Road traffic accidents and older people

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The issue
Burden
Risk
Frailty
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Conclusion
The issue

There is a perception that:

- Older drivers have more road injuries
- Older drivers present an elevated risk to others
- Older drivers are less likely to be able to drive “safely”

We shall examine these perceptions further.
Who owns the perception

  (doi:10.1016/j.aap.2008.08.012)
Drinking drivers (87.1%), Running Red Lights (70.2%), Street Racing (68.7%), Excessive Speeding (67.9%), Cell Phones (66.4%), Child Safety Seats (65.1%), Distracted Drivers (64.9%), Drowsy Drivers (56.1%), Children and ATVs (47.0%), Elderly drivers (32.7%), young drivers (25.7%).
“Older drivers”

- Older drivers: a literature review (No. 25)
- 29 November 2001
- Work conducted under the “Impairment” theme
“Older drivers”

Details vary around the world, but in the UK:

- After 70, reapply for licence in 3 yearly intervals.
- Vision, reaction time, other cognitive functions decline with age.
- Co-morbidities may confuse issue.
In a rural area . . .

- There is a perception in a rural area that a car is essential for a social life
- Removal of driving licence is a non-trivial issue
Some personal thoughts

- Some very simple figures follow... as well as some personal thoughts on these questions in relation to other published evidence
- Hopefully, this forum will allow these issues to be discussed!
Police reported fatal crashes
2004

- Red: Car occupants
- Green: Pedestrians

0to4 15−19 30−34 45−49 60−64 75−79
Burden

- Slight caveat: *per capita* death rates are higher
- Why the concern about licence restrictions for old people - shouldn’t we raise the lower limit to 25?
• A body of evidence questions the impact of the “older driver problem”

Questions

- No subgroup of low mileage high risk drivers
- What L+D’A’s definition of elderly?
- What do we make of gender comparisons?
Risk to others

- More difficult to explore - relies on correct assertion of "blameworthiness"
- Easier to show frailty
Risk to others

- Examined crashes in which a pedestrian died
- Examine age/gender of the driver
Evan’s Results

- (e.g.) ratio of pedestrian fatal involved male driver 65 years old to pedestrian fatal involved male driver 20 years old was 0.118 (0.279 if adjusting per capita)
- The figure does get a little worse above 70, but not by much!
Frailty

- A *hint* that frailty is an issue, but see “Saving Lives: Our Healthier Nation 1999” (all accidents have consequences)
- Driving is a public activity and therefore attracts more attention
- Is this reasonable?
Interventions 1

- Driving Decisions workbook (see also Eby et al. 2003 J.Safety Res 34:371-81): self reporting systems can be effective
Interventions 2

Some thoughts

- de Waard et al.’s definition of an “old” driver?
- Cognitive burden of using in car warnings?
- Attitude of “elderly” drivers toward this equipment?
Other conclusions


- (See Devon County Council for local interpretation)
Personal Conclusion

• It is easy to identify “groups” of road users who are at risk
• It is extremely difficult to determine whether these are greater risk to themselves or to others
• Should older drivers be normative?
Elderly as normative

“The elderly driver could be used as the normative driver to whom the traffic environment should be adapted.” K. Rumar (1986) 4th Nordic Conference of Traffic Medicine
Elderly as normative

The Road Information Program (TRIP), secondary analysis of Federal Highway Administration (FHWA) report, “Older Driver Highway Design Handbook”
Elderly as normative

Personal conclusion

• What do we mean by elderly?
• Balance between fixing the driver compared and fixing the environment?
• Priorities
• What are the alternatives for personal mobility?