Aging, Pain, and Palliative Care

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People are living longer, with life expectancies for American women and men currently estimated at 79.9 and 74.2 years, respectively, compared with 51.1 and 48.3 years in 1900. Women and men reaching the age of 65 years are expected to live an additional 17.0 and 16.3 years, respectively. France has one of the highest life expectancies, with 2004 estimates showing 83.8 and 76.7 years for women and men, respectively. The life expectancy at 60 years in France is 26.5 years for women and 21.5 years for men. The population is aging worldwide, but particularly in more developed regions. As shown in Figure 1, nearly 20% of the population in more developed regions was aged 60 or older in 2000, and by 2050, approximately 33% in more developed regions will be aged 60 or older. In the United States, there will be 20 million Americans aged 85 years and older by the year 2050—a 5-fold increase in less than 50 years. Currently, the oldest old (aged 80 years or older) make up 12% of the population aged 60 years or older. The oldest old are the fastest-growing segment of the older population, and by 2050, 19% of the older population will be aged 80 years or older. The number of centenarians (aged 100 years or older) is projected to increase 15-fold, from approximately 210,000 in 2002 to 3.2 million by 2050.

In addition to the burden on caregivers and the economy, the aging of the population presents many challenges for healthcare providers because older patients may have a variety of comorbidities. For example, a study of 988 persons with a limited life expectancy who were living at home revealed that 71% had dyspnea, 50% had significant pain, and 33% were incontinent. Symptoms increase in number and intensity as older persons age. Pain is the symptom that has received the most attention in the aging population.

Persistent Pain: A Constant Companion

Persistent pain is a common and at times constant in older adults. One quarter to one half of older people living in the community suffer from persistent pain. Skeletal and joint disorders are among the most frequent causes of pain, as are other chronic conditions, such as diabetes and peripheral vascular disease. Persistent pain is often found in patients in long-term care settings, with a prevalence of 40% to 80%. The burden of unrelieved pain is immense.

Cognitive impairment—a common finding in the oldest old—is a barrier to the accurate assessment of pain. This is especially true in the long-term care setting. Alzheimer’s disease and vascular dementia are the most common causes of cognitive impairment in this population. Dementia affects 4% of people older than age 70 and 13% of those older than age 80. Behavioral pain assessment tools have been developed in recent years to aid in the evaluation of patients with pain. For example, the American Geriatrics Society Panel on Persistent Pain in Older Persons has identified behavioral traits that indicate the presence of pain in the severely cognitively impaired older adult (Table). To improve the assessment of pain in cognitively impaired persons, a group of French geriatricians constructed the Doloplus-2 Scale, which systematically evaluates pain behaviors and assesses somatic complaints, facial expressions, protective body postures, behavioral problems, and changes in communication or social life. The scale can be downloaded at www.doloplus.com/versiongb/pdf/echelle.pdf.

Nonsteroidal anti-inflammatory drugs, opioids, and a vast array of adjuvant analgesics are the cornerstone of pain management. Analgesics must be used carefully because older adults are at greater risk for adverse drug reactions. Transdermal lidocaine (Lidoderm, Endo) is effective for managing postherpetic neuralgia and other focal pain symptoms. Massage and music therapy are just 2 of many nonpharmacologic therapies available. Weiner and colleagues have proposed a 5-tier algorithm to guide the prescribing of pain treatment for elderly patients with severe cognitive impairment (Figure 2).

The Palliative Care Model

Palliative care is a model of healthcare delivery with diverse definitions. It consists of the services of an inter-disciplinary team of professionals, including a physician, advanced practice nurse or nurse practitioner, social worker, clinical psychologist, nutritionist, chaplain, physical therapist, and pharmacist. The Palliative Care Model is a holistic approach to caring for patients with an advanced, incurable illness. Care is delivered in the patient’s home, hospice setting, or hospital. The goals of palliative care are to relieve pain, prevent suffering, and support the patient and family throughout the illness. The Palliative Care Model is distinct from hospice care, which is limited to patients with a life expectancy of 6 months or less. Palliative care is available to patients at any stage of illness, whereas hospice care is reserved for patients with a limited life expectancy.

The Palliative Care Model consists of 5 tiers of care, each with a different level of intensity and complexity. The first tier involves the use of nonpharmacologic therapies, such as massage and music therapy. The second tier involves the use of analgesics, including opioids, and adjuvant analgesics. The third tier involves the use of non-invasive and invasive interventional procedures, such as spinal cord stimulation and transcutaneous electrical nerve stimulation. The fourth tier involves the use of pharmacologic therapies, such as sedatives and anxiolytics. The fifth tier involves the use of hospice care, which is limited to patients with a life expectancy of 6 months or less.
worker, and chaplain, in addition to a variety of other medical and ancillary services. Palliative care provides relief from pain and other distressing symptoms and integrates the psychological, practical, and spiritual aspects of patient care. It offers a support system to assist patients and their caregivers and commonly includes bereavement services. It enhances quality of life and is applicable early in the course of chronic illness along with other therapies that are considered to be life-prolonging. Palliative care is available in all settings where patients need develop and before problems become unmanageable. This model is an integral part of care that takes place in any community or institutional setting.

Studies have shown the benefits of using palliative care clinical pathways.10,11 Symptom management is improved, and many of the unintended consequences of continued therapies are avoided.

The relief of pain and other distressing symptoms is a crucial aspect of palliative care. Symptom assessment begins with a detailed clinical history and physical examination. Validated assessment tools are available and help coordinate care and develop a uniform language for clear communication across professional roles.12 Morrison and Meier have provided a superb review of the scope and functions of palliative care.

Long-term care settings are becoming the sites where older adults more frequently receive healthcare. One half of all current Medicare recipients will spend some time in a nursing home. Nursing homes are increasingly becoming the places where older adults die.13 End-of-life care is inadequate because of chronic staff shortages, rapid staff turnover, poor reimbursement scales, and limited physician participation. Many current instruments for assessing patients lack the resolution to clarify palliative care needs. Sebag-Lanoë and colleagues, however, have proposed a 10-item questionnaire to assist decision making for palliative care for older adults.14

Hospice Support

Hospice is one model of palliative care that provides quality, compassionate care for people facing the end of life. Hospice care involves a team-oriented approach to expert medical care, pain management, and emotional and spiritual support designed to meet the patient's needs and wishes. Support is offered to the patient's loved ones as well. Care is provided at home and also in hospice facilities, hospitals, and nursing homes. Hospice is available to anyone of any age, religion, or race and is covered by Medicare Part A, Medicaid, most private insurance plans, health maintenance organizations, and other managed care organizations.

There are measurable benefits when hospice is used in nursing homes, including fewer emergency department transfers, less use of invasive therapies, improved pain control, and satisfaction of the decedent's family with prior care.15 Barriers to improved outcomes of palliative care in the hospice model include limited hospice stays, difficulty in assessing limited prognoses for non-neoplastic diseases, and obstacles to interprofessional collaboration. The development of palliative care consultation teams in the nursing home is a practical and beneficial alternative to hospice.

TABLE. Common Pain Behaviors in Cognitively Impaired Elderly Patients

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<th>Pain Behaviors</th>
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<td>Gait or mobility changes</td>
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<td>Changes in interprofessional</td>
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<tr>
<td>interactions</td>
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<td>Changes in activity patterns or</td>
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<td>routines</td>
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References


Conclusion

The aging of the population is unprecedented, pervasive, and profound. As mortality and fertility decline, the accelerating trend to older populations is irreversible and affects every aspect of human life. An accumulation of comorbidities has changed the epidemiology of living and dying. Long-term facilities will become the predominant site for end-of-life care. Palliative care is a necessary model to relieve pain and suffering and to allow older adults and their caregivers a safe and attended death. It is incumbent on all societies to develop solutions to reach this ultimate goal.

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given paroxeine and valdecoxib than in the group given placebo (2.0% vs. 0.5%; risk ratio, 3.7; 95% CI, 1.0-13.3). These findings speak to the idea that the increased cardiovascular risk associated with the COX-2 inhibitors is not limited to a particular agent—it is more than likely a class effect.

It perhaps goes without saying that with millions of people taking these medications, any small effect—even a change in absolute risk of 1% to 2%—could mean thousands of additional cardiovascular events. Still, without the actual data, any information on relative risk—such as “doubling”—does not tell you all that much. I will leave the withdrawals and approvals to the FDA, and the liability issues to the courts, but let the data speak for themselves.