Table 1. Characteristics of cohort studies of coffee consumption and prostate cancer risk included in the meta-analysis

Study	Country	Study period	Age at baseline	Size of cohort/ controls	No. of cases	Exposure assessment methods	Definition of coffee consumption	Outcome	Follow-up time	Confounder adjustments	NOS total quality score; Risk of bias (Potential bias)
Ong et al. 2019	UK	2006-2010	37-73 years	131834	7532	Self-reported diet survey	1 cup/day increase; no information on the highest and lowest coffee intakes	Total prostate cancer	<5 years	Age, townsend deprivation index, top 10 ancestral principal components, smoking status, BMI, height, alcohol intake, drink temperature, overall heath rating, highest qualification. Instrumental variable analyses (SNP instruments) were also used to control confounders	7 stars; low risk of bias (exposure misclassification bias)
Sen et al. 2019	Europe	1990s-2015	Mean: 52 years.	142196	7036	Validated FFQ	The highest intake: median of 855 ml/day (no. of cases: 1271); The lowest intake: median of 0 ml/day (no. of cases: 396)	Total, Localized, advanced prostate cancer	Mean: 14 years	Stratified by center and age at recruitment in 5 years categories, and adjusted for smoking status, BMI, history of diabetes, alcohol intake, education, physical activity, energy intake, as well as calcium, fish, tea, fruit and vegetable intake.	9 stars; low risk of bias
Pounis et al 2017	Italy	2005-2010	⩾50 years;	6989	100	Validated FFQ	The highest intake: >3 cups/day (>90	Total prostate cancer	Mean: 4.24 years	Age, energy intake, smoking habits and BMI	8 stars; low risk of bias

			Mean: 67 years				g/day) (no. of cases: 14); The lowest intake: 0-2 cups/day (0-55 g/day) (no. of cases: 45)			
Hashibe et al. 2015	USA	1992-2011	55-74 years	46771	3037	Validated diet history questonnaire	Mean coffee intake is 1.9 cups/day; The highest intake: ≥2 cups/day (no. of cases: 1731); The lowest intake: <1 cups/day (no. of cases: 889)	Total prostate cancer	>10 years	Age, sex, race, and education.	8 stars; low risk of bias (confounding bias)
Tverdal et al. 2015	Norway	1974-1999	20-69 years	224234	5740	Questionnaire	The highest intake: ≥9 cups/day (no. of cases: 642); The lowest intake: none (no. of cases: 389)	Total prostate cancer	Mean: 17.6 years	Age, smoking, BMI, height, physical activity, total cholesterol, triglycerides, systolic blood pressure, year of examination and diabetes	8 stars; low risk of bias (exposure misclassification bias)
Li et al. 2013	Japan	1995-2005	40-79 years	18,853	318	Validated FFQ	The highest intake: ≥3	Total prostate	11 years	Age, education, BMI, time engaging in sports or exercise, marital status, time spent walking,	8 stars; low risk of bias

							cups/day (no. of cases: 24); The lowest intake: none (no. of cases: 84)	cancer incidence		smoking status, family history of cancer, job status, total energy intake, passive smoking, alcohol drinking, daily consumption of miso soup	
Discacciati et al. 2013	Sweden	1998-2010	45-79 years	44,613	3801	Validated self-administered FFQ	The highest intake: ≥6 cups/day (median of 1484 g/day) (no. of cases: 173); The lowest intake: none (median: 0 g/day) (no. of cases: 129)	Localized and advanced prostate cancer incidence Prostate cancer mortality	13 years	Age, tea, alcohol, BMI, diabetes, family history of prostate cancer, smoke, physical activity, education, total energy intake.	8 stars; low risk of bias
Bosire et al. 2013	USA	1995-2008	50-71 years	288,391	23335	Validated FFQ	The highest intake: ≥6 cups/day (no. of cases: 787); The lowest intake: none (no. of cases: 2136)	Total prostate cancer incidence	>11 years (median: 10.5 years)	Age, race, height, BMI, physical activity, smoking, history of diabetes, family history of prostate cancer, PSA testing, intakes of tomato sauce, alpha-linolenic acid, and total energy intake.	8 stars; low risk of bias
Shafique et al. 2012	UK	1970-2007	21-75 years (median	6017	318	Self-administered questionnaire	The highest intake: ≥3 cups/day (no. of cases: 65);	Total prostate cancer incidence	37 years (median: 28 years)	Age at screening, cholesterol, systolic blood pressure, BMI, alcohol intake, tea consumption, smoking status, social class.	8 stars; low risk of bias (exposure misclassification bias)

			: 48 years)				The lowest intake: none (no. of cases: 139)				
Wilson et al. 2011	USA	1986-2006	40-75 years	47,911	5035	Validated FFQ	The highest intake: ≥6 cups/day (no. of cases: 152); The lowest intake: none (no. of cases: 587)	Total prostate cancer incidence	20 years	Age in months, calendar time, race, BMI at age 21, current BMI, vigorous physical activity, smoking, diabetes, family history of prostate cancer in father or brother, multivitamin use, intakes of processed meat, tomato sauce, calcium, alpha-linolenic acid, supplemental vitamin E, alcohol intake, energy intake, history of PSA testing.	9 stars; low risk of bias
Nilsson et al. 2010	Sweden	1985-2007	40-60 years (median : 50 years)	30,930	653	Validated Semi-quantitative FFQ	The highest intake: ≥4 cups/day (no. of cases: 209); The lowest intake: <1 cup/day (no. of cases: 60)	Total prostate cancer incidence	15 years (median: 6 years)	Age, BMI, smoking, education, recreational physical activity.	8 stars; low risk of bias
Iso et al. 2007	Japan	1988-1997	40-79 years	43,500	161	Self-administrated questionnaire	The highest intake: ≥2 cups/day (no. of cases: 38);	Prostate cancer mortality	Mean: 8.15 years	Age, area of study	7 stars; low risk of bias (exposure misclassification bias, confounding bias)

						The lowest intake: ⩽1-2 cup/month (no. of cases: 47)				
Ellison et al. 2000	Canada	1970-1993	50-84 years	3400	145	FFQ	The highest intake: ≥750 mg/day (no. of cases: 122); The lowest intake: 0 mg/day (no. of cases: 23)	Total prostate cancer incidence	Mean: 11.6 year	Age, wine consumption.	6 stars; medium risk of bias (exposure misclassification bias, confounding bias)
Le Marchand et al. 1994	USA	1975-1989	⩾45 years	20,316	198	Self-administered life-style questionnaire	The highest intake: ≥2.5 cups/day; The lowest intake: none.	Total prostate cancer incidence	Median: 6 years	Age, ethnicity, income.	6 stars; medium risk of bias (exposure misclassification bias, confounding bias)
Hsing et al. 1990	USA	1966-1986	⩾35 years (Median : 51 years)	17,633	149	FFQ	The highest intake: ≥5 cups/day; The lowest intake: <3 cups/day.	Prostate cancer mortality	20 years (Mean: 15.6 years)	Age, tobacco use.	7 stars; low risk of bias (exposure misclassification bias, confounding bias)
Severson et al. 1989	USA	1965-1986	46-68 years	7998	174	FFQ + 24-h diet recall interview	The highest intake: ≥5 cups/week (no. of cases: 146);	Total prostate cancer incidence	Mean: 17.4 years	Age	7 stars; low risk of bias (confounding bias)

	The lowest intake: <1 cups/week (no. of cases: 22)

BMI, body mass index; CI, confidence interval; FFQ, food frequency questionnaire; NA, not available; PSA, prostate-specific antigen; RR, relative risk;