Table 2.28. Case–control studies of consumption of alcoholic beverages and cancer of the pancreas

Reference, study location, period	Characteristics of cases	Characteristics of controls	Exposure assessment	Exposure categories	Relative risk (95% CI)	Adjustment factors	Comments
Hassan *et al.* (2007), USA, 2000–06	808 identified through outpatient clinics; 100% histologically confirmed; age range not stated (all ages); response rate 81%	808 hospital-based (friends and spouses of patients who visited the hospital); matched by age, sex, race; response rate 84%	Interview-administered questionnaire	*Alcohol intake* Never Ever *Heavy drinking (mL ethanol/day)* < 60 ≥ 60	 1.0 1.0 (0.8–1.2) 0.9 (0.7–1.2) 1.6 (1.1–2.5)	Age, sex, race, smoking, diabetes, family history, pancreatitis, education, state of residency	Ever drinking defined as ≥ 4 drinks/month for 6 months during their lifetime
Anderson *et al.* (2009), Canada, Ontario Pancreatic Cancer Study, 2003–07	422 identified through cancer registry; 100% histologically confirmed; aged < 80 years; response rate 45%	213 population-based (Ministry of Finances property assessment rolls, and random digit dialling); aged < 75 years; no matching criteria stated; response rate 83%	Self-administered questionnaire	*Alcohol intake 1 year ago (drinks/week)* < 1 1–6 ≥ 7 *By smoking status Never-smokers* < 1 *drinks/week* 1–6 *drinks/week* ≥ 7 *drinks/week* *Ever-smokers* < 1 *drinks/week* 1–6 *drinks/week* ≥ 7 *drinks/week*	 1.0 0.50 (0.32–0.78) 0.88 (0.56–1.38) 1.0 0.61 (0.31–1.21) 0.86 (0.45–1.61) 1.0 0.44 (0.24–0.83) 1.02 (0.55–1.89)	Age, education, body mass index, smoking, family history, intake of fruit and caffeinated beverages, allergies	Information from proxies derived from 11% of cases; no difference by subgroup of smoking

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Reference, study location, period	Characteristics of cases	Characteristics of controls	Exposure assessment	Exposure categories	Relative risk (95% CI)	Adjustment factors	Comments
Benedetti et al. (2009), Canada, 1980s	83 identified through regional hospitals; all men; aged 35–70 years old; all histologically confirmed; response rate ~82% (for all cancer sites combined)	507 population-based (randomly selected from electoral roll); stratified by age and area to all cancers combined; response rate 72%	Interview or self-administered questionnaire with case or proxy	*Frequency of drinking (weekly)* Never 1–6 ≥ 7 *Alcohol intake in regular drinkers (drink-years)* Never weekly 0–71 72–179 ≥ 180 p for trend	 1.0 2.03 (0.99–4.17) 1.56 (0.77–3.16) 1.0 1.16 (0.48–2.80) 1.44 (0.61–3.39) 2.52 (1.07–5.91) *0.065*	Age, smoking, respondent status, race, income, education, time since quitting drinking, fruit and vegetable intake	Information from proxies derived from ~39% of cases; significant association with spirits (OR = 2.47, 1.27–4.80) for ≥ 7 weekly versus never weekly; no association with wine or beer; regular drinkers defined as drinking ≥ 7 times per week
Zaridze et al. (2009), 3 cities, the Russian Federation, 1990–2001	366 deaths (246 men, 120 women) identified from death certificates, 1990–2001; aged 15–74 years; overall response rate ~97% (i.e. for all deaths)	5475 deaths not judged to be due to alcohol of tobacco	Face-to-face interview with proxy	*Usual vodka intake (0.5 L bottles/week)* < 0.5 0.5–0.9 1–3 ≥ 3 p for trend < 0.5 0.5–0.9 1–3 ≥ 3 P for trend	*Men* 1.0 0.78 (0.63–0.97) 1.04 (0.84–1.29) 1.22 (0.96–1.54) *0.06* *Women* 1.0 1.17 (0.90–1.51) 1.68 (1.20–2.35) 1.08 (0.63–1.86) *0.6*	Age, city, smoking	Number of pancreatic cancer refer to ever-drinkers only; reference group includes ever-drinkers only and those with a usual intake of < 0.5 bottles of vodka (or equivalent) and maximum intake of < 0.5 bottles/day; this population has unusually high alcohol intake (moderate alcohol intake is within the reference category); information on other potential confounders unavailable