### Study

**Orriols 2011**  
France  
Community Retrospective cohort 2005 to 2008

**Purpose:**  
To provide further insights into the influence of zopiclone, zolpidem and benzodiazepine (BZD) hypnotics on the risk of road traffic accidents using a large database extracted from national population-based registries.

**N = 72,685 road traffic accidents**  
18.5% of all registered drivers  
n = 34,896 responsible for causing the accident  
n = 37,789 did not cause accident

**Data sources:**  
3 French national databases  
- Health care insurance  
- Police reports  
- Police database of injury-related traffic accidents

**Men and women (32%)**  
Age  
≤24 = 25%  
25-44 = 44%  
45-64 = 24%  
≥65 = 7%

**Inclusion**  
Registered drivers  
Record of injury-related traffic accident  
Record of rx for zopiclone, zolpidem or BZD hypnotic

**Exclusion**  
(include if appropriate)

**Methods**

**Outcome**

**Follow up**

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| **Exposed to zopiclone** | n = 342 1 pill/day | Age ≥65 = 16%  
n = 113 >1 pill/day  
Age ≥65 = 10% | Risk of being responsible for a traffic accident | No significant risk |
| | | | | |
| **Exposed to zolpidem** | n = 530 1 pill/day | Age ≥65 = 27%  
n = 155 >1 pill/day  
Age ≥65 = 19% | Risk of being responsible for a traffic accident | OR (CI)  
1 pill / day  
>1 pill / day  
All exposed |
| | | | | |
| **Exposed to BZD hypnotics** | n = 217 1 pill/day | Age ≥65 = 11%  
n = 65 >1 pill/day  
Age ≥65 = 9% | Risk of being responsible for a traffic accident | OR (CI)  
1 pill / day  
>1 pill / day  
All exposed |

**Conclusion:** No association was found between the use of zopiclone and risk of traffic accidents. Although this study did not find any association between the use of zolpidem as recommended and causation of traffic accidents, the potential risk related to possible abuse of the drug and risky driving behaviors should be further investigated. The results related to benzodiazepine hypnotics are consistent with those of previous studies.