

## Patterns of alcohol consumption and risk of falls in older adults

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### Background and objective

Falls are a major health problem in older adults, but their relationship with alcohol consumption in this population remains unclear.

**Objective:** To examine the association between certain patterns of alcohol consumption, including the Mediterranean drinking pattern (MDP), and the risk of falls in older adults.

### Methods

**Study population:** Prospective cohort (Seniors-ENRICA) with 2170 community-dwelling individuals aged  $\geq 60$  years recruited in Spain in 2008-2010 and followed-up through 2012.

**Study variables:** At baseline, participants reported information on alcohol consumption patterns:

- **Average alcohol intake:** threshold between moderate and heavy intake: 40 g/day for men and 24 g/day for women
- **Beverage preference:** wine versus other
- **Drinking with meals:** only with meals versus other
- **MDP (Mediterranean Drinking Pattern):** moderate alcohol consumption with preference for wine and drinking only with meals

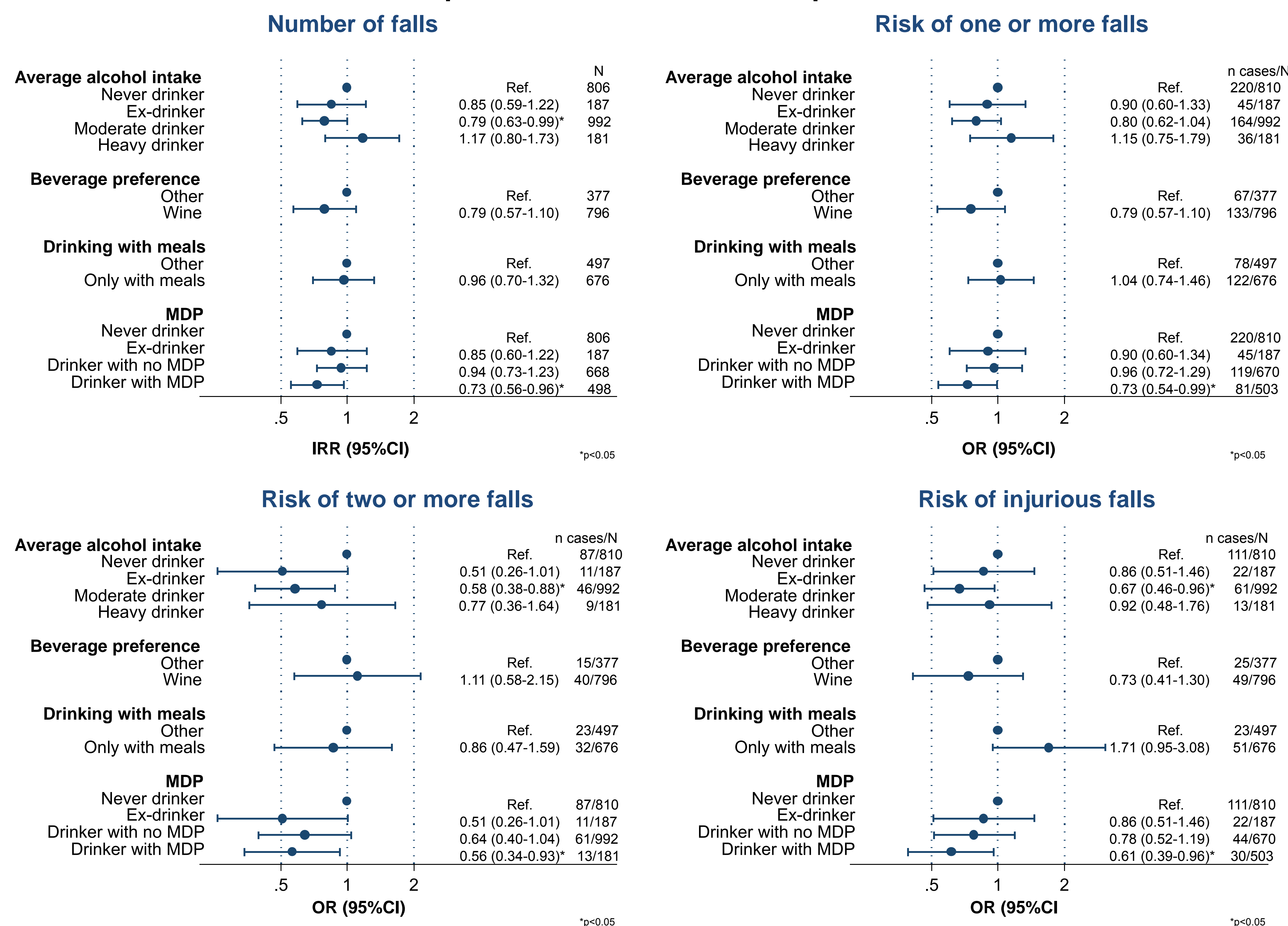
At the end of follow-up, participants reported information on falls during the previous two years.

**Statistical analysis:** Negative binomial or logistic regression, as appropriate, adjusted for the main confounders.

### Results

After a 3.3-year follow-up, 465 (21.4%) of study participants had experienced  $\geq 1$  fall, and 153 (7.1%)  $\geq 2$  falls in the previous two years.

#### Association between patterns of alcohol consumption and falls in older adults



Models adjusted for sex, age, educational level, tobacco smoking, living alone, time watching TV, physical activity, sleep during the day and at night, CV disease, hypertension, diabetes, cancer, respiratory disease, osteomuscular disease, depression requiring treatment, use of sleeping pills, n° of medications, n° of antihypertensive medications, BMI, consumption of caffeine, calcium and vitamin D, Mediterranean Diet Score (excluding alcohol), limitation in IADL at baseline, and n° of incident diseases during follow-up.

Compared to never drinkers, moderate drinkers showed a lower number of falls, an almost statistically-significant lower risk of  $\geq 1$  falls but a significantly lower risk of  $\geq 2$  falls and of falls requiring medical care.

Drinkers who adhered to the MDP showed less falls and a lower risk of  $\geq 1$  fall,  $\geq 2$  falls and falls requiring medical care than never drinkers.

### Conclusion

Moderate drinking and the MDP were associated with a lower risk of falls and injurious falls in older adults. However, sound advice on alcohol consumption should balance risks and benefits.