Chapter 26
Cancer of the Thyroid

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INTRODUCTION

Cancers of the thyroid are rare, accounting for approximately 2% of all diagnosed cancers, but account for over 93% of all cancers of the endocrine system (1). Approximately 30,180 cases and 1,500 deaths occur each year in the United States (1). Thyroid cancer is nearly 3 times more common in women than men (1). Differentiated tumors, predominantly diagnosed as either papillary or follicular, are the most commonly diagnosed. Poorly or undifferentiated tumors, predominantly diagnosed as either medullary or anaplastic, are much less common, are aggressive with a tendency for early metastasis, and have a much poorer prognosis.

RESULTS

Exclusions

Between 1988-2001, there were 29,345 thyroid cancers diagnosed in SEER . The following were excluded from the analysis: patients for whom thyroid cancer was not the first primary, cases identified through autopsy or death certificate only, persons of unknown race, cases without active follow-up or alive with no survival time, patients less than 20 years old, cases without microscopic confirmation, sarcomas and carcinoids. After these exclusions, 25,396 adult cases remained for analysis (Table 26.1).

Age and Sex

Cancers of the thyroid were three times more likely to be diagnosed in women than in men (19,162 cases versus 6,234) during the time frame examined. Almost 54% of the cancers in women were diagnosed between the ages of 20 to 44 compared to nearly 40% of those diagnosed in men while a higher percentage of men were diagnosed in the older age groups (Table 26.2).

For both sexes, together and separately, survival declines slightly with age. In women under age 45, 5-year relative survival rate is nearly 100% compared to 97% in women 45-64 and 84% in women aged 65 and older. In men under age 45, 5-year relative survival rate is 98% compared to 92% in men 45-64 and 83% in men aged 65 and older (Table 26.3).

Table 26.1: Cancer of the Thyroid: Number of Cases and Exclusions by Reason, 12 SEER Areas, 1988-2001

Number Selected/Remaining	Number Excluded	Reason for Exclusion/selection
29,345	0	Select 1988-2001 diagnosis (Los Angeles for 1992-2001 only)
26,812	2,533	Select first primary only
26,521	291	Exclude death certificate only or at autopsy
26,271	250	Exclude unknown race
26,195	76	Exclude alive with no survival time
25,509	686	Exclude children (Ages 0-19)
25,485	24	Exclude in situ cancers
25,416	69	Exclude no or unknown microscopic confirmation
25,403	13	Exclude sarcomas
25,396	7	Exclude carcinoids

Table 26.2: Cancer of the Thyroid: Number and Distributions of Cases by Age (20+) and Sex, 12 SEER Areas, 1988-2001

Age Group (Years)	Total		Male		Female	
	Cases	Percent	Cases	Percent	Cases	Percent
Total 20+	25,396	100.0	6,234	100.0	19,162	100.0
20-44	12,730	50.1	2,469	39.6	10,261	53.5
45-64	8,536	33.6	2,499	40.1	6,037	31.5
65+	4,130	16.3	1,266	20.3	2,864	14.9

Geographic Location

Five-year relative survival rates in the 12 SEER regions represented in this study ranged from 98% in Seattle (Puget Sound) to 89% in Rural Georgia (Table 26.4).

Histology

Distribution by histology, overall and by sex, is presented in Table 26.5. In both males and females, a majority of the tumors are classified as papillary, although the percent is higher in females (83.7%) than males (76.5%). Males are slightly more likely to be diagnosed with tumor classified as follicular (14.1% versus 11.0%), medullary (0.5% vs 0.3%) and anaplastic (2.5% versus 1.3%)

Similar comparisons between the sexes can be made when histology distribution is examined by age (Table 26.6). A higher percent of tumors are classified as papillary in both males and females under the age of 45 years compared to those over the age of 45 years (83.4% for males and 88.5% for females under the age of 45 versus 71.9% for males and 78.3% for females ages 45 and older). Opposite findings are seen for those tumors classified as follicular and medullary. For ages under 45, 10.8% of the tumors are classified as follicular in males and 8.7% in females compared to 16.3% in males ages 45 and older and 13.7% in females. Tumors classified as medullary account for 0.4% in males under age 45 and 0.2% in females versus 0.6% in males ages 45 and older and 0.4% in females.

Of the 399 cases of anaplastic tumors, 95% were seen in individuals ages 45 and older. For males 45 and older, 3.8% of all tumors were classified as anaplastic compared to 2.7% in females.

Staging

The American Joint Committee on Cancer (AJCC) has designated staging for cancers of the thyroid (2). Separate stage groupings are recommended for papillary, follicular, medullary and anaplastic cell types. In addition, within papillary and follicular, separate stage groupings are recommended based on age at diagnosis (20-44 and 45+). The SEER modified fifth edition AJCC staging comprises:

Primary tumor (T):

TX: Primary tumor cannot be assessed

T0: No evidence of primary tumor

T1: Tumor 1 cm or less in greatest dimension limited to the thyroid

T2: Tumor more than 1 cm but not more than 4 cm in greatest dimension limited to the thyroid

T3: Tumor more than 4 cm in greatest dimension limited to the thyroid

T4: Tumor of any size extending beyond the thyroid capsule

Table 26.3: Cancer of the Thyroid: Number of Cases, Median Survival Time (Months) and 5-year Survival Rates (%) by Sex and Age (20+), 12 SEER Areas, 1988-2001

Sex and Age Group (Years)	Cases	Median Survival Time (Months)	5-Year Survival Rate (%)		
			Observed	Expected	Relative
Both sexes, 20-44	12,730	> 120	98.6	99.3	99.3
Male, 20-44	2,469	> 120	96.9	98.7	98.1
Female, 20-44	10,261	> 120	99.0	99.5	99.6
Both sexes, 45-64	8,536	> 120	92.4	96.3	95.9
Male, 45-64	2,499	> 120	87.2	94.5	92.2
Female, 45-64	6,037	> 120	94.5	97.1	97.3
Both Sexes, 65+	4,130	114.2	66.4	79.2	83.8
Male, 65+	1,266	92.7	62.4	74.9	83.3
Female, 65+	2,864	> 120	68.2	81.1	83.9

Table 26.4: Cancer of the Thyroid: Number and Distribution of Cases and 1-, 2-, 3-, 5-, 8-, & 10-Year Relative Survival Rates (%) by SEER Geographic Area, Ages 20+, 12 SEER Areas, 1988-2001

SEER Geographic Area	Cases	Percent	Relative Survival Rate (%)					
			1-Year	2-Year	3-Year	5-Year	8-Year	10-Year
Total	25,396	100.0	97.0	96.5	96.4	96.0	95.8	95.6
Atlanta and Rural Georgia	1,666	6.6	97.7	97.2	96.5	95.5	95.1	95.1
Atlanta (Metropolitan) - 1988+	1,614	6.4	97.6	97.1	96.7	95.7	95.2	95.2
Rural Georgia - 1988+	52	0.2	98.9	97.9	92.3	89.4	89.4	88.2
California								
Los Angeles - 1992+	4,762	18.8	96.9	96.3	95.8	95.0	94.4	93.7
Greater Bay Area	4,437	17.5	96.7	96.3	96.3	95.9	95.7	95.4
San Francisco-Oakland SMSA - 1988+	2,832	11.2	96.5	96.3	96.1	95.5	95.1	95.1
San Jose-Monterey - 1988+	1,605	6.3	97.2	96.2	96.2	96.2	96.2	95.4
Connecticut - 1988+	2,521	9.9	94.8	94.2	94.0	93.9	93.6	93.6
Detroit (Metropolitan) - 1988+	2,916	11.5	96.6	96.4	96.1	95.6	95.3	94.5
Hawaii - 1988+	1,164	4.6	96.9	96.4	96.2	95.2	94.1	92.8
Iowa - 1988+	2,158	8.5	97.6	96.9	96.7	96.6	96.6	96.6
New Mexico - 1988+	1,375	5.4	97.4	97.1	97.1	96.8	96.8	96.7
Seattle (Puget Sound) - 1988+	2,842	11.2	98.3	98.0	97.9	97.7	96.8	96.4
Utah - 1988+	1,555	6.1	97.4	97.1	97.1	96.9	96.9	96.8

Table 26.5: Cancer of the Thyroid: Number and Distribution of Cases by Histology and Sex, Ages 20+, 12 SEER Areas, 1988-2001

Histology	ICD-O Code	Total		Male		Female	
		Cases	Percent	Cases	Percent	Cases	Percent
Total	8000-9989	25,396	100.0	6,234	100.0	19,162	100.0
Epidermoid	8051-8130	58	0.2	26	0.4	32	0.2
Adenocarcinoma	8050,8140-8147,8160-8162,8180-8221,8250-8506,8520-8550,8560,8570-8573,8940-8941	24,587	96.8	5,935	95.2	18,652	97.3
Papillary	8050,8260,8340,8350,8450	20,814	82.0	4,767	76.5	16,047	83.7
Follicular	8290,8330-8332	2,991	11.8	880	14.1	2,111	11.0
All Other Adenocarcinoma	8140-8147,8160-8164,8180-8221,8250-8259,8261-8289,8291-8329,8333-8339,8341-8349,8351-8449,8451-8506,8520-8550,8560,8570-8573,8940-8941	782	3.1	288	4.6	494	2.6
Other Specified Carcinomas	8033-8045,8150-8155,8170-8171,8230-8248,8510-8512,8561-8562,8580-8671	95	0.4	41	0.7	54	0.3
Medullary	8510-8511	86	0.3	34	0.5	52	0.3
All Other Specified Carcinomas	8033-8045,8150-8155,8170-8171,8230-8248,8512,8561-8562,8580-8671	9	0.0	7	0.1	<5	0.0
Carcinoma, NOS*	8004,8010-8022,8030-8032	613	2.4	218	3.5	395	2.1
Anaplastic	8004,8012,8020-8021,8030-8032	399	1.6	155	2.5	244	1.3
All Other Carcinoma, NOS*	8010-8011,8013-8019,8022	214	0.8	63	1.0	151	0.8
Unspecified Other Specified Types	8000-8003, 8720-8790,8932-8933,8950-8982,9000-9030,9060-9110,9350-9364,9380-9512,9530-9539	43	0.2	14	0.2	29	0.1

* NOS: Not Otherwise Specified

Table 26.6: Cancer of the Thyroid: Number and Distribution of Cases by Histology, Age (20+) and Sex, 12 SEER Areas, 1988-2001

	Age (Years)							
	20-44				45+			
	Male		Female		Male		Female	
Histology	Cases	Percent	Cases	Percent	Cases	Percent	Cases	Percent
Total	2,469	100.0	10,261	100.0	3,765	100.0	8,901	100.0
Epidermoid	<5	~	5	0.0	22	0.6	27	0.3
Adenocarcinoma	2,425	98.2	10,176	99.2	3,510	93.2	8,476	95.2
Papillary	2,059	83.4	9,078	88.5	2,708	71.9	6,969	78.3
Follicular	266	10.8	894	8.7	614	16.3	1,217	13.7
All Other Adenocarcinoma	100	4.1	204	2.0	188	5.0	290	3.3
Other Specified Carcinomas	10	0.4	19	0.2	31	0.8	35	0.4
Medullary	10	0.4	19	0.2	24	0.6	33	0.4
All Other Specified Carcinomas	0	0.0	0	0.0	7	0.2	<5	~
Carcinoma, NOS*	25	1.0	55	0.5	193	5.1	340	3.8
Anaplastic	11	0.4	7	0.1	144	3.8	237	2.7
All Other Carcinoma, NOS*	14	0.6	48	0.5	49	1.3	103	1.2
Other Specified Types	<5	~	<5	~	0	0.0	0	0.0
Unspecified	<5	~	5	0.0	9	0.2	23	0.3

* NOS: Not Otherwise Specified
~ Statistic not displayed.

Table 26.7: Thyroid Papillary Adenocarcinoma (with Established Stage): Number and Distribution of Cases by Age (20+) and AJCC Stage (SEER modified 5th Edition), 12 SEER Areas, 1988-2001

	AJCC Stage									
	Total with Established Stage		I		II		III		IV	
Age Group (Years)	Cases	Row Percent	Cases	Row Percent	Cases	Row Percent	Cases	Row Percent	Cases	Row Percent
Total w/ Established Stage	19,607	100.0	13,289	67.8	3,195	16.3	2,870	14.6	253	1.3
20-44	10,822	100.0	10,740	99.2	82	0.8	*	*	*	*
45-64	6,374	100.0	1,961	30.8	2,368	37.2	1,923	30.2	122	1.9
65+	2,411	100.0	588	24.4	745	30.9	947	39.3	131	5.4

* Under 45 Age Group Only Staged at I or II

Table 26.8: Thyroid Papillary Adenocarcinoma (with Established Stage) : Number of Cases and 5-Year Relative Survival Rates (%) by AJCC Stage (SEER modified 5th Edition) and Age (20+), 12 SEER Areas, 1988-2001

	Age (Years)							
	Total		20-44		45-64		65+	
AJCC Stage	Cases	5-Year Relative Survival Rate (%)	Cases	5-Year Relative Survival Rate (%)	Cases	5-Year Relative Survival Rate (%)	Cases	5-Year Relative Survival Rate (%)
Total w/ Established Stage	19,607	98.7	10,822	99.7	6,374	98.3	2,411	94.2
Stage I	13,289	99.8	10,740	99.8	1,961	99.3	588	98.1
Stage II	3,195	99.9	82	86.7	2,368	99.9	745	100.0
Stage III	2,870	93.3	*	*	1,923	96.3	947	86.6
Stage IV	253	46.4	*	*	122	57.0	131	33.6

* Under 45 Age Group Only Staged at I or II

Regional lymph nodes (N) (Note: Regional lymph nodes are the cervical and upper mediastinal lymph nodes.)

NX: Regional lymph nodes cannot be assessed
N0: No regional lymph node metastasis
N1: Regional lymph node metastasis
N1a: Metastasis in ipsilateral cervical lymph node(s)
N1b: Metastasis in bilateral, midline, or contralateral cervical or mediastinal lymph node(s)

Distant metastases (M)

MX: Distant metastasis cannot be assessed
M0: No distant metastasis
M1: Distant metastasis

Papillary or follicular
Under 45 years
Stage I: Any T, any N, M0
Stage II: Any T, any N, M1
45 years and older
Stage I : T1, N0, M0
Stage II : T2, N0, M0
T3, N0, M0
Stage III : T4, N0, M0
Any T, N1, M0
Stage IV: Any T, any N, M1

Medullary
Stage I: T1, N0, M0
Stage II: T2, N0, M0
T3, N0, M0
T4, N0, M0
Stage III: Any T, N1, M0
Stage IV: Any T, any N, M1

Anaplastic [Note: All cases are stage IV]
Stage IV: Any T, any N, any M

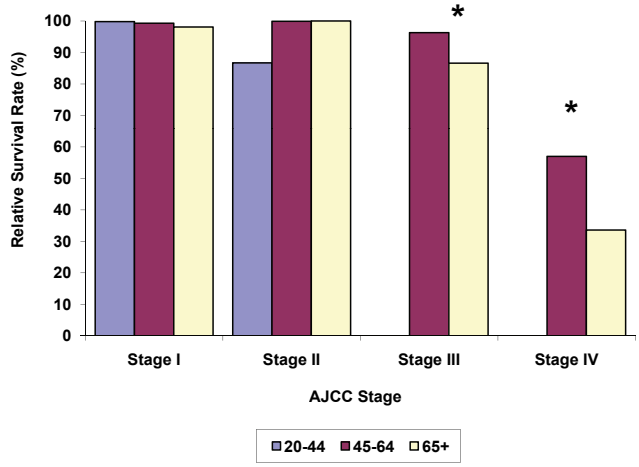
Papillary

Survival by Age and Stage

Of the 20,814 cases of papillary, enough information to establish stage at diagnosis was available for 19,607 (94%). The staging scheme for individuals diagnosed under the age of 45 places individuals in either stage I or II depending in the presence or absence of metastasis. Most of the cases diagnosed in this age group were stage I (99.2%).

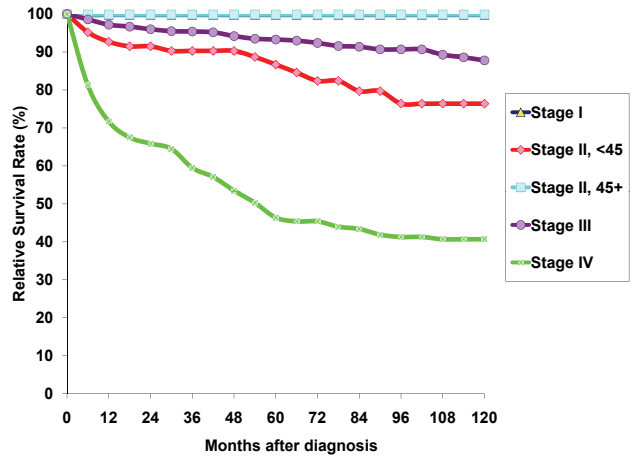
For ages 45 and older, the percent diagnosed in stage I declines with age, from 30.8% in ages 45-64 to 24.4% in ages 65+. At the same time the percent diagnosed stage IV increases from 1.9% in ages 45-64 to 5.4% in ages 65+ (Table 26.7).

Figure 26.1: Papillary Cancer of the Thyroid: 5-Year Relative Survival Rate (%) by AJCC Stage (5th Edition) and Age Group (20+), 12 SEER Areas, 1988-2001



* Under 45 age group only staged at I or II

Figure 26.2: Papillary Cancer of the Thyroid: Relative Survival Rates (%) by AJCC Stage (5th Edition), Ages 20+, 12 SEER Areas, 1988-2001



No survival differentials by age are seen in both stages I and II, with the exception of those diagnosed 20-44 years of age, where stage II consists of those with metastasis at the time of diagnosis. Higher survival in both stages III and IV is observed in those diagnosed in the 45-64 age group compared to those 65+. Since stage II in those diagnosed 20-44 years of age is equivalent to a stage IV diagnosis in those 45 and older, a large survival differential is observed in those with metastases at diagnosis who are 20-44 years of age compared to those 45 and older. (Table 26.8 and Figure 26.1)

Survival by Stage

Table 26.9 and Figure 26.2 show the contrast between stage at diagnosis and years since diagnosis (with stage II broken out for those 20-44 versus 45+). The steepest declines in survival rates are observed within 5 years of

Table 26.9: Thyroid Papillary Adenocarcinoma (with Established Stage): Number and Distribution of Cases and 1-, 2-, 3-, 5-, 8-, & 10-Year Relative Survival Rates (%) by AJCC Stage (SEER modified 5th Edition), Ages 20+, 12 SEER Areas, 1988-2001

AJCC Stage	Cases	Percent	Relative Survival Rate (%)					
			1-Year	2-Year	3-Year	5-Year	8-Year	10-Year
Total with Established Stage	19,607	100.0	99.1	99.0	99.0	98.7	98.4	98.2
Stage I	13,289	67.8	99.8	99.8	99.8	99.8	99.8	99.8
Stage II, 20-44	82	0.4	92.7	91.5	90.3	86.7	76.4	76.4
Stage II, 45+	3,113	15.9	99.9	99.9	99.9	99.9	99.9	99.9
Stage III	2,870	14.6	97.2	96.0	95.4	93.3	90.7	87.8
Stage IV	253	1.3	71.7	65.9	59.5	46.4	41.3	40.7

Table 26.10: Thyroid Follicular Adenocarcinoma (with Established Stage): Number of Distribution of Cases by Age (20+) and AJCC Stage (5th Edition), 12 SEER Areas, 1988-2001

Age Group (Years)	AJCC Stage									
	Total with Established Stage		I		II		III		IV	
	Cases	Row Percent	Cases	Row Percent	Cases	Row Percent	Cases	Row Percent	Cases	Row Percent
Total 20+	2,718	100.0	1,205	44.3	1,032	38.0	299	11.0	182	6.7
20-44	1,143	100.0	1,129	98.8	14	1.2	*	*	*	*
45-64	911	100.0	54	5.9	658	72.2	135	14.8	64	7.0
65+	664	100.0	22	3.3	360	54.2	164	24.7	118	17.8

* Under 45 Age Group Only Staged at I or II

Table 26.11: Thyroid Follicular Adenocarcinoma (with Established Stage): Number of Cases and 5-Year Relative Survival Rates (%) by AJCC Stage (5th Edition) and Age (20+), 12 SEER Areas, 1988-2001

AJCC Stage	Age (Years)							
	Total		20-44		45-64		65+	
	Cases	5-Year Relative Survival Rate (%)	Cases	5-Year Relative Survival Rate (%)	Cases	5-Year Relative Survival Rate (%)	Cases	5-Year Relative Survival Rate (%)
Total with Established Stage	2,718	95.6	1,143	99.2	911	95.9	664	86.8
Stage I	1,205	99.6	1,129	99.5	54	100.0	22	~
Stage II	1,032	99.9	14	~	658	99.6	360	99.8
Stage III	299	83.7	*	*	135	87.8	164	79.1
Stage IV	182	45.5	*	*	64	54.0	118	40.4

* Under 45 Age Group Only Staged at I or II

~ Statistic not displayed due to less than 25 cases.

diagnosis for those diagnosed in stage IV. The favorable outcome for stage II in those diagnosed under the age of 45 is evident when compared to the outcome of the comparable stage IV in those age 45 and older.

Follicular

Survival by Age and Stage

Of the 2,991 cases of follicular, enough information to establish stage at diagnosis was available for 2,718 (91%). The staging scheme for individuals diagnosed under the age of 45 places individuals in either stage I or II depending in the presence or absence of metastasis. Most of the cases diagnosed in this age group were stage I (98.8%).

For ages 45 and older, the percent diagnosed in stages I and II declines with age from 5.9% for ages 45-64 to 3.3% for ages 65+ in stage I and 72.2% for ages 45-64 to 54.2% for ages 65+ in stage II. At the same time the percent diagnosed stage III & IV increases from 14.8% for ages 45-64 to 24.7% for ages 65+ in stage III and 7.0% for ages 45-64 to 17.8% for ages 65+ in stage IV (Table 26.10).

No survival differentials by age are seen in both stage I and II between those age groups where enough cases are available for analysis. Higher survival rates in both stages III and IV is observed in those diagnosed in the 45-64 age group compared to those 65+. Unfortunately, not enough cases are available to make any observations concerning stage II in individuals under the age of 45 or stage I on individuals ages 65 and older (Table 26.11 and Figure 26.3)

Survival by Stage

Table 26.12 shows the contrast between stage at diagnosis and years since diagnosis. A steady decline in survival rate is observed in stage IV throughout most of the 10 years observed. The favorable outcome for stages I-III is also evident. Figure 26.4 shows 5-year relative survival rates by stage and time since diagnosis.

Medullary

Survival by Stage

Of the 86 cases of medullary, enough information to establish stage at diagnosis was available for 80 (93%). Most cases were diagnosed in either stage II or III (42.5% and 43.8% respectively) (Table 26.13).

Only small differentials in 5-year relative survival rates are observed between stages II and III (Table 26.14 and Figure 26.5). This is also evident for longer survival periods (Table 26.14 and Figure 26.5).

Anaplastic

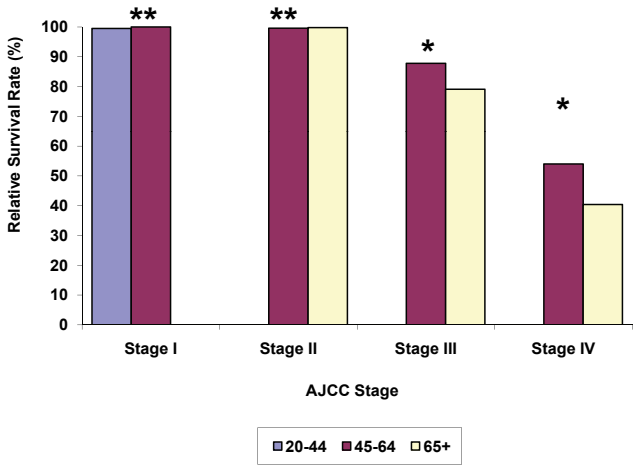
Survival by Age

All anaplastic tumors are categorized as stage IV. Of the 399 cases observed, approximately 67% were diagnosed in individuals ages 65 and older (Table 26.15). Five-year relative survival rates could be calculated for ages 45 and older only (accounting for 96% of the cases). Survival rates were higher for those diagnosed between the ages of 45-65 compared to those aged 65 and older (Table 26.15). This was also evident for shorter and longer periods of survival (Table 26.16 and Figure 26.6).

REFERENCES

1. American Cancer Society, Cancer Facts and Figures, 2006, American Cancer Society, Atlanta, 2006.
2. Fleming ID, Cooper JS, Henson DE, Hutter RVP, Kennedy BJ, Murphy GP, O'Sullivan B, Sobin LH, Yarbro, JW (eds). AJCC Cancer Staging Manual, Fifth edition, American Joint Committee on Cancer. Philadelphia: Lippincott-Raven, 1997.

Figure 26.3: Follicular Cancer of the Thyroid: 5-Year Relative Survival Rate (%) by AJCC Stage (SEER modified 5th Edition) and Age Group (20+), 12 SEER Areas, 1988-2001



* Under 45 age group only staged at I or II

** Statistic not displayed due to less than 25 cases for ages 20-44 Stage II and age 65+ Stage II

Table 26.12: Thyroid Follicular Adenocarcinoma (with Established Stage): Number and Distribution of Cases and 1-, 2-, 3-, 5-, 8-, & 10-Year Relative Survival Rates (%) by AJCC Stage (5th Edition), 12 SEER Areas, 1988-2001

AJCC Stage	Cases	Percent	Relative Survival Rate (%)					
			1-Year	2-Year	3-Year	5-Year	8-Year	10-Year
Total with Established Stage	2,718	100.0	97.4	96.7	96.1	95.6	94.2	94.0
Stage I	1,205	44.3	99.6	99.6	99.6	99.6	99.6	99.3
Stage II	1,032	38.0	100.0	99.9	99.9	99.9	99.3	98.8
Stage III	299	11.0	90.0	87.5	86.1	83.7	80.3	80.3
Stage IV	182	6.7	77.7	70.3	61.1	45.5	32.8	24.5

Table 26.13: Thyroid Medullary Carcinoma (with Established Stage): Number, Distribution, and 5-Year Relative Survival Rates (%) by AJCC Stage (SEER modified 5th Edition), 12 SEER Areas, 1988-2001

AJCC Stage	Cases	Percent	5-Year Relative Survival Rate (%)
Total with Established Stage	80	100.0	82.1
Stage I	<7	-	~
Stage II	34	42.5	89.6
Stage III	35	43.8	82.3
Stage IV	<5	-	~

~ Statistic not displayed due to less than 25 cases.

Table 26.14: Thyroid Medullary Carcinoma: Number and Distribution of Cases and 1-, 2-, 3-, 5-, 8-, & 10-Year Relative Survival Rates (%) by AJCC Stage (SEER modified 5th Edition), 12 SEER Areas, 1988-2001

AJCC Stage	Cases	Percent	Relative Survival Rate (%)					
			1-Year	2-Year	3-Year	5-Year	8-Year	10-Year
Total with Established Stage	80	100.0	97.0	91.5	83.9	82.1	81.3	77.9
Stage I	<5	-	~	~	~	~	~	~
Stage II	34	42.5	97.5	94.5	89.6	89.6	86.3	77.1
Stage III	35	43.8	100.0	95.4	89.8	82.3	82.3	82.3
Stage IV	<8	-	~	~	~	~	~	~

~ Statistic not displayed due to less than 25 cases.

Table 26.15: Thyroid Anaplastic Carcinoma: Number, Distribution, and 5-Year Relative Survival Rates (%) by Age (20+), 12 SEER Areas, 1988-2001

Age (Years)	Cases	Percent	5-Year Relative Survival Rate (%)
Total 20+	399	100.0	9.1
20-44	18	4.5	~
45-64	113	28.3	13.7
65+	268	67.2	4.0

Table 26.16: Thyroid Anaplastic Carcinoma: Number and Distribution of Cases and 1-, 2-, 3-, 5-, 8-, & 10-Year Relative Survival Rates (%) by Age (20+), 12 SEER Areas, 1988-2001

Age (Years)	Cases	Percent	Relative Survival Rate (%)					
			1-Year	2-Year	3-Year	5-Year	8-Year	10-Year
Total 20+	399	100.0	19.4	13.0	11.1	9.1	9.1	9.1
20-44	18	4.5	~	~	~	~	~	~
45-64	113	28.3	24.4	20.8	19.0	13.7	13.7	13.7
65+	268	67.2	14.7	7.2	5.0	4.0	3.5	3.5

~ Statistic not displayed due to less than 25 cases.

Figure 26.4: Follicular Cancer of the Thyroid: Relative Survival Rates (%) by AJCC Stage (SEER modified 5th Edition), Ages 20+, 12 SEER Areas, 1988-2001

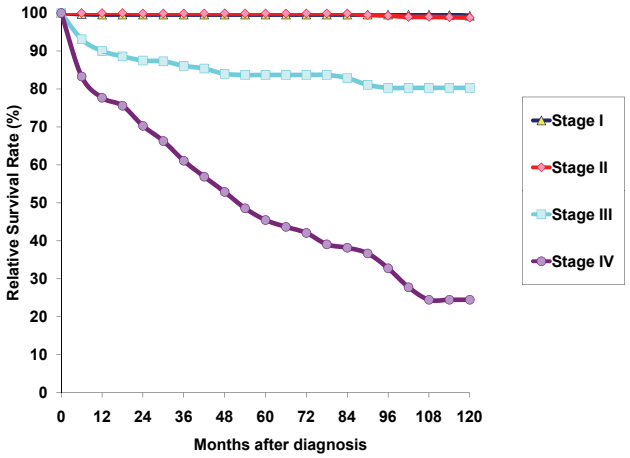


Figure 26.5: Medullary Cancer of the Thyroid: Relative Survival Rates (%) by AJCC Stage (SEER modified 5th Edition), Ages 20+, 12 SEER Areas, 1988-2001

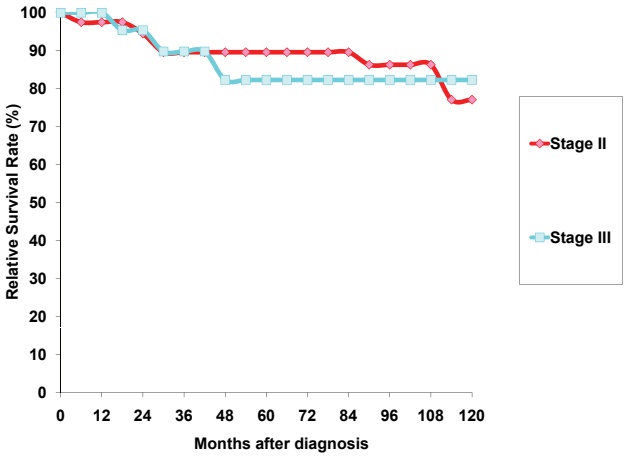


Figure 26.6: Anaplastic Cancer of the Thyroid: Relative Survival Rates (%) by Age Group (20+), 12 SEER Areas, 1988-2001