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## The health care cost of drug-related morbidity and mortality in nursing facilities

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**BACKGROUND:** Preventable drug-related morbidity and mortality within nursing facilities represent a serious problem urgently requiring expert medical attention. The health care costs of drug-related problems can be both immense and avoidable. However, the research to date has been narrow in scope, focusing on the drug costs avoided and failing to consider the wider range of possible negative outcomes and potential drug-related problems. **OBJECTIVES:** To develop a model of therapeutic outcomes resulting from drug therapy within nursing facilities, to estimate the magnitude of the cost of drug-related morbidity and mortality within nursing facilities in the United States, and to assess the impact of pharmacist-conducted, federally mandated, monthly, retrospective review of nursing facility residents' drug regimens in reducing the cost of drug-related morbidity and mortality. **METHODS:** Using decision analysis techniques, a probability pathway model was developed to estimate the cost of drug-related problems within nursing facilities. An expert panel consisting of consultant pharmacists and physicians with practice experience in nursing facilities and geriatric care was surveyed to determine conditional probabilities of therapeutic outcomes attributable to drug therapy. Health care utilization and associated costs derived from negative therapeutic outcomes were estimated. **RESULTS:** Baseline estimates indicate that the cost of drug-related morbidity and mortality with the services of consultant pharmacists was \$4 billion compared with \$7.6 billion without the services of consultant pharmacists. **CONCLUSIONS:** Drug-related morbidity and mortality in nursing facilities represent a serious economic problem. For every dollar spent on drugs in nursing facilities, \$1.33 in health care resources are consumed in the treatment of drug-related problems. With the current federally mandated drug regimen review, it is estimated that consultant pharmacists help to reduce health care resources attributed to drug-related problems in nursing facilities by \$3.6 million.

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