EBM NOTEBOOK
Can we provide evidence-based care for the elderly?

This is becoming an urgent question as the population ages. In many developed countries, the proportion of very elderly is growing rapidly. From 1960 to 1990, the total U.S. population grew by 39%, whereas the number of persons ≥65 years of age increased by 89% and the number ≥85 years of age increased by 232% (1). By 2010, the number of Canadians >64 years is expected to increase by 45% and the number >85 by 125% (2). This is partly because the oldest members of the baby-boom cohort will have reached 65 years of age; 20 years later, they will join the oldest old (>85 years). We need to assess and optimize our health care for this group. Can we extend the practice of evidence-based medicine (EBM) to the elderly? Is care of the elderly already evidence based?

A recent audit of a general medical team at a university-affiliated U.K. district hospital showed that >80% of acute admissions (mean age 69 y, range 24-91 y) received evidence-based care (3). No such audit has been reported in the oldest old.

Elderly patients are less likely than younger patients to receive certain treatments. Is this reluctance evidence based? Consider, for example, anticoagulation therapy for patients with chronic non-valvular atrial fibrillation (NVAF). Although 70% of individuals with AF are ≥65 to 85 years of age, the mean age of the patients in the AF trials was 69 years and only 20% were ≥75 years of age (4,5). These trials show that warfarin reduces the risk for embolic stroke in patients with chronic NVAF, but it can also cause major hemorrhage (4). The elderly are at highest risk for embolic stroke if not treated for NVAF and have the greatest absolute risk reduction with treatment. However, the safety of anticoagulation therapy in the elderly is less certain. The Stroke Prevention in Atrial Fibrillation (SPAF) II Study showed a rate of major hemorrhage of 4.2%/y in patients 75 years of age, compared with 1.7%/y in patients <75 years of age (6). A pooled analysis of 4 other primary prevention trials found warfarin effective and relatively safe in persons ≥75 years of age, with a risk for intracranial hemorrhage of 0.3%/y (7). The disparity may be because of a difference in anticoagulation therapy management. The SPAF investigators found that intensity of anticoagulation therapy was an independent risk factor for hemorrhage in the elderly; therefore, with careful management, we would hope to decrease this risk (6).

Elderly patients with NVAF are less likely to be treated. 651 patients with NVAF at 2 community and 2 tertiary care hospitals were reviewed (8). Although 609 of them had no contraindication to anticoagulation therapy, 40% were not receiving prophylaxis—patients 45 to 54 years of age were twice as likely to receive such therapy as patients 75 to 84 years of age. Similar results have been reported in hospital and outpatient settings (9,10).

Is the disparity because clinicians believe the elderly are at an increased risk for hemorrhage or because they feel the results cannot be applied to the elderly? Both explanations would benefit from the application of one basic tenet of EBM: the integration of evidence with individual clinical expertise (11). Clinicians of the first sort might offer carefully managed anticoagulation therapy to elderly patients at low risk for major hemorrhage, and clinicians of the second sort might reconsider whether their elderly patients are really so unlike the patients in the trials that the results do not apply.

This example highlights 2 important issues about our ability to practice EBM among the elderly. First, we can do a better job of translating current evidence into practice; this includes quicker and easier access to the evidence where it can be used. Second, we must push for better information about the risks and benefits of interventions among the elderly and stop excluding them from the research that will guide our care. We do have evidence about some interventions in the elderly (e.g., geriatric assessment [12] and the treatment of hypertension [13]), and we know that certain interventions are more cost-effective in the elderly (tissue plasminogen activator in acute myocardial infarction [14]). However, we remain relatively ignorant about many of the needs of this population. Readers can encourage research on the elderly and encourage their elderly patients to participate in this research. In particular, we need to encourage the frail elderly (those with complex medical and psychosocial problems) to participate in studies assessing interventions, prognosis, and quality of life.

In October 1997, >100 medical journals worldwide were dedicated to the theme of aging. They have served the second goal of encouraging research and thought on aging as well as including aging on scientific, medical, social, and political agendas (15). It is hoped that this initiative will improve our ability to practice EBM in the care of the elderly.

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References