Older drivers—what physicians need to know and how they can help

Research studies indicate today's drivers rarely think about how long they will be able to continue driving. ICBC has found that virtually all older drivers, even those in their late eighties and nineties, say they plan to continue driving a minimum of two more years. Most drivers assume they will always be competent to drive, and a small proportion (particularly older men) are adamant that only death will force them to stop.[1]

By 2050, the number of drivers over age 65 will double to more than 25% of the driving population.[2] Currently, drivers age 75 and older represent the fastest growing segment. By 2020, the total annual kilometres driven by older drivers will increase fourfold.[3]

Aging and driving

Aging is sometimes associated with changes in driving behavior that can lead to increased crashes. Failure to yield, and "looked but did not see" are common elements of these crashes. ICBC has found that very few older drivers perform adequate shoulder checks, primarily because of reduced flexibility, but also because of a lack of knowledge about when and how to do them. Older drivers tend to rely on their mirrors or on their memory of what objects they passed a while ago, failing to consider either blind spots or the faster movement of objects around them, especially as their own driving speed slows as they age.

By age 55, changes occur in the brain that affect short-term memory, visuospatial processing, attention, and executive functions essential to driving tasks, such as safe lane changes, proper lane selection, responding to traffic, and finding a destination. As drivers age, the visual area used to divide attention between central and peripheral tasks shrinks so that it takes longer to search out, recognize, and respond to hazards.[4] Eye movement patterns of older adults cover smaller areas, miss more regions in the search area, and return more frequently to the same location, a phenomenon that is especially relevant to entering roadways or crossing intersections. The result is a significant increase in the crash rate of older adults beginning about age 65. In fact, drivers over age 80 have more crashes per kilometre driven than drivers aged 16 to 19.[5]

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Adapting to aging

Although many aging drivers recognize their physical and mental changes and avoid challenging conditions such as nighttime driving, one study revealed 20% of those who continued to drive in hazardous conditions failed an on-road driving test.[6] In other ICBC studies, two-thirds of drivers over age 65 said they still drive when it is dark, in bad weather, and in heavy traffic, and 90% intended to continue driving in these conditions.[7]

Identifying at-risk drivers

One study has shown that, due primarily to time restrictions of in-office appointments, only 11% of drivers later found to have poor cognitive assessment scores were recognized by primary care physicians as having cognitive problems.[8] Very few elders discuss their driving abilities with their doctor, and those with driving difficulties are less likely to report problems and more likely to give their driving skills a high rating.[9] Most physicians rely on the Mini Mental State Exam (MMSE), but a recent meta-analysis of studies found no relationship between MMSE and on-road test scores; only visuospatial skills and attention-concentration tests showed correlations with driving abilities.[10]

Although no single test has been proven as an adequate diagnostic tool for assessing driving abilities, several may help in identifying some individuals who should be referred to medical and/or driver rehab specialists for further evaluation. Whereas a 10-minute interview may not reveal impairments in some individuals, visuospatial skills needed for driving may be detected using block design, picture completion, clock drawing, and geometric figure copy tasks. Attention-concentration problems may be revealed through tests such as Trails A, Digit Span, and Digit Sym-

bol. However, the lack of cutoff scores precludes these from being used as diagnostic tools but may provide a basis for further investigation.

It is important to note that Section 230 of the Motor Vehicle Act requires a medical practitioner (or a registered psychologist or an optometrist) to report to the superintendent of motor vehicles the name, address, and medical condition of a patient 16 years or older who: *In the opinion of the psychologist, optometrist, or medical practitioner has a medical condition that makes it dangerous to the patient or to the public for the patient to drive a motor vehicle, and continues to drive a motor vehicle after being warned of the danger by the psychologist, optometrist, or medical practitioner.*

The role of physicians

Family physicians can play a key role in helping adults recognize that aging is associated with changes that affect driving, and that all drivers should make concrete, realistic plans to find alternative transportation as they age. Recent studies of ICBC data have shown that when age-related changes are identified, appropriate curtailing of driving during hazardous conditions can have a protective effect.[11] However, the loss of a driver's licence is perceived by most elders as a catastrophic event and frequently results in isolation, depression, and physical decline.[12] Physicians should begin discussing driving before frailty develops to help drivers gradually adapt to the idea that they will eventually need to stop driving, and to prepare them for the potentially sudden, shocking loss of a licence.

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