

**Age-specific relative and absolute burden of subsequent primary
non-gynecologic cancers after endometrial cancer: a
population-based SEER study**

Supplementary Tables

Cancer Causes & Control

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Supplementary Table S1

Prespecified sensitivity analyses. The adjusted ratio is from an expected-offset Poisson model with HC3 covariance. "No recorded radiotherapy" does not mean no radiotherapy. SEER 12 was analyzed separately.

Analysis	Adjusted SIR ratio (<50 vs 50-79)	95% CI lower	95% CI upper	HC3 age P	Quasi-Poisson age P	SIR maximum age group	EAR maximum age group	All-age 120+ SIR	All-age 120+ CI lower	All-age 120+ CI upper	Under-50 120+ SIR	Under-50 120+ CI lower	Under-50 120+ CI upper
Main, 12-month exclusion	1.281	1.204	1.364	4.310E-14	3.500E-08	20-39	40-49	0.96	0.935	0.986	1.192	1.108	1.281
Independent repeat	1.281	1.204	1.364	4.310E-14	3.500E-08	20-39	40-49	0.96	0.935	0.986	1.192	1.108	1.281
6-month exclusion	1.295	1.217	1.378	3.330E-16	1.120E-07	20-39	40-49	0.96	0.935	0.986	1.192	1.108	1.281
24-month exclusion	1.275	1.192	1.363	3.700E-11	4.640E-07	20-39	40-49	0.96	0.935	0.986	1.192	1.108	1.281
No recorded radiotherapy	1.232	1.138	1.334	1.570E-06	6.350E-06	40-49	40-49	0.927	0.899	0.957	1.113	1.023	1.208
Endometrioid only	1.29	1.195	1.392	8.220E-13	9.540E-09	20-39	40-49	0.971	0.94	1.002	1.218	1.116	1.328
Exclude index year 2020	1.276	1.2	1.357	4.520E-14	4.400E-08	20-39	40-49	0.96	0.935	0.986	1.192	1.108	1.281
Exit at first subsequent malignancy	1.238	1.151	1.332	5.280E-09	5.820E-07	20-39	40-49	0.881	0.855	0.908	1.048	0.965	1.136
Age 20-69 restriction	1.269	1.191	1.353	1.940E-12	1.110E-07	20-39	40-49	0.975	0.947	1.003	1.192	1.108	1.281
SEER 12 long-follow-up replication	1.287	1.188	1.394	1.860E-12	1.440E-07	20-39	40-49	0.957	0.931	0.983	1.213	1.132	1.298

Supplementary Table S2

Selected-site context for the broad endpoint. Sites are prespecified but are not an exhaustive decomposition. Age-specific site cells are not released because of mandatory small-cell suppression. BH-FDR uses the fixed family $n=12$.

Site	Observed	Expected	SIR	SIR 95% CI lower	SIR 95% CI upper	EAR per 10,000 person-years	Observed minus expected	HC3 age P	BH-FDR adjusted P (n=12)	Quasi-Poisson age P	Robustness
Proximal colon	1112	780.06	1.426	1.343	1.512	2.16	331.94	2.900E-20	3.480E-19	2.400E-08	HC3/quasi concordant
Upper urinary tract	76	61.01	1.246	0.981	1.559	0.1	14.99	0.005	0.008	0.018	HC3/quasi concordant
Small intestine	150	105.76	1.418	1.2	1.664	0.29	44.24	0.078	0.085	0.395	HC3/quasi concordant
Distal colon	506	321.6	1.573	1.439	1.717	1.2	184.4	3.900E-06	1.560E-05	1.140E-04	HC3/quasi concordant
Rectum and rectosigmoid	526	400.93	1.312	1.202	1.429	0.81	125.07	0.004	0.008	0.002	HC3/quasi concordant
Urinary bladder	620	473.35	1.31	1.209	1.417	0.95	146.65	0.004	0.008	0.024	HC3/quasi concordant
Lung and bronchus	1980	2797.62	0.708	0.677	0.74	-5.32	-817.62	1.330E-05	4.000E-05	0.007	HC3/quasi concordant
Thyroid	632	460.76	1.372	1.267	1.483	1.11	171.24	0.094	0.094	0.194	HC3/quasi concordant
Stomach	240	256.76	0.935	0.82	1.061	-0.11	-16.76	0.031	0.037	0.055	Model-sensitive
Biliary tract	271	235.67	1.15	1.017	1.295	0.23	35.33	2.080E-09	1.250E-08	0.001	HC3/quasi concordant
Pancreas	670	655.07	1.023	0.947	1.103	0.1	14.93	0.006	0.009	0.045	HC3/quasi concordant
Brain	193	186.3	1.036	0.895	1.193	0.04	6.7	0.01	0.013	0.063	Model-sensitive

Supplementary Table S3

Delete-one-five-year-age-cell influence analysis. The frozen influence flag is a direction reversal or an absolute proportional change greater than 30% in the log contrast.

Deleted five-year age cell	SIR ratio 20-39 vs 70-79	Absolute log-contrast change (%)	Direction reversal	>30% frozen influence flag	HC3 global age P	Quasi-Poisson global age P
20-24 years	1.388	1.3	No	No	3.910E-14	1.310E-07
25-29 years	1.372	2.4	No	No	8.860E-14	1.430E-07
30-34 years	1.415	7.2	No	No	1.620E-13	2.260E-07
35-39 years	1.318	14.7	No	No	3.250E-14	2.130E-07
40-44 years	1.381	0.3	No	No	2.860E-11	5.480E-07
45-49 years	1.382	0.1	No	No	1.570E-05	1.640E-05
50-54 years	1.382	0.1	No	No	8.310E-14	1.980E-07
55-59 years	1.383	0.2	No	No	2.710E-15	1.070E-07
60-64 years	1.381	0.4	No	No	3.690E-14	1.640E-08
65-69 years	1.384	0.4	No	No	1.250E-12	1.660E-07
70-74 years	1.431	10.7	No	No	4.730E-13	7.880E-08
75-79 years	1.353	6.6	No	No	1.080E-12	9.340E-08