Identifying Behaviors and Situations Associated with Increased Crash Risk for Older Drivers


This report from the National Highway Traffic Safety Administration analyzed the most recent Fatality Analysis Reporting System, National Automotive Sampling System/General Estimates System data to identify specific driving behaviors that are performance errors as well as characteristics associated with crash involvement of older adults.

Some of the Results:

- Drivers ages 60-69 have crash rates very similar to middle age drivers, except for daylight crashes are increased; probably due to the self restriction.
- The characteristics of merging, changing lanes, interstate highways, bad weather does not increase older driver risk; probably due to self-regulation.
- Higher older driver crash involvement is associated with high speed two lanes and multi-lane roads with speed limits for 40-45 (roads associated with small towns and suburban areas).
- Drivers ages 60-69 have slight elevation with
  1. Navigating intersections with flashing lights and
  2. Turning left at intersections with traffic signals.
- Drivers 70-79 have increased risk with
  1. navigating higher speed,
  2. multiple lane roadways (suburban) especially at junctions.
- Drivers 80 years and up are at higher risk:
  1. under a variety of conditions,
  2. for higher “at-fault” collisions, and
  3. when driving alone or with 1 other person.
- Who is at fault in a collision?
  - 60-69 years: Crash involvement ratio is 0.75, lower than average.
  - 70-79 years: Crash involvement ratio is 1.75, higher than average
  - 80 and above: Crash involvement ration is 4.0, very high
    - Out of 27 fatal crashes, 26 were errors at intersections with flashing signals or yield sign controlled intersection for 80 and up years (see Figure 9)
  - With older adults, they are most often in the vehicle struck by the other vehicle (crossing in a left hand turn).

Physicians: What can you do?

- Recommend selecting routes that minimize or eliminate requirements for certain high demand maneuvers may be an effective behavioral countermeasure for older drivers.
- Encourage self regulation for exposure to risky situations
- Discuss driving with clients 70 years and up with the goal of retirement after 80 years.
- Recommend a driving evaluation after 80 years.
Figure 1. Overall two-vehicle fatal CIRs by driver age group.

Figure 5. Two-vehicle fatal CIRs by roadway speed limit.

Figure 9. Two-vehicle fatal CIRs by intersection traffic control.

Summarized: Dr. Anne Dickerson, October 2010