The upcoming epidemic of fragility fractures in Canada

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The population in Canada is aging. In 1997, Statistics Canada recorded that 12% of the population was over 65 years of age and 1% over 85 years, and predicted that by 2041, 25% will be over 65 years of age and 4% will be 85 years or older.[1] Age is a major risk factor for low-energy fracture. Over the next few decades a major increase is anticipated in the number of patients with fragility fractures (hip, spine, tibia, humerus, radius) requiring in-hospital treatment for their injuries.

Between 1981 and 1995, the number of hip fractures in Canada increased from 17 823 to 27 375. The number has continued to increase and is expected to reach 88 124 by 2041.[2] In the elderly, hip fractures can cause considerable morbidity and mortality, consuming large amounts of health care resources. The direct cost in Canada of treating osteoporosis is estimated at $1.3 billion annually.[3]

In this issue (page 446), Lieberman and associates[4] note that the aging population has already affected the delivery of surgical care in Quebec. An ever-increasing number of elderly patients are admitted to level I trauma hospitals with single-limb, low-energy injuries resulting from falls. These patients use expensive in-hospital resources (beds and operating room time) that historically have been used by younger patients with complex polytrauma. To ensure that tertiary and quaternary facilities remain available to those who need them, the authors suggest a change in the way geriatric patients suffering low-energy injuries are triaged to hospitals.

The epidemic of geriatric fragility fractures in Canada is beginning. Without thoughtful planning, these patients will use hospital facilities and resources that have been designated for others. Triage of single-limb, low-energy injuries away from level I trauma centres is important, but community level hospitals cannot be expected to care for the large volume of patients. Governments must allocate new funds to care for such patients so that appropriate discharge facilities are available. Many patients now spend longer than necessary in acute care hospitals because access to rehabilitation and appropriate alternative care facilities is inadequate.

Canada needs specialized centres designed to provide excellent care to geriatric patients with fractures in a cost-effective way. One possible model would involve designated regional hip fracture care facilities. Ideally, such facilities would be affiliated with an acute care hospital but would function as a separate service. The ratio of nursing, physiotherapy, occupational therapy and social work staff could be adjusted according to the level of care needed; medical, surgical, nursing and rehabilitation expertise also could be specifically targeted. This likely would be more cost efficient and improve patient outcomes. It would also enhance research and educational opportunities.

The geriatric fragility fracture epidemic will have a significant impact on health care delivery. Lieberman and colleagues have shown that the time for action is now.

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References

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