

Supplementary Data:

Supplementary Figures:

Supplementary Figures:

doi: 10.5281/zenodo.3959839

Supplementary Figure 1. Cancer-specific Survival of Uveal Melanoma Patients by Diagnosis Era (A, C, D, E) and Tumor Stage (B, F,G,H)

Supplementary tables:

doi: 10.5281/zenodo.3959846

Standardized incidence Ratios for developing a second malignancy after First Primary Uveal Melanoma -
- for age groups:

younger than 50 years old, **Supplementary table 1**

patients 50-70 years old, **Supplementary table 2**

patients older than 70 years old, **Supplementary table 3**

- in white patients, **Supplementary table 4.**

doi: 10.5281/zenodo.3959843

Standardized incidence ratios for developing a primary uveal melanoma following another primary malignancy -

- for age groups:

younger than 50 years old, **Supplementary table 5**

patients 50-70 years old, **Supplementary table 6**

patients older than 70 years old, **Supplementary table 7**

- in white patients, **Supplementary Table 8**

The following tables have no DOI

Supplementary Table 9, a complementary to table 4

Supplementary Table 10, a complementary to table 5

Supplementary table 1. Standardized incidence Ratios for developing a second malignancy after First Primary Uveal Melanoma in patients younger than 50 years old; SIR (95% confidence intervals)

Characteristics	< 5 years		5-10 years		> 10 years		Total	
	Obs.	SIR (95% CI)	Obs.	SIR (95% CI)	Obs.	SIR (95% CI)	Obs.	SIR (95% CI)
Overall	15	1.36 (0.76-2.24)	20	1.41 (0.86-2.17)	69	0.97 (0.75-1.23)	104	1.08 (0.88-1.31)
Sex								
Male	8	1.49 (0.64-2.93)	10	1.29 (0.62-2.38)	40	0.87 (0.62-1.19)	58	0.98 (0.75-1.27)
Female	7	1.24 (0.50-2.56)	10	1.55 (0.74-2.84)	29	1.15 (0.77-1.65)	46	1.23 (0.90-1.64)
Race								
White	15	1.41 (0.79-2.33)	20	1.46 (0.89-2.26)	68	0.98 (0.76-1.24)	103	1.10 (0.90-1.33)
Black	0	0	0	0	1	1.70 (0.04-9.46)	1	1.22 (0.03-6.82)
Other races	0	0	0	0	0	0	0	0
Primary site of uveal melanoma ^a								
Choroid	13	1.46 (0.78-2.50)	13	1.15 (0.61-1.96)	49	0.93 (0.68-1.22)	75	1.03 (0.81-1.29)
Ciliary body	2	0.93 (0.11-3.36)	7	2.43 (0.98-5.01)	20	1.10 (0.67-1.70)	29	1.25 (0.84-1.79)
Histology of uveal melanoma ^b								
8720/3: Malignant melanoma, NOS	9	1.34 (0.61-2.55)	8	0.98 (0.42-1.92)	42	1.12 (0.81-1.51)	59	1.13 (0.86-1.45)
8730/3: Amelanotic	0	0	0	0	1	1.63 (0.04-9.10)	1	1.12 (0.03-6.27)
8743/3: Superficial spreading	0	0	0	0	0	0	0	0
8770/3: Mixed epithelioid and spindle cell	2	1.65 (0.20-5.95)	2	1.22 (0.15-4.39)	8	1.06 (0.46-2.09)	12	1.15 (0.60-2.02)
8771/3: Epithelioid	1	3.31 (0.08-18.45)	0	0	1	0.64 (0.02-3.55)	2	0.90 (0.11-3.25)
8772-8774/3: Spindle cell	3	1.12 (0.23-3.28)	10	2.61# (1.25-4.80)	17	0.71 (0.42-1.14)	30	0.99 (0.67-1.41)
Radiotherapy for uveal melanoma								
Yes	6	1.29 (0.48-2.82)	3	0.57 (0.12-1.67)	19	1.31 (0.79-2.05)	28	1.15 (0.76-1.66)
Site of the next malignancy ^c								
Breast	2	0.87 (0.10-3.13)	1	0.39 (0.01-2.16)	10	1.13 (0.54-2.08)	13	0.95 (0.50-1.62)

Prostate	0	0	1	0.63	9	0.62	10	0.60
				(0.02-3.49)		(0.28-1.18)		(0.29-1.10)
Colon and rectum	2	2.24	1	0.82	4	0.66	7	0.86
		(0.27-8.10)		(0.02-4.54)		(0.18-1.70)		(0.34-1.77)
Lung and bronchus	2	2.10	2	1.37	11	1.18	15	1.28
		(0.25-7.58)		(0.17-4.95)		(0.59-2.11)		(0.71-2.11)
Urinary bladder	0	0	1	2.04	4	1.12	5	1.14
				(0.05-11.39)		(0.31-2.88)		(0.37-2.67)
Melanoma of the skin	4	4.30#	4	4.03#	6	1.57	14	2.43#
		(1.17-11.00)		(1.10-10.31)		(0.58-3.41)		(1.33-4.09)
Corpus uteri	0	0	1	2.13	3	1.57	4	1.47
				(0.05-11.89)		(0.32-4.58)		(0.40-3.76)
Non-Hodgkin lymphoma	1	1.87	1	1.57	0	0	2	0.48
		(0.05-10.41)		(0.04-8.73)				(0.06-1.75)
Oral cavity and pharynx	0	0	0	0	1	0.49	1	0.34
						(0.01-2.72)		(0.01-1.87)
Thyroid	0	0	1	2.06	2	1.53	3	1.30
				(0.05-11.48)		(0.19-5.54)		(0.27-3.80)
Ovary	0	0	0	0	4	4.71#	4	3.01
						(1.28-12.06)		(0.82-7.72)
Leukemia	0	0	1	2.89	3	1.61	4	1.61
				(0.07-16.09)		(0.33-4.71)		(0.44-4.11)
Kidney and renal pelvis	1	2.79	0	0	1	0.42	2	0.63
		(0.07-15.55)				(0.01-2.37)		(0.08-2.26)
Eye and orbit	0	0	1	29.48	3	22.01#	4	20.2#
				(0.75-164.24)		(4.54-64.32)		(5.45-51.25)

Acronyms: Obs., Observed; #, significant with P value less than .05; a, using primary site variable, b, using ICD-O-3 histology recode; c, using ICD-O-3 site recode

Supplementary table 2. Standardized incidence Ratios for developing a second malignancy after First Primary Uveal Melanoma in patients 50-70 years old; SIR (95% confidence intervals)

Characteristics	< 5 years		5-10 years		> 10 years		Total	
	Obs.	SIR (95% CI)	Obs.	SIR (95% CI)	Obs.	SIR (95% CI)	Obs.	SIR (95% CI)
Overall	133	1.24# (1.04-1.47)	113	1.15 (0.94-1.38)	182	1.01 (0.87-1.17)	428	1.11# (1.01-1.22)
Sex								
Male	80	1.24 (0.98-1.54)	77	1.25 (0.99-1.56)	105	0.97 (0.79-1.17)	262	1.11 (0.98-1.26)
Female	53	1.25 (0.93-1.63)	36	0.97 (0.68-1.34)	77	1.09 (0.86-1.36)	166	1.10 (0.94-1.28)
Race								
White	132	1.25# (1.05-1.48)	112	1.15 (0.95-1.39)	179	1.02 (0.87-1.18)	423	1.12# (1.01-1.23)
Black	1	1.43 (0.04-7.97)	1	2.17 (0.05-12.10)	3	1.77 (0.36-5.16)	5	1.75 (0.57-4.08)
Other races	0	0	0	0	0	0	0	0
Primary site of uveal melanoma ^a								
Choroid	111	1.23# (1.01-1.48)	90	1.12 (0.90-1.37)	141	1.02 (0.86-1.20)	342	1.11 (0.99-1.23)
Ciliary body	22	1.29 (0.81-1.96)	23	1.27 (0.81-1.91)	41	0.99 (0.71-1.35)	86	1.13 (0.90-1.39)
Histology of uveal melanoma ^b								
8720/3: Malignant melanoma, NOS	85	1.22 (0.98-1.51)	71	1.16 (0.91-1.47)	113	1.06 (0.87-1.27)	269	1.13# (1.00-1.28)
8730/3: Amelanotic	2	2.16 (0.26-7.81)	2	2.54 (0.31-9.16)	1	2.32 (0.06-12.90)	5	2.33 (0.76-5.44)
8743/3: Superficial spreading	0	0	0	0	0	0	0	0
8770/3: Mixed epithelioid and spindle cell	20	1.59 (0.97-2.45)	8	0.68 (0.30-1.35)	26	1.20 (0.78-1.76)	54	1.17 (0.88-1.53)
8771/3: Epithelioid	3	0.61 (0.13-1.80)	4	1.14 (0.31-2.93)	5	0.87 (0.28-2.03)	12	0.85 (0.44-1.49)
8772-8774/3: Spindle cell	23	1.20 (0.76-1.80)	28	1.29 (0.86-1.86)	37	0.82 (0.58-1.14)	88	1.03 (0.82-1.26)
Radiotherapy for uveal melanoma								
Yes	55	1.15 (0.87-1.50)	51	1.31 (0.98-1.73)	41	0.90 (0.65-1.23)	147	1.12 (0.94-1.31)
Site of the next malignancy ^c								
Breast	13	0.96 (0.51-1.64)	13	1.16 (0.62-1.98)	18	0.98 (0.58-1.55)	44	1.02 (0.74-1.37)
Prostate	29	1.43	22	1.09	32	0.99	83	1.14

		(0.96-2.06)		(0.69-1.66)		(0.68-1.40)		(0.91-1.42)
Colon and rectum	15	1.35	6	0.57	19	0.89	40	0.93
		(0.75-2.22)		(0.21-1.24)		(0.54-1.40)		(0.67-1.27)
Lung and bronchus	11	0.67	20	1.28	32	1.11	63	1.04
		(0.33-1.20)		(0.78-1.98)		(0.76-1.57)		(0.80-1.33)
Urinary bladder	5	0.94	4	0.74	9	0.76	18	0.80
		(0.31-2.20)		(0.20-1.90)		(0.35-1.44)		(0.47-1.26)
Melanoma of the skin	15	3.73#	6	1.70	13	1.93#	34	2.38#
		(2.08-6.14)		(0.62-3.70)		(1.03-3.29)		(1.65-3.32)
Corpus uteri	2	0.56	3	1.11	6	1.63	11	1.10
		(0.07-2.02)		(0.23-3.24)		(0.60-3.55)		(0.55-1.98)
Non-Hodgkin lymphoma	4	1.02	2	0.54	9	1.16	15	0.97
		(0.28-2.61)		(0.07-1.94)		(0.53-2.20)		(0.55-1.61)
Oral cavity and pharynx	3	0.95	3	1.19	2	0.54	8	0.85
		(0.20-2.76)		(0.25-3.48)		(0.07-7.94)		(0.37-1.68)
Thyroid	5	4.11#	0	0	1	0.86	6	1.83
		(1.33-9.59)				(0.02-4.80)		(0.67-3.99)
Ovary	2	1.29	1	0.80	2	0.94	5	1.02
		(0.16-4.67)		(0.02-4.45)		(0.11-3.40)		(0.33-2.37)
Leukemia	2	0.76	3	1.16	8	1.42	13	1.20
		(0.09-2.73)		(0.24-3.40)		(0.61-2.79)		(0.64-2.04)
Kidney and renal pelvis	8	2.63#	5	1.84	9	1.89	22	2.09#
		(1.14-5.18)		(0.60-4.28)		(0.87-3.60)		(1.31-3.17)
Eye and orbit	1	5.05	1	6.07	2	7.17	4	6.23#
		(0.13-28.16)		(0.15-33.84)		(0.87-25.89)		(1.70-15.96)

Acronyms: Obs., Observed; #, significant with P value less than .05; a, using primary site variable, b, using ICD-O-3 histology recode; c, using ICD-O-3 site recode

Supplementary table 3. Standardized incidence Ratios for developing a second malignancy after First Primary Uveal Melanoma in patients 70 years old or older; SIR (95% confidence intervals)

Characteristics	< 5 years		5-10 years		> 10 years		Total	
	Obs.	SIR (95% CI)	Obs.	SIR (95% CI)	Obs.	SIR (95% CI)	Obs.	SIR (95% CI)
Overall	110	1.13 (0.93-1.37)	48	0.91 (0.67-1.21)	36	1.10 (0.77-1.52)	194	1.06 (0.92-1.22)
Sex								
Male	65	1.11 (0.86-1.41)	29	0.93 (0.62-1.33)	24	1.21 (0.78-1.80)	118	1.08 (0.89-1.29)
Female	45	1.17 (0.85-1.56)	19	0.89 (0.54-1.40)	12	0.93 (0.48-1.62)	76	1.05 (0.82-1.31)
Race								
White	109	1.14 (0.93-1.37)	48	0.92 (0.68-1.22)	36	1.11 (0.78-1.54)	193	1.07 (0.92-1.23)
Black	0	0	0	0	0	0	0	0
Other races	1	2.85 (0.07-15.90)	0	0	0	0	1	1.96 (0.05-10.93)
Primary site of uveal melanoma ^a								
Choroid	93	1.13 (0.91-1.38)	37	0.83 (0.58-1.14)	30	1.09 (0.73-1.55)	160	1.04 (0.88-1.21)
Ciliary body	17	1.15 (0.67-1.85)	11	1.39 (0.69-2.48)	6	1.15 (0.42-2.50)	34	1.22 (0.84-1.70)
Histology of uveal melanoma ^b								
8720/3: Malignant melanoma, NOS	67	1.05 (0.82-1.34)	32	0.97 (0.66-1.36)	22	1.17 (0.73-1.77)	121	1.05 (0.87-1.25)
8730/3: Amelanotic	0	0	0	0	0	0	0	0
8743/3: Superficial spreading	1	7.18 (0.18-40.01)	0	0	0	0	1	1.93 (0.05-10.77)
8770/3: Mixed epithelioid and spindle cell	20	1.74# (1.06-2.69)	3	0.60 (0.12-1.75)	8	1.85 (0.80-3.64)	31	1.49# (1.01-2.11)
8771/3: Epithelioid	3	0.69 (0.14-2.02)	0	0	1	0.58 (0.01-3.24)	4	0.49 (0.13-1.26)
8772-8774/3: Spindle cell	19	1.11 (0.67-1.73)	13	1.09 (0.58-1.86)	5	0.68 (0.22-1.60)	37	1.02 (0.72-1.40)
Radiotherapy for uveal melanoma								
Yes	42	1.06 (0.76-1.43)	16	0.82 (0.47-1.33)	10	1.23 (0.59-2.25)	68	1.01 (0.78-1.28)
Site of the next malignancy ^c								
Breast	6	0.64 (0.23-1.39)	3	0.61 (0.13-1.78)	1	0.36 (0.01-2.01)	10	0.59 (0.28-1.08)
Prostate	16	0.96	5	0.60	6	1.21	27	0.90

		(0.55-1.56)		(0.19-1.39)		(0.44-2.64)		(0.59-1.31)
Colon and rectum	9	0.66	8	1.03	5	0.97	22	0.83
		(0.30-1.26)		(0.45-2.04)		(0.32-2.27)		(0.52-1.26)
Lung and bronchus	10	0.66	9	1.16	1	0.23	20	0.73
		(0.32-1.22)		(0.53-2.20)		(0.01-1.27)		(0.45-1.13)
Urinary bladder	6	0.91	6	1.57	6	2.31	18	1.38
		(0.33-1.97)		(0.58-3.41)		(0.85-5.02)		(0.82-2.18)
Melanoma of the skin	11	3.65#	2	1.17	4	3.47	17	2.89#
		(1.82-6.53)		(0.14-4.21)		(0.95-8.88)		(1.68-4.63)
Corpus uteri	1	0.55	2	2.30	1	2.28	4	1.28
		(0.01-3.06)		(0.28-8.31)		(0.06-12.73)		(0.35-3.27)
Non-Hodgkin lymphoma	7	1.75	1	0.44	0	0	8	1.03
		(0.70-3.61)		(0.01-2.46)				(0.45-2.04)
Oral cavity and pharynx	3	1.52	1	0.99	0	0	4	1.11
		(0.31-4.45)		(0.03-5.54)				(0.30-2.84)
Thyroid	2	4.16	0	0	0	0	2	2.43
		(0.50-15.02)						(0.29-8.78)
Ovary	1	0.87	0	0	0	0	1	0.47
		(0.02-4.84)						(0.01-2.61)
Leukemia	3	0.94	3	1.61	0	0	6	0.94
		(0.19-2.73)		(0.33-4.72)				(0.35-2.06)
Kidney and renal pelvis	6	2.57	0	0	1	1.38	7	1.64
		(0.94-5.60)				(0.03-7.70)		(0.66-3.37)
Eye and orbit	2	13.6#	0	0	0	0	2	7.40
		(1.65-49.15)						(0.90-26.75)

Acronyms: Obs., Observed; #, significant with P value less than .05; a, using primary site variable, b, using ICD-O-3 histology recode; c, using ICD-O-3 site recode

Supplementary table 4. Standardized incidence Ratios for developing a second malignancy after First Primary Uveal Melanoma in **white patients**; SIR (95% confidence intervals)

Characteristics	< 5 years		5-10 years		> 10 years		Total	
	Obs.	SIR (95% CI)	Obs.	SIR (95% CI)	Obs.	SIR (95% CI)	Obs.	SIR (95% CI)
Overall	256	1.21# (1.06-1.36)	180	1.10 (0.95-1.28)	283	1.02 (0.90-1.14)	719	1.10# (1.02-1.18)
Gender								
Male	152	1.20# (1.01-1.40)	115	1.16 (0.96-1.39)	166	0.98 (0.83-1.14)	433	1.09 (0.99-1.20)
Female	104	1.22 (1.00-1.48)	65	1.02 (0.79-1.30)	117	1.08 (0.90-1.30)	286	1.11 (0.99-1.25)
Age								
< 50 years	15	1.41 (0.79-2.33)	20	1.46 (0.89-2.26)	68	0.98 (0.76-1.24)	103	1.10 (0.90-1.33)
50-69 years	132	1.25# (1.05-1.48)	112	1.15 (0.95-1.39)	179	1.02 (0.87-1.18)	423	1.12# (1.01-1.23)
70 years or more	109	1.14 (0.93-1.37)	48	0.92 (0.68-1.22)	36	1.11 (0.78-1.54)	193	1.07 (0.92-1.23)
Primary site of uveal melanoma ^a								
Choroid	215	1.20# (1.05-1.38)	139	1.03 (0.87-1.22)	216	1.01 (0.88-1.16)	570	1.08 (1.00-1.18)
Ciliary body	41	1.22 (0.88-1.66)	41	1.43# (1.03-1.95)	67	1.04 (0.80-1.32)	149	1.18 (0.99-1.38)
Histology of uveal melanoma ^b								
8720/3: Malignant melanoma, NOS	160	1.16 (0.99-1.36)	110	1.09 (0.90-1.32)	174	1.10 (0.94-1.27)	444	1.12# (1.02-1.23)
8730/3: Amelanotic	3	1.54 (0.19-5.58)	2	1.79 (0.22-6.47)	2	1.44 (0.17-5.19)	6	1.58 (0.58-3.43)
8743/3: Superficial spreading	1	7.18 (0.18-40.01)	0	0	0	0	1	1.93 (0.05-10.77)
8770/3: Mixed epithelioid and spindle cell	42	1.68# (1.21-2.27)	13	0.72 (0.38-1.22)	41	1.23 (0.88-1.66)	96	1.25# (1.02-1.53)
8771/3: Epithelioid	6	0.64 (0.24-1.40)	4	0.69 (0.19-1.76)	7	0.78 (0.31-1.60)	17	0.70 (0.41-1.13)
8772-8774/3: Spindle cell	45	1.17 (0.85-1.56)	51	1.38# (1.02-1.81)	59	0.78 (0.60-1.01)	155	1.03 (0.87-1.20)
Radiotherapy for uveal melanoma								
Yes	102	1.13 (0.92-1.37)	69	1.10 (0.86-1.40)	69	1.04 (0.81-1.31)	240	1.09 (0.96-1.24)
Site of the next malignancy ^c								
Breast	20	0.81 (0.49-1.24)	17	0.93 (0.54-1.48)	29	0.98 (0.66-1.41)	66	0.91 (0.70-1.15)

Prostate	45	1.21	28	0.94	46	0.92	119	1.02
		(0.89-1.62)		(0.63-1.36)		(0.67-1.22)		(0.84-1.22)
Colon and rectum	26	1.03	15	0.78	27	0.85	68	0.89
		(0.67-1.51)		(0.44-1.29)		(0.56-1.23)		(0.69-1.13)
Lung and bronchus	23	0.72	30	1.23	43	1.04	96	0.98
		(0.46-1.08)		(0.83-1.75)		(0.75-1.40)		(0.79-1.20)
Urinary bladder	11	0.91	11	1.14	19	1.07	41	1.04
		(0.45-1.62)		(0.57-2.05)		(0.64-1.67)		(0.74-1.41)
Melanoma of the skin	30	3.79#	12	1.94#	23	1.98#	65	2.53#
		(2.56-5.42)		(1.00-3.39)		(1.26-2.97)		(1.95-3.23)
Corpus uteri	3	0.53	6	1.51	10	1.68	19	1.22
		(0.11-1.55)		(0.55-3.29)		(0.81-3.09)		(0.73-1.91)
Non-Hodgkin lymphoma	12	1.44	4	0.61	8	0.67	24	0.89
		(0.74-2.51)		(0.17-1.57)		(0.29-1.31)		(0.57-1.33)
Oral cavity and pharynx	6	1.10	4	1	3	0.48	13	0.83
		(0.40-2.40)		(0.27-2.57)		(0.10-1.40)		(0.44-1.42)
Thyroid	7	3.24#	1	0.64	3	1.19	11	1.76
		(1.30-6.67)		(0.02-3.55)		(0.24-3.47)		(0.88-3.14)
Ovary	3	1.04	1	0.48	6	1.82	10	1.21
		(0.21-3.04)		(0.01-2.67)		(0.67-3.95)		(0.58-2.22)
Leukemia	5	0.82	7	1.48	11	1.27	23	1.18
		(0.27-1.92)		(0.60-3.05)		(0.63-2.27)		(0.75-1.77)
Kidney and renal pelvis	14	2.48#	5	1.15	11	1.44	30	1.70#
		(1.36-4.17)		(0.37-2.68)		(0.72-2.57)		(1.15-2.43)
Eye and orbit	3	8.08#	2	7.32	5	10.96#	10	9.09#
		(1.67-23.61)		(0.89-26.44)		(3.56-25.59)		(4.36-16.71)

Acronyms: Obs., Observed; #, significant with P value less than .05; a, using primary site variable, b, using ICD-O-3 histology recode; c, using ICD-O-3 site recode

Supplementary Table 5. Standardized incidence ratios for developing a primary uveal melanoma following another primary malignancy in patients **younger than 50 years** at diagnosis of first cancer; SIR (95% confidence intervals)

Characteristics	< 5 years		5-10 years		> 10 years		Total	
	Obs.	SIR (95% CI)	Obs.	SIR (95% CI)	Obs.	SIR (95% CI)	Obs.	SIR (95% CI)
Overall	7	0.80 (0.32-1.65)	18	1.78# (1.06-2.82)	40	1.06 (0.76-1.45)	65	1.15 (0.89-1.47)
Sex								
Male	2	0.57 (0.07-2.05)	5	1.25 (0.41-2.91)	17	1.22 (0.71-1.95)	24	1.12 (0.71-1.66)
Female	5	0.96 (0.31-2.23)	13	2.14# (1.14-3.65)	23	0.98 (0.62-1.46)	41	1.17 (0.84-1.59)
Race								
White	7	0.83 (0.33-1.70)	18	1.83# (1.09-2.90)	40	1.09 (0.78-1.48)	65	1.15 (0.89-1.47)
Black	0	0	0	0	0	0	0	0
Other races	0	0	0	0	0	0	0	0
Primary site of uveal melanoma^a								
Choroid	5	0.68 (0.22-1.59)	16	1.84# (1.05-2.99)	31	0.93 (0.63-1.33)	52	1.06 (0.79-1.38)
Ciliary body	2	1.43 (0.17-5.16)	2	1.44 (0.17-5.19)	9	2.06 (0.94-3.91)	13	1.82 (0.97-3.11)
Histology of uveal melanoma^b								
8720/3: Malignant, NOS	5	0.88 (0.29-2.06)	11	1.61 (0.80-2.88)	32	1.16 (0.79-1.63)	48	1.20 (0.88-1.58)
8730/3: Amelanotic	0	0	0	0	0	0	0	0
8770/3: Mixed epithelioid and spindle cell	0	0	1	0.89 (0.02-4.97)	5	1.52 (0.49-3.55)	6	1.12 (0.41-2.43)
8771/3: Epithelioid cell	0	0	1	3.65 (0.09-20.35)	0	0	1	0.57 (0.01-3.15)
8772-8774/3: Spindle cell	2	1.10 (0.13-3.99)	5	2.84 (0.92-6.62)	3	0.60 (0.12-1.74)	10	1.16 (0.56-2.14)
Site of the first malignancy^c								
Breast	3	1.25 (0.26-3.65)	7	2.46 (0.99-5.07)	14	1.39 (0.76-2.34)	24	1.57# (1.00-2.33)
Prostate	0	0	0	0	0	0	0	0
Colon and rectum	0	0	1	1.63 (0.04-9.09)	5	2.29 (0.74-5.34)	6	1.77 (0.65-3.85)
Lung and bronchus	1	4.29 (0.11-23.91)	0	0	1	1.78 (0.05-9.93)	2	2.04 (0.25-7.36)
Urinary bladder	0	0	1	2.76 (0.07-15.35)	2	1.25 (0.15-4.52)	3	1.34 (0.28-3.92)
Melanoma of the skin	3	3.03 (0.63-8.86)	3	2.41 (0.50-7.03)	5	0.99 (0.32-2.30)	11	1.51 (0.75-2.69)
Corpus uteri	0	0	0	0	1	0.60 (0.02-3.36)	1	0.43 (0.01-2.38)
Non-Hodgkin lymphoma	0	0	1	2.01 (0.05-11.18)	1	0.68 (0.02-3.80)	2	0.83 (0.10-3.01)
Oral cavity and pharynx	0	0	0	0	1	0.91 (0.02-5.08)	1	0.58 (0.01-3.25)
Thyroid	0	0	1	1.42 (0.04-7.91)	2	0.69 (0.08-2.50)	3	0.71 (0.15-2.09)
Ovary	0	0	0	0	1	1.13	1	0.80

						(0.03-6.29)		(0.02-4.44)
Leukemia	0	0	1	5.02 (0.13-27.98)	1	1.82 (0.05-10.15)	2	2.12 (0.26-7.67)
Kidney and renal pelvis	0	0	1	3.46 (0.09-19.30)	0	0	1	0.74 (0.02-4.14)
Eye and orbit	0	0	0	0	0	0	0	0
Radiotherapy for the first malignancy								
Yes	1	0.36 (0.01-2.03)	4	1.31 (0.36-3.36)	11	1.16 (0.58-2.08)	16	1.05 (0.60-1.70)

Acronyms: Obs., Observed; #, significant with P value less than .05; a, using primary site variable, b, using ICD-O-3 histology recode; c, using ICD-O-3 site recode

Supplementary Table 6. Standardized incidence ratios for developing a primary uveal melanoma following another primary malignancy in patients between **50-70 years** at diagnosis of first cancer; SIR (95% confidence intervals)

Characteristics	< 5 years		5-10 years		> 10 years		Total	
	Obs.	SIR (95% CI)	Obs.	SIR (95% CI)	Obs.	SIR (95% CI)	Obs.	SIR (95% CI)
Overall	79	1.01 (0.80-1.26)	74	1.15 (0.91-1.45)	89	1 (0.80-1.23)	242	1.05 (0.92-1.19)
Sex								
Male	47	1.01 (0.74-1.35)	42	1.11 (0.80-1.51)	43	0.94 (0.68-1.27)	132	1.02 (0.85-1.21)
Female	32	1.01 (0.69-1.43)	32	1.21 (0.83-1.71)	46	1.06 (0.78-1.42)	110	1.09 (0.89-1.31)
Race								
White	77	1 (0.79-1.25)	72	1.14 (0.89-1.44)	87	0.99 (0.79-1.22)	236	1.04 (0.91-1.18)
Black	1	2.26 (0.06-12.59)	0	0	1	2.41 (0.06-13.43)	2	1.70 (0.21-6.15)
Other races	0	0	2	9.30# (1.13-33.61)	1	3.29 (0.08-18.34)	3	3.75 (0.77-10.95)
Primary site of uveal melanoma ^a								
Choroid	65	0.97 (0.75-1.23)	62	1.11 (0.85-1.42)	73	0.94 (0.74-1.19)	200	1 (0.86-1.15)
Ciliary body	14	1.31 (0.71-2.19)	12	1.45 (0.75-2.52)	16	1.38 (0.79-2.24)	42	1.37 (0.99-1.85)
Histology of uveal melanoma ^b								
8720/3: Malignant, NOS	56	1.07 (0.81-1.39)	62	1.41# (1.08-1.81)	62	0.99 (0.76-1.27)	180	1.13 (0.97-1.31)
8730/3: Amelanotic	0	0	0	0	3	5.67# (1.17-16.56)	3	1.73 (0.36-5.07)
8770/3: Mixed epithelioid and spindle cell	12	1.32 (0.68-2.30)	5	0.67 (0.22-1.57)	11	1.05 (0.53-1.89)	28	1.04 (0.69-1.50)
8771/3: Epithelioid cell	0	0	2	0.64 (0.08-2.32)	2	0.49 (0.06-1.77)	4	0.36# (0.10-0.93)
8772-8774/3: Spindle cell	11	0.91 (0.45-1.63)	5	0.55 (0.18-1.29)	11	1 (0.50-1.79)	27	0.84 (0.55-1.22)
Site of the first malignancy ^c								
Breast	11	0.82 (0.41-1.46)	12	0.99 (0.51-1.73)	23	1.17 (0.74-1.76)	46	1.02 (0.75-1.36)
Prostate	23	1.10 (0.69-1.64)	22	1.17 (0.74-1.78)	15	0.75 (0.42-1.24)	60	1.01 (0.77-1.29)
Colon and rectum	8	0.96 (0.41-1.89)	11	1.59 (0.80-2.85)	14	1.25 (0.68-2.10)	33	1.25 (0.86-1.75)
Lung and bronchus	2	0.23 (0.01-1.28)	3	1.37 (0.28-4.01)	3	1.35 (0.28-3.94)	7	0.80 (0.32-1.65)
Urinary bladder	4	0.88 (0.24-2.26)	2	0.49 (0.06-1.78)	7	1.13 (0.46-2.33)	13	0.88 (0.47-1.50)
Melanoma of the skin	6	1.63 (0.60-3.54)	5	1.55 (0.50-3.61)	11	2.18# (1.09-3.90)	22	1.84# (1.15-2.78)
Corpus uteri	4	1.02 (0.28-2.61)	2	0.54 (0.07-1.97)	5	0.65 (0.21-1.51)	11	0.72 (0.36-1.29)
Non-Hodgkin lymphoma	2	0.68 (0.08-2.44)	1	0.45 (0.01-2.48)	2	0.79 (0.10-2.86)	5	0.65 (0.21-1.51)
Oral cavity and pharynx	4	1.69 (0.46-4.33)	3	1.72 (0.36-5.03)	1	0.45 (0.01-2.48)	8	1.26 (0.54-2.48)

Thyroid	5	4.06# (1.32-9.47)	4	3.93# (1.07-10.06)	0	0	9	2.38# (1.09-4.52)
Ovary	3	3.03 (0.62-8.84)	1	1.61 (0.04-8.96)	2	1.88 (0.23-6.78)	6	2.24 (0.82-4.87)
Leukemia	2	1.18 (0.14-4.25)	3	2.49 (0.51-7.28)	0	0	5	1.21 (0.39-2.83)
Kidney and renal pelvis	3	1.39 (0.29-4.06)	1	0.60 (0.02-3.37)	1	0.50 (0.01-2.77)	5	0.86 (0.28-2.00)
Eye and orbit	0	0	0	0	1	19.43 (0.49-108.25)	1	7.32 (0.19-40.76)
Radiotherapy for the first malignancy								
Yes	24	1.03 (0.66-1.54)	16	0.88 (0.50-1.43)	28	1.30 (0.86-1.88)	68	1.08 (0.84-1.37)

Acronyms: Obs., Observed; #, significant with P value less than .05; a, using primary site variable, b, using ICD-O-3 histology recode; c, using ICD-O-3 site recode

Supplementary Table 7. Standardized incidence ratios for developing a primary uveal melanoma following another primary malignancy in patients **70 years or more** at diagnosis of first cancer; SIR (95% confidence intervals)

Characteristics	< 5 years		5-10 years		> 10 years		Total	
	Obs.	SIR (95% CI)	Obs.	SIR (95% CI)	Obs.	SIR (95% CI)	Obs.	SIR (95% CI)
Overall	80	1.18 (0.94-1.47)	40	1.13 (0.81-1.54)	14	0.78 (0.43-1.31)	134	1.11 (0.93-1.31)
Sex								
Male	47	1.10 (0.81-1.47)	30	1.35 (0.91-1.93)	9	0.88 (0.40-1.67)	86	1.15 (0.92-1.42)
Female	33	1.33 (0.91-1.86)	10	0.75 (0.36-1.39)	5	0.65 (0.21-1.53)	48	1.05 (0.77-1.39)
Race								
White	80	1.20 (0.95-1.50)	40	1.14 (0.82-1.56)	14	0.79 (0.43-1.33)	134	1.12 (0.94-1.33)
Black	0	0	0	0	0	0	0	0
Other races	0	0	0	0	0	0	0	0
Primary site of uveal melanoma^a								
Choroid	67	1.17 (0.91-1.49)	33	1.09 (0.75-1.53)	13	0.83 (0.44-1.42)	113	1.10 (0.90-1.32)
Ciliary body	13	1.24 (0.66-2.12)	7	1.39 (0.56-2.86)	1	0.45 (0.01-2.49)	21	1.18 (0.73-1.81)
Histology of uveal melanoma^b								
8720/3: Malignant, NOS	49	1.10 (0.81-1.45)	25	1.03 (0.67-1.52)	9	0.71 (0.32-1.34)	83	1.02 (0.81-1.26)
8730/3: Amelanotic	1	3.24 (0.08-18.03)	0	0	1	10.67 (0.27-59.42)	2	3.68 (0.45-13.30)
8770/3: Mixed epithelioid and spindle cell	10	1.05 (0.51-1.94)	8	1.64 (0.71-3.22)	3	1.35 (0.28-3.96)	21	1.27 (0.78-1.93)
8771/3: Epithelioid cell	6	1.82 (0.67-3.95)	3	1.82 (0.37-5.31)	0	0	9	1.52 (0.70-2.89)
8772-8774/3: Spindle cell	14	1.45 (0.79-2.43)	4	0.89 (0.24-2.28)	1	0.54 (0.01-3.01)	19	1.19 (0.71-1.85)
Site of the first malignancy^c								
Breast	18	1.88# (1.12-2.98)	5	0.88 (0.29-2.05)	4	1.19 (0.32-3.05)	27	1.45 (0.96-2.11)
Prostate	26	1.21 (0.79-1.77)	23	1.78# (1.13-2.67)	7	1.11 (0.45-2.30)	56	1.38# (1.04-1.79)
Colon and rectum	10	1.03 (0.49-1.89)	3	0.59 (0.12-1.72)	2	0.70 (0.08-2.53)	15	0.85 (0.47-1.40)
Lung and bronchus	3	0.82 (0.17-2.40)	0	0	0	0	3	0.61 (0.12-1.77)
Urinary bladder	8	1.50 (0.65-2.95)	3	1.11 (0.23-3.23)	0	0	11	1.18 (0.59-2.12)
Melanoma of the skin	2	0.85 (0.10-3.06)	2	1.64 (0.20-5.92)	1	1.65 (0.04-9.17)	5	1.19 (0.39-2.79)
Corpus uteri	4	2.06 (0.56-5.27)	0	0	0	0	4	0.98 (0.27-2.50)
Non-Hodgkin lymphoma	3	1.19 (0.25-3.49)	1	0.89 (0.02-4.97)	0	0	4	0.99 (0.27-2.53)
Oral cavity and pharynx	1	0.75 (0.02-4.17)	0	0	0	0	1	0.45 (0.01-2.51)
Thyroid	0	0	0	0	0	0	0	0
Ovary	2	3.73	0	0	0	0	2	2.38

		(0.45-13.48)						(0.29-8.58)
Leukemia	0	0	2	3.06 (0.37-11.04)	0	0	2	0.79 (0.10-2.87)
Kidney and renal pelvis	0	0	1	1.43 (0.04-7.98)	0	0	1	0.41 (0.01-2.27)
Eye and orbit	1	22.26 (0.56-124)	0	0	0	0	1	13.20 (0.33-73.55)
Radiotherapy for the first malignancy								
Yes	19	1.06 (0.64-1.65)	12	1.18 (0.61-2.05)	7	1.43 (0.57-2.94)	38	1.15 (0.81-1.57)

Acronyms: Obs., Observed; #, significant with P value less than .05; a, using primary site variable, b, using ICD-O-3 histology recode; c, using ICD-O-3 site recode

Supplementary Table 8. Standardized incidence ratios for developing a primary uveal melanoma following another primary malignancy in white patients; SIR (95% confidence intervals)

Characteristics	< 5 years		5-10 years		> 10 years		Total	
	Obs.	SIR (95% CI)	Obs.	SIR (95% CI)	Obs.	SIR (95% CI)	Obs.	SIR (95% CI)
Overall	164	1.08 (0.92-1.26)	130	1.20# (1.01-1.43)	141	0.99 (0.83-1.17)	435	1.08 (0.98-1.19)
Sex								
Male	95	1.04 (0.85-1.28)	77	1.23 (0.97-1.53)	69	1 (0.78-1.27)	241	1.08 (0.95-1.23)
Female	69	1.13 (0.88-1.44)	53	1.18 (0.88-1.54)	72	0.98 (0.77-1.23)	194	1.08 (0.93-1.24)
Age at diagnosis at the first malignancy								
<50 years	7	0.83 (0.33-1.70)	18	1.83# (1.09-2.90)	40	1.09 (0.78-1.48)	65	1.18 (0.91-1.50)
50-70 years	77	1 (0.79-1.25)	72	1.14 (0.89-1.44)	87	0.99 (0.79-1.22)	236	1.04 (0.91-1.18)
70 years or more	80	1.20 (0.95-1.50)	40	1.14 (0.82-1.56)	14	0.79 (0.43-1.33)	134	1.12 (0.94-1.33)
Primary site of uveal melanoma^a								
Choroid	135	1.04 (0.87-1.23)	110	1.18 (0.97-1.42)	115	0.92 (0.76-1.11)	360	1.04 (0.93-1.15)
Ciliary body	29	1.31 (0.87-1.88)	20	1.38 (0.84-2.13)	26	1.45 (0.95-2.13)	75	1.37# (1.08-1.72)
8720/3: Malignant, NOS	108	1.07 (0.88-1.29)	97	1.31# (1.06-1.60)	101	0.99 (0.81-1.21)	306	1.11 (0.99-1.24)
8730/3: Amelanotic	1	0.94 (0.02-5.25)	0	0	4	4.27# (1.16-10.93)	5	1.84 (0.60-4.29)
8770/3: Mixed epithelioid and spindle cell	22	1.15 (0.72-1.74)	13	0.98 (0.52-1.68)	19	1.21 (0.73-1.88)	54	1.12 (0.84-1.46)
8771/3: Epithelioid cell	6	0.85 (0.31-1.84)	6	1.23 (0.45-2.67)	2	0.32 (0.01-1.17)	14	0.77 (0.42-1.30)
8772-8774/3: Spindle cell	27	1.16 (0.76-1.69)	14	0.92 (0.51-1.55)	15	0.85 (0.47-1.39)	56	1 (0.75-1.29)
Site of the first malignancy^c								
Breast	32	1.28 (0.87-1.80)	23	1.13 (0.72-1.69)	39	1.20 (0.85-1.63)	94	1.20 (0.97-1.47)
Prostate	49	1.17 (0.87-1.55)	45	1.43# (1.04-1.91)	22	0.84 (0.52-1.27)	116	1.16 (0.96-1.40)
Colon and rectum	18	0.98 (0.58-1.54)	15	1.21 (0.68-1.99)	21	1.31 (0.81-2.00)	54	1.15 (0.87-1.50)
Lung and bronchus	5	0.62 (0.20-1.44)	3	0.90 (0.19-2.64)	4	1.30 (0.36-3.34)	12	0.83 (0.43-1.45)
Urinary bladder	12	1.19 (0.62-2.09)	6	0.85 (0.31-1.84)	9	1.01 (0.46-1.91)	27	1.04 (0.68-1.51)
Melanoma of the skin	11	1.59 (0.79-2.85)	10	1.78 (0.86-3.28)	17	1.62 (0.94-2.59)	38	1.65# (1.17-2.26)
Corpus uteri	8	1.31 (0.57-2.59)	2	0.38 (0.05-1.38)	6	0.59 (0.22-1.28)	16	0.74 (0.43-1.21)
Non-Hodgkin lymphoma	5	0.86 (0.28-2.01)	3	0.79 (0.16-2.30)	3	0.69 (0.14-2.02)	11	0.79 (0.39-1.41)
Oral cavity and pharynx	4	1.02 (0.28-2.60)	3	1.14 (0.23-3.23)	2	0.56 (0.07-2.03)	9	0.89 (0.41-1.69)
Thyroid	5	2.28	4	2.10	2	0.45	11	1.29

		(0.74-5.32)		(0.57-5.38)		(0.05-1.62)		(0.64-2.30)
Ovary	5	2.96 (0.96-6.91)	1	1.01 (0.03-5.64)	3	1.47 (0.30-4.30)	9	1.91 (0.87-3.62)
Leukemia	2	0.58 (0.07-2.08)	6	2.96# (1.09-6.44)	1	0.51 (0.01-2.82)	9	1.20 (0.55-2.29)
Kidney and renal pelvis	2	0.52 (0.06-1.88)	3	1.15 (0.24-3.37)	1	0.33 (0.01-1.83)	6	0.63 (0.23-1.38)
Eye and orbit	1	10.15 (0.26-56.53)	0	0	1	9.81 (0.25-54.68)	2	7.50 (0.91-27.10)
Radiotherapy for the first malignancy								
Yes	43	0.99 (0.72-1.34)	32	1.03 (0.71-1.46)	46	1.30 (0.95-1.73)	121	1.10 (0.91-1.32)

Acronyms: Obs., Observed; #, significant with P value less than .05; a, using primary site variable, b, using ICD-O-3 histology recode; c, using ICD-O-3 site recode

Supplementary Table 9. Standardized incidence Ratios for developing a second malignancy after First Primary Uveal Melanoma according to latency; SIR (95% confidence intervals) (A complimentary to **Table 4**)

Histology of uveal melanoma^a								
8720/3: Malignant melanoma, NOS	161	1.15 (0.98-1.34)	111	1.09 (0.89-1.31)	177	1.09 (0.93-1.26)	449	1.11# (1.01-1.22)
8730/3: Amelanotic	2	1.45 (0.18-5.25)	2	1.73 (0.21-6.26)	2	1.42 (0.17-5.13)	6	1.52 (0.56-3.32)
8743/3: Superficial spreading	1	7.18 (0.18-40.01)	0	0	0	0	1	1.93 (0.05-10.77)
8770/3: Mixed epithelioid and spindle cell	42	1.66# (1.20-2.24)	13	0.71 (0.38-1.21)	42	1.25 (0.90-1.69)	97	1.26# (1.02-1.53)
8771/3: Epithelioid	7	0.74 (0.295-1.51)	4	0.68 (0.184-1.733)	7	0.78 (0.31-1.60)	18	0.74 (0.44-1.16)
8772-8774/3: Spindle cell	45	1.15 (0.84-1.54)	51	1.36# (1.01-1.79)	59	0.78 (0.59-1.00)	155	1.02 (0.86-1.19)
Radiotherapy for uveal melanoma								
Yes	103	1.12 (0.91-1.36)	70	1.10 (0.86-1.39)	70	1.03 (0.80-1.30)	243	1.09 (0.95-1.23)

Acronyms: a, using ICD-O-3 histology recode

Supplementary Table 10. Standardized incidence ratios for developing a primary uveal melanoma following another primary malignancy according to the latency; SIR (95% confidence intervals). (A complimentary to **Table 5**)

Histology of uveal melanoma ^a								
8720/3: Malignant, NOS	110	1.07 (0.88-1.29)	98	1.31# (1.06-1.59)	103	1.00 (0.82-1.21)	311	1.11 (0.99-1.24)
8730/3: Amelanotic	1	0.92 (0.02-5.13)	0	0	4	4.22# (1.15-10.81)	5	1.81 (0.59-4.22)
8770/3: Mixed epithelioid and spindle cell	22	1.13 (0.71-1.70)	14	1.04 (0.57-1.75)	19	1.19 (0.72-1.86)	55	1.12 (0.85-1.46)
8771/3: Epithelioid cell	6	0.82 (0.30-1.78)	6	1.19 (0.44-2.59)	2	0.32 (0.04-1.15)	14	0.75 (0.41-1.26)
8772-8774/3: Spindle cell	27	1.15 (0.76-1.67)	14	0.92 (0.50-1.54)	15	0.84 (0.47-1.38)	56	0.99 (0.75-1.28)

Acronyms: a, using ICD-O-3 histology recode