

Table 2.25. Pooled and meta-analyses of consumption of alcoholic beverages and cancer of the pancreas

Reference, location, name of study	Cohort description (No. in analysis)	Exposure assessment	Exposure categories	No. of cases	Relative risk (95% CI)*	Adjustment factors	Comments
Genkinger <i>et al.</i> (2009) Pooling Project; includes:	Pooled analysis of 14 cohort studies; 862	Varied	<i>Alcohol intake (g/d)</i>	2187		Smoking,	No significant
1) ATBC Cancer Prevention Study	664 individuals, and 2 187 incident cancers		<i>Men and women</i>			history of	heterogeneity by
2) Breast Cancer Detection Demonstration Project Follow-up Study			0	652	1.0	diabetes, body	study; no significant
3) Canadian National Breast Screening Study			0.1–4.9	638	1.02 (0.91–1.14)	mass index,	difference by
4) Cancer Prevention Study II Nutrition Cohort			5–14.9	416	0.91 (0.79–1.04)	energy intake,	beverage type;
5) California Teachers Study			15–29.9	238	0.96 (0.82–1.14)	age, date of	slightly stronger
6) Cohort of Swedish Men			≥ 30	243	1.22 (1.03–1.45)	questionnaire	association when
7) Health Professionals Follow-up Study			p for trend		0.05	completed	limited to
8) Iowa Women’s Health Study			<i>Men</i>				adenocarcinomas;
9) Melbourne Collaborative Cohort Study			0	207	1.0		no significant
10) Netherlands Cohort Study			0.1–4.9	268	0.98 (0.81–1.19)		difference by
11) New York State Cohort Study			5–14.9	245	0.94 (0.78–1.15)		subgroups of sex
12) Nurses’ Health Study			15–29.9	147	0.86 (0.69–1.08)		(shown), smoking
13) Prostate, Lung, Colorectal and Ovarian Cancer Screening Trial			≥ 30	172	1.12 (0.89–1.39)		(shown), folate
14) Sweden Mammography Cohort			p for trend		0.33		intake, methionine
			<i>Women</i>				intake, multivitamin
			0	445	1.0		use, or age at
			0.1–4.9	370	1.04 (0.90–1.20)		diagnosis, although
			5–14.9	171	0.87 (0.72–1.06)		there was a
			15–29.9	91	1.09 (0.86–1.39)		significant
			≥ 30	71	1.41 (1.07–1.85)		interaction with
			p for trend		0.04		body mass index
			<i>Smoking status</i>		<i>Per 15 g/d</i>		(shown), with a
			Never	762	0.96 (0.85–1.08)		stronger association
			Past	658	1.07 (0.99–1.15)		with alcohol intake
			Current	643	1.07 (0.99–1.16)		among normal-
			P for interaction		0.91		weight versus
			<i>Body mass index (kg/m²)</i>		<i>Per 15 g/d</i>		overweight and
			< 25	929	1.12 (1.06–1.17)		obese individuals
			≥ 25	1 189	1.02 (0.95–1.07)		
			P for interaction		0.01		

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Tramacere <i>et al.</i> (2009)	Meta-analysis of 21 case-control and 11 cohort studies (including the pooled analysis by Genkinger <i>et al.</i> (2009))	Varied	<i>Alcohol intake (drinks/d)</i> <i>Men and women</i> None/Occasional < 3 ≥ 3 <i>Men</i> None/Occasional < 3 ≥ 3 <i>Women</i> None/Occasional < 3 ≥ 3 <i>Random-effects model-based pooled estimates for alcohol intake (g/d):</i> <i>Men and women</i> None 25 50 75 100 125		1.0 0.92 (0.86–0.97) 1.22 (1.12–1.34) 1.0 0.95 (0.89–1.01) 1.19 (1.05–1.33) 1.0 0.89 (0.85–0.93) 1.16 (0.94–1.44) 1.0 1.03 (0.99–1.07) 1.10 (1.02–1.20) 1.19 (1.06–1.35) 1.30 (1.08–1.55) 1.40 (1.06–1.85)	Various – as per study	No significant heterogeneity by geographical area or whether the studies had adjusted for tobacco smoking; significant heterogeneity between low- and high-quality studies, with a positive association (RR: 1.30, 95% CI: 1.16–1.45) for high-quality studies, and no association for low-quality studies; some evidence of heterogeneity ($P = 0.07$) by study design, with stronger associations for cohort studies (RR = 1.29 for ≥ 3 drinks/d versus none) than case-control studies (RR = 1.10)