medicare coverage. The beneficiary must be certified by a licensed physician as requiring the care, at that level, to be eligible for coverage. DME, such as gait aids or adaptive equipment, is also reimbursed under Medicare, as long as it is ordered by a licensed physician and is medically justified. Outpatient rehabilitation therapy, home health services, and inpatient and outpatient physician care are reimbursed by Medicare but only for beneficiaries who receive Part B. A physician must order the services or equipment and must provide a detailed plan of care. Home health services are limited to skilled care, such as nursing or rehabilitation therapy. Home health aid provisions are very limited. Guidelines for length and type of services and equipment are available based on diagnoses, with some outlier provisions. Hospice care and its associated services are also covered by Medicare. Medicaid also provides reimbursement (that varies from state to state) for inpatient (acute medical, rehabilitation), outpatient, home health, skilled nursing home, DME, and physician benefits. However, Medicaid is typically not a primary source of health insurance for older adults but, rather, may serve as a copayment (as may commercial insurances). Recently, many managed care Medicaid programs have become available, further increasing the diversity of covered services, in this case even within a state. Importantly, at present, Medicaid pays for more than 85% of all custodial nursing home care (which is not reimbursed by Medicare) in the United States. Older adults who continue to work or who were federal and railroad employees typically have commercial or managed care insurance as their primary funding source. Beyond financial considerations for levels of care, determining the level of services most appropriate for a given patient is a primary function of a physiatrist. How to assign patients to the most appropriate care delivery setting requires knowledge of payer sources; community resources; and patient-specific variables such as endurance, medical acuity, stability, and disposition options. Each level of care in the rehabilitation continuum has specific characteristics and efficacies. Acute care is the most commonly used health care service after physician office visits for persons age 65 years or older. Although persons in this age group account for 13% of US population, they use 47% of all inpatient days of care. Up to 35% of elderly patients admitted to acute care facilities will lose independence in 1 or more areas of basic ADLs. Functional decline is related to several factors including immobility, poor nutritional status, sensory deprivation, altered sleep-wake cycles, medication interactions, polypharmacy, environmental change or altered routines, and iatrogenic illness. Several studies have identified risk factors for functional decline and nursing home placement. These risk factors include older age (>70y), mental status changes, premorbid functional impairment, low social activity before admission, and premorbid depression or depressive symptoms. All of these factors predict poor functional outcome.23 Assessing and managing these issues along with the primary and secondary conditions are paramount to successful medical and rehabilitation management. Rehabilitation interventions can be delivered in various settings, each characterized by different intensity, outcome, and relative cost. Allocation of services is currently based more on payer tolerance than on best outcome. Outcome data for various levels of care are often not available or are incomplete. Great variability exists across the United States. One analysis found that, in Florida, 10% of stroke survivors were admitted to rehabilitation hospitals or units, in contrast to 31% in Houston, TX.24,25 Funding source also plays a role in rehabilitation setting. In an analysis of traditional Medicare beneficiaries compared with health maintenance organization Medicare beneficiaries, stroke patients who had traditional Medicare reimbursement were more likely to be admitted to acute rehabilitation settings than to skilled or subacute settings. Costs in acute rehabilitation are estimated to be twice as high as those for subacute rehabilitation.31 In a study to evaluate whether better outcomes are associated with higher costs of inpatient rehabilitation, analysis showed that stroke patients admitted to acute rehabilitation were 3.3 times more likely to be discharged home than patients admitted to subacute settings. Other rehabilitation interventions strongly associated with improved outcome after stroke include early intervention of rehabilitation (within 72h poststroke) and rehabilitation provided in an interdisciplinary versus a multidisciplinary inpatient setting.33 Data supporting acute rehabilitation services over subacute rehabilitation services for hip fractures are less convincing, suggesting that only certain patients may benefit from acute rehabilitation.34 However, it is clear that outcomes are best when careful attention is focused on avoiding medical problems. Identifying which patients require acute rehabilitation—with its broad array of services, a minimum of 3 hours of therapy a day, interdisciplinary approach, and intense medical and nursing supervision—is multifactorial and is best determined by a physiatrist.

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