

Supplementary Table 1. Verification of primary cancers observed following endometrial cancer in mismatch repair gene mutation carriers

Site of cancer	Pathology report	Medical record	Death certificate	Cancer registry	Self or relative report	Unknown	Total
Colorectum	36	1	0	1	2	0	40
Kidney etc.*	7	0	0	0	2	0	9
Urinary bladder	4	0	1	0	2	0	7
Breast	8	1	0	0	3	0	12
Small intestine	1	0	0	1	1	0	3
Pancreas	3	0	0	0	0	0	3

*Kidney etc. included kidney, renal pelvis and ureter.

Supplementary Table 2. Frequency of surveillance colonoscopy or sigmoidoscopy following endometrial cancer in mismatch repair gene mutation carriers

Colonoscopy or sigmoidoscopy	All women	Women diagnosed with colorectal cancer following endometrial cancer	Women not diagnosed with colorectal cancer following endometrial cancer
At least one, No. (%)	64 (73)	5 (29)	59 (83)
Average frequency, No. (%)			
Every year	21 (44)	1 (33)	20 (44)
Every 2 years	12 (25)	1 (33)	11 (24)
Every 3 years	9 (19)	1 (33)	8 (18)
Every 4–5 years	6 (12)	0 (0)	6 (13)
Unknown frequency	16	2	14
Mean interval between endoscopies, y (95% CI)	2.10 (1.70 to 2.51)	2.00 (0.00 to 4.48)	2.11 (1.69 to 2.54)
None, No. (%)	24 (27)	12 (71)	12 (17)
Missing, No.	29	23	6
Total*	117	40	77

*Of 127 women, 10 were excluded from this analysis for estimating colorectal cancer risk because we excluded one woman who was diagnosed with colorectal cancer at unknown age and nine women who reported having a polypectomy before or at their age at endometrial cancer diagnosis.

Supplementary Table 3. Details of colorectal cancer diagnosis following endometrial cancer in mismatch repair gene mutation carriers and their surveillance colonoscopy or sigmoidoscopy status*

Person ID	Age at diagnosis of endometrial cancer (years)	Colorectal cancer						Sigmoidoscopy	Colonoscopy
		Age at diagnosis (years)	ICD-O site code†	Grade‡	T stage§	Number of positive nodes	TNM stage§		
ID1	31	34	C20.9	–	–	–	–	no	no
ID2	59	72	C18.0	2	2	0	–	no	no
ID5	40	46	C18.0	2	4	0	–	no	no
ID15	39	59	C18.2	3	2	0	–	no	no
ID17	50	52	C18.0	3	3	0	2	no	no
ID24	36	40	C18.4	2	3	0	–	no	no
ID26	30	44	C18.0	2	3	0	–	no	no
ID27	45	51	C18.0, C18.4	2	3	5	3	no	no
ID28	37	40	C18.0	2	–	–	2	no	no
ID33	47	55	C18.2	2	1	0	–	no	no
ID35	44	49	C18.0	2	2	0	1	no	no
ID37	34	49	C18.2	3	2	1	3	no	no
ID3	33	34	C18.0	–	–	–	–	–	–
ID4	36	48	C18.0, C18.7	–	–	–	–	–	–
ID6	51	62	C18.2	1	2	0	–	–	–

ID7	33	61	C18.2	-	-	-	-	-	-
ID9	39	58	C18.0	-	3	0	-	-	-
ID10	37	58	C18.2	-	-	-	-	-	-
ID11	34	50	C20.9	-	-	-	-	-	-
ID12	46	73	C18.0, C18.2	3	3	0	2	-	-
ID13	56	80	C18.9	-	-	-	-	-	-
ID14	58	60	C18.2, C18.4	2	3	2	-	-	-
ID16	55	60	C18.2, C18.4	3	-	0	-	-	-
ID18	51	55	C20.9	2	2	0	1	-	-
ID20	38	61	C20.9	2	3	0	-	-	-
ID21	48	55	C26.0	-	-	-	-	-	-
ID22	53	63	C18.0	-	-	-	-	-	-
ID23	54	62	C18.2	-	-	-	-	-	-
ID25	50	62	C20.9	2	1	0	-	-	-
ID29	48	62	C18.7	2	-	0	-	-	-
ID30	47	53	C18.2	3	3	3	3	-	-
ID31	46	50	C18.9	2	3	1	-	-	-
ID32	33	55	C18.7	2	1	0	-	-	-
ID36	65	79	C18.0	2	2	0	-	-	-
ID39	34	70	C18.4, C18.6	2	3	0	-	-	-
ID8	47	58	C20.9	-	4	0	-	no	yes (every one year)

ID38	43	52	C18.6	2	3	2	3	no	yes (every three years)
ID40	44	52	C18.2	3	3	0	1	no	yes (unknown frequency)
ID19	50	64	C18.7	–	–	–	–	yes (unknown frequency)	no
ID34	39	52	C18.9	2	2	0	–	yes (every two years)	no

* ICD–O = International Classification of Diseases for Oncology; TMN = tumor–node–metastasis; – = unknown.

† ICD–O code reference: Fritz A, Percy C, Jack A, *et al.* International Classification of Diseases for Oncology (ICD–O). In: 3rd ed. Geneva: World Health Organization; 2000.

‡ Grade: 1 = well, 2 = moderate, 3 = poor, 4 = undifferentiated (reference: Hamilton SR, Aaltonen LA. Pathology and Genetics of Tumours of the Digestive System. In: Kleihues P, Sobin LH, (eds). *World Health Organization Classification of Tumours*. Lyon, France: International Agency for Research on Cancer; 2000.)

§ Edge SB, Byrd DR, Compton CC, Fritz AG, Greene FL, Trotti A. AJCC Cancer Staging Manual. In: 7th ed. New York, NY: Springer; 2010.

Supplementary Table 4. Comparisons of cancer risks between mismatch repair gene mutation carriers who had a previous diagnosis of endometrial cancer and those without any previous cancer diagnosis*

Cancer Site	With a previous diagnosis of endometrial cancer	Without a previous diagnosis of any cancer‡
	SIR (95% CI)	SIR (95% CI)
Colorectum	39.9 (27.2 to 58.3)	20.5 (11.7 to 33.3)
Kidney etc.†	28.3 (11.9 to 48.6)	11.2 (2.31 to 32.8)
Urinary bladder	24.3 (8.56 to 42.9)	9.51 (1.15 to 34.4)
Breast	2.51 (1.17 to 4.14)	3.95 (1.59 to 8.13)
Small intestine	63.0 (0.00 to 150)	NA NA
Pancreas	8.61 (0.00 to 20.5)	10.7 (2.68 to 47.7)

* SIR = standardized incidence ratio; CI = confidence interval; NA = not available

† Kidney etc. included kidney, renal pelvis, and ureter.

‡ Reference: Win AK, Young JP, Lindor NM, *et al.* Colorectal and other cancer risks for carriers and non-carriers of a DNA mismatch repair gene mutation from mutation carrying families: a prospective cohort study. *J Clin Oncol.* 2012;30(9):958–964.

Supplementary Table 5. Comparisons between cancer risks following endometrial cancer and cancer risks following colorectal cancer for mismatch repair gene mutation*

Cancer Site	Cancer risks following endometrial cancer	Cancer risks following colorectal cancer†
	SIR (95% CI)	SIR (95% CI)
Colorectum	39.9 (27.2 to 58.3)	NA NA
Kidney etc.‡	28.3 (11.9 to 48.6)	14.9 (6.80 to 24.8)
Urinary bladder	24.3 (8.56 to 42.9)	14.4 (6.03 to 24.3)
Breast	2.51 (1.17 to 4.14)	1.76 (1.07 to 2.59)
Small intestine	63.0 (0.00 to 150)	37.9 (8.48 to 82.2)
Pancreas	8.61 (0.00 to 20.5)	2.64 (0.00 to 6.91)

* SIR = standardized incidence ratio; CI = confidence interval; NA = not available

† Reference: Win AK, Lindor NM, Young JP, *et al.* Risks of primary extracolonic cancers following colorectal cancer in Lynch syndrome. *J Natl Cancer Inst.* 2012;104(18):1363-1372.

‡ Kidney etc. included kidney, renal pelvis, and ureter.