

CHAPTER 5
Bladder and Upper Tract Urothelial Cancer

Lower Tract Urothelial Cancer
Upper Tract Urothelial Cancer

Table 5-1. Codes used in the diagnosis and management of transitional cell carcinoma (TCC)**Upper Tract****Individuals 40 years or older, with one of the following:***ICD-9 diagnosis codes*

- 189.1 Malignant neoplasm of renal pelvis
- 189.2 Malignant neoplasm of ureter

CPT procedure codes

- 50234 Nephrectomy with total ureterectomy and bladder cuff; through same incision
- 50236 Nephrectomy with total ureterectomy and bladder cuff; through separate incision
- 50548 Laparoscopy, surgical; nephrectomy with total ureterectomy
- 50650 Ureterectomy, with bladder cuff (separate procedure)
- 50220^a Nephrectomy, including partial ureterectomy, any open approach including rib resection
- 50225^a Nephrectomy, including partial ureterectomy, any open approach including rib resection; complicated because of previous surgery on same kidney
- 50230^a Nephrectomy, including partial ureterectomy, any open approach including rib resection; radical, with regional lymphadenectomy and/or vena caval thrombectomy
- 50546^a Laparoscopy, surgical; nephrectomy, including partial ureterectomy

Lower Tract**Individuals 40 years or older, with one of the following:***ICD-9 diagnosis codes*

- 188 Malignant neoplasm of bladder
- 188.0 Malignant neoplasm of trigone of bladder
- 188.1 Malignant neoplasm of dome of bladder
- 188.2 Malignant neoplasm of lateral wall of bladder
- 188.3 Malignant neoplasm of anterior wall of bladder
- 188.4 Malignant neoplasm of posterior wall of bladder
- 188.5 Malignant neoplasm bladder neck
- 188.6 Malignant neoplasm of ureteric orifice
- 188.7 Malignant neoplasm of urachus
- 188.8 Malignant neoplasm of other specified sites of bladder
- 188.9 Malignant neoplasm of bladder part, unspecified
- 189.3 Malignant neoplasm of urethra
- 233.7 Carcinoma in situ of bladder

ICD-9 procedure codes

- 57.4 Transurethral excision or destruction of bladder cancer
- 57.49 Other transurethral excision or destruction of lesion or tissue of bladder
- 57.5 Other excision or destruction of bladder
- 57.59 Open excision or destruction of other lesion or tissue of bladder
- 57.6 Partial cystectomy
- 57.71 Radical cystectomy
- 57.79 Other total cystectomy
- 57.87 Reconstruction of urinary bladder

CPT procedure codes

- 51020 Cystotomy or cystostomy; with fulguration and/or insertion of radioactive material
- 51530 Cystotomy or cystostomy; with fulguration and/or insertion of radioactive material

Continued on next page.

Table 5-1 (continued). Codes used in the diagnosis and management of transitional cell carcinoma (TCC)

51570	Cystectomy; complete
51575	Cystectomy; complete, with bilateral pelvic lymphadenectomy, including external iliac hypogastric, and obturator nodes
51580	Cystectomy; complete, with uretereosigmoidostomy or ureterocutaneous transplantations
51585	Cystectomy; complete, with uretereosigmoidostomy or ureterocutaneous transplantations; with bilateral pelvic lymphadenectomy, including external iliac, hypogastric, and obturator nodes
51590	Cystectomy; complete, with ureteroileal conduit or sigmoid bladder, including intestine anastomosis
51595	Cystectomy; complete, with ureteroileal conduit or sigmoid bladder, including intestine anastomosis with bilateral pelvic lymphadenectomy, including external iliac, hypogastric, and obturator nodes
51596	Cystectomy, complete, with continent diversion, any open technique, using any segment of small and/or large intestine to construct neobladder
51597	Pelvic exenteration, complete, for vesical, prostatic or urethral malignancy, with removal of bladder and ureteral transplantations, with or without hysterectomy and/or abdominoperineal resection of rectum and colon and colostomy, or any combination thereof
51720	Bladder instillation of anticarcinogenic agent (including detention time)
52224	Cystourethroscopy, with fulguration (including cryosurgery or laser surgery) or treatment of MINOR (less than 0.5 cm) lesion(s) with or without biopsy
52234	Cystourethroscopy, with fulguration (including cryosurgery or laser surgery) and/or resection of; SMALL bladder tumor(s) (0.5 to 2.0 cm)
52235	Cystourethroscopy, with fulguration (including cryosurgery or laser surgery) and/or resection of; MEDIUM bladder tumor(s) (2.0 to 5.0 cm)
52240	Cystourethroscopy, with fulguration (including cryosurgery or laser surgery) and/or resection of; LARGE bladder tumor(s)
52250	Cystourethroscopy with insertion of radioactive substance, with or without biopsy or fulguration

^aMust occur with diagnosis of 189.1 (malignant neoplasm of renal pelvis) or 189.2 (malignant neoplasm of ureter).

Table 5-2. Estimated new bladder cancer cases and deaths in the United States, 2011

	Estimated New Cases	Estimated New Deaths
Total	69,250	14,990
Male	52,020	10,670
Female	17,230	4,320

SOURCE: American Cancer Society. *Cancer Facts & Figures 2011*. Atlanta: American Cancer Society, Inc.

Table 5-3. Incidence rates of bladder cancer, age-adjusted, by race/ethnicity and gender

	All Races			Whites			Blacks		
	Total	Males	Females	Total	Males	Females	Total	Males	Females
Year of Diagnosis ^a									
1975	19.3	34.4	8.9	20.2	36.4	9.2	10.6	16.3	6.3
1976	19.7	34.4	9.4	20.7	36.7	9.7	12.5	18.2	8.6
1977	19.0	33.4	8.9	20.0	35.6	9.2	13.5	22.7	7.1
1978	20.0	35.4	9.4	21.1	37.9	9.7	11.7	19.4	6.4
1979	20.0	35.4	9.4	21.3	38.2	9.8	10.4	15.6	6.5
1980	20.4	37.1	8.9	21.5	39.8	9.1	13.3	18.2	10.0
1981	20.7	36.4	9.7	21.9	38.8	10.3	11.6	20.7	5.5
1982	20.1	35.8	9.5	21.4	38.3	10.2	12.2	21.8	5.6
1983	20.1	36.0	9.0	21.3	38.7	9.4	12.2	18.7	7.6
1984	20.9	37.7	9.2	22.4	40.9	9.6	11.4	18.8	6.2
1985	20.7	36.4	9.9	22.1	39.3	10.3	13.1	20.3	8.1
1986	21.0	38.0	9.4	22.5	40.8	10.0	12.9	22.2	6.6
1987	21.7	39.5	9.2	23.2	42.8	9.6	13.3	21.8	7.5
1988	20.9	38.1	9.0	22.7	41.9	9.7	11.3	18.0	6.5
1989	21.0	37.4	9.7	22.7	40.9	10.2	11.4	17.6	7.2
1990	21.1	37.5	9.6	22.6	40.8	10.0	12.7	18.6	8.8
1991	20.9	37.6	9.3	22.7	41.3	9.9	12.9	19.7	8.5
1992	21.3	37.5	9.8	23.0	40.7	10.5	12.5	20.8	6.9
1993	21.2	37.6	9.7	22.8	40.6	10.4	14.2	24.4	7.9
1994	20.8	36.9	9.5	22.6	40.3	10.2	12.3	20.0	6.9
1995	20.7	36.2	9.6	22.5	39.5	10.3	11.8	18.1	7.4
1996	20.8	36.7	9.6	22.7	40.1	10.3	12.2	19.8	7.3
1997	21.0	37.1	9.6	22.9	40.6	10.2	12.7	20.0	8.2
1998	21.6	38.5	9.4	23.6	42.2	10.2	11.9	20.3	6.4
1999	21.8	38.2	10.0	23.6	41.6	10.6	14.6	22.6	9.4
2000	21.8	38.8	9.5	23.9	42.4	10.3	13.2	20.3	8.5
2001	21.7	38.4	9.7	24.0	42.3	10.6	11.6	18.5	7.1
2002	21.2	37.1	9.7	23.3	40.6	10.5	12.6	17.9	9.0
2003	21.5	37.6	9.7	23.6	41.3	10.6	12.8	21.0	7.4
2004	21.4	37.7	9.5	23.5	41.4	10.3	13.5	22.3	8.2
2005	21.7	38.3	9.5	23.7	42.0	10.2	13.8	22.7	8.0
2006	21.1	37.3	9.1	23.1	40.9	9.8	11.6	17.7	7.6
2007	21.5	38.3	8.9	23.6	42.0	9.7	12.9	21.0	7.7
2008	20.7	36.4	9.1	22.6	39.6	9.9	12.6	21.9	6.5
1975-2008	20.9	37.2	9.4	22.6	40.5	10.0	12.6	20.1	7.5
Age at Diagnosis, ^b 2004-2008									
All ages	21.1	37.5	9.2	22.9	40.6	9.8	13.1	21.6	7.6
Under 65	5.8	9.1	2.7	6.3	9.8	3.0	3.7	6.0	1.9
65 and over	126.9	233.9	53.8	137.2	253.4	56.9	77.4	129.5	46.6
All ages ^c	12.4	21.1	5.4	13.4	22.9	5.8	7.7	12.6	4.3

^aBased on the SEER 9 areas (San Francisco, Connecticut, Detroit, Hawaii, Iowa, New Mexico, Seattle, Utah, and Atlanta). Rates are per 100,000 and are age-adjusted to the 2000 US standard population (19 age groups - Census P25-1130).

^bBased on the SEER 17 areas. Rates are per 100,000 and are age-adjusted to the 2000 US standard population (19 age groups - Census P25-1130), unless noted.

^cRates are per 100,000 and are age-adjusted to the International Agency for Research on Cancer (IARC) world standard population.

SOURCE: Howlader N, Noone AM, Krapcho M, Neyman N, Aminou R, Waldron W, Altekruse SF, Kosary CL, Ruhl J, Tatalovich Z, Cho H, Mariotto A, Eisner MP, Lewis DR, Chen HS, Feuer EJ, Cronin KA, Edwards BK (eds). SEER Cancer Statistics Review, 1975-2008, National Cancer Institute. Bethesda, MD, http://seer.cancer.gov/csr/1975_2008/, based on November 2010 SEER data submission, posted to the SEER web site, 2011.

Table 5-4. Incidence rates^a of bladder cancer, age-specific, by race/ethnicity and gender

	All Races			Whites			Blacks		
	Total	Males	Females	Total	Males	Females	Total	Males	Females
Age at Diagnosis									
<1	...	...	...	...	...	...	...	...	...
1-4	...	...	...	...	...	...	...	...	...
5-9	...	...	...	...	...	...	...	...	...
10-14	...	...	...	...	...	...	...	...	...
15-19	0.1	0.1	...	0.1	...	...	...	...	...
20-24	0.2	0.2	0.2	0.2	0.2	0.2	...	...	...
25-29	0.4	0.5	0.2	0.4	0.5	0.3	...	...	...
30-34	0.7	1.0	0.4	0.8	1.1	0.4	...	...	...
35-39	1.5	2.1	0.8	1.6	2.3	0.9	1.0	1.5	...
40-44	3.3	4.8	1.7	3.5	5.1	1.9	1.9	3.3	...
45-49	7.1	10.7	3.6	7.8	11.6	4.0	4.4	6.3	2.8
50-54	14.2	21.6	7.1	15.1	22.6	7.6	11.1	17.6	5.5
55-59	27.4	43.6	12.0	29.9	47.1	13.2	17.6	27.9	9.0
60-64	48.4	77.7	21.5	53.1	84.8	23.5	28.6	46.4	14.5
65-69	78.5	129.7	33.7	85.6	140.7	36.5	54.6	87.9	29.3
70-74	112.2	194.7	45.0	123.2	213.0	48.6	61.4	99.6	34.1
75-79	149.0	267.3	61.9	161.9	290.4	65.7	82.8	132.7	51.0
80-84	174.3	331.4	74.7	186.5	357.3	77.7	107.3	177.3	69.3
85+	171.0	373.8	77.7	180.0	400.8	79.4	117.0	222.3	76.9

... Statistic not shown. Rate based on less than 16 cases for the time interval.

^aBased on the SEER 17 areas. Rates are per 100,000 and are age-adjusted to the 2000 US standard population (19 age groups - Census P25-1130), unless noted.

SOURCE: Howlader N, Noone AM, Krapcho M, Neyman N, Aminou R, Waldron W, Altekruse SF, Kosary CL, Ruhl J, Tatalovich Z, Cho H, Mariotto A, Eisner MP, Lewis DR, Chen HS, Feuer EJ, Cronin KA, Edwards BK (eds). SEER Cancer Statistics Review, 1975-2008, National Cancer Institute. Bethesda, MD, http://seer.cancer.gov/csr/1975_2008/, based on November 2010 SEER data submission, posted to the SEER web site, 2011.

Table 5-5. Age-adjusted incidence rates^a and trends^b of bladder cancer, by race/ethnicity and gender

Race/ethnicity	Rate 2004-2008 Rate per 100,000			Trend 1999-2008 AAPC ^c (%)		
	Total	Males	Females	Total	Males	Females
All Races	21.1	37.5	9.2	-0.4	-0.1	-0.9*
White	22.9	40.6	9.8	-0.4	-0.1	-0.8*
White Hispanic ^d	11.8	20.4	5.6	-0.5	-0.7	-0.3
White Non-Hispanic ^d	24.5	43.4	10.4	-0.2	0.1	-0.7*
Black	13.1	21.6	7.6	0.4	0.5	0.2
Asian/Pacific Islander	9.3	16.3	4.0	0.4*	0.8*	0.1
American Indian/Alaska Native ^e	8.3	14.0	3.6	...	...	...
Hispanic ^d	11.6	20.0	5.4	-0.4	-0.6	-0.3

The AAPC is the Average Annual Percent Change over the time interval.

*The AAPC is significantly different from zero ($p < .05$).

... Statistic not shown. Trend based on less than 10 cases for at least one year within the time interval.

^aBased on the SEER 17 areas. Rates are age-adjusted to the 2000 US standard population (19 age groups - Census P25-1130).

^bBased on the SEER 13 areas. Trends are based on rates age-adjusted to the 2000 US standard population (19 age groups - Census P25-1130).

^cThe 1999-2008 AAPC estimates are based on a Joinpoint analysis with up to 3 Joinpoints over diagnosis years 1992-2008.

^dHispanic and Non-Hispanic are not mutually exclusive from whites, blacks, Asian/Pacific Islanders, and American Indians/Alaska Natives. Incidence data for Hispanics and Non-Hispanics are based on NHIA and exclude cases from the Alaska Native Registry. The 2004-2008 Hispanic and Non-Hispanic death rates exclude deaths from the District of Columbia and North Dakota. The 1999-2008 Hispanic and Non-Hispanic mortality trends exclude deaths from Connecticut, the District of Columbia, Maine, Maryland, Minnesota, New Hampshire, New York, North Dakota, Oklahoma and Vermont.

^eIncidence data for American Indian/Alaska Native are based on the CHSDA (Contract Health Service Delivery Area) counties.

SOURCE: Howlader N, Noone AM, Krapcho M, Neyman N, Aminou R, Waldron W, Altekruse SF, Kosary CL, Ruhl J, Tatalovich Z, Cho H, Mariotto A, Eisner MP, Lewis DR, Chen HS, Feuer EJ, Cronin KA, Edwards BK (eds). SEER Cancer Statistics Review, 1975-2008, National Cancer Institute. Bethesda, MD, http://seer.cancer.gov/csr/1975_2008/, based on November 2010 SEER data submission, posted to the SEER web site, 2011.

Table 5-6. Estimated bladder cancer prevalence counts^a and age-adjusted percents^b in the United States on January 1, 2008 by race/ethnicity and gender

	Count	Percent
All Races	537,428 ^c	0.1203% ^d
Males	398,329 ^c	0.2128% ^d
Females	139,099 ^c	0.0521% ^d
White	500,836 ^c	0.1356% ^d
Males	372,429 ^c	0.2381% ^d
Females	128,407 ^c	0.0586% ^d
Black	19,043 ^c	0.0577% ^d
Males	12,897 ^c	0.0974% ^d
Females	6,146 ^c	0.0319% ^d
Asian/Pacific Islander ^d	...	0.0547% ^d
Males	...	0.0983% ^d
Females	...	0.0228% ^d
Hispanic ^e	...	...
Males	...	...
Females	...	...

... Data unavailable.

^aUS 2008 cancer prevalence counts are based on 2008 cancer prevalence proportions from the SEER registries and 1/1/2008 US population estimates based on the average of 2007 and 2008 population estimates from the US Bureau of the Census. Prevalence was calculated using the First Malignant Primary Only for a person.

^bPercentages are age-adjusted to the 2000 US standard population (19 age groups - Census P25-1130) by 5-year age groups.

^cStatistics based on the SEER 9 Areas.

^dStatistics based on the SEER 11 Areas and Rural Georgia.

^eStatistics based on NHIA for Hispanic for the SEER 11 Areas and Rural Georgia.

SOURCE: Howlader N, Noone AM, Krapcho M, Neyman N, Aminou R, Waldron W, Altekruse SF, Kosary CL, Ruhl J, Tatalovich Z, Cho H, Mariotto A, Eisner MP, Lewis DR, Chen HS, Feuer EJ, Cronin KA, Edwards BK (eds). SEER Cancer Statistics Review, 1975-2008, National Cancer Institute. Bethesda, MD, http://seer.cancer.gov/csr/1975_2008/, based on November 2010 SEER data submission, posted to the SEER web site, 2011.

Table 5-7. Estimated bladder cancer prevalence counts^a on January 1, 2008 in the United States, by race/ethnicity and years since diagnosis

Years Since Diagnosis	0 to < 5	5 to < 10	10 to < 15	15 to < 20	20 to < 25	25 to < 30	0 to < 18 ^e	0 to < 33 ^e	≥ 33 ^f	Complete ^g
Race/ethnicity										
All Races ^b	189,650	130,423	87,562	54,145	33,652	18,975	442,780	522,368	15,060	537,428
Males	142,414	97,205	64,930	40,306	24,192	13,434	331,088	388,564	9,765	398,329
Females	47,236	33,218	22,632	13,839	9,460	5,541	111,692	133,804	5,295	139,099
White ^b	175,220	122,390	82,567	51,825	31,957	18,173	413,072	489,067	11,769	500,836
Males	132,507	91,539	61,226	38,582	22,942	12,931	310,059	364,922	7,507	372,429
Females	42,713	30,851	21,341	13,243	9,015	5,242	103,013	124,145	4,262	128,407
Black ^b	7,948	4,594	2,988	1,472	1,025	414	16,636	18,804	239	19,043
Males	5,031	3,008	2,223	1,091	748	246	11,107	12,704	193	12,897
Females	2,917	1,586	765	381	277	168	5,529	6,100	46	6,146
Asian/Pacific Islander ^c	3,223	1,686	1,141	...	...	...	6,470	...	...	...
Males	2,514	1,277	828	...	...	...	4,935	...	...	...
Females	709	409	313	...	...	...	1,535	...	...	...
Hispanic ^d	6,795	3,952	2,510	...	...	...	14,302	...	...	...
Males	5,130	2,937	1,881	...	...	...	10,712	...	...	...
Females	1,665	1,015	629	...	...	...	3,590	...	...	...

... Data unavailable.

^aUS 2008 cancer prevalence counts are based on 2008 cancer prevalence proportions from the SEER registries and 1/1/2008 US population estimates based on the average of 2007 and 2008 population estimates from the US Bureau of the Census. Prevalence was calculated using the First Malignant Primary Only for a person.

^bStatistics based on the SEER 9 Areas.

^cStatistics based on the SEER 11 Areas and Rural Georgia.

^dStatistics based on NHIA for Hispanic for the SEER 11 Areas and Rural Georgia.

^eMaximum limited-duration prevalence: 33 years for 1975-2008 SEER 9 data; 18 years for 1990-2008 SEER 11 data (used to calculate prevalence for Hispanics and Asian Pacific Islanders).

^fCases diagnosed more than 32 years ago were estimated using the completeness index method (Capocaccia et. al. 1997, Merrill et. al. 2000).

^gComplete prevalence is obtained by summing 0 to <33 and ≥33.

SOURCE: Howlader N, Noone AM, Krapcho M, Neyman N, Aminou R, Waldron W, Altekruse SF, Kosary CL, Ruhl J, Tatalovich Z, Cho H, Mariotto A, Eisner MP, Lewis DR, Chen HS, Feuer EJ, Cronin KA, Edwards BK (eds). SEER Cancer Statistics Review, 1975-2008, National Cancer Institute. Bethesda, MD, http://seer.cancer.gov/csr/1975_2008/, based on November 2010 SEER data submission, posted to the SEER web site, 2011.

Table 5-8. Risk of being diagnosed with bladder cancer in 10, 20 and 30 years, lifetime risk of being diagnosed given alive and cancer-free at current age, by race/ethnicity, both sexes

Current Age	All Races			Eventually
	> 10 years	> 20 years	> 30 years	
0	0.00	0.00	0.00	2.41
10	0.00	0.00	0.01	2.43
20	0.00	0.01	0.06	2.44
30	0.01	0.06	0.25	2.46
40	0.05	0.25	0.77	2.48
50	0.20	0.73	1.61	2.50
60	0.57	1.50	2.25	2.44
70	1.07	1.93	...	2.15
80	1.19	...	...	1.49
Lifetime Risk of Being Diagnosed = 2.41		Lifetime Risk of Dying = 0.57		
Current Age	Whites			Eventually
	> 10 years	> 20 years	> 30 years	
0	0.00	0.00	0.00	2.60
10	0.00	0.00	0.02	2.63
20	0.00	0.01	0.07	2.64
30	0.01	0.07	0.27	2.66
40	0.05	0.26	0.83	2.68
50	0.22	0.80	1.76	2.69
60	0.62	1.64	2.44	2.63
70	1.17	2.08	...	2.30
80	1.27	...	...	1.57
Lifetime Risk of Being Diagnosed = 2.60		Lifetime Risk of Dying = 0.6		
Current Age	Blacks			Eventually
	> 10 years	> 20 years	> 30 years	
0	0.00	0.00	0.00	1.18
10	0.00	0.00	0.01	1.21
20	0.00	0.01	0.04	1.22
30	0.01	0.04	0.16	1.24
40	0.03	0.16	0.45	1.26
50	0.13	0.44	0.85	1.28
60	0.35	0.80	1.18	1.28
70	0.55	1.02	...	1.15
80	0.71	...	...	0.91
Lifetime Risk of Being Diagnosed = 1.18		Lifetime Risk of Dying = 0.39		

... Statistic could not be calculated.

NOTE: A percent of 0.00 represents a value that is below 0.005.

SOURCE: Howlader N, Noone AM, Krapcho M, Neyman N, Aminou R, Waldron W, Altekruse SF, Kosary CL, Ruhl J, Tatalovich Z, Cho H, Mariotto A, Eisner MP, Lewis DR, Chen HS, Feuer EJ, Cronin KA, Edwards BK (eds). SEER Cancer Statistics Review, 1975-2008, National Cancer Institute. Bethesda, MD, http://seer.cancer.gov/csr/1975_2008/, based on November 2010 SEER data submission, posted to the SEER web site, 2011.

Table 5-9. Stage at diagnosis for bladder cancer 2001-2007,^a total case counts, estimated case counts, and percentages

Stage at Diagnosis	All Races		
	All	Males	Females
All Stages	79,277 (100%)	59,333 (100%)	19,944 (100%)
In Situ	40,431 (51%)	30,853 (52%)	9,773 (49%)
Localized	27,747 (35%)	20,767 (35%)	6,980 (35%)
Regional	5,549 (7%)	4,153 (7%)	1,596 (8%)
Distant	3,171 (4%)	1,780 (3%)	997 (5%)
Unstaged	2,378 (3%)	1,780 (3%)	598 (3%)
Stage at Diagnosis	Whites		
	All	Males	Females
All Stages	71,146 (100%)	53,650 (100%)	17,496 (100%)
In Situ	36,284 (51%)	27,898 (52%)	8,758 (50%)
Localized	24,901 (35%)	18,777 (35%)	5,949 (34%)
Regional	4,980 (7%)	3,756 (7%)	1,400 (8%)
Distant	2,846 (4%)	1,610 (3%)	875 (5%)
Unstaged	2,134 (3%)	1,073 (2%)	525 (3%)
Stage at Diagnosis	Blacks		
	All	Males	Females
All Stages	3,827 (100%)	2,438 (100%)	1,389 (100%)
In Situ	1,454 (38%)	1,023 (42%)	431 (31%)
Localized	1,493 (39%)	926 (38%)	569 (41%)
Regional	459 (12%)	244 (10%)	181 (13%)
Distant	306 (8%)	146 (6%)	139 (10%)
Unstaged	153 (4%)	98 (4%)	56 (4%)

^aBased on the SEER 17 areas (San Francisco, Connecticut, Detroit, Hawaii, Iowa, New Mexico, Seattle, Utah, Atlanta, San Jose-Monterey, Los Angeles, Alaska Native Registry, Rural Georgia, California excluding SF/SJM/LA, Kentucky, Louisiana and New Jersey). Based on follow-up of patients into 2008.

SOURCE: Howlader N, Noone AM, Krapcho M, Neyman N, Aminou R, Waldron W, Altekruse SF, Kosary CL, Ruhl J, Tatalovich Z, Cho H, Mariotto A, Eisner MP, Lewis DR, Chen HS, Feuer EJ, Cronin KA, Edwards BK (eds). SEER Cancer Statistics Review, 1975-2008, National Cancer Institute. Bethesda, MD, http://seer.cancer.gov/csr/1975_2008/, based on November 2010 SEER data submission, posted to the SEER web site, 2011.

Table 5-10. Survival (%) for bladder cancer (invasive and *in situ*), by race, gender, diagnosis year, stage and age

	All Races			Whites			Blacks		
	Total	Males	Females	Total	Males	Females	Total	Males	Females
5-Year Relative Survival (%)									
Year of Diagnosis									
1960-1963 ^a	...	...	...	53.0	53.0	53.0	24.0	24.0	24.0
1970-1973 ^a	...	...	...	61.0	61.0	60.0	36.0	38.0	27.0
► 1975-1977 ^b	72.5	74.0	68.4	73.5	74.6	70.3	50.3	56.5	38.1 ^c
1978-1980 ^b	74.1	75.3	70.4	74.9	75.7	72.4	54.6	62.7	40.4
1981-1983 ^b	77.0	78.4	73.1	77.7	78.9	74.3	59.7	64.9	47.6 ^c
1984-1986 ^b	76.9	78.3	72.9	77.5	78.7	73.9	59.6	62.6	52.9
1987-1989 ^b	79.2	81.6	72.2	80.0	82.2	73.5	62.5	67.6	52.6
1990-1992 ^b	79.6	82.1	72.2	80.6	83.0	73.4	63.4	66.1	58.8
1993-1995 ^b	80.6	82.4	75.4	81.4	82.8	77.3	60.0	67.0	45.8
1996-2000 ^b	79.4	80.6	76.1	80.3	81.3	77.3	62.6	66.0	55.9
2001-2007 ^b	80.2 [*]	81.8 [*]	75.6 [*]	81.1 [*]	82.4 [*]	77.2 [*]	64.1 [*]	67.9 [*]	55.9 [*]
5-Year Relative Survival (%), 2001-2007^d									
Stage at Diagnosis									
All Stages	78.1	79.9	72.6	78.5	80.1	73.8	64.4	70.3	54.0
In Situ	96.6	96.9	95.7	96.7	96.9	96.2	92.3	95.1	85.9
Localized	70.7	73.0	63.6	70.9	73.0	64.3	61.4	66.5	53.0
Regional	34.6	36.0	30.9	34.4	35.6	31.2	31.6	35.4	25.8
Distant	5.4	5.9	4.4	5.5	6.1	4.2	5.1	3.5	5.4
Unstaged	49.1	53.2	39.9	46.7	51.3	36.1	41.9 ^c	43.5 ^c	37.1 ^c
Age at Diagnosis									
< 45	89.3	89.9	87.9	90.0	90.2	89.4	76.2	77.9	71.4 ^c
45-54	85.0	85.1	84.4	85.6	85.4	86.2	72.3	76.3	60.3 ^c
55-64	84.1	84.6	82.3	84.6	84.9	83.5	69.6	72.6	62.3
65-74	79.6	80.5	76.3	79.9	80.5	78.0	67.9	74.9	54.8
75+	70.8	74.1	62.7	71.5	74.6	63.5	51.8	56.0	46.0
< 65	84.9	85.2	83.6	85.4	85.5	84.9	71.5	74.7	63.1
65+	74.6	77.0	67.8	75.1	77.2	69.0	59.6	66.2	50.2

... Statistic could not be calculated due to fewer than 25 cases during the time period.

► Denotes reference group.

^{*}The difference between 1975-1977 and 2001-2007 is statistically significant ($p < .05$).

^aBased on End Results data from a series of hospital registries and one population-based registry.

^bSEER 9 areas (San Francisco, Connecticut, Detroit, Hawaii, Iowa, New Mexico, Seattle, Utah, Atlanta). Based on follow-up of patients into 2008.

^cThe standard error is between 5 and 10 percentage points.

^dSEER 17 areas (San Francisco, Connecticut, Detroit, Hawaii, Iowa, New Mexico, Seattle, Utah, Atlanta, San Jose-Monterey, Los Angeles, Alaska Native Registry, Rural Georgia, California excluding SF/SJM/LA, Kentucky, Louisiana and New Jersey). Based on follow-up of patients into 2008.

SOURCE: Howlader N, Noone AM, Krapcho M, Neyman N, Aminou R, Waldron W, Altekruse SF, Kosary CL, Ruhl J, Tatalovich Z, Cho H, Mariotto A, Eisner MP, Lewis DR, Chen HS, Feuer EJ, Cronin KA, Edwards BK (eds). SEER Cancer Statistics Review, 1975-2008, National Cancer Institute. Bethesda, MD,

http://seer.cancer.gov/csr/1975_2008/, based on November 2010 SEER data submission, posted to the SEER web site, 2011.

Table 5-11. Relative survival^a (%) for bladder cancer, by year of diagnosis, all races, males and females

	1975- 1980- 1985-																				
	1979	1984	1989	1990	1991	1992	1993	1994	1995	1996	1997	1998	1999	2000	2001	2002	2003	2004	2005	2006	2007
Survival Time																					
1-year	87.4	89.2	90.4	90.0	90.1	90.3	90.8	91.0	91.0	90.1	91.7	91.3	90.5	91.4	91.4	90.4	90.9	91.1	90.9	91.5	90.4
2-year	81.1	83.8	85.4	85.8	85.3	85.0	85.9	86.1	87.0	85.8	86.5	86.7	85.3	86.8	86.7	86.1	85.9	86.3	85.6	86.8	
3-year	77.9	80.7	82.4	82.7	82.9	82.2	83.2	84.2	84.3	83.6	83.3	83.7	82.5	83.9	84.8	83.9	83.7	83.8	82.6		
4-year	75.1	78.2	80.2	81.0	81.3	81.3	81.4	81.9	82.1	81.3	81.0	81.8	80.6	81.9	82.7	81.4	81.7	81.7			
5-year	73.2	76.4	78.3	79.9	79.5	79.2	79.8	80.4	81.5	79.7	78.8	79.6	78.5	80.5	81.9	80.2	80.0				
6-year	71.3	74.7	76.7	78.3	78.4	77.7	78.0	78.6	79.5	78.4	77.1	77.8	77.0	79.6	80.4	78.7					
7-year	69.2	73.2	75.2	77.1	76.1	75.7	76.3	76.9	77.7	77.6	75.9	76.7	75.8	78.2	78.7						
8-year	67.7	72.0	73.6	75.1	74.5	74.3	75.3	76.1	76.6	76.0	74.8	75.0	74.7	76.8							
9-year	66.1	70.3	72.4	73.0	73.3	73.4	73.7	75.0	75.0	74.5	73.5	74.0	73.6								
10-year	64.1	69.0	71.1	70.9	72.0	72.1	72.8	74.3	74.1	73.1	72.2	72.4									
11-year	62.3	67.7	70.0	69.1	71.0	70.9	71.4	72.9	73.4	72.0	71.4										
12-year	61.1	66.3	68.5	67.4	70.2	70.2	70.6	71.8	72.3	70.5											
13-year	60.0	65.3	67.2	66.9	69.0	69.4	69.2	71.6	69.9												
14-year	58.7	63.8	65.7	65.5	69.0	68.2	68.3	70.3													
15-year	57.4	62.4	64.4	64.5	66.0	66.1	66.9														
16-year	56.2	60.8	62.9	62.5	65.2	64.9															
17-year	55.2	59.8	62.0	60.8	64.2																
18-year	54.4	58.7	61.0	59.5																	
19-year	53.8	57.8	60.3																		
20-year	52.9	57.3																			

^aBased on the SEER 9 areas (San Francisco, Connecticut, Detroit, Hawaii, Iowa, New Mexico, Seattle, Utah, and Atlanta).

SOURCE: Howlader N, Noone AM, Krapcho M, Neyman N, Aminou R, Waldron W, Altekruse SF, Kosary CL, Ruhl J, Tatalovich Z, Cho H, Mariotto A, Eisner MP, Lewis DR, Chen HS, Feuer EJ, Cronin KA, Edwards BK (eds). SEER Cancer Statistics Review, 1975-2008, National Cancer Institute. Bethesda, MD, http://seer.cancer.gov/csr/1975_2008/, based on November 2010 SEER data submission, posted to the SEER web site, 2011.

Table 5-12. Age-adjusted mortality rates^a for bladder cancer, by year, race, and gender

	All Races			Whites			Blacks		
	Total	Males	Females	Total	Males	Females	Total	Males	Females
Year of Death									
1975	5.5	9.8	2.8	5.6	10.1	2.7	5.0	6.9	3.6
1976	5.6	9.8	2.9	5.6	10.1	2.8	5.3	7.8	3.5
1977	5.5	9.7	2.9	5.6	9.9	2.8	5.2	7.6	3.6
1978	5.4	9.5	2.9	5.5	9.8	2.8	4.9	7.2	3.4
1979	5.3	9.3	2.7	5.3	9.6	2.7	5.0	7.6	3.3
1980	5.2	9.2	2.7	5.2	9.5	2.7	4.7	6.2	3.7
1981	5.1	9.0	2.7	5.1	9.3	2.6	4.9	7.2	3.4
1982	5.0	9.0	2.6	5.0	9.2	2.5	4.9	6.8	3.6
1983	4.9	8.8	2.5	4.9	9.0	2.5	4.7	7.2	3.2
1984	4.7	8.5	2.5	4.8	8.7	2.4	4.7	6.9	3.4
1985	4.7	8.4	2.4	4.7	8.7	2.4	4.5	6.9	3.0
1986	4.5	8.1	2.4	4.6	8.4	2.3	4.3	5.8	3.3
1987	4.4	7.9	2.3	4.5	8.1	2.3	4.4	6.5	3.1
1988	4.4	7.8	2.4	4.5	8.0	2.3	4.3	5.9	3.3
1989	4.5	8.0	2.4	4.5	8.2	2.3	4.6	7.0	3.2
1990	4.5	8.0	2.4	4.6	8.2	2.4	4.4	6.4	3.2
1991	4.4	7.9	2.3	4.5	8.1	2.3	4.4	6.6	3.1
1992	4.5	7.9	2.4	4.5	8.1	2.4	4.4	6.7	3.1
1993	4.5	8.1	2.3	4.6	8.3	2.3	4.2	6.4	2.9
1994	4.5	7.9	2.4	4.5	8.1	2.4	4.3	6.4	3.2
1995	4.4	7.8	2.3	4.5	8.1	2.2	4.1	5.8	3.1
1996	4.4	7.8	2.4	4.5	8.1	2.3	4.2	5.9	3.1
1997	4.4	7.6	2.4	4.5	7.9	2.4	4.0	5.9	3.0
1998	4.4	7.7	2.3	4.5	8.0	2.3	4.0	5.6	3.0
1999	4.4	7.7	2.3	4.5	8.0	2.2	4.0	5.8	3.0
2000	4.3	7.6	2.3	4.5	7.9	2.3	3.7	5.7	2.7
2001	4.3	7.6	2.3	4.5	8.0	2.2	3.7	5.2	2.9
2002	4.4	7.6	2.4	4.5	7.9	2.4	4.0	5.7	3.1
2003	4.3	7.5	2.2	4.4	7.8	2.2	3.8	5.6	2.7
2004	4.4	7.7	2.3	4.6	8.1	2.3	3.7	5.2	2.8
2005	4.4	7.7	2.2	4.5	8.0	2.2	3.8	6.1	2.6
2006	4.4	7.7	2.2	4.5	8.1	2.2	3.9	5.9	2.8
2007	4.4	7.7	2.2	4.6	8.1	2.2	3.8	5.7	2.8
2008	4.4	7.6	2.2	4.6	8.0	2.2	3.4	4.9	2.5
1975-2008	4.6	8.1	2.4	4.7	8.4	2.4	4.3	6.2	3.1
Age at Death									
All ages	4.4	7.7	2.2	4.6	8.0	2.2	3.7	5.5	2.7
Under 65	0.7	1.1	0.4	0.8	1.2	0.4	0.8	1.1	0.5
65 and over	29.5	52.9	15.0	30.7	55.6	15.0	24.2	36.4	17.9
All ages ^b	2.2	3.7	1.1	2.3	3.9	1.1	1.9	2.8	1.4

^aUS Mortality Files, National Center for Health Statistics, Centers for Disease Control and Prevention. Rates are per 100,000 and are age-adjusted to the 2000 US standard population (19 age groups - Census P25-1130), unless noted.

^bRates are per 100,000 and are age-adjusted to the International Agency for Research on Cancer (IARC) world standard population.

SOURCE: Howlader N, Noone AM, Krapcho M, Neyman N, Aminou R, Waldron W, Altekruse SF, Kosary CL, Ruhl J, Tatalovich Z, Cho H, Mariotto A, Eisner MP, Lewis DR, Chen HS, Feuer EJ, Cronin KA, Edwards BK (eds). SEER Cancer Statistics Review, 1975-2008, National Cancer Institute. Bethesda, MD, http://seer.cancer.gov/csr/1975_2008/, based on November 2010 SEER data submission, posted to the SEER web site, 2011.

Table 5-13. Age-adjusted mortality^a rates^b and trends^c of bladder cancer, by race/ethnicity and gender

Race/ethnicity	Rate 2004-2008 Rate per 100,000			Trend 1999-2008 AAPC ^d (%)		
	Total	Males	Females	Total	Males	Females
All Races	4.4	7.7	2.2	-0.1*	0.1	-0.5*
White	4.6	8.0	2.2	0.1	-0.1	-0.4*
White Hispanic ^e	2.4	3.9	1.3	-0.6	-1.0*	-0.4
White Non-Hispanic ^e	4.7	8.3	2.3	0.5*	0.5*	-0.2
Black	3.7	5.5	2.7	-1.0*	-1.0*	-1.1*
Asian/Pacific Islander	1.7	2.7	0.9	-1.2*	-0.3	-2.3*
American Indian/Alaska Native						
Total U.S.	1.8	2.9	1.1	2.0	...	...
CHSDA ^f Counties	2.1	3.6	1.1	...	...	...
Non-CHSDA ^f Counties	1.5	2.1	1.1	...	...	...
Hispanic ^e	2.3	3.8	1.2	-0.7	-1.0*	-0.5

The AAPC is the Average Annual Percent Change over the time interval.

*The AAPC is significantly different from zero ($p < .05$).

... Statistic not shown. Trend based on less than 10 cases for at least one year within the time interval.

^aUS Mortality Files, National Center for Health Statistics, CDC.

^bRates are age-adjusted to the 2000 US standard population (19 age groups - Census P25-1130).

^cTrends are based on rates age-adjusted to the 2000 US standard population (19 age groups - Census P25-1130).

^dThe 1999-2008 mortality AAPCs are based on a Joinpoint analysis using years of death 1992-2008.

^eHispanic and Non-Hispanic are not mutually exclusive from whites, blacks, Asian/Pacific Islanders, and American Indians/Alaska Natives. Incidence data for Hispanics and Non-Hispanics are based on NHIA and exclude cases from the Alaska Native Registry. The 2004-2008 Hispanic and Non-Hispanic death rates exclude deaths from the District of Columbia and North Dakota. The 1999-2008 Hispanic and Non-Hispanic mortality trends exclude deaths from Connecticut, the District of Columbia, Maine, Maryland, Minnesota, New Hampshire, New York, North Dakota, Oklahoma and Vermont.

^fIncidence data for American Indian/Alaska Native are based on the CHSDA(Contract Health Service Delivery Area) counties.

SOURCE: Howlader N, Noone AM, Krapcho M, Neyman N, Aminou R, Waldron W, Allekruse SF, Kosary CL, Ruhl J, Tatalovich Z, Cho H, Mariotto A, Eisner MP, Lewis DR, Chen HS, Feuer EJ, Cronin KA, Edwards BK (eds). SEER Cancer Statistics Review, 1975-2008, National Cancer Institute. Bethesda, MD, http://seer.cancer.gov/csr/1975_2008/, based on November 2010 SEER data submission, posted to the SEER web site, 2011.

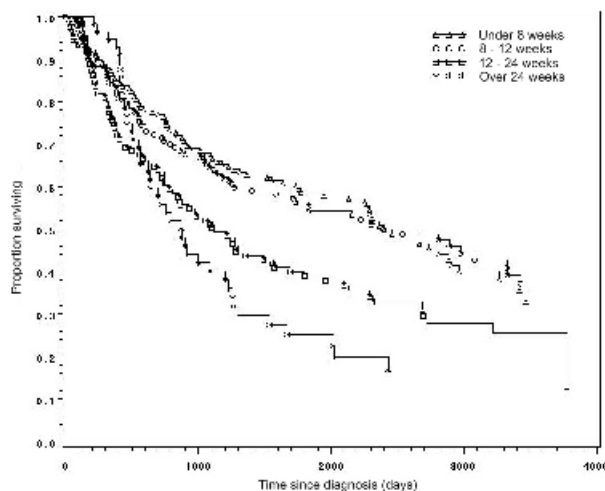


Figure 5-1. Overall survival following diagnosis of muscle-invasive bladder cancer stratified by time between diagnosis and radical cystectomy.

SOURCE: Gore J, Lai J, Setodji C, Litwin M, Saigal C, the Urologic Diseases in America Project. Mortality Increases When Radical Cystectomy is Delayed More Than 12 Weeks: Results from a SEER-Medicare Analysis. *Cancer*. March 2009; 115(5): 988-96. (Copyright 2009 American Cancer Society). This material is reproduced with permission of John Wiley & Sons, Inc.

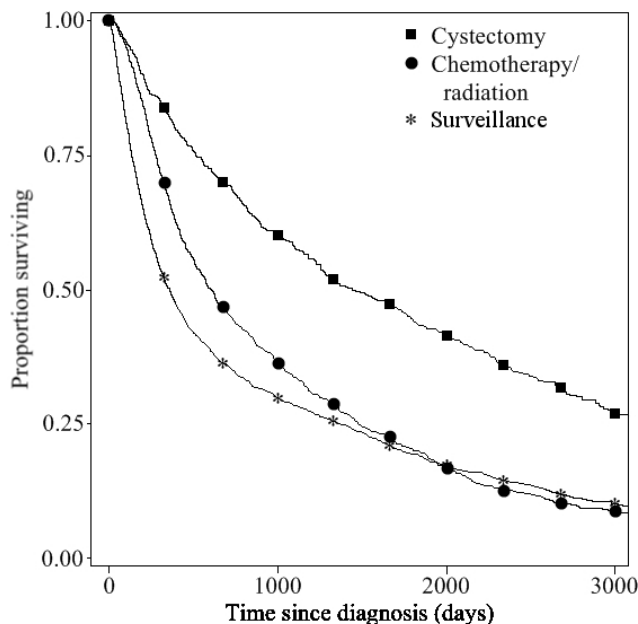


Figure 5-2. Kaplan–Meier unadjusted overall survival curves stratified by treatment received for muscle-invasive bladder cancer (for chemotherapy and/or radiation vs cystectomy, unadjusted 1.8, 95% CI = 1.7 to 1.9; for surveillance vs cystectomy, HR of death = 2.2, 95% CI = 2.0 to 2.3).

SOURCE: Gore J, Litwin M, Lai J, Yano E, Setodji C, Adams J, Madison R, Saigal C, and the Urologic Diseases in America Project. Use of Radical Cystectomy for Patients with Invasive Bladder Cancer. *Journal of the National Cancer Institute*, June 2010, 102(11): 802-11. Reprinted by permission of Oxford University Press.

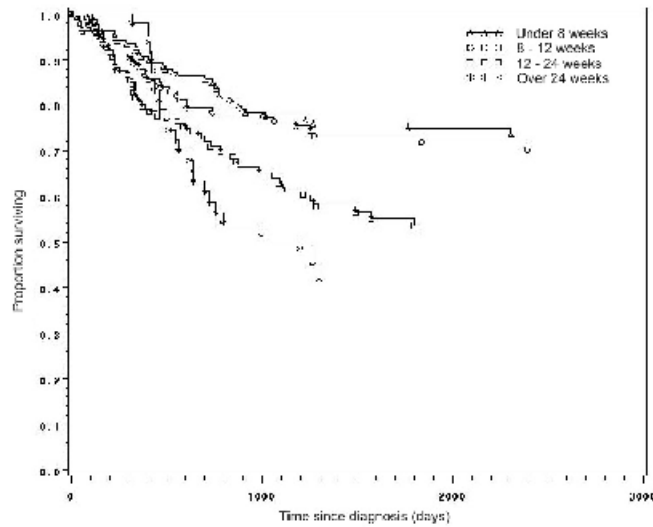


Figure 5-3. Disease-specific survival following diagnosis of muscle-invasive bladder cancer stratified by time between diagnosis and radical cystectomy.

SOURCE: Gore J, Lai J, Setodji C, Litwin M, Saigal C, the Urologic Diseases in America Project. Mortality Increases When Radical Cystectomy is Delayed More Than 12 Weeks: Results from a SEER-Medicare Analysis. *Cancer*. March 2009; 115(5): 988-96. (Copyright 2009 American Cancer Society). This material is reproduced with permission of John Wiley & Sons, Inc.

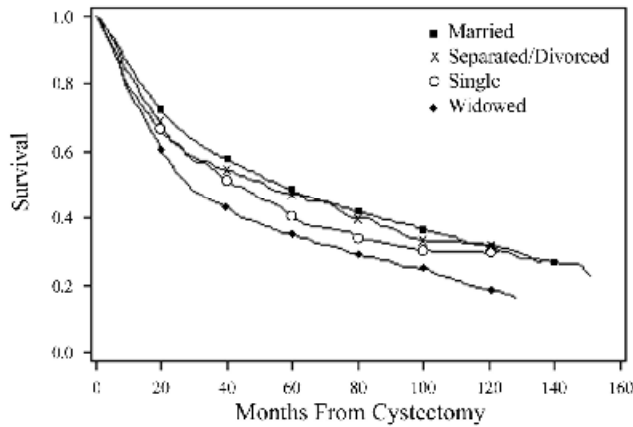


Figure 5-4. Survival following radical cystectomy stratified by marital status.

SOURCE: Gore J, Kwan L, Saigal C, Litwin M. Marriage and Mortality in Bladder Carcinoma. *Cancer*. September 2005; 104(6): 1188-94. (Copyright 2005 American Cancer Society). This material is reproduced with permission of John Wiley & Sons.

Table 5-14. Nationally representative inpatient stays for lower tract transitional cell carcinoma listed as primary diagnosis, rate,^a age-adjusted rate^b

	2002 (N=72,757)		2003 (N=69,433)		2004 (N=67,475)		2005 (N=65,392)		2006 (N=66,187)		2007 (N=64,732)	
	Rate	Age-Adjusted Rate	Rate	Age-Adjusted Rate	Rate	Age-Adjusted Rate	Rate	Age-Adjusted Rate	Rate	Age-Adjusted Rate	Rate	Age-Adjusted Rate
Total	34.2	55.0	32.1	51.5	31.4	53.4	30.1	50.5	30.1	50.3	29.1	48.5
Age												
40-44	5.1*		5.5*		5.8*		5.4*		5.0*		4.3*	
45-54	13.0*		11.6*		11.2*		10.9*		11.1*		11.4*	
55-64	38.5*		34.8*		34.1*		32.2*		31.8*		32.0*	
▶ 65-74	108.3		101.7		96.8		92.5		91.9		89.1	
75-84	164.2*		154.2*		184.5*		174.2*		174.4*		162.0*	
85+	312.8*		299.1*		294.5*		273.4*		271.2*		262.7*	
Race/ethnicity												
▶ White	25.8	42.1	27.4	40.8	28.5	45.1	27.8	43.2	26.5	41.1	26.0	40.2
Black	15.7*	29.1	17.4*	31.1	16.5*	30.8	13.1*	24.2	15.1*	27.6	14.5*	26.5
Hispanic	†	†	12.3*	28.2	9.7*	23.6	8.1*	19.2	11.9*	27.4	7.6*	17.2
Asian	9.2*	19.2	11.3*	21.1	10.4*	20.0	7.7*	14.8	7.8*	15.0	9.1*	16.4
Other	44.0*	83.1	24.4*	48.9	24.2*	51.4	29.4*	59.0	36.0*	69.3	34.6*	64.2
Region												
Northeast	45.3	68.0	40.1	59.4	42.5	67.9	41.0	66.4	38.5	61.8	39.0	61.7
South	33.2	53.0	31.3	49.8	31.2	52.3	28.1	47.4	30.5	50.7	26.9	44.5
▶ Midwest	34.3	55.0	33.6	54.7	31.4	53.9	30.8	51.2	29.5	49.3	31.0	51.9
West	25.6*	45.4	25.0*	43.1	22.5*	41.2	23.4*	40.8	23.2*	40.5	22.6*	40.0
Gender												
Female	16.9*	26.6	16.4*	25.7	16.2*	26.8	15.9*	26.1	15.3*	24.9	15.5*	25.2
▶ Male	53.0	88.9	49.1	81.7	47.8	83.8	45.3	78.0	45.9	79.1	43.5	74.7

▶ Denotes reference group.

*Statistically different from reference group ($p < .05$).

† Figure does not meet standard for reliability or precision.

^aRate per 100,000 individuals in the same demographic stratum is based on 2002-2007 population estimates from Current Population Survey (CPS).^bRate per 100,000 age-adjusted to the 2005 US standard population (US Population Estimates from Current Population Survey).

SOURCE: Healthcare Cost and Utilization Project Nationwide Inpatient Sample, 2002-2007.

Table 5-15. Inpatient stays by Medicare beneficiaries for lower tract transitional cell carcinoma listed as primary diagnosis, rate,^a age-adjusted rate^b

	2002 (N=45,040)		2003 (N=43,340)		2004 (N=44,860)		2005 (N=43,280)		2006 (N=39,100)		2007 (N=38,320)	
	Rate	Age-Adjusted Rate	Rate	Age-Adjusted Rate	Rate	Age-Adjusted Rate	Rate	Age-Adjusted Rate	Rate	Age-Adjusted Rate	Rate	Age-Adjusted Rate
Total	126.6	151.4	118.8	140.9	121.3	143.7	116.6	138.9	107.6	129.4	105.9	127.7
Under 65/65+												
< 65 Years	23.5*	23.5	28.6*	28.6	27.9*	27.9	24.8*	24.8	22.5*	22.5	24.4*	24.4
▶ 65+ Years	153.0	151.4	142.6	140.9	146.5	143.7	142.5	138.9	132.0	129.4	130.4	127.7
Age												
▶ 65-69	72.3		67.6		74.4		71.3		68.4		68.2	
70-74	122.7*		115.4*		115.3*		117.2*		111.0*		99.1*	
75-79	180.7*		157.7*		169.1*		158.5*		137.9*		141.6*	
80-84	226.8*		217.0*		204.8*		210.3*		205.9*		195.4*	
85-89	257.5*		249.3*		251.3*		225.4*		205.5*		223.9*	
90-94	266.0*		269.9*		301.9*		284.6*		235.5*		241.0*	
95-97	215.1*♦		180.4*♦		217.1*♦		175.1*♦		239.0*♦		228.7*♦	
98+	86.4*♦		42.8*♦		53.0*♦		165.7*♦		71.6*♦		102.1*♦	
Race/ethnicity												
▶ White	135.1	160.3	126.3	147.6	127.2	149.0	121.7	142.9	113.7	134.6	111.1	131.3
Black	75.6*	103.8	80.4*	109.1	92.3*	126.3	92.2*	126.7	78.0*	110.8	84.4*	131.8
Hispanic	60.7*♦	70.6	61.2*♦	76.5	73.5*♦	88.4	79.6*♦	95.8	59.0*♦	88.6	57.7*♦	57.0
Asian	72.7*♦	51.5	34.1*♦	42.6	46.5*♦	61.7	87.4*♦	144.4	56.5*♦	56.6	60.2*♦	56.5
Other	83.0*♦	120.4	101.0*	153.4	117.9*	146.3	85.6*	113.0	84.1*	111.5	81.2*	139.6
Unknown	347.2*♦	...	143.4*♦	...	81.4*♦	...	58.8*♦	...	125.1*♦	...	134.6*♦	...
Region												
▶ Northeast	164.9	196.2	140.5	165.3	142.7	168.3	145.3	168.5	136.5	162.9	125.8	150.0
South	112.0*	131.5	120.0*	142.3	116.0*	134.5	107.4*	126.5	100.7*	118.7	96.0*	117.4
Midwest	125.9*	154.2	111.9*	133.5	121.9*	147.9	119.5*	144.9	107.7*	129.7	116.7*	138.4
West	115.4*	138.3	100.7*	118.7	107.5*	129.0	100.8*	124.3	90.3*	114.6	90.9*	110.0
Gender												
Female	57.6*	62.1	55.6*	61.1	57.2*	61.7	54.1*	58.4	53.1*	57.1	45.6*	51.1
▶ Male	214.8	278.1	199.1	252.7	201.8	256.6	194.8	249.0	175.0	226.6	180.0	229.5

... Data unavailable.

▶ Denotes reference group.

*Statistically different from reference group ($p < .05$).

♦Rate based on a count less than 600, should be interpreted with caution.

^aRate per 100,000 based on enrollment in calendar years for individuals in the same demographic stratum.^bRate per 100,000 age-adjusted to the 2005 US standard population (US Population Estimates from Current Population Survey).

SOURCE: Centers for Medicare and Medicaid Services, 5% Standard Analytical Claims Files.

Table 5-16. Inpatient stays by privately insured individuals for lower tract transitional cell carcinoma listed as primary diagnosis, rate,^a age-adjusted rate^b

	2002 (N=1,933)		2003 (N=1,941)		2004 (N=2,125)		2005 (N=2,172)		2006 (N=1,580)	
	Rate	Age-Adjusted Rate	Rate	Age-Adjusted Rate	Rate	Age-Adjusted Rate	Rate	Age-Adjusted Rate	Rate	Age-Adjusted Rate
Total	21.9	65.3	19.7	65.3	21.1	67.6	20.4	60.2	15.2	59.4
Age										
40-44	4.5*		5.2*		6.5*		5.0*		4.7*	
45-54	13.8*		13.2*		12.2*		11.8*		11.6*	
55-64	57.5*		45.3*		50.2*		38.4*		36.3*	
▶ 65-74	132.7		126.8		127.7		118.1		115.8	
75-84	260.4*		239.2*		242.9*		217.0*		217.5*	
85+	...		262.1*		289.5*		275.1*		279.8*	
Race/ethnicity										
▶ White	21.5	57.7	22.2	68.9	23.1	75.2	21.9	66.9	16.9	64.5
Black	15.3*	28.6	16.9*	46.9	18.2*	45.0	18.3*	39.3	10.6*	48.5
Hispanic	9.9*	29.5	9.5*	35.9	12.2*	48.0	10.6*	36.0	9.1*	39.6
Asian	8.7*♦	55.2	5.5*♦	37.8	13.1*	56.4	5.8*♦	21.7	4.7*♦	32.8
Other	12.4*♦	52.6	17.3*	84.2	22.0*♦	131.7	15.7*♦	65.1	14.3*♦	52.6
Unknown	18.5*	...	22.6*	...	24.2*	...	19.9*	...	15.3*	...
Missing	24.2*	...	18.7*	...	18.5*	...	23.3*	...	14.7*	...
Region										
Northeast	33.5*	87.4	29.3*	91.1	28.4*	86.6	22.9	70.3	19.4*	76.5
South	18.2*	56.9	18.1*	60.0	18.3*	60.1	16.7*	52.2	13.5*	54.4
▶ Midwest	26.1	70.8	21.3	62.9	24.8	69.6	25.2	64.8	15.2	60.3
West	13.1*	48.8	12.6*	71.1	15.7*	69.6	19.2*	63.7	16.9*	56.8
Gender										
Female	10.6*	30.8	10.0*	33.0	11.1*	33.8	9.6*	27.3	8.6*	32.4
▶ Male	33.9	101.1	29.9	98.0	31.7	101.8	31.7	93.2	22.1	82.2

... Data unavailable.

▶ Denotes reference group.

*Statistically different from reference group ($p < .05$).

♦Rate based on a count less than 30, should be interpreted with caution.

^aRate per 100,000 based on enrollment in calendar years for individuals in the same demographic stratum.

^bRate per 100,000 age-adjusted to the 2005 US standard population (US Population Estimates from Current Population Survey).

SOURCE: i3 Claims Database, 2002-2006.

Table 5-17. Hospital outpatient visits by Medicare beneficiaries for lower tract transitional cell carcinoma listed as primary diagnosis, rate,^a age-adjusted rate^b

	2002 (N=23,340)		2003 (N=26,080)		2004 (N=28,640)		2005 (N=29,600)		2006 (N=31,700)		2007 (N=32,360)	
	Rate	Age-Adjusted Rate	Rate	Age-Adjusted Rate	Rate	Age-Adjusted Rate	Rate	Age-Adjusted Rate	Rate	Age-Adjusted Rate	Rate	Age-Adjusted Rate
Total	65.6	79.5	71.5	88.2	77.4	92.2	79.8	99.6	87.2	107.2	89.5	113.2
Under 65/65+												
< 65 Years	18.8*	18.8	16.3*	16.3	25.1*	25.1	12.5*	12.5	20.2*	20.2	18.0*	18.0
▶ 65+ Years	77.6	79.5	86.1	88.2	91.5	92.2	98.7	99.6	106.4	107.2	110.9	113.2
Age												
▶ 65-69	37.6		48.1		67.5		73.0		80.3		93.4	
70-74	77.4*		70.7*		102.6*		105.2*		99.8*		97.5*	
75-79	101.0*		104.0*		96.1*		103.7*		141.8*		137.5*	
80-84	123.2*		124.0*		100.1*		140.9*		143.9*		155.4*	
85-89	90.4*		149.8*		115.8*		91.3*		74.5*		92.0*	
90-94	42.2*♦		83.8*		90.0*		72.6*		95.0*		82.3*	
95-97	30.7*♦		40.1*♦		59.2*♦		107.0*♦		109.5*♦		9.9*♦	
98+	21.6*♦		53.5*♦		116.5*♦		62.1*♦		10.2*♦		61.3*♦	
Race/ethnicity												
▶ White	66.3	80.7	73.1	89.4	75.4	87.8	81.3	99.2	89.4	108.0	94.5	116.8
Black	63.5*	76.5	59.9*	86.6	89.6*	125.9	72.7*	108.0	58.5*	89.6	57.8*	92.2
Hispanic	33.4*♦	53.1	55.4*♦	64.9	28.3*♦	48.1	60.4*♦	90.2	56.2*♦	87.4	77.0*♦	104.3
Asian	56.5*♦	110.6	37.9*♦	49.8	103.8*♦	107.0	67.2*♦	75.3	106.4*	121.3	63.4*♦	73.1
Other	79.6*♦	120.5	97.9*	147.4	117.9*	169.3	74.2*♦	115.0	151.4*	189.1	67.7*♦	92.4
Unknown	106.8*♦	...	143.4*♦	...	244.3*♦	...	146.9*♦	...	93.8*♦	...	67.3*♦	...
Region												
▶ Northeast	82.9	100.8	92.3	121.4	120.8	151.8	117.7	143.0	140.5	174.9	133.8	168.4
South	38.8*	46.1	35.0*	43.0	45.7*	51.2	46.9*	60.2	41.4*	51.5	53.6*	68.5
Midwest	86.5*	107.4	98.6*	119.1	89.0*	103.2	86.9*	107.2	104.7*	128.6	108.8*	135.6
West	75.7*	90.7	91.0*	104.3	83.2*	98.2	100.8*	128.5	105.4*	123.5	92.8*	119.1
Gender												
Female	34.3*	41.5	38.2*	46.6	39.9*	45.2	45.3*	54.2	48.2*	55.9	38.0*	46.6
▶ Male	105.7	133.0	113.7	146.1	124.7	155.4	122.8	160.9	135.4	175.9	152.5	201.4

... Data unavailable.

▶ Denotes reference group.

*Statistically different from reference group ($p < .05$).

♦Rate based on a count less than 600, should be interpreted with caution.

^aRate per 100,000 based on enrollment in calendar years for individuals in the same demographic stratum.^bRate per 100,000 age-adjusted to the 2005 US standard population (US Population Estimates from Current Population Survey).

SOURCE: Centers for Medicare and Medicaid Services, 5% Standard Analytical Claims Files.

Table 5-18. Hospital outpatient visits by privately insured individuals for lower tract transitional cell carcinoma listed as primary diagnosis, rate,^a age-adjusted rate^b

	2002 (N=8,604)		2003 (N=8,860)		2004 (N=9,142)		2005 (N=10,206)		2006 (N=7,685)	
	Rate	Age-Adjusted Rate	Rate	Age-Adjusted Rate	Rate	Age-Adjusted Rate	Rate	Age-Adjusted Rate	Rate	Age-Adjusted Rate
Total	97.5	274.8	89.9	279.1	90.9	270.1	95.6	265.2	73.8	249.7
Age										
40-44	29.1*		21.5*		26.3*		24.4*		19.9*	
45-54	80.9*		66.6*		68.2*		66.5*		62.5*	
55-64	272.9*		249.6*		242.6*		215.5*		215.8*	
▶ 65-74	611.2		574.1		566.3		591.9		573.6	
75-84	859.1*		888.9*		869.7*		878.3*		804.5*	
85+	...		877.8*		686.1*		605.2*		489.1*	
Race/ethnicity										
▶ White	106.5	275.6	110.9	333.7	100.5	302.3	104.2	288.0	81.2	268.5
Black	87.3*	164.7	71.4*	147.5	74.6*	158.3	73.7*	155.9	39.6*	139.8
Hispanic	50.5*	140.2	48.5*	161.1	35.3*	127.0	42.4*	147.3	25.8*	115.4
Asian	26.1*	92.9	30.9*	156.4	40.0*	248.6	23.0*	114.6	13.9*	94.1
Other	285.4*	1,173	77.7*	268.8	56.1*	133.9	38.1*	111.2	151.0*	365.2
Unknown	112.1*	...	109.4*	...	86.0*	...	105.8*	...	91.3*	...
Missing	94.1*	...	72.1*	...	97.3*	...	108.2*	...	80.2*	...
Region										
Northeast	138.5*	359.9	122.2*	359.4	124.8*	357.9	109.4*	309.3	102.2*	346.9
South	77.9*	222.9	74.7*	223.8	75.8*	229.3	75.3*	213.8	59.8*	216.1
▶ Midwest	122.9	316.3	115.1	326.4	110.7	290.7	131.4	327.1	86.7	271.6
West	59.3*	231.9	48.2*	251.5	64.8*	268.6	71.1*	215.3	70.2*	217.7
Gender										
Female	49.7*	140.3	45.3*	141.0	49.5*	140.9	52.5*	142.4	39.8*	126.7
▶ Male	148.1	412.6	137.0	418.2	134.6	400.8	141.1	389.0	109.3	358.1
Unknown	139.2*♦	...	...	...	71.0*♦	...	63.4*♦	...	111.8*♦	...

... Data unavailable.

▶ Denotes reference group.

*Statistically different from reference group ($p < .05$).

♦Rate based on a count less than 30, should be interpreted with caution.

^aRate per 100,000 based on enrollment in calendar years for individuals in the same demographic stratum.^bRate per 100,000 age-adjusted to the 2005 US standard population (US Population Estimates from Current Population Survey).

SOURCE: i3 Claims Database, 2002-2006.

Table 5-19. Nationally representative hospital outpatient visits for lower tract transitional cell carcinoma listed as primary diagnosis, 2002-2007 (merged), 6-year count

	6-Year Count
Total	242,721
Age	
40-44	11,319
45-54	11,331
55-64	74,871
65-74	62,080
75-84	79,214
85+	3,906
Race/ethnicity	
White	209,838
Black	32,405
Hispanic	478
Region	
Northeast	61,094
South	81,512
Midwest	83,293
West	16,822
Gender	
Female	49,388
Male	193,333

SOURCE: National Ambulatory Medical Care Survey, 2002-2007; National Hospital Ambulatory Medical Care Survey, 2002-2007.

Table 5-20. Ambulatory surgery center visits by Medicare beneficiaries for lower tract transitional cell carcinoma listed as primary diagnosis, rate,^a age-adjusted rate^b

	2002 (N=73,600)		2003 (N=74,500)		2004 (N=70,380)		2005 (N=68,360)		2006 (N=65,440)		2007 (N=64,480)	
	Rate	Age-Adjusted Rate	Rate	Age-Adjusted Rate	Rate	Age-Adjusted Rate	Rate	Age-Adjusted Rate	Rate	Age-Adjusted Rate	Rate	Age-Adjusted Rate
Total	258.0	317	259.0	318.5	250.9	307.6	248.6	310.1	248.5	311.5	246.1	316.5
Age												
▶ 65-69	211.5		192.8		185.1		188.6		197.1		192.1	
70-74	306.6*		305.3*		284.9*		299.0*		291.7*		283.6*	
75-79	380.4*		396.1*		377.1*		382.0*		393.2*		395.4*	
80-84	393.5*		432.7*		439.2*		418.3*		404.9*		457.3*	
85-89	385.3*		364.8*		357.2*		360.3*		363.5*		361.5*	
90-94	232.2*		267.8*		307.9*		359.2*		298.9*		233.2*	
95-97	133.2*♦		150.3*♦		286.2*♦		194.6*♦		219.1*♦		129.3*♦	
98+	10.8*♦		42.8*♦		42.4*♦		41.4*♦		81.8*♦		81.7*♦	
Race/ethnicity												
▶ White	287.1	346.4	284.9	344.4	277.7	335.2	274.4	336.3	274.4	337.8	271.6	342.7
Black	92.2*	134.6	106.0*	148.9	101.5*	141.7	110.6*	156.4	104.2*	149.3	107.1*	161.3
Hispanic	54.6*♦	67.2	81.6*♦	106.4	62.2*♦	90.8	71.4*♦	86.8	61.8*♦	76.6	74.2*	93.2
Asian	40.4*♦	46.5	71.9*♦	63.3	43.0*♦	41.3	63.8*♦	60.5	109.7*	115.6	88.7*♦	98.9
Other	159.1*	228.9	189.4*	279.7	184.4*	211.5	139.8*	185.2	123.4*	170.1	127.2*	169.9
Unknown	213.7*♦	...	487.5*♦	...	352.9*♦	...	499.6*♦	...	656.9*♦	...	673.2*♦	...
Region												
▶ Northeast	306.4	376.7	313.4	384	316.6	390.3	309.3	388.2	292.5	367.8	309.5	396.6
South	249.5*	307.5	241.3*	297.9	231.4*	279.9	227.1*	280.9	244.1*	305.6	224.7*	289.1
Midwest	296.2*	359.8	296.1*	356.8	284.1*	346.8	282.7*	346	282.0*	349	277.0*	350.7
West	158.3*	194.6	179.1*	225.5	170.1*	212.8	178.8*	231.6	160.0*	205.3	180.3*	237.2
Gender												
Female	130.9*	154.6	129.2*	150.3	130.3*	153.5	126.5*	148.7	122.2*	144.4	120.4*	147.2
▶ Male	420.3	544.7	423.8	552.3	402.8	519.1	401.4	529.2	404.7	535.3	400.2	539.9

... Data unavailable.

▶ Denotes reference group.

*Statistically different from reference group ($p < .05$).

♦Rate based on a count less than 600, should be interpreted with caution.

^aRate per 100,000 based on enrollment in calendar years for individuals in the same demographic stratum.^bRate per 100,000 age-adjusted to the 2005 US standard population (US Population Estimates from Current Population Survey).

SOURCE: Centers for Medicare and Medicaid Services, 5% Standard Analytical Claims Files.

Table 5-21. Ambulatory surgery center visits by privately insured individuals for lower tract transitional cell carcinoma listed as primary diagnosis, rate,^a age-adjusted rate^b

	2002 (N=809)		2003 (N=890)		2004 (N=1,018)		2005 (N=1,228)		2006 (N=1,172)	
	Rate	Age-Adjusted Rate	Rate	Age-Adjusted Rate	Rate	Age-Adjusted Rate	Rate	Age-Adjusted Rate	Rate	Age-Adjusted Rate
Total	9.2	24.1	9.0	26.0	10.1	28.1	11.5	29.9	11.3	37.3
Age										
40-44	3.9*		4.1*		4.2*		3.6*		4.4*	
45-54	8.5*		8.5*		8.2*		10.2*		10.5*	
55-64	30.1*		25.6*		31.8*		29.2*		31.8*	
▶ 65-74	52.4		50.8		48.4		59.4		77.0	
75-84	56.0*		79.7*		92.8*		90.6*		112.1*	
85+	...		49.8*		40.7*♦		58.6*		123.4*	
Race/ethnicity										
▶ White	11.1	27.1	11.8	32.0	11.0	30.2	12.3	31.4	13.1	42.2
Black	6.2*♦	15.0	4.9*♦	10.4	5.6*♦	13.1	5.9*♦	15.5	7.9*	28.2
Hispanic	3.9*♦	11.6	4.3*♦	13.6	4.8*	15.3	4.9*	15.9	5.2*	22.8
Asian	2.9*♦	19.5	4.5*♦	20.2	1.8*♦	13.5	5.2*♦	24.2	6.3*♦	54.3
Other	9.9*♦	28.6	3.5*♦	44.0	8.5*♦	22.7	5.6*♦	46.8	5.5*♦	25.3
Unknown	10.3*	...	11.1*	...	14.7*	...	16.4*	...	14.1*	...
Missing	8.4*	...	6.7*	...	10.3*	...	13.0*	...	7.0*	...
Region										
Northeast	9.7*	24.1	10.4*	28.0	12.9*	33.6	12.4*	32.7	13.2*	37.1
South	11.5*	30.8	10.7*	32.5	12.4*	37.5	13.7*	39.6	13.1*	49.5
▶ Midwest	7.8	18.8	7.8	19.4	8.3	19.8	10.1	22.1	8.5	26.7
West	4.9*	18.8	5.3*	24.7	4.5*	17.0	7.2*	22.1	9.7*	29.4
Gender										
Female	4.5*	10.5	4.4*	11.1	5.4*	13.5	6.1*	14.2	6.3*	19.1
▶ Male	14.1	38.0	14.0	41.1	15.1	42.9	17.2	45.8	16.4	53.3

... Data unavailable.

▶ Denotes reference group.

*Statistically different from reference group ($p < .05$).

♦Rate based on a count less than 30, should be interpreted with caution.

^aRate per 100,000 based on enrollment in calendar years for individuals in the same demographic stratum.^bRate per 100,000 age-adjusted to the 2005 US standard population (US Population Estimates from Current Population Survey).

SOURCE: i3 Claims Database, 2002-2006.

Table 5-22. Nationally representative ambulatory surgery center visits for lower tract transitional cell carcinoma listed as primary diagnosis, count, rate,^a age-adjusted rate^b

	Count	Rate	Age-Adjusted Rate
Total	152,179	69.2	115.6
Age			
40-44	181	0.8*	
45-54	17,627	41.2*	
55-64	37,173	120.0*	
▶ 65-74	39,581	213.3	
75-84	45,314	349.6*	
85+	12,303	308.4*	
Gender			
Female	49,108	43.3*	70.6
▶ Male	103,071	96.9	166.0

▶ Denotes reference group.

*Statistically different from reference group ($p < .05$).

^aRate per 100,000 individuals in the same demographic stratum is based on 2006 population estimates from Current Population Survey (CPS).

^bRate per 100,000 age-adjusted to the 2005 US standard population (US Population Estimates from Current Population Survey).

SOURCE: National Survey of Ambulatory Surgery, 2006.

Table 5-23. Physician office visits by Medicare beneficiaries for lower tract transitional cell carcinoma listed as any diagnosis, rate,^a age-adjusted rate^b

	2002 (N=457,920)		2003 (N=484,260)		2004 (N=476,720)		2005 (N=483,120)		2006 (N=489,440)		2007 (N=493,820)	
	Rate	Age-Adjusted Rate	Rate	Age-Adjusted Rate	Rate	Age-Adjusted Rate	Rate	Age-Adjusted Rate	Rate	Age-Adjusted Rate	Rate	Age-Adjusted Rate
Total	1,287	1,598	1,328	1,649	1,289	1,599	1,302	1,632	1,346	1,698	1,365	1,743
Under 65/65+												
< 65 Years	200.4*	200.4	213.0*	213.0	216.4*	216.4	219.2*	219.2	229.8*	229.8	224.8*	224.8
▶ 65+ Years	1,565	1,598	1,622	1,649	1,578	1,599	1,607	1,632	1,667	1,698	1,707	1,743
Age												
▶ 65-69	903.3		893.5		892.2		880.3		933.5		961.0	
70-74	1,436*		1,431*		1,464*		1,437*		1,464*		1,556*	
75-79	2,075*		2,068*		2,021*		2,018*		2,218*		2,202*	
80-84	2,193*		2,523*		2,283*		2,405*		2,439*		2,576*	
85-89	2,004*		2,053*		1,956*		2,190*		2,147*		2,131*	
90-94	1,180*		1,511*		1,609*		1,688*		1,653*		1,683*	
95-97	911.8*		861.7*		1,046*		1,022*		965.8*		855.3*	
98+	291.6*♦		181.8*♦		444.9*		393.5*		450.0*		347.2*	
Race/ethnicity												
▶ White	1,415	1,735	1,461	1,788	1,412	1,723	1,445	1,778	1,485	1,839	1,503	1,881
Black	432.1*	615.5	452.7*	659.5	522.8*	786.4	448.5*	668.5	504.9*	787.9	498.6*	788.3
Hispanic	537.3*	476.9	483.9*	612.6	344.9*	447.0	359.6*	452.3	477.9*	566.5	547.0*	678.1
Asian	569.3*	508.1	571.5*	539.3	443.9*	462.2	655.3*	694.9	614.9*	663.6	874.4*	860.2
Other	909.7*	1,328	1,105*	1,519	1,233*	1,654	830.1*	1,154	984.1*	1,195	931.0*	1,285
Unknown	3,846*	...	3,527*	...	2,877*	...	2,263*	...	2,627*	...	2,491*	...
Region												
▶ Northeast	1,732	2,164	1,803	2,216	1,736	2,139	1,765	2,202	1,832	2,272	1,843	2,345
South	1,221*	1,502	1,276*	1,571	1,234*	1,520	1,251*	1,546	1,330*	1,687	1,296*	1,647
Midwest	1,136*	1,411	1,154*	1,434	1,133*	1,407	1,146*	1,433	1,163*	1,458	1,222*	1,568
West	1,135*	1,419	1,147*	1,463	1,128*	1,421	1,120*	1,465	1,105*	1,417	1,192*	1,533
Gender												
Female	590.5*	694.5	587.7*	694.6	589.4*	686.7	584.4*	688.1	610.9*	732.9	584.1*	719.3
▶ Male	2,178	2,871	2,267	2,978	2,168	2,850	2,199	2,916	2,257	2,990	2,323	3,095

... Data unavailable.

▶ Denotes reference group.

*Statistically different from reference group (p<.05).

♦Rate based on a count less than 600, should be interpreted with caution.

^aRate per 100,000 based on enrollment in calendar years for individuals in the same demographic stratum.^bRate per 100,000 age-adjusted to the 2005 US standard population (US Population Estimates from Current Population Survey).

SOURCE: Centers for Medicare and Medicaid Services, 5% Standard Analytical Claims Files.

Table 5-24. Physician office visits by privately insured individuals for lower tract transitional cell carcinoma listed as any diagnosis, rate,^a age-adjusted rate^b

	2002 (N=24,397)		2003 (N=26,519)		2004 (N=28,711)		2005 (N=33,498)		2006 (N=27,394)	
	Rate	Age-Adjusted Rate	Rate	Age-Adjusted Rate	Rate	Age-Adjusted Rate	Rate	Age-Adjusted Rate	Rate	Age-Adjusted Rate
Total	276.5	807.8	269.0	856.3	285.4	880.3	313.9	891.1	263.2	985.3
Age										
40-44	54.3*		55.5*		64.2*		51.9*		63.5*	
45-54	188.9*		175.6*		184.2*		193.2*		198.3*	
55-64	770.3*		734.1*		747.4*		732.4*		701.2*	
▶ 65-74	1,876		1,871		1,867		1,838		2,102	
75-84	2,699*		2,886*		3,028*		3,194*		3,624*	
85+	...		2,251*		2,348*		2,379*		2,950*	
Race/ethnicity										
▶ White	338.9	906.5	353.3	1,068	325.5	1,017	350.2	1,009	298.8	1,091
Black	190.3*	364.5	179.2*	392.4	163.1*	379.7	197.8*	419.1	146.2*	576.7
Hispanic	107.3*	313.7	129.1*	430.1	121.0*	448.7	115.1*	394.7	100.9*	418.0
Asian	70.4*	295.7	86.2*	396.1	93.7*	408.2	83.6*	439.2	80.0*	687.8
Other	111.7*	286.2	188.2*	574.2	205.0*	650.9	194.1*	585.1	261.3*	690.5
Unknown	316.3*	...	296.5*	...	311.3*	...	352.4*	...	316.0*	...
Missing	251.4*	...	199.4*	...	266.6*	...	334.1*	...	246.7*	...
Region										
Northeast	367.2*	976.5	364.3*	1,080	364.2*	1,062	351.7	1,016	316.8*	1,179
South	259.4*	762.9	257.1*	806.2	279.7*	907.1	294.2*	887.4	253.2	1,033
▶ Midwest	294.7	791.3	277.5	814.1	287.2	784.3	341.6	862.0	249.2	911.4
West	208.5*	891.4	204.5*	1,045	233.5*	965.1	287.3*	885.4	281.4*	887.1
Gender										
Female	125.7*	371.6	124.5*	400.3	137.0*	409.5	149.6*	420.7	132.9*	484.0
▶ Male	436.1	1,258	421.9	1,317	442.0	1,357	487.0	1,366	399.0	1,418
Unknown	417.6*♦	...	120.4*♦	...	354.9*♦	...	253.5*♦	...	559.1*♦	...

... Data unavailable.

▶ Denotes reference group.

*Statistically different from reference group ($p < .05$).

♦Rate based on a count less than 30, should be interpreted with caution.

^aRate per 100,000 based on enrollment in calendar years for individuals in the same demographic stratum.^bRate per 100,000 age-adjusted to the 2005 US standard population (US Population Estimates from Current Population Survey).

SOURCE: i3 Claims Database, 2002-2006.

Table 5-25. Nationally representative physician office visits for lower tract transitional cell carcinoma listed as any diagnosis, 2002-2007 (merged), 6-year count

	6-Year Count
Total	4,442,707
Age	
40-44	51,556
45-54	178,487
55-64	953,665
65-74	1,290,250
75-84	1,678,020
85+	290,729
Race/ethnicity	
White	4,139,075
Black	241,003
Hispanic	62,629
Region	
Northeast	1,642,116
South	1,509,952
Midwest	678,182
West	612,457
Gender	
Female	1,197,927
Male	3,244,780

SOURCE: National Ambulatory Medical Care Survey, 2002-2007; National Hospital Ambulatory Medical Care Survey, 2002-2007.

Table 5-26. Emergency room visits by Medicare beneficiaries for lower tract transitional cell carcinoma listed as primary diagnosis, rate,^a age-adjusted rate^b

	2002 (N=1,500)		2003 (N=1,640)		2004 (N=1,680)		2005 (N=1,540)		2006 (N=1,060)		2007 (N=1,100)	
	Rate	Age-Adjusted Rate	Rate	Age-Adjusted Rate	Rate	Age-Adjusted Rate	Rate	Age-Adjusted Rate	Rate	Age-Adjusted Rate	Rate	Age-Adjusted Rate
Total	4.2	4.8	4.5	5.2	4.5	5.2	4.1	5.0	2.9	3.5	3.0	3.7
Under 65/65+												
< 65 Years	0.8 ^{*♦}	0.8	1.6 ^{*♦}	1.6	2.0 ^{*♦}	2.0	0.5 ^{*♦}	0.5	0.0 ^{*♦}	0.0	0.5 ^{*♦}	0.5
▶ 65+ Years	5.1	4.8	5.3	5.2	5.2	5.2	5.2	5.0	3.8	3.5	3.8	3.7
Age												
▶ 65-69	1.6 [♦]		2.8 [♦]		4.2 [♦]		3.9 [♦]		2.7 [♦]		2.2 [♦]	
70-74	7.3 ^{*♦}		5.2 ^{*♦}		3.5 ^{*♦}		5.4 ^{*♦}		3.7 ^{*♦}		3.5 ^{*♦}	
75-79	3.7 ^{*♦}		6.7 ^{*♦}		6.7 ^{*♦}		5.2 ^{*♦}		4.3 ^{*♦}		3.3 ^{*♦}	
80-84	6.2 ^{*♦}		6.5 ^{*♦}		6.4 ^{*♦}		8.1 ^{*♦}		5.1 ^{*♦}		5.2 ^{*♦}	
85-89	8.5 ^{*♦}		6.7 ^{*♦}		6.6 ^{*♦}		2.5 ^{*♦}		1.6 ^{*♦}		6.4 ^{*♦}	
90-94	10.6 ^{*♦}		10.2 ^{*♦}		8.0 ^{*♦}		9.8 ^{*♦}		7.9 ^{*♦}		3.9 ^{*♦}	
95-97	20.5 ^{*♦}		0.0 ^{*♦}		9.9 ^{*♦}		0.0 ^{*♦}		10.0 ^{*♦}		29.8 ^{*♦}	
98+	0.0 ^{*♦}		0.0 ^{*♦}		...		0.0^{*♦}		...		...
Race/ethnicity												
▶ White	4.8	5.4	4.5	5.0	5.0	5.5	4.3	5.3	3.0	3.6	3.2	3.9
Black	0.6 ^{*♦}	1.2	5.5 ^{*♦}	9.7	2.7 ^{*♦}	5.7	3.8 ^{*♦}	4.7	0.6 ^{*♦}	1.0	1.7 ^{*♦}	1.9
Hispanic	...	...	0.0 ^{*♦}	0.0	0.0 ^{*♦}	0.0	2.7 ^{*♦}	8.7	...	...	2.7 ^{*♦}	14.8
Asian	4.0 ^{*♦}	9.5	0.0 ^{*♦}	0.0	0.0 ^{*♦}	0.0	0.0 ^{*♦}	0.0	10.0 ^{*♦}	11.5	...	...
Other	0.0 ^{*♦}	0.0	6.3 ^{*♦}	13.1	3.0 ^{*♦}	11.9	2.9 ^{*♦}	0.0	5.6 ^{*♦}	18.5	5.4 ^{*♦}	9.7
Unknown	...	...	...	...	...	...	...	...	31.3^{*♦}	...	...	...
Region												
▶ Northeast	3.4 [♦]	4.5	3.1 [♦]	2.6	5.3 [♦]	6.3	2.8 [♦]	3.7	1.7 [♦]	2.2	2.6 [♦]	3.5
South	3.8 ^{*♦}	4.2	4.8 ^{*♦}	6.1	3.2 ^{*♦}	3.8	3.5 ^{*♦}	4.1	3.0 ^{*♦}	3.7	2.3 ^{*♦}	2.4
Midwest	5.1 ^{*♦}	6.2	6.7 ^{*♦}	7.7	6.0 ^{*♦}	5.9	6.7 ^{*♦}	8.2	3.5 ^{*♦}	4.1	4.5 ^{*♦}	6.0
West	4.9 ^{*♦}	4.3	2.0 ^{*♦}	2.3	4.5 ^{*♦}	5.9	3.5 ^{*♦}	3.7	3.2 ^{*♦}	3.9	3.2 ^{*♦}	3.6
Gender												
Female	1.2 ^{*♦}	1.0	1.2 ^{*♦}	1.1	2.1 ^{*♦}	2.3	1.4 ^{*♦}	1.5	1.5 ^{*♦}	1.9	1.8 ^{*♦}	1.8
▶ Male	8.1	10.2	8.7	10.8	7.6	9.0	7.6	9.8	4.7	6.1	4.6	6.1

... Data unavailable.

▶ Denotes reference group.

*Statistically different from reference group ($p < .05$).

♦Rate based on a count less than 600, should be interpreted with caution.

^aRate per 100,000 based on enrollment in calendar years for individuals in the same demographic stratum.^bRate per 100,000 age-adjusted to the 2005 US standard population (US Population Estimates from Current Population Survey).

SOURCE: Centers for Medicare and Medicaid Services, 5% Standard Analytical Claims Files.

Table 5-27. Emergency room visits by privately insured individuals for lower tract transitional cell carcinoma listed as primary diagnosis, rate,^a age-adjusted rate^b

	2002 (N=163)		2003 (N=373)		2004 (N=194)		2005 (N=205)		2006 (N=155)	
	Rate	Age-Adjusted Rate	Rate	Age-Adjusted Rate	Rate	Age-Adjusted Rate	Rate	Age-Adjusted Rate	Rate	Age-Adjusted Rate
Total	1.8	4.3	3.8	9.2	1.9	5.9	1.9	5.1	1.5	4.4
Age										
40-44	1.5*♦		2.2*♦		0.5*♦		0.4*♦		0.6*♦	
45-54	2.4*		2.9*		1.2*♦		1.4*		1.1*♦	
55-64	6.3		16.7		5.0*		4.4*		5.8	
▶ 65-74	5.9♦		15.1		13.1		16.9		6.1♦	
75-84	8.1*♦		13.8*♦		20.5*		7.8*♦		15.3*♦	
85+	...		17.7*♦		13.6*♦		13.2*♦		8.8*♦	
Race/ethnicity										
▶ White	1.1	2.8	2.5	5.2	1.4	4.7	1.2	3.1	0.9	3.3
Black	...	...	...	...	1.1*♦	9.0	0.8*♦	20.9	0.5*♦	16.2
Hispanic	0.3*♦	1.7	3.5*♦	17.9	3.0*♦	14.7	4.9*	17.7	4.1*	11.5
Asian	...	...	0.5*♦	259.7	0.4*♦	45.2	0.3*♦	37.1	...	...
Other	...	...	8.6*♦	29.4	...	...	1.1*♦	5.6	1.1*♦	10.5
Unknown	0.3*♦	...	5.8*♦	...	2.6*♦	...	1.6*♦	...	0.3*♦	...
Missing	2.8*	...	5.6*	...	3.7*	...	4.8*	...	4.0*	...
Region										
Northeast	8.5*	18.1	6.5*	16.1	2.1♦	5.4	1.6♦	5.4	0.4*♦	3.4
South	0.9	2.1	5.2*	11.8	2.6*	8.0	2.7*	7.5	2.6*	8.4
▶ Midwest	1.0♦	3.1	2.1	6.5	1.7	5.3	1.7	4.1	1.0♦	4.6
West	1.7*♦	4.5	0.9*♦	2.6	0.2*♦	1.6	0.2*♦	1.6	0.1*♦	3.1
Gender										
Female	1.0*	2.2	3.4*	7.4	1.6*	5.4	1.2*	3.4	1.0*	3.2
▶ Male	2.7	6.3	4.2	11.0	2.3	6.7	2.7	6.8	2.0	5.5

... Data unavailable.

▶ Denotes reference group.

*Statistically different from reference group (p<.05).

♦Rate based on a count less than 30, should be interpreted with caution.

^aRate per 100,000 based on enrollment in calendar years for individuals in the same demographic stratum.^bRate per 100,000 age-adjusted to the 2005 US standard population (US Population Estimates from Current Population Survey).

SOURCE: i3 Claims Database, 2002-2006.

Table 5-28. Multilevel multivariable model of factors associated with receipt of radical cystectomy

Variable	OR	(95% CI)	Predictive Margin ^a	(95% CI)
Age, years (vs 66–69)				
70–74	0.83	(0.59, 1.18)	-0.040	(-0.120, 0.036)
75–79	0.40	(0.29, 0.57)	-0.190	(-0.260, -0.120)
≥80	0.10	(0.07, 0.14)	-0.380	(-0.450, -0.320)
Female (vs male)	1.01	(0.79, 1.28)	0.001	(-0.033, 0.034)
Partnered (vs not partnered)	0.94	(0.62, 1.44)	-0.010	(-0.073, 0.053)
Subject ZIP code income quartile (vs 4 [highest])				
1 (lowest)	0.72	(0.50, 1.03)	-0.049	(-0.099, 0.001)
2	0.93	(0.67, 1.29)	-0.010	(-0.058, 0.037)
3	0.75	(0.55, 1.04)	-0.052	(-0.095, -0.010)
Charlson comorbidity index (vs 0–1)				
2	0.48	(0.37, 0.62)	-0.110	(-0.140, -0.076)
≥3	0.25	(0.14, 0.45)	-0.180	(-0.230, -0.130)
High-grade cancer	1.41	(1.01, 1.97)	0.049	(0.006, 0.091)
Travel distance to cystectomy provider, miles (vs 0–4)				
5–19	0.90	(0.69, 1.17)	-0.015	(-0.053, 0.022)
20–49	0.73	(0.48, 1.12)	-0.046	(-0.099, 0.008)
≥50	0.60	(0.37, 0.98)	-0.074	(-0.140, -0.013)
Local population of subject residence (vs metropolitan, >1,000,000 residents) ^b				
Metropolitan, 250,000–1,000,000 residents	0.91	(0.65, 1.28)	-0.016	(-0.059, 0.027)
Metropolitan <250,000 residents	1.10	(0.67, 1.81)	0.012	(-0.055, 0.078)
Rural	1.07	(0.51, 2.24)	0.008	(-0.092, 0.110)
Urologist density quartile (vs 4 [highest]) ^{b,c}				
1 (lowest)	0.89	(0.50, 1.57)	-0.015	(-0.090, 0.061)
2	0.90	(0.62, 1.30)	-0.014	(-0.062, 0.034)
3	1.15	(0.82, 1.61)	0.021	(-0.022, 0.065)
Health professional shortage area ^b	1.02	(0.71, 1.47)	0.003	(-0.045, 0.051)

OR: Odds Ratio.

CI: Confidence Interval.

^aPredictive margin is the difference between the predicted probability of cystectomy for the covariate compared with the reference category estimated from the solutions for random effects in the multilevel multivariable model.^bDerived from linkage of subject ZIP code of residence to the Area Resource File.^cQuartile 1: ≤5 urologists per 100,000 persons; quartile 2: 6–26 urologists per 100,000 persons; quartile 3: 27–53 urologists per 100,000 persons; quartile 4: ≥ 54 urologists per 100,000 persons.SOURCE: Gore J, Litwin M, Lai J, Yano E, Setodji C, Adams J, Madison R, Saigal C, and the Urologic Diseases in America Project. Use of Radical Cystectomy for Patients with Invasive Bladder Cancer. *Journal of the National Cancer Institute*, June 2010, 102(11): 802-11. Reprinted by permission of Oxford University Press.

Table 5-29. Logistic regression models to examine correlates of complication outcomes in patients undergoing cystectomy (adjusted for diversion type)

	Medical complications				Surgical complications				Disposition other than home		Postoperative	
	Any		Respiratory		Any		Urinary		Wound		Death	
	OR (95% CI)	OR (95% CI)	OR (95% CI)	OR (95% CI)	OR (95% CI)	OR (95% CI)	OR (95% CI)	OR (95% CI)	OR (95% CI)	OR (95% CI)	OR (95% CI)	
Patient characteristics												
Age (years, vs. < 55)												
55-64	1.25 (0.99, 1.58)	3.71 (1.81, 7.62)	1.34 (0.97, 1.86)	0.98 (0.79, 1.23)	1.07 (0.82, 1.39)	1.32 (0.57, 3.06)	1.08 (0.60, 1.97)	1.14 (0.92, 1.41)	2.54 (0.54, 12.0)			
65-74	1.54 (1.18, 2.01)	7.86 (4.01, 15.9)	1.13 (0.78, 1.64)	1.02 (0.81, 1.29)	1.04 (0.78, 1.37)	1.23 (0.56, 2.73)	1.41 (0.68, 2.93)	1.55 (1.23, 1.96)	3.68 (0.82, 16.5)			
≥ 75	2.24 (1.69, 2.97)	12.9 (6.53, 25.5)	1.31 (0.89, 1.94)	1.08 (0.85, 1.37)	1.16 (0.86, 1.56)	1.18 (0.53, 2.61)	1.34 (0.61, 2.95)	2.64 (1.99, 3.40)	7.86 (1.75, 35.4)			
Female gender	1.20 (1.03, 1.40)	...	...	...	0.69 (0.58, 0.83)	...	...	1.31 (1.11, 1.55)	...
Non-white race	0.92 (0.73, 1.17)	0.60 (0.39, 0.92)	0.83 (0.61, 1.12)	...	...	...	...	0.88 (0.69, 1.12)	...
Insurer (vs. private)												
Medicare	1.08 (0.93, 1.26)	1.08 (0.84, 1.39)	1.39 (1.06, 1.84)	1.26 (1.05, 1.53)	1.20 (0.97, 1.48)	...	1.20 (0.71, 2.01)	1.19 (0.98, 1.44)	2.24 (1.04, 4.81)			
Medicaid/Other	1.03 (0.77, 1.38)	1.07 (0.64, 1.79)	1.16 (0.79, 1.68)	0.87 (0.65, 1.17)	0.93 (0.67, 1.29)	...	1.29 (0.58, 2.86)	1.03 (0.79, 1.36)	0.98 (0.20, 4.82)			
Comorbid Conditions												
Congestive heart failure	4.77 (3.54, 6.45)	4.30 (3.27, 5.66)	2.88 (2.16, 3.83)	1.35 (1.06, 1.72)	1.16 (0.89, 1.50)	1.60 (0.76, 3.38)	1.15 (0.64, 2.04)	1.67 (1.20, 2.31)	5.08 (3.20, 8.05)			
Valvular disease	1.51 (1.09, 2.09)	2.40 (1.68, 3.44)	1.25 (0.85, 1.83)	...	1.52 (0.72, 3.24)	...	...	1.31 (0.91, 1.89)	...	
Pulmonary circulation disease	1.65 (0.68, 3.97)	2.33 (0.95, 5.71)	...	...	0.76 (0.54, 1.06)	...	...	...	0.17 (0.02, 1.23)
Peripheral vascular disease	...	1.33 (0.92, 1.91)	...	...	...	...	...	...	...
Paralysis	1.95 (1.13, 3.35)	...	...	1.48 (0.87, 2.52)	...	...	...	...	...
Chronic pulmonary disease	1.65 (1.43, 1.90)	1.34 (1.10, 1.64)	2.62 (2.21, 3.11)	1.17 (1.02, 1.35)	1.16 (0.98, 1.36)	...	1.56 (1.12, 2.18)	1.33 (1.13, 1.57)	1.87 (1.21, 2.88)			
Hypothyroidism	...	...	...	0.82 (0.61, 1.12)	0.62 (0.44, 0.89)	...	...	0.94 (0.70, 1.27)	...
Renal failure	2.15 (0.78, 5.94)	1.56 (0.57, 3.92)	...	...	...	...	...	2.50 (0.96, 6.53)	1.30 (0.26, 6.40)
Liver disease	...	...	3.28 (1.38, 7.78)	...	...	...	...	...	5.67 (0.91, 35.2)
Rheumatoid arthritis/CVD	...	1.48 (0.78, 2.80)	0.38 (0.13, 1.12)	0.54 (0.31, 0.92)	0.55 (0.28, 1.08)	...	...	...	...
Coagulopathy	2.57 (1.67, 3.94)	2.25 (1.38, 3.65)	1.98 (1.25, 3.14)	2.50 (1.69, 3.70)	1.28 (0.85, 1.93)	...	...	...	...
Obesity	1.57 (1.05, 2.34)	0.79 (0.44, 1.41)	2.05 (1.18, 3.57)	0.86 (0.60, 1.24)	0.79 (0.52, 1.21)	...	1.31 (0.59, 2.93)	...	...	
Weight loss	5.57 (3.86, 8.04)	1.80 (1.15, 2.82)	2.96 (2.04, 4.29)	5.40 (3.68, 7.95)	4.75 (3.35, 6.73)	2.00 (0.93, 4.30)	3.30 (2.00, 5.46)	1.76 (1.18, 2.62)	2.12 (1.05, 4.25)			
Deficiency anemia	1.57 (1.23, 1.83)	...	...	0.69 (0.56, 0.85)	...	1.75 (1.01, 3.05)	0.49 (0.26, 0.92)	1.26 (1.02, 1.55)	0.40 (0.15, 1.10)	
Alcohol abuse	1.53 (1.01, 2.32)	...	...	...	...	...	...	...	2.86 (0.89, 9.20)
Psychoses	...	...	1.34 (0.66, 2.71)	...	...	...	...	2.10 (1.09, 4.07)	...
Depression	12.9 (8.15, 20.5)	...	20.1 (5.75, 42.5)	...	0.77 (0.51, 1.16)	...	...	...	...

Continued on next page.

Table 5-29 (continued). Logistic regression models to examine correlates of complication outcomes in patients undergoing cystectomy (adjusted for diversion type)

	Medical complications			Surgical complications			Disposition other than home OR (95% CI)	Postoperative Death OR (95% CI)	
	Any OR (95% CI)	Cardiovascular OR (95% CI)	Respiratory OR (95% CI)	Any OR (95% CI)	Bowel OR (95% CI)	Urinary OR (95% CI)			Wound OR (95% CI)
Provider characteristics									
Hospital type (vs. urban teaching)									
Urban non-teaching	1.11 (0.95, 1.30)	0.91 (0.75, 1.11)	1.12 (0.91, 1.38)	1.23 (1.03, 1.48)	1.14 (0.94, 1.38)	1.59 (1.02, 2.49)	1.33 (0.97, 1.82)	0.84 (0.51, 1.40)	
Rural	0.94 (0.69, 1.29)	0.88 (0.63, 1.24)	0.83 (0.55, 1.22)	1.11 (0.87, 1.43)	0.91 (0.66, 1.27)	2.04 (0.89, 4.67)	1.29 (0.74, 2.11)	1.33 (0.68, 2.61)	
High volume hospital ^a	0.98 (0.82, 1.16)	...	0.85 (0.69, 1.05)	1.01 (0.84, 1.22)	...	...	...	0.59 (0.37, 0.97)

... Data unavailable.

CVD: collagen vascular disease.

OR: Odds Ratio.

^aBased on 90th percentile hospital volume, or greater than 14 cases over the study period.

SOURCE: Gore J, Yu H, Setodji C, Hanley J, Litwin M, Saigal C, and the Urologic Diseases in America Project. Urinary Diversion and Morbidity Following Radical Cystectomy for Bladder Cancer. Cancer. January 2010; 116(2): 331-9. (Copyright 2009 American Cancer Society). This material is reproduced with permission of John Wiley & Sons, Inc.

Table 5-30. Analysis of overall and disease-specific survival^a following a diagnosis of muscle-invasive bladder cancer

Treatment group	Overall survival			
	Cox PH	2SRI		
	HR of death (95% CI)	HR of death (95% CI)	2 year survival, % (95% CI)	5 year survival, % (95% CI)
Radical cystectomy	▶ 1.00	▶ 1.00	67.4 (65.0, 69.8)	42.2 (39.1, 45.4)
Chemotherapy or radiation	1.43 (1.27, 1.62)	1.53 (1.28, 1.83)	47.5 (45.2, 49.8)	20.7 (18.7, 22.8)
Surveillance	1.68 (1.50, 1.88)	1.87 (1.59, 2.26)	38.9 (36.9, 41.1)	14.5 (13.0, 16.2)

Treatment group	Disease-specific survival			
	Cox PH	2SRI		
	HR of death (95% CI)	HR of death (95% CI)	2 year survival, % (95% CI)	5 year survival, % (95% CI)
Radical cystectomy	▶ 1.0	▶ 1.0	81.1 (78.8, 83.5)	66.6 (62.9, 70.3)
Chemotherapy or radiation	1.33 (1.11, 1.59)	1.37 (1.01, 1.77)	68.3 (65.7, 71.0)	48.0 (44.5, 51.9)
Surveillance	1.46 (1.23, 1.73)	1.52 (1.16, 1.97)	64.2 (61.8, 66.8)	43.1 (40.0, 46.3)

Cox PH: conventional Cox proportional hazards models.

2SRI: two-stage residual inclusion estimation instrumental variable analysis.

HR: hazard ratio.

CI: confidence interval.

▶ Denotes reference group.

^aOverall and disease-specific survival adjusted for subject age, sex, marital status, Charlson comorbidity index, and cancer grade.

SOURCE: Gore J, Litwin M, Lai J, Yano E, Setodji C, Adams J, Madison R, Saigal C, and the Urologic Diseases in America Project. Use of Radical Cystectomy for Patients with Invasive Bladder Cancer. *Journal of the National Cancer Institute*, June 2010, 102(11): 802-11. Reprinted by permission of Oxford University Press.

Table 5-31. Multivariate analysis of factors associated with continent reconstruction, including provider variables

Variable	OR	(95% CI)
Age (vs 65-69)		
70-74	0.68	(0.54, 0.87)
75-79	0.43	(0.33, 0.55)
80+	0.19	(0.13, 0.27)
Male sex (vs. female)	1.45	(1.15, 1.84)
Race/ethnicity (vs. white)		
African American	0.43	(0.25, 0.76)
Hispanic	0.92	(0.55, 1.53)
Other	1.09	(0.66, 1.80)
Married partner status (vs. not married)	1.13	(0.90, 1.41)
Median income ^a (vs. ≥ \$75,000)		
Less than \$20,000	0.70	(0.16, 3.07)
\$20,000-\$49,999	1.22	(0.81, 1.84)
\$50,000-\$74,000	1.43	(1.01, 2.01)
College educated ^b (vs. < 25%)		
25-40%	1.14	(0.81, 1.61)
At least 40%	1.54	(1.06, 2.23)
Charlson score (vs. 0)		
1-2	0.97	(0.79, 1.19)
At least 3	0.71	(0.51, 0.97)
SEER registry (vs. Los Angeles)		
San Francisco	0.38	(0.26, 0.56)
Connecticut	0.15	(0.11, 0.22)
Detroit	0.16	(0.11, 0.24)
Hawaii	0.10	(0.03, 0.29)
Iowa	0.11	(0.07, 0.17)
New Mexico	0.39	(0.23, 0.66)
Seattle	1.22	(0.88, 1.68)
Utah	0.22	(0.12, 0.40)
Atlanta	1.17	(0.74, 1.86)
San Jose	0.74	(0.48, 1.13)
Year of surgery (vs. 1992-1994)		
1995-1997	1.56	(1.23, 1.97)
1998-2000	1.98	(1.53, 2.54)
Stage at least 3 (vs. 1)	0.85	(0.70, 1.03)
Lymph nodes negative	1.04	(0.84, 1.28)
Hospital type		
Academic (vs. non)	1.43	(1.14, 1.81)
NCI cancer center (vs. non)	5.50	(4.20, 7.22)
High volume hospital (vs. low)	1.49	(1.19, 1.86)

OR: Odds Ratio.

CI: Confidence Interval.

^aBased on subject zip code median income.^bBased on the proportion of persons in the subject's census tract who are at least college educated.SOURCE: Gore J, Saigal C, Hanley J, Schonlau M, Litwin M, and the Urologic Diseases in America Project. Variations in Reconstruction After Radical Cystectomy. *Cancer*, August 2006; 107(4): 729-37. (Copyright 2006 American Cancer Society). This material is reproduced with permission of John Wiley & Sons, Inc.

Table 5-32: Patient and provider compliance (on at least one occasion) stratified by year the NCCN guidelines for non-muscle invasive bladder cancer were established

Quality-of-Care Measure	Subjects Compliant (%)			Providers Compliant with ≥1 Patient (%)		
	1992-1997 (N=1,698)	1998-2002 (N=2,847)	p-value	1992-1997 (N=725)	1998-2002 (N=1,272)	p-value
≥8 Cystoscopy	93 (4.6%)	131 (4.7%)	0.89	70 (9.7%)	126 (9.9%)	0.86
≥8 Cytology	98 (5.5%)	143 (4.6%)	0.19	80 (11.0%)	106 (8.3%)	0.04
≥2 Upper tract Image	801 (47.2%)	1,446 (50.8%)	0.18	491 (67.7%)	909 (71.5%)	0.08
Perioperative mitomycin C	48 (2.8%)	92 (3.2%)	0.44	43 (5.9%)	73 (5.7%)	0.86
≥6 Instillations of BCG, 1st dose within 90 days	349 (20.5%)	824 (28.9%)	<0.001	240 (33.1%)	564 (44.3%)	<0.001

NCCN: National Comprehensive Cancer Network.

BCG: Bacillus Calmette-Guerin.

NOTE: Boldface indicates significant p-value.

SOURCE: Chamie K, Saigal CS, Lai J, Hanley JM, Setodji CM, Konety BR, Litwin MS, and the Urologic Diseases in America Project. Compliance with guidelines for patients with bladder cancer: Variation in the delivery of care. Cancer. 2011 Jul; [E-pub ahead of print]. (Copyright 2011 American Cancer Society). This material is reproduced with permission of John Wiley & Sons, Inc.

Table 5-33: Progressive relaxation of guidelines depicting the number of subjects in receipt of compliant care and the number of providers who delivered compliant care to at least one patient with high-grade non-muscle-invasive bladder cancer

Compliance criteria	Subjects (N=4,545)	Providers (N=1,536)
	n (%)	n (%)
≥8 Cystoscopy and ≥8 Cytology and ≥6 BCG	19 (0.4)	16 (1.0)
≥8 Cystoscopy and ≥8 Cytology and ≥1 BCG	23 (0.5)	22 (1.4)
≥8 Cystoscopy and ≥4 Cytology and ≥6 BCG	42 (0.9)	40 (2.6)
≥4 Cystoscopy and ≥4 Cytology and ≥6 BCG	597 (13.1)	398 (25.9)
≥4 Cystoscopy and ≥4 Cytology and ≥1 BCG	799 (17.6)	479 (31.2)
≥4 Cystoscopy and ≥1 Cytology and ≥1 BCG	1527 (33.6)	823 (53.6)
≥1 Cystoscopy and ≥1 Cytology and ≥1 BCG	1703 (37.5)	891 (58.0)
≥1 Cystoscopy and ≥1 BCG	2437 (53.6)	1148 (74.7)
≥1 Cystoscopy	4373 (96.2)	1510 (98.3)

BCG: Bacillus Calmette-Guerin.

SOURCE: Chamie K, Saigal CS, Lai J, Hanley JM, Setodji CM, Konety BR, Litwin MS, and the Urologic Diseases in America Project. Compliance with guidelines for patients with bladder cancer: Variation in the delivery of care. Cancer. 2011 Jul; [E-pub ahead of print]. (Copyright 2011 American Cancer Society). This material is reproduced with permission of John Wiley & Sons, Inc.

Table 5-34: Mixed-effects model predicting compliance with ≥ 4 cystoscopies, ≥ 4 cytologies, and ≥ 6 instillations of BCG with the first instillation within 90 days of diagnosis of high-grade non-muscle-invasive bladder cancer

Variables	OR	95% CI	Variables	OR	95% CI
Age-group			Region		
▶ 66-69	1.00	...	▶ West	1.00	...
70-74	1.34	(0.93, 1.94)	Midwest	1.28	(0.81, 2.02)
75-79	0.92	(0.63, 1.34)	South	0.87	(0.52, 1.47)
≥ 80	0.44*	(0.30, 0.66)	Northeast	1.13	(0.75, 1.71)
Gender			Year		
▶ Male	1.00	...	▶ 1992-1997	1.00	...
Female	1.24	(0.91, 1.68)	1998-2002	1.55*	(1.17, 2.05)
Race			Surgeon Volume		
▶ White	1.00	...	▶ Low (<4)	1.00	...
Black	0.57	(0.23, 1.45)	Medium (4-11)	0.93	(0.64, 1.36)
Hispanic	0.73	(0.33, 1.61)	High (≥ 12)	0.78	(0.49, 1.24)
Other	0.34*	(0.14, 0.85)	Hospital Volume		
Marital			▶ Low (≤ 10)	1.00	...
▶ Married	1.00	...	Medium (11-25)	0.94	(0.65, 1.35)
Other	0.82	(0.62, 1.08)	High (>25)	1.06	(0.70, 1.61)
Charlson Score			Institution Type		
▶ 0	1.00	...	▶ Non-Academic Non-Cancer Center	1.00	...
1	1.16	(0.87, 1.55)	Academic Non-Cancer Center	1.39	(0.95, 2.03)
2	1.04	(0.63, 1.70)	Academic Cancer Center	2.04	(0.87, 4.79)
≥ 3	0.64	(0.29, 1.41)	Unknown	0.78	(0.43, 1.44)
% Of Subjects in ZIP code ≥ 25 years of age with ≥ 4 years of college education			Grade		
▶ <15%	1.00	...	▶ Poorly Differentiated	1.00	...
15%-25%	0.95	(0.63, 1.43)	Undifferentiated	1.74*	(1.30, 2.32)
25%-35%	0.97	(0.60, 1.56)	Classification		
>35%	1.08	(0.66, 1.79)	▶ Ta	1.00	...
Median ZIP code household income			Tis	2.12	(1.41, 3.20)
▶ <\$35,000	1.00	...	T1	1.56*	(1.19, 2.04)
\$35,000-\$45,000	0.82	(0.52, 1.30)			
\$45,000-\$55,000	1.03	(0.64, 1.66)			
>\$55,000	1.15	(0.68, 1.95)			

BCG: Bacillus Calmette-Guerin.

95% CI: 95% confidence interval.

... Data unavailable.

▶ Denotes reference group.

*Statistically significant variable. $P < 0.05$.

SOURCE: Chamie K, Saigal CS, Lai J, Hanley JM, Setodji CM, Konety BR, Litwin MS, and the Urologic Diseases in America Project. Quality of care in patients with bladder cancer: A case report? Cancer. 2011 Aug; [E-pub ahead of print]. (Copyright 2011 American Cancer Society). This material is reproduced with permission of John Wiley & Sons, Inc.

Table 5-35. Propensity score-adjusted competing-risks regression analysis measuring the association between individual compliance measures and survival for patients with high-grade non-muscle-invasive bladder cancer

Variable	HR	95% CI
Cystoscopy		
▶ <4 Cystoscopies	1.00	...
≥4 Cystoscopies	0.61*	(0.47, 0.79)
Cytology		
▶ <4 Cytologies	1.00	...
≥4 Cytologies	0.55*	(0.39, 0.80)
Upper Tract Imaging		
▶ No upper tract image	1.00	...
≥1 Upper tract image	1.15	(0.77, 1.73)
Perioperative Instillation of Mitomycin C		
▶ No instillation of mitomycin C after any TURBT	1.00	...
At least one instillation of mitomycin C after any TURBT	0.74	(0.34, 1.65)
Postoperative Instillation of BCG		
▶ No instillations, or ≥1 instillation with 1st dose after 90 days	1.00	...
≥1 instillation with 1st dose within 90 days	0.71*	(0.51, 0.98)

HR: Hazard ratio.

95% CI: 95% confidence interval.

TURBT: Transurethral resection of bladder tumor.

BCG: Bacillus Calmette-Guerin.

... Data unavailable.

▶ Denotes reference group.

*Statistically significant variable. P<0.05.

SOURCE: Chamie K, Saigal CS, Lai J, Hanley JM, Setodji CM, Konety BR, Litwin MS, and the Urologic Diseases in America Project. Quality of care in patients with bladder cancer: A case report? *Cancer*. 2011 Aug; [E-pub ahead of print]. (Copyright 2011 American Cancer Society). This material is reproduced with permission of John Wiley & Sons, Inc.

Table 5-36. Physician office visits with claim for urine cytology by Medicare beneficiaries with bladder cancer, rate,^a age-adjusted rate^b

	2002 (N=26,360)		2003 (N=32,600)		2004 (N=36,340)		2005 (N=39,640)		2006 (N=43,480)		2007 (N=47,420)	
	Rate	Age-Adjusted Rate	Rate	Age-Adjusted Rate	Rate	Age-Adjusted Rate	Rate	Age-Adjusted Rate	Rate	Age-Adjusted Rate	Rate	Age-Adjusted Rate
Total	8,748	9,184	10,558	10,812	11,550	11,766	12,390	12,683	13,710	14,112	14,897	15,716
Under 65/65+												
< 65 Years	6,436*	6,436	5,156*	5,156	7,143*	7,143	5,387*	5,387	7,545*	7,545	9,401*	9,401
▶ 65+ Years	8,845	9,184	10,791	10,812	11,756	11,766	12,722	12,683	14,007	14,112	15,163	15,716
Age												
▶ 65-69	9,956		9,730		11,040		11,240		13,231		14,734	
70-74	9,678*		11,507*		11,357*		13,237*		13,890*		17,798*	
75-79	8,703*		10,886*		12,149*		13,896*		14,368*		16,456*	
80-84	8,803*		13,043*		13,462*		15,224*		17,333*		14,525*	
85-89	7,569*		8,895*		11,422*		9,337*		11,888*		14,041*	
90-94	4,118*♦		5,667*		7,402*		7,806*		6,686*		7,703*	
95-97	12,346*♦		4,878*♦		9,783*♦		...		4,651*♦		...	
98+	...		...		2,941*♦		13,514*♦		5,882*♦		...	
Race/ethnicity												
▶ White	8,977	9,486	10,878	11,204	11,882	12,230	12,738	13,060	13,994	14,477	15,289	16,235
Black	5,484*	5,615	7,034*	7,360	8,199*	8,771	8,067*	9,012	9,732*	10,711	7,658*	7,657
Hispanic	4,630*♦	8,103	8,889*♦	14,675	...	...	2,143*♦	4,144	2,941*♦	14,815	4,286*♦	16,018
Asian	2,299*♦	...	4,545*♦	8,653	8,163*♦	17,971	15,254*♦	22,218	14,035*♦	29,851	20,968*♦	26,741
Other	6,878*♦	8,027	5,508*♦	5,459	7,377*♦	5,752	9,589*♦	9,445	13,333*♦	10,856	11,429*♦	10,031
Unknown	12,500*♦	...	4,082*♦	...	18,000*♦	...	6,897*♦	...	16,981*♦	...	29,545*♦	...
Region												
▶ Northeast	9,992	10,360	12,407	12,778	11,706	11,859	12,966	13,168	15,450	15,077	17,908	18,292
South	9,531*	10,160	11,351*	11,200	12,986*	13,089	14,766*	15,284	15,934*	16,921	17,498*	19,242
Midwest	8,305*	8,767	10,301*	10,848	12,173*	12,452	11,212*	11,208	11,985*	12,204	11,307*	11,739
West	5,432*	5,416	6,024*	6,272	6,664*	6,845	7,682*	8,048	8,170*	8,669	9,467*	9,614
Gender												
Female	7,295*	8,151	8,435*	9,090	10,623*	11,378	10,900*	11,567	11,639*	12,864	12,970*	14,282
▶ Male	9,335	9,497	11,416	11,399	11,925	11,830	12,987	13,097	14,576	14,508	15,655	16,219

... Data unavailable.

▶ Denotes reference group.

*Statistically different from reference group ($p < .05$).

♦Rate based on a count less than 600, should be interpreted with caution.

^aRate per 100,000 based on enrollment in calendar years for individuals with bladder cancer.^bRate per 100,000 age-adjusted to the 2005 US standard population (US Population Estimates from Current Population Survey).

SOURCE: Centers for Medicare and Medicaid Services, 5% Standard Analytical Claims Files.

Table 5-37. Physician office visits with claim for urine cystoscopy by Medicare beneficiaries with bladder cancer, rate,^a age-adjusted rate^b

	2002 (N=129,920)		2003 (N=146,120)		2004 (N=153,020)		2005 (N=160,440)		2006 (N=166,960)		2007 (N=168,500)	
	Rate	Age-Adjusted Rate	Rate	Age-Adjusted Rate	Rate	Age-Adjusted Rate	Rate	Age-Adjusted Rate	Rate	Age-Adjusted Rate	Rate	Age-Adjusted Rate
Total	43,117	43,895	47,322	47,945	48,636	49,866	50,147	50,923	52,646	53,803	52,934	53,842
Under 65/65+												
< 65 Years	27,228*	27,228	26,250*	26,250	36,143*	36,143	32,597*	32,597	29,492*	29,492	29,700*	29,700
▶ 65+ Years	43,783	43,895	48,233	47,945	49,218	49,866	50,979	50,923	53,761	53,803	54,057	53,842
Age												
▶ 65-69	44,279		45,029		50,938		48,760		49,026		49,477	
70-74	40,899*		47,509*		49,573		52,179*		54,444*		55,522*	
75-79	48,639*		52,081*		49,603		49,221*		56,569*		55,129*	
80-84	44,429*		48,215*		51,166*		57,060*		56,792*		57,382*	
85-89	39,208*		48,023*		46,361*		48,674*		55,366*		54,234*	
90-94	38,627*		44,167*		41,239*		47,128*		37,296*		49,564	
95-97	38,272*		37,805*		29,348*♦		14,141*♦		39,535*		18,692*♦	
98+	6,452*♦		9,524*♦		32,353*♦		24,324*♦		17,647*♦		15,385*♦	
Race/ethnicity												
▶ White	44,391	45,088	48,813	49,414	50,241	51,369	51,774	52,530	53,891	54,942	54,249	55,194
Black	20,000*	21,244	25,382*	26,116	27,818*	30,138	28,512*	30,762	35,684*	40,792	33,784*	37,163
Hispanic	37,037*	41,343	14,815*♦	28,523	6,923*♦	26,458	18,571*♦	18,288	31,618*	46,056	33,571*	26,463
Asian	33,333*♦	51,221	31,818*♦	32,823	29,592*♦	34,471	54,237*	51,396	49,123	49,940	41,129*	47,972
Other	33,862*	38,737	41,525*	38,938	36,885*	38,134	29,224*	31,198	37,143*	34,421	42,041*	40,756
Unknown	37,500*♦	...	51,020*♦	...	70,000*	...	51,724	...	58,491*	...	59,091*♦	...
Region												
▶ Northeast	50,631	51,208	57,253	58,762	56,023	57,363	59,035	60,349	63,451	63,986	57,938	57,991
South	41,623*	42,816	46,015*	46,247	47,217*	47,916	48,962*	49,521	50,000	51,596	52,194*	53,363
Midwest	40,451*	40,806	45,176*	44,958	47,971*	48,822	46,816*	46,763	48,293*	48,794	49,910	50,891
West	38,579*	39,558	37,756*	39,201	40,984*	43,935	43,906*	46,259	48,493*	51,486	51,258*	53,347
Gender												
Female	39,520*	41,152	42,218*	43,421	44,280*	47,010	44,474*	45,790	47,154*	49,437	47,608*	47,930
▶ Male	44,569	44,939	49,386	49,498	50,397	50,711	52,421	52,745	54,941	55,426	55,030	56,100

... Data unavailable.

▶ Denotes reference group.

*Statistically different from reference group ($p < .05$).

♦Rate based on a count less than 600, should be interpreted with caution.

^aRate per 100,000 based on enrollment in calendar years for individuals with bladder cancer.^bRate per 100,000 age-adjusted to the 2005 US standard population (US Population Estimates from Current Population Survey).

SOURCE: Centers for Medicare and Medicaid Services, 5% Standard Analytical Claims Files.

Table 5-38. Use of neobladder/continent diversion in Medicare beneficiaries with bladder cancer, rate,^a age-adjusted rate^b

	2002 (N=700)		2003 (N=720)		2004 (N=600)		2005 (N=680)		2006 (N=540)		2007 (N=640)	
	Rate	Age-Adjusted Rate	Rate	Age-Adjusted Rate	Rate	Age-Adjusted Rate	Rate	Age-Adjusted Rate	Rate	Age-Adjusted Rate	Rate	Age-Adjusted Rate
Total	232.3	337.3	233.2	262.5	190.7	227.1	212.5	309.2	170.3*	230.2	201.1	257.3
Under 65/65+												
< 65 Years	330.0**	330.0	468.8**	468.8	142.9*	142.9	276.2**	276.2	548.7**	548.7	136.2**	136.2
▶ 65+ Years	228.2	337.3	223.0	262.5	192.9*	227.1	209.5	309.2	152.0*	230.2	204.2	257.3
Age												
▶ 65-69	611.4*		379.1*		298.4*		537.2*		446.4*		402.6*	
70-74	343.4**		315.3**		316.4**		288.5**		191.1**		399.2**	
75-79	106.8**		293.5**		238.2**		181.8**		81.9**		109.7**	
80-84	137.6**		64.9*		63.1*		92.1**		92.2**		119.5**	
85-89	...		58.1**		56.0**		...		...		53.6**	
Race/ethnicity												
▶ White	228.3	319.1	238.1	266.3	172.1*	194.4	210.3	317.5	164.0*	220.2	217.7	276.2
Black	161.3**	961.5	...	...	439.2**	826.5	417.2**	713.7	141.0**	653.6	...	...
Hispanic	...	...	740.7**	4,348	...	...	...	...	...	...	...	...
Other	1,058**	1,998	423.7**	1,429	819.7**	2,667	...	...	952.4**	1,818	...	...
Region												
▶ Northeast	214.9*	723.3	106.3*	298.1	78.4*	195.4	76.6*	153.8	103.2*	266.8	175.6*	272.5
South	204.8**	312.2	287.8**	318.3	192.5**	262.9	176.0**	231.1	122.0**	192.8	193.8**	272.4
Midwest	209.6**	376.8	183.0**	246.2	256.8**	414.8	245.9**	482.6	75.9**	236.7	102.3**	296.6
West	371.4*	528.8	392.8**	533.8	261.3**	447.7	472.1**	647.3	567.9**	711.4	426.4**	617.2
Gender												
Female	115.4**	123.7	135.0**	263.7	176.7*	240.4	109.2**	154.6	107.0**	218.6	155.7**	210.5
▶ Male	279.5	444.9	272.9	295.5	196.4*	239.9	254.0*	393.6	196.7*	256.9	218.9*	297.8

... Data unavailable.

▶ Denotes reference group.

*Statistically different from reference group ($p < .05$).

*Rate based on a count less than 600, should be interpreted with caution.

^aRate per 100,000 based on enrollment in calendar years for individuals with bladder cancer.^bRate per 100,000 age-adjusted to the 2005 US standard population (US Population Estimates from Current Population Survey).

SOURCE: Centers for Medicare and Medicaid Services, 5% Standard Analytical Claims Files.

Table 5-39. Use of transurethral surgery in Medicare beneficiaries with bladder cancer, rate,^a age-adjusted rate^b

	2002 (N=126,440)		2003 (N=126,780)		2004 (N=113,820)		2005 (N=120,760)		2006 (N=123,180)		2007 (N=123,000)	
	Rate	Age-Adjusted Rate	Rate	Age-Adjusted Rate	Rate	Age-Adjusted Rate	Rate	Age-Adjusted Rate	Rate	Age-Adjusted Rate	Rate	Age-Adjusted Rate
Total	41,962	42,099	41,058	41,570	36,177	36,099	37,745	37,640	38,841	38,837	38,640	38,737
Under 65/65+												
< 65 Years	47,690*	47,690	39,375*	39,375	41,429*	41,429	36,464*	36,464	39,643*	39,643	39,101	39,101
▶ 65+ Years	41,722	42,099	41,131	41,570	35,932	36,099	37,805	37,640	38,802	38,837	38,618	38,737
Age												
▶ 65-69	43,319		42,544		37,980		37,190		39,123		38,849	
70-74	42,429*		40,637*		33,660*		37,981*		38,229*		38,390*	
75-79	40,603*		41,756*		36,368*		36,519*		38,924*		38,234*	
80-84	41,231*		40,947*		36,948*		39,748*		37,800*		39,570*	
85-89	42,342*		41,512*		34,658*		37,348		40,671*		39,014*	
90-94	39,804*		35,333*		36,405*		39,470*		38,484*		35,320*	
95-97	44,444*		36,585*		33,696*		33,333*		48,837		39,252*	
98+	22,581**		23,810**		26,471**		29,730**		32,353**		33,333**	
Race/ethnicity												
▶ White	42,201	42,344	41,024	41,352	36,163	36,089	37,611	37,378	38,811	38,767	38,409	38,459
Black	41,935*	40,426	41,437*	42,169	37,628*	36,854	41,029*	42,870	42,313*	41,584	43,994*	45,337
Hispanic	36,111*	42,586	42,222*	48,630	39,231*	43,721	38,571*	35,632	35,294*	40,752	45,000*	42,739
Asian	21,839**	30,209	25,000**	31,495	25,510**	32,914	37,288*	32,029	29,825*	32,135	45,968*	44,364
Other	38,095*	37,371	46,186*	55,155	36,066*	37,845	35,616*	36,277	34,286*	33,927	31,837*	33,005
Unknown	37,500**	...	46,939**	...	34,000**	...	37,931**	...	47,170**	...	31,818**	...
Region												
▶ Northeast	39,511	39,617	39,107	38,941	36,608	37,268	38,259	38,003	40,186	40,730	39,905	40,722
South	43,503*	43,134	42,867*	43,422	36,297*	35,335	38,050*	37,782	41,248*	41,065	38,714*	37,928
Midwest	44,931*	45,658	43,660*	44,287	37,494*	38,104	38,579*	38,660	38,635*	38,685	38,833*	39,315
West	37,094*	37,119	35,530*	36,717	32,927*	32,726	34,678*	34,875	30,887*	30,186	35,991*	36,141
Gender												
Female	41,090*	40,913	40,621*	40,887	35,269*	35,355	38,401*	38,318	39,409*	39,258	39,355*	39,702
▶ Male	42,314	42,647	41,235	41,841	36,544	36,441	37,481	37,363	38,603	38,581	38,359	38,410

... Data unavailable.

▶ Denotes reference group.

*Statistically different from reference group (p<.05).

**Rate based on a count less than 600, should be interpreted with caution.

^aRate per 100,000 based on enrollment in calendar years for individuals with bladder cancer.^bRate per 100,000 age-adjusted to the 2005 US standard population (US Population Estimates from Current Population Survey).

SOURCE: Centers for Medicare and Medicaid Services, 5% Standard Analytical Claims Files.

Table 5-40. Physician office visits with claim for retrograde pyelogram by Medicare beneficiaries with bladder cancer, rate,^a age-adjusted rate^b

	2002 (N=1,140)		2003 (N=720)		2004 (N=540)		2005 (N=920)		2006 (N=800)		2007 (N=760)	
	Rate	Age-Adjusted Rate	Rate	Age-Adjusted Rate	Rate	Age-Adjusted Rate	Rate	Age-Adjusted Rate	Rate	Age-Adjusted Rate	Rate	Age-Adjusted Rate
Total	378.3	405.5	233.2	255.8	171.6*	235.9	287.6	368.8	252.3	280.8	238.8	277.0
Under 65/65+												
< 65 Years	330.0*	330.0	...	...	...	...	...	...	...	...	...	...
▶ 65+ Years	380.4	405.5	243.3	255.8	179.6*	235.9	301.2	368.8	264.4	280.8	250.3	277.0
Age												
▶ 65-69	480.3*		168.5*		213.1*		413.2*		243.5*		281.8*	
70-74	437.1**		63.1**		...		256.4**		446.0**		365.9**	
75-79	240.3**		533.6**		317.6**		519.5**		218.5**		329.1**	
80-84	653.4**		324.5**		252.2**		245.5**		307.3**		179.3**	
85-89	118.3**		...		112.0**		...		110.1**		107.2**	
Race/ethnicity												
▶ White	363.9	383.1	224.1	236.7	165.2*	221.9	284.9	358.3	259.7	278.5	258.6	299.1
Black	322.6**	2,353	...	...	...	...	...	...	...	...	...	...
Hispanic	1,852**	6,250	1,481**	4,444	1,538**	4,167	1,429**	5,000	...	...	...	...
Other	1,058**	4,255	847.5**	3,077	409.8**	1,333	913.2**	3,774	952.4**	3,636	...	...
Region												
▶ Northeast	483.5*	655.8	53.1*	262.5	235.2*	378.0	229.7*	415.6	154.8*	363.5	100.3*	286.6
South	521.2**	895.9	215.9**	507.5	157.5**	232.5	492.8**	629.6	348.7**	410.3	317.2**	483.8
Midwest	288.2**	368.1	575.2**	847.3	154.1**	347.1	196.7**	329.4	151.7**	240.7	307.0**	375.3
West	...	...	...	...	130.7**	328.4	42.9**	212.8	349.5**	1,735	170.6**	544.2
Gender												
Female	277.0**	309.3	135.0**	612.2	88.3**	251.0	305.8*	539.5	385.1**	522.9	133.5**	254.7
▶ Male	419.2	464.1	272.9	294.3	205.3*	262.1	280.2	341.0	196.7*	214.8	280.2	319.9

... Data unavailable.

▶ Denotes reference group.

*Statistically different from reference group ($p < .05$).

*Rate based on a count less than 600, should be interpreted with caution.

^aRate per 100,000 based on enrollment in calendar years for individuals with bladder cancer.^bRate per 100,000 age-adjusted to the 2005 US standard population (US Population Estimates from Current Population Survey).

SOURCE: Centers for Medicare and Medicaid Services, 5% Standard Analytical Claims Files.

Table 5-41. Use of bladder instillation of anticarcinogenic agents in Medicare beneficiaries with bladder cancer, rate,^a age-adjusted rate^b

	2002 (N=198,280)		2003 (N=208,900)		2004 (N=210,160)		2005 (N=206,960)		2006 (N=203,940)		2007 (N=200,860)	
	Rate	Age-Adjusted Rate	Rate	Age-Adjusted Rate	Rate	Age-Adjusted Rate	Rate	Age-Adjusted Rate	Rate	Age-Adjusted Rate	Rate	Age-Adjusted Rate
Total	65,804	67,647	67,653	69,378	66,798	71,128	64,687	66,719	64,306	66,821	63,100	66,214
Under 65/65+												
< 65 Years	59,901*	59,901	63,125*	63,125	66,286	66,286	58,564*	58,564	46,914*	46,914	51,635*	51,635
▶ 65+ Years	66,051	67,647	67,849	69,378	66,822	71,128	64,977	66,719	65,144	66,821	63,654	66,214
Age												
▶ 65-69	69,782		70,851		79,966		67,851		65,463		69,283	
70-74	72,932*		72,257*		77,412*		73,590*		73,973*		66,999*	
75-79	70,769*		69,584*		69,746*		65,247*		72,767*		69,144*	
80-84	62,689*		69,630*		61,255*		68,324*		61,156*		62,552*	
85-89	51,449*		58,547*		50,896*		49,613		51,238*		55,788*	
90-94	46,863*		45,500*		29,607*		43,299*		42,793*		34,157*	
95-97	37,037*		40,244*		38,043*		42,424*		44,186*		29,907*	
98+	12,903*♦		...		8,824*♦		37,838*♦		26,471*♦		17,949*♦	
Race/ethnicity												
▶ White	66,391	68,513	69,230	71,118	68,050	72,185	66,906	68,843	66,068	68,500	64,061	67,033
Black	49,839	47,798	46,177*	48,171	48,170*	53,979	38,665*	44,353	45,980*	49,382	45,796*	50,717
Hispanic	59,259*	60,018	31,111*	44,104	31,538*	70,447	30,000*	35,978	47,794*	48,057	50,000	63,544
Asian	79,310*	52,982	52,273*	60,817	32,653*	25,689	55,085*	87,814	39,474*	39,249	89,516*	106,000
Other	63,492*	61,966	58,475*	63,878	68,852*	61,825	34,247*	38,954	30,952*	40,687	44,490*	45,877
Unknown	100,000*	...	67,347*	...	106,000*	...	41,379*♦	...	50,943*♦	...	75,000*	...
Region												
▶ Northeast	62,047	63,680	64,001	66,477	68,278	72,944	64,650	67,316	65,721	69,647	61,901	66,151
South	70,570*	73,942	72,693*	73,475	65,856*	69,685	66,051*	66,859	62,465*	63,913	61,604*	63,218
Midwest	65,654*	67,677	66,405*	67,269	66,615*	71,040	61,692*	65,516	64,223*	66,425	60,169*	64,745
West	60,678*	58,433	63,509*	67,109	66,986*	72,100	66,652*	67,688	66,667*	71,008	73,646*	75,395
Gender												
Female	57,295*	57,985	60,841*	62,155	62,367*	65,626	58,585*	59,449	55,327*	56,793	49,321*	50,229
▶ Male	69,238	72,349	70,408	72,578	68,589	74,139	67,134	69,988	68,059	71,336	68,523	72,904

... Data unavailable.

▶ Denotes reference group.

*Statistically different from reference group ($p < .05$).

♦Rate based on a count less than 600, should be interpreted with caution.

^aRate per 100,000 based on enrollment in calendar years for individuals with bladder cancer.^bRate per 100,000 age-adjusted to the 2005 US standard population (US Population Estimates from Current Population Survey).

SOURCE: Centers for Medicare and Medicaid Services, 5% Standard Analytical Claims Files.

Table 5-42. Use of ileal conduit in Medicare beneficiaries with bladder cancer, rate,^a age-adjusted rate^b

	2002 (N=3,760)		2003 (N=3,920)		2004 (N=3,580)		2005 (N=4,700)		2006 (N=3,480)		2007 (N=4,360)	
	Rate	Age-Adjusted Rate	Rate	Age-Adjusted Rate	Rate	Age-Adjusted Rate	Rate	Age-Adjusted Rate	Rate	Age-Adjusted Rate	Rate	Age-Adjusted Rate
Total	1,248	1,337	1,270	1,312	1,138	1,215	1,469	1,590	1,097	1,165	1,370	1,405
Under 65/65+												
< 65 Years	1,815 ^{*♦}	1,815	2,656 ^{*♦}	2,656	1,571 ^{*♦}	1,571	1,934 ^{*♦}	1,934	2,058 ^{*♦}	2,058	2,316 ^{*♦}	2,316
▶ 65+ Years	1,224	1,337	1,210	1,312	1,118	1,215	1,447	1,590	1,051	1,165	1,324	1,405
Age												
▶ 65-69	1,703		1,474		1,279		1,860		1,380		1,329	
70-74	1,374 [*]		1,671 [*]		1,582 [*]		1,955 [*]		1,338 [*]		1,929 [*]	
75-79	1,468 [*]		1,147 [*]		1,376 [*]		1,506 [*]		1,256 [*]		1,344 [*]	
80-84	1,066 [*]		1,168 [*]		851.2 ^{*♦}		1,381 [*]		921.9 [*]		1,375 [*]	
85-89	414.0 ^{*♦}		639.5 ^{*♦}		447.9 ^{*♦}		552.5 ^{*♦}		385.3 ^{*♦}		643.1 ^{*♦}	
90-94	196.1 ^{*♦}		166.7 ^{*♦}		151.1 ^{*♦}		294.6 ^{*♦}		...		436.0 ^{*♦}	
Race/ethnicity												
▶ White	1,249	1,351	1,254	1,274	1,108	1,203	1,485	1,605	1,080	1,133	1,347	1,367
Black	1,129 ^{*♦}	835.9	1,376 ^{*♦}	2,205	1,464 ^{*♦}	1,889	973.6 ^{*♦}	1,303	1,128 ^{*♦}	1,666	2,252 ^{*♦}	3,311
Hispanic	925.9 ^{*♦}	3,125	1,481 ^{*♦}	7,407	769.2 ^{*♦}	2,083	1,429 ^{*♦}	2,778	1,471 ^{*♦}	5,620	714.3 ^{*♦}	.
Asian	1,149 ^{*♦}	4,000	1,136 ^{*♦}	5,000	...	...	4,237 ^{*♦}	5,086	877.2 ^{*♦}	5,556	806.5 ^{*♦}	3,448
Other	529.1 ^{*♦}	1,818	1,695 ^{*♦}	3,147	2,869 ^{*♦}	4,426	913.2 ^{*♦}	3,774	2,381 ^{*♦}	2,209	1,224 ^{*♦}	2,866
Unknown	6,250 ^{*♦}	...	2,041^{*♦}	...	...	...	...	...	...	...	...	...
Region												
▶ Northeast	1,155	1,312	797.0	840.9	783.9	794.9	1,404	1,601	696.4 [*]	758.9	902.9	1,035
South	1,229 [*]	1,389	1,331 [*]	1,362	1,103 [*]	1,150	1,390 [*]	1,520	1,290 [*]	1,380	1,445 [*]	1,421
Midwest	1,362 [*]	1,495	1,490 [*]	1,478	1,387 [*]	1,601	1,672 [*]	1,682	1,163 [*]	1,161	1,714 [*]	1,686
West	1,253 ^{*♦}	1,421	1,528 [*]	1,910	1,394 [*]	1,381	1,416 [*]	1,587	1,180 ^{*♦}	1,302	1,407 [*]	1,500
Gender												
Female	1,016 [*]	1,026	1,102 [*]	1,064	971.7 [*]	1,105	1,180 [*]	1,167	855.8 [*]	819.5	1,446 [*]	1,368
▶ Male	1,342	1,488	1,337	1,443	1,205	1,279	1,585	1,800	1,198	1,344	1,340	1,451

... Data unavailable.

▶ Denotes reference group.

*Statistically different from reference group (p<.05).

*Rate based on a count less than 600, should be interpreted with caution.

^aRate per 100,000 based on enrollment in calendar years for individuals with bladder cancer.^bRate per 100,000 age-adjusted to the 2005 US standard population (US Population Estimates from Current Population Survey).

SOURCE: Centers for Medicare and Medicaid Services, 5% Standard Analytical Claims Files.

Table 5-43. Nationally representative inpatient stays for upper tract transitional cell carcinoma listed as primary diagnosis, rate,^a age-adjusted rate^b

	2002 (N=5,363)		2003 (N=5,185)		2004 (N=5,018)		2005 (N=5,371)		2006 (N=5,320)		2007 (N=5,328)	
	Rate	Age-Adjusted Rate	Rate	Age-Adjusted Rate	Rate	Age-Adjusted Rate	Rate	Age-Adjusted Rate	Rate	Age-Adjusted Rate	Rate	Age-Adjusted Rate
Total	2.5	4.1	2.4	3.8	2.3	4.0	2.5	4.2	2.4	4.0	2.4	4.0
Age												
40-44	0.3		0.4		0.4		0.2		0.2		0.3	
45-54	0.9		1.0		1.1		1.0		0.9		1.0	
55-64	3.5		3.1		2.6		3.3		2.8		2.3	
▶ 65-74	8.8		8.1		8.2		8.3		9.1		8.9	
75-84	12.2*		12.0*		13.8*		14.8*		13.9*		13.7*	
85+	14.9*		12.5*		13.3*		12.8*		13.9*		15.3*	
Race/ethnicity												
▶ White	1.9	3.1	2.1	3.1	2.2	3.5	2.4	3.8	2.2	3.5	2.2	3.5
Black	0.8*	1.4	0.8*	1.5	0.5*	1.0	0.5*	1.2	0.7*	1.6	0.8*	1.5
Hispanic	†	†	0.7*	1.7	0.7*	1.7	0.5*	1.2	0.6*	1.3	0.5*	1.2
Asian	1.2*	3.0	1.4*	6.1	0.6*	1.5	0.6*	2.6	0.8*	1.9	1.1*	2.6
Other	3.0*	7.3	2.0*	5.0	1.8*	4.7	1.8*	5.4	2.9*	7.1	2.1*	9.1
Region												
Northeast	3.2	4.8	2.5	3.7	2.6	4.1	3.1	5.1	2.5	4.1	3.2	5.1
South	2.4	3.9	2.5	4.0	2.4	4.1	2.3	3.8	2.5	4.2	2.4	4.0
▶ Midwest	2.5	4.0	2.5	4.0	2.7	4.5	2.7	4.4	2.6	4.4	2.2	3.7
West	2.1*	3.7	2.0*	3.4	1.7*	3.0	2.0*	3.5	2.0*	4.2	1.8*	3.2
Gender												
Female	1.8	2.8	1.8	2.8	1.8	3.0	1.9	3.0	2.0	3.3	1.9	3.1
▶ Male	3.3	5.5	3.0	5.0	2.9	5.0	3.1	5.4	2.8	4.9	2.9	5.0

▶ Denotes reference group.

*Statistically different from reference group (p<.05).

† Figure does not meet standard for reliability or precision.

^aRate per 100,000 individuals in the same demographic stratum is based on 2002-2007 population estimates from Current Population Survey (CPS).^bRate per 100,000 age-adjusted to the 2005 US standard population (US Population Estimates from Current Population Survey).

SOURCE: Healthcare Cost and Utilization Project Nationwide Inpatient Sample, 2002-2007.

Table 5-44. Inpatient stays by Medicare beneficiaries for upper tract transitional cell carcinoma listed as primary diagnosis, rate,^a age-adjusted rate^b

	2002 (N=2,700)		2003 (N=2,080)		2004 (N=2,260)		2005 (N=2,620)		2006 (N=2,620)		2007 (N=2,080)	
	Rate	Age-Adjusted Rate	Rate	Age-Adjusted Rate	Rate	Age-Adjusted Rate	Rate	Age-Adjusted Rate	Rate	Age-Adjusted Rate	Rate	Age-Adjusted Rate
Total	7.6	9.1	5.7	7.5	6.1	7.4	7.1	8.8	7.2	9.2	5.8	7.6
Under 65/65+												
< 65 Years	1.7* [†]	1.7	0.3* [†]	0.3	1.3* [†]	1.3	1.7* [†]	1.7	1.0* [†]	1.0	1.0* [†]	1.0
▶ 65+ Years	9.1	9.1	7.1	7.5	7.4	7.4	8.6	8.8	9.0	9.2	7.2	7.6
Age												
▶ 65-69	4.4 [†]		4.3 [†]		4.2 [†]		4.4 [†]		4.2 [†]		3.5 [†]	
70-74	10.7*		6.4* [†]		6.5* [†]		6.9* [†]		9.3*		5.4* [†]	
75-79	10.5*		7.0* [†]		10.0*		13.8*		13.9*		8.9* [†]	
80-84	13.8* [†]		12.0* [†]		10.9* [†]		14.9*		10.2* [†]		13.3* [†]	
85-89	8.5* [†]		12.5* [†]		7.4* [†]		6.6* [†]		11.5* [†]		12.8* [†]	
90-94	10.6* [†]		4.1* [†]		12.0* [†]		3.9* [†]		9.9* [†]		2.0* [†]	
95-97	...		...		0.0* [†]			0.0* [†]	
Race/ethnicity												
▶ White	8.3	9.9	6.1	7.9	6.8	8.0	7.7	9.5	8.0	10.1	6.2	8.0
Black	4.0* [†]	6.3	3.9* [†]	6.6	1.6* [†]	1.8	3.3* [†]	4.5	1.7* [†]	2.8	2.8* [†]	4.6
Hispanic	0.0* [†]	0.0	0.0* [†]	0.0	2.8* [†]	13.7	0.0* [†]	0.0	0.0* [†]	0.0	2.7* [†]	3.6
Asian	0.0* [†]	0.0	7.6* [†]	24.1	3.6* [†]	17.9	3.4* [†]	12.3	3.3* [†]	12.2	9.5* [†]	17.4
Other	6.9* [†]	0.0	0.0* [†]	0.0	0.0* [†]	0.0	8.6* [†]	14.3	11.2* [†]	13.3	2.7* [†]	11.5
Unknown	0.0* [†]	...	0.0* [†]	...	54.3* [†]	...	0.0* [†]	0.0* [†]	...
Region												
▶ Northeast	6.5 [†]	7.8	6.7 [†]	8.5	4.7 [†]	5.6	9.8	13.8	7.4 [†]	10.3	6.9 [†]	8.6
South	8.0*	9.2	5.7*	7.5	7.1*	9.0	5.7*	7.0	6.8*	8.4	5.6*	7.2
Midwest	9.1*	11.3	5.0* [†]	6.5	5.0* [†]	6.1	8.0*	10.4	7.7*	10.1	5.2* [†]	7.2
West	5.6* [†]	7.0	5.7* [†]	7.5	7.1* [†]	7.5	5.7* [†]	7.0	7.1* [†]	8.6	5.7* [†]	8.1
Gender												
Female	5.1*	5.7	3.6*	4.6	3.1*	3.3	5.7*	7.4	5.2*	6.0	4.0*	5.4
▶ Male	10.8	13.8	8.3	11.4	9.9	12.9	8.7	10.9	9.7	13.5	7.9	10.6

... Data unavailable.

▶ Denotes reference group.

*Statistically different from reference group ($p < .05$).

†Rate based on a count less than 600, should be interpreted with caution.

^aRate per 100,000 based on enrollment in calendar years for individuals in the same demographic stratum.^bRate per 100,000 age-adjusted to the 2005 US standard population (US Population Estimates from Current Population Survey).

SOURCE: Centers for Medicare and Medicaid Services, 5% Standard Analytical Claims Files.

Table 5-45. Inpatient stays by privately insured individuals for upper tract transitional cell carcinoma listed as primary diagnosis, rate,^a age-adjusted rate^b

	2002 (N=260)		2003 (N=270)		2004 (N=267)		2005 (N=327)		2006 (N=220)	
	Rate	Age-Adjusted Rate	Rate	Age-Adjusted Rate	Rate	Age-Adjusted Rate	Rate	Age-Adjusted Rate	Rate	Age-Adjusted Rate
Total	2.9	7.2	2.7	8.2	2.7	7.9	3.1	8.1	2.1	7.2
Age										
40-44	1.5*♦		1.5*♦		1.3*♦		1.2*♦		0.6*♦	
45-54	4.0*		2.5*		2.6*		3.1*		2.7*	
55-64	9.5		6.5*		5.2*		6.3*		5.3*	
▶ 65-74	11.0		16.2		16.4		17.4		12.3	
75-84	16.7*		30.3*		29.7*		25.9*		30.6*	
85+	...		11.3*♦		12.1*♦		10.8*♦		6.6*♦	
Race/ethnicity										
▶ White	2.6	6.0	3.0	8.7	3.0	9.3	3.4	9.2	2.3	8.2
Black	1.4*♦	6.0	1.3*♦	4.9	1.1*♦	2.5	2.9*♦	7.7	0.9*♦	3.2
Hispanic	1.5*♦	8.7	1.0*♦	5.0	0.8*♦	2.7	3.8*	11.9	1.1*♦	4.3
Asian	...	...	...	...	1.4*♦	8.4	1.0*♦	12.4	0.3*♦	3.5
Other	...	...	3.5*♦	278.9	...	...	3.4*♦	14.4	1.1*♦	5.4
Unknown	4.4*♦	...	3.4*♦	...	2.8*♦	...	2.0*♦	...	3.3*♦	...
Missing	3.4*	...	2.8*	...	2.9*	...	1.9*♦	...	2.0*♦	...
Region										
Northeast	5.4*	12.1	3.4	9.6	4.4*	13.8	3.5	9.9	2.3*	8.7
South	2.9	7.8	3.1	9.8	2.7	7.8	3.0	7.7	2.1	7.9
▶ Midwest	2.3	5.2	2.5	6.8	2.6	7.0	3.2	7.8	2.4	8.2
West	2.5*♦	5.6	1.7*♦	5.2	1.3*♦	7.0	2.5*	8.2	1.6*♦	5.2
Gender										
Female	2.3*	5.4	2.2*	6.5	1.7*	5.6	2.6*	6.9	1.5*	5.9
▶ Male	3.7	9.0	3.3	10.0	3.6	10.3	3.5	9.2	2.7	8.0

... Data unavailable.

▶ Denotes reference group.

*Statistically different from reference group ($p < .05$).

♦Rate based on a count less than 30, should be interpreted with caution.

^aRate per 100,000 based on enrollment in calendar years for individuals in the same demographic stratum.^bRate per 100,000 age-adjusted to the 2005 US standard population (US Population Estimates from Current Population Survey).

SOURCE: i3 Claims Database, 2002-2006.

Table 5-46. Hospital outpatient visits by Medicare beneficiaries for upper tract transitional cell carcinoma listed as primary diagnosis, rate,^a age-adjusted rate^b

	2002 (N=640)		2003 (N=700)		2004 (N=1,120)		2005 (N=1,600)		2006 (N=1,920)		2007 (N=1,660)	
	Rate	Age-Adjusted Rate	Rate	Age-Adjusted Rate	Rate	Age-Adjusted Rate	Rate	Age-Adjusted Rate	Rate	Age-Adjusted Rate	Rate	Age-Adjusted Rate
Total	1.8	2.1	1.9	2.4	3.0	3.6	4.3	5.4	5.3	6.8	4.6	5.8
Under 65/65+												
< 65 Years	1.1* [‡]	1.1	0.3* [‡]	0.3	1.5* [‡]	1.5	1.0* [‡]	1.0	1.5* [‡]	1.5	1.4* [‡]	1.4
▶ 65+ Years	2.0 [‡]	2.1	2.4	2.4	3.4	3.6	5.2	5.4	6.4	6.8	5.5	5.8
Age												
▶ 65-69	1.6 [‡]		1.8 [‡]		1.7 [‡]		5.1 [‡]		4.7 [‡]		3.0 [‡]	
70-74	1.7* [‡]		2.6* [‡]		3.2* [‡]		5.7* [‡]		7.8* [‡]		9.8* [‡]	
75-79	2.4* [‡]		3.3* [‡]		5.7* [‡]		6.5* [‡]		10.0* [‡]		8.2* [‡]	
80-84	2.9* [‡]		3.2* [‡]		5.0* [‡]		6.3* [‡]		4.2* [‡]		4.3* [‡]	
85-89	2.6* [‡]		0.8* [‡]		3.3* [‡]		1.6* [‡]		7.4* [‡]		2.4* [‡]	
90-94	0.0* [‡]		...		0.0* [‡]		2.0* [‡]		0.0* [‡]		0.0* [‡]	
Race/ethnicity												
▶ White	1.9 [‡]	2.1	2.1	2.5	3.1	4.1	4.5	5.5	5.7	7.3	4.0	5.1
Black	1.1* [‡]	2.6	0.6* [‡]	1.0	2.7* [‡]	0.0	5.4* [‡]	11.0	1.1* [‡]	0.0	8.5* [‡]	19.6
Hispanic	...	...	...	...	...	...	...	...	8.4* [‡]	50.5	...	...
Asian	...	...	...	...	...	...	0.0* [‡]	0.0	10.0* [‡]	36.5	15.8* [‡]	46.1
Other	3.5* [‡]	12.6	6.3* [‡]	63.3	6.0* [‡]	10.6	...	...	...	...	5.4* [‡]	15.6
Unknown	...	...	...	...	0.0* [‡]
Region												
▶ Northeast	0.8 [‡]	1.2	1.4 [‡]	1.9	3.1 [‡]	4.0	6.4 [‡]	8.6	7.4 [‡]	9.9	2.6 [‡]	2.9
South	1.7* [‡]	1.7	1.1* [‡]	1.5	1.9* [‡]	2.5	2.6* [‡]	3.2	4.0* [‡]	4.8	4.4* [‡]	5.6
Midwest	2.4* [‡]	2.8	3.7* [‡]	4.4	4.5* [‡]	4.5	6.5* [‡]	7.7	8.2* [‡]	10.4	7.9* [‡]	10.3
West	2.1* [‡]	3.5	1.7* [‡]	4.0	3.2* [‡]	4.2	2.5* [‡]	3.2	1.6* [‡]	4.0	2.5* [‡]	3.5
Gender												
Female	1.1* [‡]	1.3	1.4* [‡]	1.7	2.9	3.1	4.3	5.3	3.7* [‡]	4.4	4.2* [‡]	5.0
▶ Male	2.7 [‡]	3.2	2.6 [‡]	3.4	3.2 [‡]	4.4	4.4	5.3	7.3	9.9	5.0	6.9

... Data unavailable.

▶ Denotes reference group.

*Statistically different from reference group ($p < .05$).

‡Rate based on a count less than 600, should be interpreted with caution.

^aRate per 100,000 based on enrollment in calendar years for individuals in the same demographic stratum.^bRate per 100,000 age-adjusted to the 2005 US standard population (US Population Estimates from Current Population Survey).

SOURCE: Centers for Medicare and Medicaid Services, 5% Standard Analytical Claims Files.

Table 5-47. Hospital outpatient visits by privately insured individuals for upper tract transitional cell carcinoma listed as primary diagnosis, rate,^a age-adjusted rate^b

	2002 (N=296)		2003 (N=378)		2004 (N=520)		2005 (N=436)		2006 (N=373)	
	Rate	Age-Adjusted Rate	Rate	Age-Adjusted Rate	Rate	Age-Adjusted Rate	Rate	Age-Adjusted Rate	Rate	Age-Adjusted Rate
Total	3.4	9.7	3.8	10.5	5.2	12.5	4.1	10.1	3.6	12.2
Age										
40-44	0.4*♦		1.8*♦		2.4*		2.4*		0.8*♦	
45-54	3.1*		6.2*		9.3*		5.3*		3.8*	
55-64	8.3*		6.3*		11.2*		7.1*		9.2*	
▶ 65-74	26.4		27.3		22.6		25.1		29.1	
75-84	26.9*		26.6*		28.7*		26.8*		40.8*	
85+	...		6.4*♦		13.6*♦		4.8*♦		15.4*♦	
Race/ethnicity										
▶ White	3.2	8.8	5.1	13.1	6.6	15.7	4.1	10.1	4.0	13.8
Black	0.5*♦	4.1	0.6*♦	2.8	1.1*♦	2.7	2.1*♦	8.0	2.3*♦	5.5
Hispanic	0.9*♦	5.6	0.6*♦	7.9	1.3*♦	5.7	4.5*	16.9	1.4*♦	5.8
Asian	...	...	0.5*♦	3.7	3.9*♦	23.2	1.3*♦	5.3	1.9*♦	8.3
Other	...	...	1.7*♦	139.5	...	...	...	...	...	...
Unknown	2.6*♦	...	4.3*♦	...	2.8*♦	...	3.4*♦	...	2.7*♦	...
Missing	3.9*	...	3.2*	...	3.8*	...	5.5*	...	4.4*	...
Region										
Northeast	8.5*	22.1	4.6	11.5	7.2	17.0	3.9	11.0	5.2*	17.3
South	2.3*	7.1	3.7	11.3	3.5*	10.7	4.3	9.8	3.5	12.8
▶ Midwest	3.6	9.5	4.4	10.1	7.9	15.5	4.3	10.0	3.9	13.6
West	1.8*♦	6.5	1.9*♦	13.4	2.5*	9.3	3.4*	11.4	2.2*	5.8
Gender										
Female	2.3*	6.8	2.6*	8.1	3.2*	8.1	2.8*	7.0	2.8*	11.7
▶ Male	4.5	12.8	5.2	13.1	7.3	17.1	5.4	13.4	4.4	12.8

... Data unavailable.

▶ Denotes reference group.

*Statistically different from reference group ($p < .05$).

♦Rate based on a count less than 30, should be interpreted with caution.

^aRate per 100,000 based on enrollment in calendar years for individuals in the same demographic stratum.^bRate per 100,000 age-adjusted to the 2005 US standard population (US Population Estimates from Current Population Survey).

SOURCE: i3 Claims Database, 2002-2006.

Table 5-48. Ambulatory surgery center visits by Medicare beneficiaries for upper tract transitional cell carcinoma listed as primary diagnosis, rate,^a age-adjusted rate^b

	2002 (N=1,480)		2003 (N=1,220)		2004 (N=1,540)		2005 (N=1,560)		2006 (N=1,880)		2007 (N=1,440)	
	Rate	Age-Adjusted Rate	Rate	Age-Adjusted Rate	Rate	Age-Adjusted Rate	Rate	Age-Adjusted Rate	Rate	Age-Adjusted Rate	Rate	Age-Adjusted Rate
Total	4.8	5.3	4.1	4.4	5.5	5.3	5.5	5.3	6.5	6.6	5.0	5.1
Age												
▶ 65-69	1.6 [*]		2.8 [*]		2.7 [*]		3.4 [*]		3.2 [*]		1.7 [*]	
70-74	6.1 ^{*♦}		5.2 ^{*♦}		6.2 ^{*♦}		4.8 ^{*♦}		6.2 ^{*♦}		4.4 ^{*♦}	
75-79	9.1 ^{*♦}		7.0 ^{*♦}		12.7 [*]		15.5 [*]		14.6 [*]		9.3 ^{*♦}	
80-84	9.1 ^{*♦}		7.9 ^{*♦}		6.8 ^{*♦}		6.8 ^{*♦}		8.8 ^{*♦}		13.3 ^{*♦}	
85-89	6.8 ^{*♦}		5.9 ^{*♦}		9.0 ^{*♦}		4.9 ^{*♦}		14.7 ^{*♦}		8.0 ^{*♦}	
90-94	4.2 ^{*♦}		2.0 ^{*♦}		2.0 ^{*♦}		3.9 ^{*♦}		5.9 ^{*♦}		3.9 ^{*♦}	
95-97	...		...		...		...		...		9.9 ^{*♦}	
Race/ethnicity												
▶ White	5.5	5.8	4.7	4.9	6.2	5.9	6.1	5.6	7.2	7.3	5.4	5.4
Black	1.1 ^{*♦}	3.2	0.6 ^{*♦}	1.7	0.5 ^{*♦}	4.5	2.2 ^{*♦}	4.7	1.7 ^{*♦}	12.8	0.6 ^{*♦}	1.6
Asian	...	...	0.0 ^{*♦}	0.0	...	...	6.7 ^{*♦}	27.8	6.6 ^{*♦}	26.9	6.3 ^{*♦}	34.4
Other	...	...	3.2 ^{*♦}	18.5	...	...	2.9 ^{*♦}	29.2	5.6 ^{*♦}	0.0	13.5 ^{*♦}	23.3
Unknown	26.7^{*♦}	...	...	...	81.4^{*♦}	...	...	...	62.6^{*♦}	...	...	...
Region												
▶ Northeast	4.0	5.1	5.0 [*]	6.2	4.4 [*]	7.3	4.7 [*]	5.3	6.6 [*]	10.9	6.6 [*]	8.1
South	4.7 [*]	4.4	3.0 ^{*♦}	2.6	6.0 [*]	4.4	6.1 [*]	4.4	7.5 [*]	6.1	3.9 ^{*♦}	2.8
Midwest	6.0 ^{*♦}	7.5	5.7 ^{*♦}	6.8	7.6 [*]	8.8	7.5 [*]	8.9	7.9 [*]	9.3	5.4 ^{*♦}	6.5
West	4.5 ^{*♦}	5.2	3.3 ^{*♦}	2.3	2.3 ^{*♦}	1.7	1.9 ^{*♦}	2.8	2.2 ^{*♦}	2.8	5.4 ^{*♦}	7.8
Gender												
Female	4.0 [*]	3.9	2.6 ^{*♦}	2.8	3.3 [*]	2.8	4.0 [*]	3.2	5.4 [*]	5.3	4.4 [*]	4.7
▶ Male	5.9	7.2	6.0	6.6	8.2	8.8	7.4	8.3	8.0	8.4	5.8	5.8

... Data unavailable.

▶ Denotes reference group.

*Statistically different from reference group ($p < .05$).

*Rate based on a count less than 600, should be interpreted with caution.

^aRate per 100,000 based on enrollment in calendar years for individuals in the same demographic stratum.

^bRate per 100,000 age-adjusted to the 2005 US standard population (US Population Estimates from Current Population Survey).

SOURCE: Centers for Medicare and Medicaid Services, 5% Standard Analytical Claims Files.

Table 5-49. Nationally representative ambulatory surgery center visits for upper tract transitional cell carcinoma listed as primary diagnosis, count, rate,^a age-adjusted rate^b

	Count	Rate	Age-Adjusted Rate
Total	829	0.4	1.7

^aRate per 100,000 individuals in the same demographic stratum is based on 2006 population estimates from Current Population Survey (CPS).

^bRate per 100,000 age-adjusted to the 2005 US standard population (US Population Estimates from Current Population Survey).

SOURCE: National Survey of Ambulatory Surgery, 2006.

Table 5-50. Physician office visits by Medicare beneficiaries for upper tract transitional cell carcinoma listed as any diagnosis, rate,^a age-adjusted rate^b

	2002 (N=21,720)		2003 (N=19,380)		2004 (N=23,140)		2005 (N=23,480)		2006 (N=25,960)		2007 (N=24,900)	
	Rate	Age-Adjusted Rate	Rate	Age-Adjusted Rate	Rate	Age-Adjusted Rate	Rate	Age-Adjusted Rate	Rate	Age-Adjusted Rate	Rate	Age-Adjusted Rate
Total	61.1	76.5	53.1	66.6	62.5	77.7	63.3	81.0	71.4	90.7	68.8	88.0
Under 65/65+												
< 65 Years	9.1*	9.1	11.6*	11.6	16.5*	16.5	13.7*	13.7	16.3*	16.3	17.0*	17.0
▶ 65+ Years	74.3	76.5	64.1	66.6	75.0	77.7	77.2	81.0	87.2	90.7	84.4	88.0
Age												
▶ 65-69	82.5		51.6		60.9		57.6		63.1		60.2	
70-74	76.3*		55.8*		79.0*		77.0*		52.9*		62.2*	
75-79	86.5*		86.0*		91.4*		114.7*		140.7*		126.0*	
80-84	77.8*		81.9*		100.6*		84.7*		112.9*		127.4*	
85-89	39.2*		69.4*		59.9*		79.8*		114.6*		86.4*	
90-94	19.0*♦		18.4*♦		18.0*♦		11.8*♦		51.5*♦		37.2*♦	
95-97	...		20.0*♦		...		9.7*♦		39.8*♦		9.9*♦	
98+	...		...		...		...		...		10.2*♦	
Race/ethnicity												
▶ White	66.9	82.0	57.7	71.7	68.7	84.0	69.3	87.5	73.5	92.3	72.6	90.3
Black	23.5*	30.6	19.4*	21.9	20.6*	26.8	14.1*♦	16.1	46.8*	65.3	36.3*	60.6
Hispanic	39.5*♦	95.9	35.0*♦	94.6	11.3*♦	22.4	16.5*♦	34.4	22.5*♦	48.8	46.7*♦	85.4
Asian	48.5*♦	107.8	37.9*♦	129.7	64.4*♦	215.1	53.8*♦	156.8	162.9*	634.5	50.7*♦	80.2
Other	27.7*♦	36.2	53.7*♦	66.3	54.4*♦	69.1	114.1*	175.6	72.9*♦	82.6	97.4*	171.3
Unknown	...	...	57.4*♦	...	108.6*♦	...	...	...	125.1*♦	...	168.3*♦	...
Region												
▶ Northeast	58.8	74.9	70.5	89.2	69.7	86.7	92.9	122.1	84.3	106.2	87.7	113.2
South	63.9*	80.1	51.2*	65.0	63.6*	77.5	57.7*	73.3	75.6*	94.2	57.0*	71.9
Midwest	68.7*	82.9	47.9*	56.6	63.1*	77.4	55.2*	68.3	59.6*	77.0	65.9*	85.2
West	45.0*	60.5	45.0*	58.3	50.9*	66.8	54.0*	69.1	64.6*	86.1	78.3*	100.6
Gender												
Female	41.0*	49.5	36.4*	44.2	44.9*	54.6	45.2*	55.5	53.0*	65.0	50.7*	63.3
▶ Male	86.7	113.3	74.4	97.0	84.7	109.6	85.9	115.4	94.2	125.1	91.1	120.5

... Data unavailable.

▶ Denotes reference group.

*Statistically different from reference group ($p < .05$).

♦Rate based on a count less than 600, should be interpreted with caution.

^aRate per 100,000 based on enrollment in calendar years for individuals in the same demographic stratum.^bRate per 100,000 age-adjusted to the 2005 US standard population (US Population Estimates from Current Population Survey).

SOURCE: Centers for Medicare and Medicaid Services, 5% Standard Analytical Claims Files.

Table 5-51. Physician office visits by privately insured individuals for upper tract transitional cell carcinoma listed as any diagnosis, rate,^a age-adjusted rate^b

	2002 (N=1,535)		2003 (N=1,576)		2004 (N=1,802)		2005 (N=1,797)		2006 (N=1,433)	
	Rate	Age-Adjusted Rate	Rate	Age-Adjusted Rate	Rate	Age-Adjusted Rate	Rate	Age-Adjusted Rate	Rate	Age-Adjusted Rate
Total	17.4	43.8	16.0	43.5	17.9	51.5	16.8	43.1	13.8	40.0
Age										
40-44	4.5*		4.3*		4.6*		3.5*		2.7*	
45-54	26.4*		22.8*		20.6*		17.0*		17.6*	
55-64	47.9*		38.9*		42.6*		43.6*		44.5*	
▶ 65-74	105.2		101.7		93.1		82.1		57.2	
75-84	72.3*		108.4*		189.6*		135.9*		144.4*	
85+	...		38.6*♦		67.9*		59.8*		35.2*	
Race/ethnicity										
▶ White	14.3	32.1	16.9	42.2	20.6	58.4	18.1	46.3	15.4	44.3
Black	6.2*♦	16.4	7.5*♦	42.2	10.4*	26.4	12.2*	33.2	5.6*♦	19.1
Hispanic	11.7*	39.3	9.5*	45.0	10.6*	45.9	13.1*	58.5	6.5*	18.9
Asian	2.2*♦	8.5	1.5*♦	6.8	5.3*♦	31.9	3.9*♦	15.9	3.1*♦	11.6
Other	...	...	8.6*♦	91.5	6.1*♦	101.3	22.4*♦	61.8	...	...
Unknown	16.2*	...	26.6*	...	20.9*	...	19.8*	...	15.4*	...
Missing	21.4*	...	16.0*	...	14.3*	...	15.4*	...	15.6*	...
Region										
Northeast	22.2*	55.6	16.1	37.9	15.9	40.4	13.4*	35.1	11.2	34.0
South	16.6	40.6	17.6*	43.5	21.2*	59.1	16.8	41.6	15.9*	49.3
▶ Midwest	16.9	43.7	15.3	43.5	17.2	48.4	15.6	38.8	12.9	37.5
West	17.4*	33.8	12.4*	51.0	10.5*	44.8	22.5*	62.6	11.2*	29.4
Gender										
Female	12.3*	33.3	11.1*	32.2	13.4*	40.2	11.8*	32.6	9.2*	30.6
▶ Male	22.8	54.7	21.2	54.7	22.7	63.2	22.2	54.2	18.6	49.0

... Data unavailable.

▶ Denotes reference group.

*Statistically different from reference group ($p < .05$).

♦Rate based on a count less than 30, should be interpreted with caution.

^aRate per 100,000 based on enrollment in calendar years for individuals in the same demographic stratum.

^bRate per 100,000 age-adjusted to the 2005 US standard population (US Population Estimates from Current Population Survey).

SOURCE: i3 Claims Database, 2002-2006.

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