

MULTIPLE MYELOMA  
BOTH SEXES

TABLE 3A. -- Characteristics of persons reported to the Danish Cancer Registry with an initial multiple myeloma, 1943-80+

Category	Male	Female	Total
No. with first primary cancer*	1,867	1,615	3,482
No. who developed a second primary cancer	45	23	68
Average age at diagnosis of first cancer, yr	65	67	66
Average yr of diagnosis of first cancer	1967	1967	1967
Person-yr of follow-up	3,882	3,566	7,448
Average follow-up, yr	2.1	2.2	2.1
Percent given radiotherapy for first cancer	28	28	28

+ ICD-7 code = 203.

\* Number excludes all persons who survived less than 2 mo after the diagnosis of their first primary cancer or who developed a simultaneous cancer during this period. First primary cancers diagnosed only at autopsy or by death certificate are also excluded as are in situ cancers.

TABLE 3B. -- Microscopic confirmation among persons who developed second primary cancers after an initial multiple myeloma in Denmark, 1943-80

Microscopically confirmed	No.	Percent+
Both first and second cancers	51	75.0
Only the first cancer	9	13.2
Only the second cancer	5	7.4
Neither first nor second cancer	3	4.4
Total second primary cancers	68	100.0

+ Minor discrepancies between table entries, and row and column sums in this and subsequent tables are due to rounding.

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TABLE 3C. -- Observed (O) and expected (E) numbers of second primary cancers by years after diagnosis of an initial multiple myeloma among males and females in Denmark, 1943-80+

Second primary cancer site	Yr after first primary cancer diagnosis														
	<1 yr			1-4 yr			5-9 yr			10+ yr			Total		
	O	E	O/E	O	E	O/E	O	E	O/E	O	E	O/E	O	E	O/E
No. starting interval	3,482			1,849			376			104			3,482		
Person-yr in interval	2,555			3,404			1,002			487			7,448		
All second cancers	22	28.53	0.8	30	39.61	0.8	7	12.80	0.5	9	6.99	1.3	68	87.95	0.8*
All excluding site of initial cancer	22	28.19	0.8	30	39.12	0.8	7	12.64	0.6	9	6.90	1.3	68	86.87	0.8*
Buccal cavity, pharynx	0	0.68	0.0	1	0.91	1.1	0	0.29	0.0	0	0.15	0.0	1	2.02	0.5
Lip	0	0.30	0.0	1	0.41	2.4	0	0.13	0.0	0	0.06	0.0	1	0.90	1.1
Tongue	0	0.07	0.0	0	0.09	0.0	0	0.03	0.0	0	0.02	0.0	0	0.20	0.0
Salivary gland	0	0.07	0.0	0	0.11	0.0	0	0.03	0.0	0	0.02	0.0	0	0.23	0.0
Gum, other mouth	0	0.12	0.0	0	0.17	0.0	0	0.05	0.0	0	0.04	0.0	0	0.38	0.0
Pharynx	0	0.11	0.0	0	0.15	0.0	0	0.05	0.0	0	0.03	0.0	0	0.33	0.0
Digestive system	6	10.33	0.6	7	14.04	0.5	2	4.59	0.4	2	2.54	0.8	17	31.49	0.5*
Esophagus	0	0.37	0.0	0	0.50	0.0	0	0.17	0.0	1	0.09	11.1	1	1.14	0.9
Stomach	2	2.91	0.7	2	3.70	0.5	1	1.18	0.8	0	0.62	0.0	5	8.42	0.6
Colon	2	2.74	0.7	3	3.88	0.8	1	1.30	0.8	0	0.75	0.0	6	8.68	0.7
Rectum	0	2.11	0.0	2	2.85	0.7	0	0.92	0.0	0	0.49	0.0	2	6.38	0.3
Liver, biliary	0	0.73	0.0	0	1.06	0.0	0	0.36	0.0	0	0.21	0.0	0	2.36	0.0
Pancreas	2	1.11	1.8	0	1.57	0.0	0	0.53	0.0	1	0.29	3.4	3	3.50	0.9
Respiratory system	3	4.16	0.7	7	5.94	1.2	2	1.97	1.0	2	0.98	2.0	14	13.06	1.1
Nasal cavities, sinuses	0	0.07	0.0	0	0.09	0.0	0	0.03	0.0	0	0.01	0.0	0	0.20	0.0
Larynx	0	0.25	0.0	0	0.37	0.0	0	0.12	0.0	0	0.06	0.0	0	0.81	0.0
Trachea, bronchus, lung	3	3.64	0.8	7	5.20	1.3	2	1.73	1.2	2	0.86	2.3	14	11.43	1.2
Female breast	2	2.38	0.8	2	3.41	0.6	0	1.03	0.0	0	0.63	0.0	4	7.46	0.5
Female genital tract	1	2.11	0.5	0	2.99	0.0	0	0.84	0.0	0	0.50	0.0	1	6.45	0.2*
Cervix uteri	0	0.62	0.0	0	0.84	0.0	0	0.22	0.0	0	0.13	0.0	0	1.80	0.0
Corpus uteri	0	0.64	0.0	0	0.92	0.0	0	0.26	0.0	0	0.15	0.0	0	1.98	0.0
Uterus, NOS	0	0.05	0.0	0	0.06	0.0	0	0.02	0.0	0	0.01	0.0	0	0.14	0.0
Ovary, fallopian tubes	1	0.66	1.5	0	0.95	0.0	0	0.27	0.0	0	0.17	0.0	1	2.05	0.5
Prostate gland	1	2.33	0.4	2	3.18	0.6	1	1.08	0.9	0	0.58	0.0	4	7.17	0.6
Testis	0	0.05	0.0	0	0.07	0.0	0	0.02	0.0	0	0.01	0.0	0	0.16	0.0
Kidney, renal pelvis, ureter	4	0.87	4.6*	3	1.23	2.4	1	0.41	2.4	0	0.22	0.0	8	2.74	2.9*
Bladder, other urinary	0	1.75	0.0	1	2.49	0.4	1	0.84	1.2	1	0.45	2.2	3	5.52	0.5
Melanoma of the skin	0	0.29	0.0	0	0.42	0.0	0	0.13	0.0	1	0.07	14.3	1	0.91	1.1
Eye	0	0.08	0.0	0	0.12	0.0	0	0.03	0.0	0	0.02	0.0	0	0.25	0.0
Brain, central nervous system	2	0.49	4.1	2	0.69	2.9	0	0.21	0.0	1	0.10	10.0	5	1.49	3.4*
Thyroid gland	0	0.13	0.0	1	0.18	5.6	0	0.06	0.0	0	0.03	0.0	1	0.40	2.5
Bone	0	0.05	0.0	0	0.07	0.0	0	0.02	0.0	0	0.02	0.0	0	0.14	0.0
Connective tissue	0	0.09	0.0	0	0.12	0.0	0	0.03	0.0	0	0.02	0.0	0	0.27	0.0
Lymphatic, hematopoietic system	2	1.75	1.1	4	2.44	1.6	0	0.80	0.0	2	0.43	4.7	8	5.43	1.5
Non-Hodgkin's lymphoma	0	0.47	0.0	0	0.68	0.0	0	0.22	0.0	2	0.12	16.7*	2	1.49	1.3
Hodgkin's disease	0	0.12	0.0	0	0.16	0.0	0	0.05	0.0	0	0.02	0.0	0	0.35	0.0
Multiple myeloma	0	0.34	0.0	0	0.49	0.0	0	0.16	0.0	0	0.09	0.0	0	1.08	0.0
Leukemias	2	0.79	2.5	4	1.10	3.6	0	0.37	0.0	0	0.20	0.0	6	2.44	2.5
Chronic lymphocytic	0	0.41	0.0	0	0.57	0.0	0	0.19	0.0	0	0.11	0.0	0	1.27	0.0
Acute nonlymphocytic	2	0.21	9.5*	4	0.30	13.3*	0	0.10	0.0	0	0.05	0.0	6	0.66	9.1*

+ ICD-7 code = 203.

\* P<.05.

MULTIPLE MYELOMA  
MALES

TABLE 3D. -- Observed (O) and expected (E) numbers of second primary cancers by years after diagnosis of an initial multiple myeloma among males in Denmark, 1943-80+

Second primary cancer site	Yr after first primary cancer diagnosis														
	<1 yr			1-4 yr			5-9 yr			10+ yr			Total		
	O	E	O/E	O	E	O/E	O	E	O/E	O	E	O/E	O	E	O/E
No. starting interval	1,867			985			198			56			1,867		
Person-yr in interval	1,363			1,757			545			217			3,882		
All second cancers	11	16.79	0.7	22	22.77	1.0	5	7.57	0.7	7	3.73	1.9	45	50.87	0.9
All excluding site of initial cancer	11	16.58	0.7	22	22.48	1.0	5	7.47	0.7	7	3.68	1.9	45	50.22	0.9
Buccal cavity, pharynx	0	0.52	0.0	1	0.68	1.5	0	0.22	0.0	0	0.10	0.0	1	1.52	0.7
Lip	0	0.28	0.0	1	0.37	2.7	0	0.12	0.0	0	0.05	0.0	1	0.82	1.2
Tongue	0	0.04	0.0	0	0.05	0.0	0	0.02	0.0	0	0.01	0.0	0	0.11	0.0
Salivary gland	0	0.04	0.0	0	0.06	0.0	0	0.02	0.0	0	0.01	0.0	0	0.13	0.0
Gum, other mouth	0	0.07	0.0	0	0.10	0.0	0	0.03	0.0	0	0.02	0.0	0	0.23	0.0
Pharynx	0	0.08	0.0	0	0.11	0.0	0	0.04	0.0	0	0.02	0.0	0	0.24	0.0
Digestive system	4	6.17	0.6	4	8.11	0.5	1	2.64	0.4	1	1.30	0.8	10	18.22	0.5
Esophagus	0	0.26	0.0	0	0.34	0.0	0	0.11	0.0	1	0.05	19.6	1	0.77	1.3
Stomach	2	1.88	1.1	1	2.33	0.4	1	0.72	1.4	0	0.34	0.0	4	5.28	0.8
Colon	1	1.43	0.7	1	1.96	0.5	0	0.66	0.0	0	0.34	0.0	2	4.39	0.5
Rectum	0	1.38	0.0	2	1.81	1.1	0	0.59	0.0	0	0.28	0.0	2	4.07	0.5
Liver, biliary	0	0.36	0.0	0	0.50	0.0	0	0.17	0.0	0	0.09	0.0	0	1.12	0.0
Pancreas	1	0.67	1.5	0	0.92	0.0	0	0.32	0.0	0	0.15	0.0	1	2.06	0.5
Respiratory system	2	3.53	0.6	7	4.98	1.4	2	1.68	1.2	2	0.80	2.5	13	11.00	1.2
Nasal cavities, sinuses	0	0.05	0.0	0	0.06	0.0	0	0.02	0.0	0	0.01	0.0	0	0.14	0.0
Larynx	0	0.23	0.0	0	0.33	0.0	0	0.11	0.0	0	0.05	0.0	0	0.73	0.0
Trachea, bronchus, lung	2	3.10	0.6	7	4.38	1.6	2	1.48	1.3	2	0.71	2.8	13	9.67	1.3
Prostate gland	1	2.33	0.4	2	3.18	0.6	1	1.08	0.9	0	0.58	0.0	4	7.17	0.6
Testis	0	0.05	0.0	0	0.07	0.0	0	0.02	0.0	0	0.01	0.0	0	0.16	0.0
Kidney, renal pelvis, ureter	3	0.55	5.4*	2	0.76	2.6	0	0.26	0.0	0	0.13	0.0	5	1.71	2.9
Bladder, other urinary	0	1.40	0.0	0	1.97	0.0	1	0.67	1.5	1	0.34	3.0	2	4.38	0.5
Melanoma of the skin	0	0.14	0.0	0	0.19	0.0	0	0.06	0.0	1	0.03	32.9	1	0.43	2.3
Eye	0	0.05	0.0	0	0.07	0.0	0	0.02	0.0	0	0.01	0.0	0	0.15	0.0
Brain, central nervous system	0	0.27	0.0	2	0.37	5.4	0	0.12	0.0	0	0.05	0.0	2	0.81	2.5
Thyroid gland	0	0.05	0.0	1	0.06	15.6	0	0.02	0.0	0	0.01	0.0	1	0.14	7.0
Bone	0	0.03	0.0	0	0.04	0.0	0	0.01	0.0	0	0.01	0.0	0	0.08	0.0
Connective tissue	0	0.05	0.0	0	0.07	0.0	0	0.02	0.0	0	0.01	0.0	0	0.16	0.0
Lymphatic, hematopoietic system	1	1.10	0.9	3	1.49	2.0	0	0.50	0.0	2	0.24	8.3	6	3.34	1.8
Non-Hodgkin's lymphoma	0	0.28	0.0	0	0.39	0.0	0	0.13	0.0	2	0.06	31.6*	2	0.86	2.3
Hodgkin's disease	0	0.08	0.0	0	0.10	0.0	0	0.03	0.0	0	0.01	0.0	0	0.22	0.0
Multiple myeloma	0	0.21	0.0	0	0.29	0.0	0	0.10	0.0	0	0.05	0.0	0	0.65	0.0
Leukemias	1	0.52	1.9	3	0.70	4.3	0	0.24	0.0	0	0.12	0.0	4	1.57	2.5
Chronic lymphocytic	0	0.29	0.0	0	0.39	0.0	0	0.13	0.0	0	0.07	0.0	0	0.87	0.0
Acute nonlymphocytic	1	0.13	7.9	3	0.18	16.6*	0	0.06	0.0	0	0.03	0.0	4	0.40	10.1*

+ ICD-7 code = 203.

\* P<.05.

MULTIPLE MYELOMA  
FEMALES

TABLE 3E. -- Observed (O) and expected (E) numbers of second primary cancers by years after diagnosis of an initial multiple myeloma among females in Denmark, 1943-80+

Second primary cancer site	Yr after first primary cancer diagnosis												Total		
	<1 yr			1-4 yr			5-9 yr			10+ yr					
	O	E	O/E	O	E	O/E	O	E	O/E	O	E	O/E	O	E	O/E
No. starting interval	1,615			864			178			48			1,615		
Person-yr in interval	1,192			1,648			457			270			3,566		
All second cancers	11	11.74	0.9	8	16.84	0.5*	2	5.23	0.4	2	3.26	0.6	23	37.08	0.6*
All excluding site of initial cancer	11	11.61	0.9	8	16.64	0.5*	2	5.17	0.4	2	3.22	0.6	23	36.65	0.6*
Buccal cavity, pharynx	0	0.16	0.0	0	0.23	0.0	0	0.07	0.0	0	0.05	0.0	0	0.50	0.0
Lip	0	0.02	0.0	0	0.04	0.0	0	0.01	0.0	0	0.01	0.0	0	0.08	0.0
Tongue	0	0.03	0.0	0	0.04	0.0	0	0.01	0.0	0	0.01	0.0	0	0.09	0.0
Salivary gland	0	0.03	0.0	0	0.05	0.0	0	0.01	0.0	0	0.01	0.0	0	0.10	0.0
Gum, other mouth	0	0.05	0.0	0	0.07	0.0	0	0.02	0.0	0	0.02	0.0	0	0.15	0.0
Pharynx	0	0.03	0.0	0	0.04	0.0	0	0.01	0.0	0	0.01	0.0	0	0.09	0.0
Digestive system	2	4.16	0.5	3	5.93	0.5	1	1.95	0.5	1	1.24	0.8	7	13.27	0.5
Esophagus	0	0.11	0.0	0	0.16	0.0	0	0.06	0.0	0	0.04	0.0	0	0.37	0.0
Stomach	0	1.03	0.0	1	1.37	0.7	0	0.46	0.0	0	0.28	0.0	1	3.14	0.3
Colon	1	1.31	0.8	2	1.92	1.0	1	0.64	1.6	0	0.41	0.0	4	4.29	0.9
Rectum	0	0.73	0.0	0	1.04	0.0	0	0.33	0.0	0	0.21	0.0	0	2.31	0.0
Liver, biliary	0	0.37	0.0	0	0.56	0.0	0	0.19	0.0	0	0.12	0.0	0	1.24	0.0
Pancreas	1	0.44	2.3	0	0.65	0.0	0	0.21	0.0	1	0.14	7.1	2	1.44	1.4
Respiratory system	1	0.63	1.6	0	0.96	0.0	0	0.29	0.0	0	0.18	0.0	1	2.06	0.5
Nasal cavities, sinuses	0	0.02	0.0	0	0.03	0.0	0	0.01	0.0	0	0.00	0.0	0	0.06	0.0
Larynx	0	0.02	0.0	0	0.04	0.0	0	0.01	0.0	0	0.01	0.0	0	0.08	0.0
Trachea, bronchus, lung	1	0.54	1.9	0	0.82	0.0	0	0.25	0.0	0	0.15	0.0	1	1.76	0.6
Female breast	2	2.38	0.8	2	3.41	0.6	0	1.03	0.0	0	0.63	0.0	4	7.46	0.5
Female genital tract	1	2.11	0.5	0	2.99	0.0	0	0.84	0.0	0	0.50	0.0	1	6.45	0.2*
Cervix uteri	0	0.62	0.0	0	0.84	0.0	0	0.22	0.0	0	0.13	0.0	0	1.80	0.0
Corpus uteri	0	0.64	0.0	0	0.92	0.0	0	0.26	0.0	0	0.15	0.0	0	1.98	0.0
Uterus, NOS	0	0.05	0.0	0	0.06	0.0	0	0.02	0.0	0	0.01	0.0	0	0.14	0.0
Ovary, fallopian tubes	1	0.66	1.5	0	0.95	0.0	0	0.27	0.0	0	0.17	0.0	1	2.05	0.5
Kidney, renal pelvis, ureter	1	0.32	3.1	1	0.47	2.1	1	0.15	6.8	0	0.09	0.0	3	1.03	2.9
Bladder, other urinary	0	0.35	0.0	1	0.52	1.9	0	0.17	0.0	0	0.11	0.0	1	1.14	0.9
Melanoma of the skin	0	0.15	0.0	0	0.23	0.0	0	0.07	0.0	0	0.04	0.0	0	0.48	0.0
Eye	0	0.03	0.0	0	0.05	0.0	0	0.01	0.0	0	0.01	0.0	0	0.10	0.0
Brain, central nervous system	2	0.22	9.1*	0	0.32	0.0	0	0.09	0.0	1	0.05	18.7	3	0.68	4.4
Thyroid gland	0	0.08	0.0	0	0.12	0.0	0	0.04	0.0	0	0.02	0.0	0	0.26	0.0
Bone	0	0.02	0.0	0	0.03	0.0	0	0.01	0.0	0	0.01	0.0	0	0.06	0.0
Connective tissue	0	0.04	0.0	0	0.05	0.0	0	0.01	0.0	0	0.01	0.0	0	0.11	0.0
Lymphatic, hematopoietic system	1	0.65	1.5	1	0.95	1.1	0	0.30	0.0	0	0.19	0.0	2	2.09	1.0
Non-Hodgkin's lymphoma	0	0.19	0.0	0	0.29	0.0	0	0.09	0.0	0	0.06	0.0	0	0.63	0.0
Hodgkin's disease	0	0.04	0.0	0	0.06	0.0	0	0.02	0.0	0	0.01	0.0	0	0.13	0.0
Multiple myeloma	0	0.13	0.0	0	0.20	0.0	0	0.06	0.0	0	0.04	0.0	0	0.43	0.0
Leukemias	1	0.27	3.7	1	0.40	2.5	0	0.13	0.0	0	0.08	0.0	2	0.87	2.3
Chronic lymphocytic	0	0.12	0.0	0	0.18	0.0	0	0.06	0.0	0	0.04	0.0	0	0.40	0.0
Acute nonlymphocytic	1	0.08	12.5	1	0.12	8.2	0	0.04	0.0	0	0.02	0.0	2	0.26	7.6

+ ICD-7 code = 203.

\* P<.05.