

Table 2.8. Cohort studies of estrogen-only menopausal therapy and ovarian cancer

Reference, location, name of study	Cohort description	Exposure assessment	Organ site (ICD code)	Exposure categories	No. of cases/deaths	Relative risk (95% CI)*	Adjustment for potential confounders	Comments
Rodriguez et al. (2001) US, The Cancer Prevention Study II, 1982-1996	Volunteers were enrolled in 1982. Vital status was determined through 1996 by active follow-up (1984, 1986, and 1988) or linkage to the National Death Index (after 1988 or lost to follow-up between 1982 and 1988); 211 581 postmenopausal women completed questionnaire	self-administrated questionnaire	Ovary (183.0-183.9)	Ever	255	1.23 (1.06-1.43)	age at baseline, race, duration of oral contraceptive use, number of live birth, age at menopause, BMI, age at menarche, and tubal ligation.	Reference is never user
				Baseline users	62	1.51 (1.16-1.96)		
				Former	193	1.16 (0.99-1.37)		
				Years of use				
				Baseline users				
				<10	31	1.14 (0.79-1.65)		
				>=10	31	2.20 (1.53-3.17)		
				Former users				
				<10	158	1.10 (0.92-1.31)		
				>=10	35	1.59 (1.13-2.25)		
				Years since last use				
				Former user who used ERT for <10 years				
				<15 years	45	1.17 (0.85-1.60)		
				>=15 years	113	1.07 (0.87-1.32)		
Former user who used ERT for >=10 years								
<15 years	19	2.05 (1.29-3.25)						
>=15 years	16	1.31 (0.79-2.17)						

Table 2.8. Cohort studies of estrogen-only menopausal therapy and ovarian cancer

Reference, location, name of study	Cohort description	Exposure assessment	Organ site (ICD code)	Exposure categories	No. of cases/deaths	Relative risk (95% CI)*	Adjustment for potential confounders	Comments	
Lacey et al. (2002), US, The Breast Cancer Detection Demonstration Project 1973-1998	A mammography screen program conducted at 29 US screening centers between 1973 and 1980. 64182 women were followed since 1979 to 1998. The response rates were 96% (1979-1986), 85% (1987-1989), 74% (1993-1995), and 71% (1995-1998). Mean age at start of follow-up: 56.6 years	Telephone interview for phase 1 (1979-1986), mailed questionnaire for phase 2, 3, and 4 during 1987-1989, 1993-1995, and 1995-1998.	Ovary	Overall	116	1.6 (1.2-2.0)	age, menopause type, and duration of oral contraceptive use.	Reference is no HRT use	
				Duration of ERT-only user					
				<=4 years	51	1.3 (0.96-1.9)			
				4-9 years	25	1.6 (1.0-2.6)			
				10-19 years	21	1.8 (1.1-3.0)			
				>=20 years	16	3.2 (1.7-5.7)			
				Duration of ERT-only user by hysterectomy			age and duration of oral contraceptive use		
				No hysterectomy					
				<=4 years	33	1.4 (0.92-2.0)			
				4-9 years	17	2.1 (1.3-3.5)			
				10-19 years	4	0.99 (0.36-2.7)			
				>=20 years	1	1.2 (0.17-8.7)			
				Hysterectomy					
<=4 years	15	1.2 (0.59-2.6)							
4-9 years	7	1.0 (0.40-2.5)							
10-19 years	15	2.0 (0.96-4.3)							
>=20 years	14	3.4 (1.6-7.5)							

Table 2.8. Cohort studies of estrogen-only menopausal therapy and ovarian cancer

Reference, location, name of study	Cohort description	Exposure assessment	Organ site (ICD code)	Exposure categories	No. of cases/deaths	Relative risk (95% CI)*	Adjustment for potential confounders	Comments
Bakken et al (2004) Norway 1996-1998	A representative, national, population-based prospective cohort study. 31,451 postmenopausal women, aged 45–64 years, with complete information;	Detailed HRT use from postal questionnaire	Incident breast cancer	Estrogen only Estriol	2 1	0.9 (0.2–3.9) 0.9 (0.1-6.4)	age, ever use of OCs, parity, hysterectomy, age at first delivery	Included in the analyses are only women with the ovaries intact.
The Norwegian Women and Cancer (NOWAC) study								
Folsom et al. (2004), Iowa, US, The Iowa Women's Health Study Cohort	41836 women aged 55-69 years with Iowa driver's licence responded the mail in questionnaire	Questionnaire, whether they had ever used "pills, other than birth control pills, that contain estrogen or other female hormones", and duration they took them	Ovary	Baseline ERT Status Overall Former User Current User Duration of ERT Use at Baseline Former, <=5 years Former, >5 years Current, <=5 years Current, >5 years	223 49 23 45 4 7 16	1.07 (0.77-1.50) 1.72 (1.07-2.75) 1.14 (0.81-1.61) 0.69 (0.22-2.18) 1.08 (0.50-2.33) 2.53 (1.44-4.45)	age, family history of ovarian cancer, hysterectomy, unilateral oophorectomy, number of liver birth, physical activity index, packyears of smoking, waist/hip ratio, and BMI	Reference is never user

Table 2.8. Cohort studies of estrogen-only menopausal therapy and ovarian cancer

Reference, location, name of study	Cohort description	Exposure assessment	Organ site (ICD code)	Exposure categories	No. of cases/deaths	Relative risk (95% CI)*	Adjustment for potential confounders	Comments	
Lacey et al. (2006) US, NIH-AARP Diet and Health Study	Study cohort was established in 1995-1996. Response rate: 17.6%. Second questionnaire was sent out in 1996-1997. Response rate: 59.5%.	Mailed questionnaire	Ovary	Ever	49	1.33 (0.89-2.00)	age, race, duration of oral contraceptive use, BMI, menopause and hysterectomy	Reference is no HRT use	
				Former	14	1.15 (0.65-2.05)			
				Current	34	1.46 (0.89-2.38)			
				Duration of use					
				Ever					
				<10 years	23	1.15 (0.72-1.82)			
				>=10 years	26	1.89 (1.22-2.95)			
				Current User					
				<10 years	10	1.00 (0.49-2.03)			
				>=10 years	24	1.88 (1.08-3.27)			
				With hysterectomy					
				Ever	37	1.23 (0.67-2.27)			age, race, duration of oral contraceptive use, and BMI
				Former	6	1.03 (0.40-2.70)			
				Current	31	1.37 (0.72-2.62)			
				Duration of use					
				Ever					
				<10 years	11	0.84 (0.38-1.88)			
>=10 years	26	1.70 (0.87-3.31)							
Current User									
<10 years	7	0.83 (0.33-2.09)							
>=10 years	24	1.71 (0.87-3.35)							
Without hysterectomy									
Ever	12	1.23 (0.67-2.27)							

Table 2.8. Cohort studies of estrogen-only menopausal therapy and ovarian cancer

Reference, location, name of study	Cohort description	Exposure assessment	Organ site (ICD code)	Exposure categories	No. of cases/deaths	Relative risk (95% CI)*	Adjustment for potential confounders	Comments
Beral et al. (2007), UK, Million Women Study	Cohort of 1.3 million women who had been invited for screening for breast cancer during 1996–2001	Questionnaire at recruitment and resurvey	Ovarian (C56)	By duration (years)			Stratified by age and hysterectomy status; adjusted by region of residence, socioeconomic group, time since menopause, parity, body-mass index, alcohol consumption, and use of oral contraceptives	
				<5	40	0.89 (0.64-1.25)		
				≥5	196	1.53 (1.27-1.84)		
				By constituent				
				Equine oestrogen	108	1.38 (1.10-1.73)		
				Oestradiol	116	1.33 (1.07-1.64)		
				By mode of administration				
Oral	149	1.37 (1.12-1.68)						
Transdermal	75	1.28 (0.99-1.64)						
RR of death	167	1.48 (1.20-1.81)						