

The elderly in the Italian traffic environment: analysis of mobility patterns and determinants for fatal outcomes.

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Road traffic injuries among the elderly substantially differ from those seen in younger subjects in terms of crash mechanisms and injury profile. The study aimed at analysing road traffic injuries among subjects aged over 65 in terms of the magnitude of the problem, mobility patterns and risk factors for fatal outcomes.

Mortality and morbidity rates for age groups (0-64; ≥ 65) and for mobility pattern were computed annually from 1991-2005, based on the police reports of all road traffic crashes that occurred in Italy from 1991 to 2005. Crashes involving subjects aged over 65 were analysed through stepwise logistic regression with accident outcome (dead/injured) as dependent variable and demographic, environmental, and crash factors as independent variables.

A downward trend in mortality rates for road traffic injury among the elderly was registered: from 16.7 per 100.000 inhabitants in 1991 to 9.7 in 2005. On the contrary, the morbidity rates showed an 11% increase in the 15 years under analysis. When involved in a crash, an elderly aged over 85 had an almost four-fold risk of death compared to a subject aged 65-74 (OR 3.6; CI:2.9-4.4). Older pedestrians were found to be the most vulnerable road users with a probability of dying for the impact 11 times that of car occupants (OR 10.9; CI:7.9-15.1). A crash occurring among the elderly in the South of Italy appeared to lead to death to a greater extent than crashes occurring in the rest of Italy.

Specific attention has to be paid to the elderly in the traffic environment: besides being more fragile, they are also considerably exposed to the traffic as vulnerable road users. Preventive interventions should target male elderly aged over 85, prioritizing interventions on pedestrians in the South of Italy.