

# Pharmacologic Management *in older adults*

**B**ecause vulnerable elders have a greater burden of acute and chronic illness, medications often are a centrally important aspect of their health care. Although people age 65 and older comprise only 13 percent of the U.S. population,<sup>1</sup> they spend nearly four times as much on prescription medications than do persons under the age of 65.<sup>2</sup> Certain aspects of the aging process place older patients at an increased risk for side effects, which caregivers frequently mistake as the onset of a new illness or attribute to “aging” itself. Despite the therapeutic and preventive effects of medications in older patients, there are also risks related to overuse and misuse.<sup>3</sup> Recent studies have also identified risks related to the under-use of medications. For example, the lack of older patients, particularly the most vulnerable, in clinical trials has led to concerns about the use of such life-saving medications as those which lower serum cholesterol, and treat depression and hypertension.<sup>4,5</sup>

If the elderly are to gain the full benefit of pharmaceutical therapy, it is critical that appropriate drug use be improved to prevent these risks. Based on a review of the relevant medical literature, we present a series of findings relevant to older patients.

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*A computerized drug utilization review system linking pharmacists and physicians improved prescribing for older patients by helping to identify potentially dangerous drug interactions.<sup>6</sup>*

*Patient education about prescription drugs has been shown to improve compliance and clinical outcomes.<sup>7-11</sup>*

*Patients receiving thiazides or a diuretic are at increased risk for electrolyte abnormalities which have been associated with adverse cardiac events.<sup>12,13</sup>*

*Older patients prescribed an angiotensin converting enzyme (ACE) inhibitor have been shown to have better outcomes if their creatinine and potassium are monitored regularly.<sup>14-17</sup>*

*Propoxyphene,<sup>18-21</sup> chronic benzodiazepine therapy,<sup>22-24</sup> chlorpropamide,<sup>25-27</sup> drugs with strong anticholinergic properties,<sup>28-34</sup> barbiturates,<sup>35,36</sup> and meperidine<sup>37-39</sup> are some important drugs often associated with an increased risk of adverse events in older patients.*

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Comprehensive programs to measure the quality of medication use in vulnerable elders will need to include the evaluation of utilization patterns in order to assess the appropriateness of drug use in these vulnerable patients. Fortunately, more and more clinical studies have begun to enroll adequate numbers of older patients, and the benefits seen in younger patients can be found in elders, as well.<sup>40,41</sup> As more therapeutic agents become available, and as our population ages, appropriate drug therapy will continue to increase in importance.

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