Could Earlier Cataract Surgery for Older Adults Reduce Their Involvement in Motor Vehicle Collisions?

Volume 24, Number 2, December 2013

“Yes,” say Lister Hill scholar Stephen Mennemeyer and colleagues. “Older adults who undergo cataract extraction have roughly half the rate of motor vehicle collision (MVC) involvement per mile driven compared to cataract patients who do not elect cataract surgery. In this study, we simulated the effect that a proactive policy encouraging cataract surgery earlier for a lesser level of complaint would have on MVCs among older drivers. We found that earlier surgery reduces by about 21 percent the average number of MVCs, fatalities, and MVC cost per person. The net effect on total cost—all MVC costs plus cataract surgery expenditures—is a reduction of about 16 percent.”

Currently in the U.S., most insurers do not allow payment for cataract surgery based upon the findings of a comprehensive eye examination unless accompanied by an individual’s complaint of visual difficulties that seriously interfere with driving or other daily activities. Furthermore, even if insurer regulations are not rigorously enforced, individuals may be slow to seek relief for cataract symptoms due to cognitive deficits, age, insurance coverage, income or simple procrastination. As a consequence, surgery tends to occur after significant vision problems have emerged.

The researchers developed a Monte Carlo model to simulate the motor vehicle collision experience of the U.S. population from age 60 to 89 under alternative protocols for the timing of cataract surgery which they called “Current Practice” (CP) and “Earlier Surgery” (ES). From the perspective of payers for healthcare, the switch to ES from CP would increase cataract surgery expenditure for ages 65+ by about 8 percent and for ages 60-64 by about 47 percent. However, these expenditures are substantially offset after age 65 by reductions in the medical and emergency services components of MVC cost.

“A policy of earlier surgery would increase cataract surgery expenditures because more people would qualify for it during their natural lifespan,” say the researchers. “However, from a societal viewpoint ES could reduce the number of MVCs, fatalities and MVC related costs while improving quality of life of the individual.”

Accident Analysis & Prevention. Vol. 61, December 2013, pp. 203-211