

LEUKEMIA  
BOTH SEXES

TABLE 4A. -- Characteristics of persons reported to the Connecticut Tumor Registry with an initial leukemia, 1935-82+

Category	Male	Female	Total
No. with first primary cancer*	3,878	2,849	6,727
No. who developed a second primary cancer	184	80	264
Average age at diagnosis of first cancer, yr	53	54	53
Average yr of diagnosis of first cancer	1966	1966	1966
Person-yr of follow-up	9,866	7,680	17,546
Average follow-up, yr	2.5	2.7	2.6
Percent given radiotherapy for first cancer	19.4	17.7	18.7

+ ICD-0 morphology codes = 9800-9940.

\* 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 4B. -- Microscopic confirmation among persons who developed second primary cancers after an initial leukemia in Connecticut, 1935-82

Microscopically confirmed	No.	Percent+
Both first and second cancers	226	85.6
Only the first cancer	21	8.0
Only the second cancer	13	4.9
Neither first nor second cancer	4	1.5
Total second primary cancers	264	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 4C. -- Observed (O) and expected (E) numbers of second primary cancers by years after diagnosis of an initial leukemia among males and females in Connecticut, 1935-82+

Second primary cancer site	Yr after first primary cancer diagnosis												Total		
	<1 yr			1-4 yr			5-9 yr			10+ yr			O	E	
No. starting interval	6,727			4,045			1,199			318			6,727		
Person-yr in interval	4,105			8,790			3,230			1,422			17,546		
	O	E	O/E	O	E	O/E	O	E	O/E	O	E	O/E	O	E	O/E
All second cancers	53	40.21	1.3	128	95.83	1.3*	63	40.12	1.6*	20	21.77	0.9	264	197.77	1.3*
All excluding site of initial cancer	53	38.99	1.4*	128	92.98	1.4*	63	38.94	1.6*	20	21.11	0.9	264	191.85	1.4*
Buccal cavity, pharynx	2	1.53	1.3	7	3.54	2.0	1	1.41	0.7	1	0.75	1.3	11	7.23	1.5
Lip	2	0.26	7.8	0	0.57	0.0	0	0.22	0.0	0	0.12	0.0	2	1.16	1.7
Tongue	0	0.31	0.0	3	0.70	4.3	0	0.28	0.0	1	0.15	6.8	4	1.43	2.8
Salivary gland	0	0.10	0.0	1	0.24	4.2	0	0.10	0.0	0	0.05	0.0	1	0.48	2.1
Gum, other mouth	0	0.44	0.0	2	1.04	1.9	1	0.42	2.4	0	0.22	0.0	3	2.11	1.4
Pharynx	0	0.37	0.0	1	0.86	1.2	0	0.35	0.0	0	0.18	0.0	1	1.76	0.6
Digestive system	16	12.93	1.2	42	30.64	1.4	24	12.73	1.9*	8	6.89	1.2	90	63.13	1.4*
Esophagus	0	0.65	0.0	1	1.49	0.7	1	0.60	1.7	1	0.32	3.1	3	3.06	1.0
Stomach	3	2.12	1.4	6	4.83	1.2	2	1.90	1.1	1	1.02	1.0	12	9.87	1.2
Colon	4	5.31	0.8	20	12.83	1.6	9	5.45	1.7	4	2.98	1.3	37	26.55	1.4
Rectum	2	2.57	0.8	8	6.08	1.3	5	2.53	2.0	2	1.35	1.5	17	12.52	1.4
Liver, biliary	2	0.74	2.7	1	1.75	0.6	1	0.73	1.4	0	0.38	0.0	4	3.59	1.1
Pancreas	3	1.31	2.3	2	3.12	0.6	5	1.31	3.8*	0	0.72	0.0	10	6.45	1.5
Respiratory system	11	6.00	1.8	26	14.35	1.8*	15	6.12	2.4*	5	3.43	1.5	57	29.89	1.9*
Nasal cavities, sinuses	0	0.08	0.0	1	0.19	5.4	0	0.08	0.0	0	0.04	0.0	1	0.38	2.6
Larynx	0	0.62	0.0	0	1.45	0.0	1	0.59	1.7	0	0.31	0.0	1	2.96	0.3
Trachea, bronchus, lung	11	5.24	2.1*	24	12.59	1.9*	14	5.41	2.6*	5	3.05	1.6	54	26.27	2.1*
Female breast	2	3.38	0.6	8	8.41	1.0	1	3.63	0.3	0	1.59	0.0	11	17.00	0.6
Female genital tract	0	2.06	0.0	2	5.02	0.4	1	2.09	0.5	0	0.90	0.0	3	10.05	0.3*
Cervix uteri	0	0.39	0.0	0	0.89	0.0	0	0.33	0.0	0	0.13	0.0	0	1.74	0.0
Corpus uteri	0	0.82	0.0	1	2.07	0.5	0	0.92	0.0	0	0.41	0.0	1	4.21	0.2
Uterus, NOS	0	0.15	0.0	0	0.33	0.0	0	0.11	0.0	0	0.04	0.0	0	0.63	0.0
Ovary, fallopian tubes	0	0.56	0.0	0	1.39	0.0	1	0.58	1.7	0	0.26	0.0	1	2.79	0.4
Prostate gland	11	4.99	2.2*	26	11.73	2.2*	4	4.91	0.8	0	3.16	0.0	41	24.77	1.7*
Testis	0	0.05	0.0	1	0.11	9.4	0	0.04	0.0	1	0.02	56.3	2	0.21	9.4*
Kidney, renal pelvis, ureter	7	0.87	8.0*	3	2.06	1.5	3	0.86	3.5	0	0.46	0.0	13	4.26	3.1*
Bladder, other urinary	1	2.34	0.4	4	5.59	0.7	4	2.36	1.7	0	1.38	0.0	9	11.66	0.8
Melanoma of the skin	0	0.43	0.0	3	1.04	2.9	0	0.44	0.0	2	0.22	9.1*	5	2.12	2.4
Eye	0	0.06	0.0	0	0.14	0.0	0	0.06	0.0	0	0.03	0.0	0	0.29	0.0
Brain, central nervous system	0	0.40	0.0	2	0.94	2.1	1	0.39	2.6	0	0.19	0.0	3	1.92	1.6
Thyroid gland	0	0.17	0.0	0	0.39	0.0	2	0.16	12.9*	0	0.07	0.0	2	0.78	2.6
Bone	0	0.06	0.0	0	0.13	0.0	0	0.05	0.0	0	0.02	0.0	0	0.27	0.0
Connective tissue	0	0.20	0.0	3	0.46	6.6*	0	0.18	0.0	0	0.10	0.0	3	0.93	3.2
Lymphatic, hematopoietic system	1	2.75	0.4	0	6.53	0.0*	1	2.74	0.4	2	1.50	1.3	4	13.50	0.3*
Non-Hodgkin's lymphoma	0	0.90	0.0	0	2.17	0.0	1	0.93	1.1	2	0.49	4.1	3	4.49	0.7
Hodgkin's disease	0	0.19	0.0	0	0.44	0.0	0	0.17	0.0	0	0.09	0.0	0	0.89	0.0
Multiple myeloma	1	0.43	2.3	0	1.06	0.0	0	0.46	0.0	0	0.26	0.0	1	2.21	0.5
Leukemias	0	1.22	0.0	0	2.85	0.0	0	1.18	0.0	0	0.66	0.0	0	5.92	0.0*
Chronic lymphocytic	0	0.38	0.0	0	0.90	0.0	0	0.38	0.0	0	0.22	0.0	0	1.87	0.0
Acute nonlymphocytic	0	0.37	0.0	0	0.88	0.0	0	0.38	0.0	0	0.22	0.0	0	1.85	0.0

+ ICD-O morphology codes = 9800-9940.

\* P<.05.

LEUKEMIA  
MALES

TABLE 4D. -- Observed (O) and expected (E) numbers of second primary cancers by years after diagnosis of an initial leukemia among males in Connecticut, 1935-82+

Second primary cancer site	Yr after first primary cancer diagnosis														
	<1 yr			1-4 yr			5-9 yr			10+ yr			Total		
	No. starting interval	3,878		2,331			654			175			3,878		
Person-yr in interval	2,371		4,926			1,728			842			9,866			
	O	E	O/E	O	E	O/E	O	E	O/E	O	E	O/E	O	E	O/E
All second cancers	43	26.60	1.6*	87	61.68	1.4*	41	25.31	1.6*	13	15.18	0.9	184	128.66	1.4*
All excluding site of initial cancer	43	25.76	1.7*	87	59.76	1.5*	41	24.53	1.7*	13	14.70	0.9	184	124.64	1.5*
Buccal cavity, pharynx	2	1.31	1.5	4	2.97	1.3	0	1.16	0.0	1	0.64	1.6	7	6.06	1.2
Lip	2	0.24	8.3	0	0.53	0.0	0	0.20	0.0	0	0.11	0.0	2	1.08	1.8
Tongue	0	0.26	0.0	2	0.59	3.4	0	0.23	0.0	1	0.12	8.1	3	1.20	2.5
Salivary gland	0	0.07	0.0	1	0.16	6.2	0	0.06	0.0	0	0.04	0.0	1	0.33	3.0
Gum, other mouth	0	0.36	0.0	1	0.83	1.2	0	0.32	0.0	0	0.18	0.0	1	1.69	0.6
Pharynx	0	0.32	0.0	0	0.75	0.0	0	0.29	0.0	0	0.16	0.0	0	1.52	0.0
Digestive system	10	8.50	1.2	21	19.45	1.1	15	7.88	1.9*	3	4.71	0.6	49	40.51	1.2
Esophagus	0	0.56	0.0	1	1.25	0.8	1	0.50	2.0	0	0.28	0.0	2	2.57	0.8
Stomach	2	1.55	1.3	2	3.42	0.6	1	1.32	0.8	1	0.78	1.3	6	7.07	0.8
Colon	2	3.20	0.6	11	7.47	1.5	6	3.09	1.9	1	1.91	0.5	20	15.66	1.3
Rectum	2	1.74	1.1	3	4.01	0.7	3	1.63	1.8	1	0.95	1.1	9	8.32	1.1
Liver, biliary	0	0.44	0.0	1	1.00	1.0	1	0.41	2.5	0	0.25	0.0	2	2.09	1.0
Pancreas	3	0.86	3.5	1	1.98	0.5	3	0.81	3.7	0	0.48	0.0	7	4.13	1.7
Respiratory system	10	5.21	1.9	22	12.28	1.8*	11	5.14	2.1*	4	2.99	1.3	47	25.60	1.8*
Nasal cavities, sinuses	0	0.06	0.0	1	0.13	7.7	0	0.05	0.0	0	0.03	0.0	1	0.27	3.7
Larynx	0	0.58	0.0	0	1.34	0.0	0	0.53	0.0	0	0.29	0.0	0	2.74	0.0
Trachea, bronchus, lung	10	4.53	2.2*	21	10.71	2.0*	11	4.51	2.4*	4	2.64	1.5	46	22.37	2.1*
Prostate gland	11	4.99	2.2*	26	11.73	2.2*	4	4.91	0.8	0	3.16	0.0	41	24.77	1.7*
Testis	0	0.05	0.0	1	0.11	9.4	0	0.04	0.0	1	0.02	56.3	2	0.21	9.4*
Kidney, renal pelvis, ureter	7	0.65	10.7*	2	1.51	1.3	1	0.62	1.6	0	0.36	0.0	10	3.14	3.2*
Bladder, other urinary	1	1.93	0.5	4	4.54	0.9	3	1.89	1.6	0	1.16	0.0	8	9.51	0.8
Melanoma of the skin	0	0.28	0.0	3	0.67	4.5	0	0.27	0.0	2	0.15	13.6*	5	1.37	3.7*
Eye	0	0.04	0.0	0	0.08	0.0	0	0.03	0.0	0	0.02	0.0	0	0.18	0.0
Brain, central nervous system	0	0.27	0.0	2	0.62	3.2	1	0.25	4.0	0	0.13	0.0	3	1.27	2.4
Thyroid gland	0	0.07	0.0	0	0.16	0.0	1	0.06	16.2	0	0.03	0.0	1	0.32	3.1
Bone	0	0.04	0.0	0	0.08	0.0	0	0.03	0.0	0	0.02	0.0	0	0.17	0.0
Connective tissue	0	0.14	0.0	2	0.31	6.5	0	0.12	0.0	0	0.07	0.0	2	0.64	3.1
Lymphatic, hematopoietic system	0	1.80	0.0	0	4.15	0.0*	1	1.69	0.6	1	1.01	1.0	2	8.65	0.2*
Non-Hodgkin's lymphoma	0	0.56	0.0	0	1.31	0.0	1	0.54	1.9	1	0.31	3.2	2	2.72	0.7
Hodgkin's disease	0	0.13	0.0	0	0.28	0.0	0	0.11	0.0	0	0.06	0.0	0	0.58	0.0
Multiple myeloma	0	0.27	0.0	0	0.63	0.0	0	0.27	0.0	0	0.16	0.0	0	1.33	0.0
Leukemias	0	0.84	0.0	0	1.92	0.0	0	0.78	0.0	0	0.48	0.0	0	4.02	0.0*
Chronic lymphocytic	0	0.27	0.0	0	0.63	0.0	0	0.26	0.0	0	0.16	0.0	0	1.32	0.0
Acute nonlymphocytic	0	0.24	0.0	0	0.57	0.0	0	0.24	0.0	0	0.15	0.0	0	1.21	0.0

+ ICD-O morphology codes = 9800-9940.

\* P<.05.

LEUKEMIA  
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TABLE 4E. -- Observed (O) and expected (E) numbers of second primary cancers by years after diagnosis of an initial leukemia among females in Connecticut, 1935-82+

Second primary cancer site	Yr after first primary cancer diagnosis												Total		
	<1 yr			1-4 yr			5-9 yr			10+ yr			O	E	
	No. starting interval	2,849		1,714			545			143			2,849		
Person-yr in interval	1,734		3,863			1,502			580			7,680			
	O	E	O/E	O	E	O/E	O	E	O/E	O	E	O/E	O	E	O/E
All second cancers	10	13.61	0.7	41	34.15	1.2	22	14.81	1.5	7	6.59	1.1	80	69.11	1.2
All excluding site of initial cancer	10	13.23	0.8	41	33.22	1.2	22	14.41	1.5	7	6.41	1.1	80	67.22	1.2
Buccal cavity, pharynx	0	0.23	0.0	3	0.58	5.2*	1	0.26	3.9	0	0.11	0.0	4	1.17	3.4
Lip	0	0.02	0.0	0	0.04	0.0	0	0.02	0.0	0	0.01	0.0	0	0.08	0.0
Tongue	0	0.05	0.0	1	0.12	8.5	0	0.05	0.0	0	0.02	0.0	1	0.24	4.2
Salivary gland	0	0.03	0.0	0	0.08	0.0	0	0.03	0.0	0	0.01	0.0	0	0.15	0.0
Gum, other mouth	0	0.08	0.0	1	0.21	4.9	1	0.09	10.8	0	0.04	0.0	2	0.42	4.8
Pharynx	0	0.05	0.0	1	0.12	8.4	0	0.05	0.0	0	0.02	0.0	1	0.24	4.1
Digestive system	6	4.43	1.4	21	11.19	1.9*	9	4.85	1.9	5	2.17	2.3	41	22.63	1.8*
Esophagus	0	0.09	0.0	0	0.24	0.0	0	0.11	0.0	1	0.05	21.7	1	0.48	2.1
Stomach	1	0.57	1.8	4	1.41	2.8	1	0.58	1.7	0	0.24	0.0	6	2.80	2.1
Colon	2	2.11	0.9	9	5.36	1.7	3	2.36	1.3	3	1.07	2.8	17	10.89	1.6
Rectum	0	0.83	0.0	5	2.08	2.4	2	0.90	2.2	1	0.40	2.5	8	4.20	1.9
Liver, biliary	2	0.30	6.6	0	0.75	0.0	0	0.32	0.0	0	0.13	0.0	2	1.51	1.3
Pancreas	0	0.45	0.0	1	1.14	0.9	2	0.50	4.0	0	0.23	0.0	3	2.33	1.3
Respiratory system	1	0.79	1.3	4	2.07	1.9	4	0.98	4.1*	1	0.45	2.2	10	4.28	2.3*
Nasal cavities, sinuses	0	0.02	0.0	0	0.05	0.0	0	0.02	0.0	0	0.01	0.0	0	0.11	0.0
Larynx	0	0.04	0.0	0	0.11	0.0	1	0.05	18.8	0	0.02	0.0	1	0.23	4.4
Trachea, bronchus, lung	1	0.71	1.4	3	1.88	1.6	3	0.89	3.4	1	0.41	2.5	8	3.89	2.1
Female breast	2	3.38	0.6	8	8.41	1.0	1	3.63	0.3	0	1.59	0.0	11	17.00	0.6
Female genital tract	0	2.06	0.0	2	5.02	0.4	1	2.09	0.5	0	0.90	0.0	3	10.05	0.3*
Cervix uteri	0	0.39	0.0	0	0.89	0.0	0	0.33	0.0	0	0.13	0.0	0	1.74	0.0
Corpus uteri	0	0.82	0.0	1	2.07	0.5	0	0.92	0.0	0	0.41	0.0	1	4.21	0.2
Uterus, NOS	0	0.15	0.0	0	0.33	0.0	0	0.11	0.0	0	0.04	0.0	0	0.63	0.0
Ovary, fallopian tubes	0	0.56	0.0	0	1.39	0.0	1	0.58	1.7	0	0.26	0.0	1	2.79	0.4
Kidney, renal pelvis, ureter	0	0.22	0.0	1	0.55	1.8	2	0.24	8.3	0	0.11	0.0	3	1.11	2.7
Bladder, other urinary	0	0.41	0.0	0	1.05	0.0	1	0.47	2.1	0	0.22	0.0	1	2.14	0.5
Melanoma of the skin	0	0.15	0.0	0	0.37	0.0	0	0.16	0.0	0	0.07	0.0	0	0.75	0.0
Eye	0	0.02	0.0	0	0.06	0.0	0	0.02	0.0	0	0.01	0.0	0	0.11	0.0
Brain, central nervous system	0	0.13	0.0	0	0.32	0.0	0	0.14	0.0	0	0.06	0.0	0	0.65	0.0
Thyroid gland	0	0.10	0.0	0	0.23	0.0	1	0.09	10.7	0	0.04	0.0	1	0.46	2.2
Bone	0	0.02	0.0	0	0.05	0.0	0	0.02	0.0	0	0.01	0.0	0	0.10	0.0
Connective tissue	0	0.06	0.0	1	0.15	6.9	0	0.06	0.0	0	0.03	0.0	1	0.29	3.4
Lymphatic, hematopoietic system	1	0.95	1.1	0	2.38	0.0	0	1.04	0.0	1	0.49	2.0	2	4.85	0.4
Non-Hodgkin's lymphoma	0	0.34	0.0	0	0.86	0.0	0	0.39	0.0	1	0.18	5.6	1	1.76	0.6
Hodgkin's disease	0	0.06	0.0	0	0.15	0.0	0	0.07	0.0	0	0.03	0.0	0	0.31	0.0
Multiple myeloma	1	0.17	6.0	0	0.43	0.0	0	0.19	0.0	0	0.10	0.0	1	0.88	1.1
Leukemias	0	0.38	0.0	0	0.93	0.0	0	0.40	0.0	0	0.18	0.0	0	1.89	0.0
Chronic lymphocytic	0	0.11	0.0	0	0.27	0.0	0	0.12	0.0	0	0.06	0.0	0	0.56	0.0
Acute nonlymphocytic	0	0.12	0.0	0	0.31	0.0	0	0.14	0.0	0	0.07	0.0	0	0.64	0.0

+ ICD-O morphology codes = 9800-9940.

\* P<.05.