

Table 2.4. Case-control studies of combined estrogen-progestogen contraceptives and endometrial cancer

Reference, location	Age	Source of controls	Ascertainment of use	Participation (%)		Type/measure of use	No. of subjects		Odds ratio (95% CI)
				Cases	Controls		Cases	Controls	
Kaufman et al. (1980), Canada and USA	< 60 years	Hospital patients	Personal interviews	96 ^a	96 ^a	No use	136	411	1.0
						Ever use	16	105	[0.4 (0.2–0.8) ^b]
						<i>Duration (years)</i>			
						< 1	5	14	0.8 (NR)
						1–2	6	32	0.5 (NR)
						≥ 3	5	53	0.3 (NR)
						Unknown	0	6	
<i>Recency of use (years)</i>									
≥ 5 years	12	60	0.6 (0.3–1.2)						
≥ 1 year	8	52	0.5 (0.2–1.0)						
Weiss & Sayvetz (1980), Washington State, USA	36–55 years	General population	Personal interviews	83	96	No use or < 1 year of use	93	173	1.0
						≥ 1 year of use	17	76	0.5 (0.1–1.0)
Hulka et al. (1982), North Carolina, USA	< 60 years	General population	Personal interviews and medical record reviews	90 ^a	90 ^a	No use or < 6 months' use	74	172	1.0
						≥ 6 months' use	5	31	0.4 (NR)
						<i>Duration (years)</i>			
						< 5	3	14	0.6 (NR)
						≥ 5	2	17	0.3 (NR)
<i>Recency (years)</i>									
< 1	0	13	–						
≥ 1	5	14	0.9 (NR)						
Kelsey et al. (1982), Connecticut, USA	45–74 years	Hospital patients	Personal interviews	67	72	No use	NR	NR	1.0
						Each 5 years of use	NR	NR	0.6 (0.3–1.5)
						<i>Age 45–55 years</i>			
						No use	31	256	1.0
						<i>Duration (years)</i>			
≤ 2.5	4	42	0.9 (NR)						
> 2.5	2	44	0.5 (NR)						
Henderson et al. (1983a), Los Angeles county, USA	≤ 45 years	Residents in neighbourhood of cases	Telephone interviews	81	NR	No use	67	50	1.0
						<i>Duration (years)</i>			
						< 2	23	22	0.8 (NR)
						2–3	12	11	0.8 (NR)
						4–5	4	9	0.3 (NR)
≥ 6	4	18	0.1 (NR)						
La Vecchia et al. (1986), greater Milan, Italy	< 60 years	Hospital patients	Personal interviews	98 ^c	98 ^c	No use	163	1104	1.0
						Ever use	7	178	0.50 (0.23–1.12)

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				Cases	Controls		Cases	Controls	
Pettersson et al. (1986), Uppsala, Sweden	≤ 60 years	General population	Personal interviews	93	80	No use	96	91	1.0
						Ever use	12	22	0.5 (0.2–1.1)
						<i>Duration (years)</i>			
						< 1	5	6	0.8 (0.2–2.7)
			≥ 1	7	16	0.4 (0.2–1.0)			
CASH (1987a), eight US areas	20–54 years	General population	Personal interviews	73	84	No use	250	1147	1.0
						Ever use	NR	NR	0.5 (0.4–0.6)
						<i>Duration (months)</i>			
						3–6	24	186	0.9 (0.5–1.5)
						7–11	13	80	1.3 (0.6–2.6)
						12–23	20	266	0.7 (0.4–1.2)
						24–71	26	576	0.4 (0.3–0.7)
						72–119	12	317	0.4 (0.2–0.8)
						≥ 120	15	241	0.4 (0.2–0.8)
						<i>Recency (years)</i>			
						< 5	12	471	0.3 (0.1–0.5)
5–9	22	417	0.4 (0.2–0.6)						
10–14	30	368	0.5 (0.3–0.8)						
≥ 15	9	144	0.3 (0.2–0.6)						
WHO (1988); Rosenblatt & Thomas (1991), nine centres in seven countries: Australia, Chile, China, Israel, Mexico, the Philippines, Thailand	< 60 years	Hospital patients	Personal interviews	87	93	No use	182	1072	1.0
						<i>Progestogen content</i>			
						High			
						Ever use	3	156	0.1 (0.1–0.4)
						<i>Duration (months)</i>			
						1–24	1	85	0.1 (0.0–0.7)
						≥ 25	2	69	0.2 (0.0–0.8)
						<i>Recency (months)</i>			
						1–120	1	61	0.1 (0.0–0.8)
						≥ 121	2	93	0.2 (0.0–0.7)
						Low			
Ever use	9	132	0.6 (0.3–1.2)						
<i>Duration (months)</i>									
1–24	8	69	1.0 (0.5–2.4)						
≥ 25	1	56	0.1 (0.0–1.1)						
<i>Recency (months)</i>									
1–120	2	72	0.3 (0.0–1.1)						
≥ 121	7	54	1.1 (0.5–2.8)						

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				Cases	Controls		Cases	Controls	
Koumantaki et al. (1989), Athens, Greece	40-79 years	Hospital patients	Personal interviews	80	95	No use or ≤ 6 months' use	80	151	1.0
						> 6 months' use	3	13	0.6 (0.2-2.0) ^d
Levi et al. (1991), Canton of Vaud, Switzerland	32-75 years	Hospital patients	Personal interviews	85 ^a	85 ^a	No use	105	227	1.0
						Ever use	17	82	0.5 (0.3-0.8)
						<i>Duration (years)</i>			
						< 2	9	19	1.0 (0.5-2.3)
						2-5	3	18	0.5 (0.1-1.2)
						> 5	5	45	0.3 (0.1-0.7)
						<i>Recency (years)</i>			
< 10	4	30	0.3 (0.1-0.9)						
10-19	7	37	0.4 (0.2-1.0)						
> 19	5	15	0.8 (0.3-2.2)						
Shu et al. (1991), Shanghai, China	18-74 years	General population	Personal interviews	91	96	No use of any birth control	84	72	1.0
						Ever use of oral contraceptives	32	46	0.8 (0.4-1.8)
						<i>Duration (years)</i>			
						≤ 2	NR	NR	1.4 (0.6-3.0)
> 2	NR	NR	0.4 (0.1-1.2)						
Jick et al. (1993), Washington State, USA	50-64 years	Members of health maintenance organization	Mailed form and pharmacy database	83	79	No use	110	737	1.0
						Ever use	26	270	0.5 (0.3-0.9)
						<i>Duration (years)</i>			
						1	7	65	0.4 (0.1-1.4)
						2-5	11	90	0.8 (0.3-1.7)
						≥ 6	8	115	0.3 (0.1-0.9)
						<i>Recency (years)</i>			
						1-10	5	67	0.4 (0.1-1.1)
11-15	6	82	0.4 (0.1-1.2)						
16-20	4	57	0.5 (0.1-1.8)						
≥ 21	9	54	0.6 (0.2-2.1)						

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				Cases	Controls		Cases	Controls	
Stanford et al. (1993), five US areas	20-74 years	General population	Personal interviews	87	66	No use	321	187	1.0
						Ever use	81	107	0.4 (0.3-0.7)
						<i>Duration (years)</i>			
						< 1	27	21	0.7 (0.3-1.4)
						1-2	16	33	0.3 (0.1-0.6)
						3-4	12	16	0.3 (0.1-0.8)
						5-9	14	15	0.7 (0.3-1.6)
						≥ 10	7	19	0.2 (0.1-0.5)
						<i>Recency (years)</i>			
						< 10	6	18	0.1 (0.0-0.3)
						10-14	15	27	0.3 (0.1-0.7)
15-19	24	32	0.4 (0.2-0.8)						
≥ 20	33	27	0.7 (0.4-1.3)						
Voigt et al. (1994)e, Washington State, USA	40-59 years	General population	Personal interviews	83	95 and 73 ^f	No use or < 1 year of use	117	284	1.0
						<i>Recency of use</i>			
						> 10 years			
						<i>Duration (years)</i>			
						1-5	14	30	0.9 (0.4-1.9)
						> 5	4	16	0.4 (0.1-1.2)
						≤ 10 years			
						<i>Duration (years)</i>			
						1-5	7	28	1.0 (0.4-2.4)
						> 5	7	74	0.3 (0.1-0.6)
						<i>Progestogen content</i>			
Low									
<i>Duration (years)</i>									
1-5	10	22	1.1 (0.5-2.6)						
> 5	3	32	0.2 (0.1-0.8)						
High									
<i>Duration (years)</i>									
1-5	3	14	0.8 (0.2-3.1)						
> 5	3	28	0.3 (0.1-0.9)						
Kalandidi et al. (1996), Athens, Greece	(≤ 59) + (60-69) + (≥ 70) years	Hospital patients	Personal interviews	83	88	No use	143	293	1.0
						Ever use	2	5	1.3 (0.2-7.9)
Salazar-Martinez et al. (1999), Mexico City, Mexico	37.1 (mean) years	Hospital patients	Personal interviews	100	93	No use	71	473	1.0
						<i>Duration (years)</i>			
						< 1	6	78	0.56 (0.22-1.30)
> 1	7	117	0.36 (0.15-0.83)						

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				Cases	Controls		Cases	Controls	
Weiderpass et al. (1999), Sweden	50-74 years	General population	Self-completed questionnaire	75	80	No use	551	2252	1.0
						<i>Duration (years)</i>			
						< 3	91	421	1.0 (0.7-1.3)
						> 3	45	518	0.5 (0.3-0.7)
Jain et al. (2000), Ontario, Canada	30-79 years	Population	Personal interview	70	59	No use	317	265	1.0
						Ever use	195	248	0.66 (0.51-0.84)
Parslov et al. (2000), Denmark	> 50 years	Population	Self-completed questionnaire	93	91	No use	90	75	1.0
						<i>Duration (years)</i>			
						< 1	52	95	0.4 (0.3-0.7)
						1-5	50	210	0.2 (0.1-0.3)
						> 5	45	158	0.2 (0.1-0.4)
Newcomb & Trentham-Dietz (2003), Wisconsin, USA	40-79 years	Population	45 min telephone interview	87	85.2	No use	460	1494	1.0
						<i>Duration (years)</i>			
						< 3	74	260	1.04 (0.74-1.40)
						> 3	54	275	0.73 (0.52-1.02)
Tao et al. (2006), Shanghai, China	30-69 years	Population	Personal interview	1204	1212	No use	981	910	1.00
						Ever use	223	302	0.75 (0.60-0.93)
						<i>Duration (years)</i>			
						< 6	73	59	0.94 (0.64-1.38)
						6-23	58	70	0.74 (0.50-1.09)
						24-72	65	93	0.75 (0.52-1.07)
						> 72	27	80	0.50 (0.30-0.85)
<i>Recency (years)</i>									
1-24	128	158	0.96 (0.72-1.27)						
≥ 25	95	144	0.57 (0.42-0.78)						
Okamura et al. (2006), Japan	20-80 years	Cervical cancer screening clinic	Personal interview	155	96	No use	152	86	1.00
						Ever use	3	9	0.16 (0.04-0.66)

CI, confidence interval; NR, not reported

^a Responses reported for case and control women combined

^b Crude odds ratio and 95% CI calculated from data provided in the published paper by exact methods

^c Methods state that less than 2% of eligible case and control women refused an interview.

^d 90% confidence interval

^e Includes women from the study of Weiss & Sayvetz (1980)

^f Response for controls identified in 1985-87