# **CHAPTER 9 Urinary Tract Stones**

**Upper Urinary Tract Stones Lower Urinary Tract Stones** 

# Table 9-1. Codes used in the diagnosis and management of urinary tract stones

Upper	Tract
- PP-	

Upper Tract	
Individuals v	vith one of the following ICD-9 diagnosis codes:
270.0	Disturbances of amino-acid transport
274.11	Uric acid nephrolithiasis
592.0	Calculus of kidney
592.1	Calculus of ureter
592.9	Urinary calculus, unspecified
Individuals v	vith the following ICD-9 diagnosis code and any one of the following procedure codes, or the procedure code alone:
271.8	Other specified disorders of carbohydrate transport and metabolism
and	
ICD-9 pro	ocedure codes
55.03	Percutaneous nephrostomy without fragmentation
55.04	Percutaneous nephrostomy with fragmentation
55.92	Percutaneous aspiration of kidney (pelvis)
56.0	Transurethral removal of obstruction from ureter and renal pelvis
56.2	Ureterotomy
59.8	Ureteral catheterization
59.95	Ultrasonic fragmentation of urinary stones
98.51	Extracorporeal shockwave lithotripsy (ESWL) of the kidney, ureter and/or bladder
CPT prod	cedure codes
50060	Nephrolithotomy; removal of calculus
50065	Nephrolithotomy; secondary surgical operation for calculus
50070	Nephrolithotomy; complicated by congenital kidney abnormality
50075	Nephrolithotomy; removal of large staghorn calculus filling renal pelvis and calyces (including anatrophic pyelolithotomy)
50080	Percutaneous nephrostolithotomy or pyelostolithotomy, with or without dilation, endoscopy, lithotripsy, stenting, or basket extraction; up to 2 cm
50081	Percutaneous nephrostolithotomy or pyelostolithotomy, with or without dilation, endoscopy, lithotripsy, stenting, or basket extraction; over 2 cm
50130	Pyelotomy; with removal of calculus (pyelolithotomy, pelviolithotomy, including coagulum pyelolithotomy)
50135	Pyelotomy; complicated (eg, secondary operation, congenital kidney abnormality)
50561	Renal endoscopy through established nephrostomy or pyelostomy, with or without irrigation, instillation, or ureteropyelography, exclusive of radiologic service; with removal of foreign body or calculus
50580	Renal endoscopy through nephrotomy or pyelotomy, with or without irrigation, instillation, or ureteropyelography, exclusive of radiologic service; with removal of foreign body or calculus
50590	Lithotripsy, extracorporeal shock wave
50610	Ureterolithotomy, upper one-third of ureter
50620	Ureterolithotomy, middle one-third of ureter
50630	Ureterolithotomy, lower one-third of ureter
50945	Laparoscopy, surgical; ureterolithotomy
50961	Ureteral endoscopy through established ureterostomy, with or without irrigation, instillation, or ureteropyelography, exclusive of radiologic service; with removal of foreign body or calculus
50980	Ureteral endoscopy through ureterotomy, with or without irrigation, instillation, or ureteropyelography, exclusive of radiologic service; with removal of foreign body or calculus

Cystotomy, with calculus basket extraction and/or ultrasonic or electrohydraulic fragmentation of ureteral calculus

Continued on next page.

Transvesical ureterolithotomy

51060

51065

### Table 9-1 (continued). Codes used in the diagnosis and management of urinary tract stones

52320	Cystourethroscopy (including ureteral catheterization); with removal of ureteral calculus
52325	Cystourethroscopy (including ureteral catheterization); with fragmentation of ureteral calculus (eg, ultrasonic or electro-hydraulic technique)
52330	Cystourethroscopy (including ureteral catheterization); with manipulation, without removal of ureteral calculus
52351	Cystourethroscopy, with ureteroscopy and/or pyeloscopy; diagnostic
52352	Cystourethroscopy, with ureteroscopy and/or pyeloscopy; with removal or manipulation of calculus (ureteral catheterization is included)
52353	Cystourethroscopy, with ureteroscopy and/or pyeloscopy; with lithotripsy (ureteral catheterization is included)

### **Lower Tract**

## Individuals with one of the following ICD-9 diagnosis codes:

594.0	Calculus in diverticulum of bladder
594.1	Other calculus in bladder
594.2	Calculus in urethra
594.8	Other lower urinary tract calculus
594.9	Calculus of lower urinary tract, unspecified

Table 9-2. Lifetime prevalence of kidney stones among adult males, 2001-2008 (merged), count, percent

	Yes	No	Refused to Answer or Don't Know		
Total Count	Count Percent	Count Percent	Count Percent		
103,595,621	11,802,180 11.39%	91,201,364 88.04%	† †		

<sup>†</sup> Figure does not meet standard for reliability or precision.

NOTE: The data in this table are based on question KIQ.026: {Have you/Has SP} ever had kidney stones?

SOURCE: National Health and Nutrition Examination Survey, 2001-2008.

Table 9-3. Lifetime prevalence of kidney stones among adult females, 2001-2008 (merged), count, percent

	Yes	No	Refused to Answer or Don't Know		
Total Count	Count Percent	Count Percent	Count Percent		
111,432,613	7,175,344 6.44%	103,994,814 93.33%	† †		

<sup>†</sup> Figure does not meet standard for reliability or precision.

NOTE: The data in this table are based on question KIQ.026: {Have you/Has SP} ever had kidney stones?

SOURCE: National Health and Nutrition Examination Survey, 2001-2008.

Table 9-4. Nationally representative inpatient stays for upper urinary tract stones listed as primary diagnosis, rate ageadjusted rate b

	2002 (1	N=280,643)	2003 (1	N=277,143)	2004 (1	N=275,451)	2005 (I	N=279,766)	2006 (1	N=291,489)	2007 (	2007 (N=286,741)	
	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	131.7	131.7	128.2	128.0	128.3	128.8	128.7	128.7	132.6	132.2	128.7	128.1	
Age													
18-24	52.8*		53.4*		48.4*		45.7*		47.0*		43.5*		
25-34	89.6*		87.7*		81.6*		79.4*		80.6*		76.8 <sup>*</sup>		
35-39	108.1*		101.5*		99.6*		101.4*		104.4*		98.2*		
40-44	112.7*		114.1*		110.4*		110.3*		115.6*		109.1*		
45-54	135.6*		136.0*		130.5*		127.8*		133.3*		128.2*		
55-64	180.1		170.7		170.4		170.3		170.1		167.7		
<b>►</b> 65-74	227.4		219.2		221.9		225.5		231.6		231.7		
75-84	205.5*		187.7 <sup>*</sup>		248.8*		260.8 <sup>*</sup>		268.2 <sup>*</sup>		260.0 <sup>*</sup>		
85+	255.4*		252.2*		273.2*		274.4*		288.8 <sup>*</sup>		295.0 <sup>*</sup>		
Race/ethnicity													
► White	90.0	92.8	99.5	99.3	105.2	105.7	106.9	106.9	108.8	108.5	101.2	100.7	
Black	64.3*	65.1	67.6 <sup>*</sup>	67.6	71.3*	71.5	60.5*	60.5	68.0*	67.7	74.1*	73.5	
Hispanic	†	t	81.5*	82.3	67.4 <sup>*</sup>	68.2	67.2 <sup>*</sup>	67.2	82.0*	80.9	72.6*	71.6	
Asian	38.5*	40.4	47.5 <sup>*</sup>	48.0	39.9*	40.1	39.2*	39.2	38.2*	37.9	45.8*	45.3	
Other	244.5*	237.2	133.8*	135.0	135.0*	136.1	162.8 <sup>*</sup>	162.8	190.2*	186.8	170.3 <sup>*</sup>	167.8	
Region													
Northeast	150.9	149.2	146.9	146.1	150.3	150.6	160.6	160.6	163.4	163.3	159.1	158.2	
South	144.2	144.2	138.8	138.4	138.6	138.6	132.8	132.8	143.3	142.7	133.3	132.3	
► Midwest	141.1	140.6	146.5	146.9	145.9	146.9	141.6	141.6	143.1	143.0	145.1	144.8	
West	85.1*	86.6	76.7*	76.8	76.0 <sup>*</sup>	76.8	83.2*	83.2	79.9*	79.5	81.2*	81.0	
Gender													
Female	126.0	125.9	126.4	126.3	129.1	129.2	130.3	130.3	135.9	135.6	133.0	132.5	
► Male	138.0	138.4	130.1	130.0	127.5	128.5	127.0	127.0	129.1	128.6	124.2	123.4	

<sup>►</sup> Denotes reference group.

<sup>\*</sup>Statistically different from reference group (p<.05).

<sup>+</sup> Figure does not meet standard for reliability or precision.

<sup>&</sup>lt;sup>a</sup>Rate per 100,000 individuals in the same demographic stratum is based on 2002-2007 population estimates from Current Population Survey (CPS).

<sup>&</sup>lt;sup>b</sup>Rate 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 9-5. Inpatient stays by Medicare beneficiaries for upper urinary tract stones listed as primary diagnosis, rate, ageadjusted rateb

2003 (N=75,560) 2004 (N=76,900) 2005 (N=75,920) 2002 (N=69,840) 2006 (N=77,260) 2007 (N=72,360 Age-Age-Age-Age-Age-Age-Rate Adjusted Rate **Adjusted** Rate Adjusted Adjusted Rate Adjusted Rate Adjusted Rate Rate Rate Rate Rate Rate Rate Total 196.3 206.2 193.8 214.5 207.9 216.0 204.6 214.5 212.5 223.4 200.0 209.7 Under 65/65+ < 65 Years 169.5\* 169.5 185.2 185.2 177\* 177.0 185.6\* 185.6 171.1\* 171.1 185.4 185.4 ► 65+ Years 203.2 206.2 213.0 214.5 213.9 216.0 212.3 214.5 220.3 223.4 208.7 209.7 Age ▶ 65-69 180.9 179.0 184.2 168.7 171.8 172.4 70-74 200.7\* 214.6\* 217.4\* 207.3\* 204.9\* 201.3\* 75-79 234.5\* 233.1\* 236.8\* 229.4\* 241.4\* 218.3\* 80-84 230.7\* 241.1\* 241.7\* 255.3\* 267\* 261.9<sup>\*</sup> 85-89 229.2\* 252.9\* 269.4\* 235.9\* 226.8\* 236.9\* 90-94 181.5\* 226.9\* 213.9\* 210\* 223.6\* 241\* 95-97 61.5\*\* 110.2\*\* 187.5<sup>\*</sup> 126.5\*\* 139.4\*\* 159.1<sup>\*</sup> 82.8<sup>\*</sup> 98+ 64.8\*<del>\*</del> 42.8<sup>\*</sup> 63.6\*\* 20.5<sup>\*</sup> 61.3\*<del>\*</del> Race/ethnicity ▶ White 201.9 222.6 211.8 214.0 223.4 212.6 222.9 212.5 218.2 228.7 204.0 215.3 Black 168.9<sup>\*</sup> 179.1\* 177.9<sup>\*</sup> 179.6\* 180.0 148.7\* 140.4 180.5 192.0 172.8<sup>\*</sup> 193.9 199.0 Hispanic 182.1\* 129\* 144.1 183.6<sup>\*</sup> 138.4 158.3<sup>\*</sup> 105.9 177.1\* 158.3 175.9<sup>\*</sup> 120.8 134.4 77.3\*\* Asian 88.8\* 121.1\* 75.2\*<del>\*</del> 142.9\* 79.4 123.6\* 120.0 65.3 63.6 138.2 102.3 Other 159.1\* 262\* 281.2\* 205.7\* 148.3\* 238.3\* 184.9 244.0 260.2 132.0 248.3 178.4 Unknown 373.9\*\* 573.6\*\* 434.3\*\* 470.2\*\* 469.2\*\* 403.9\*\* . . . ... Region ► Northeast 207.1 232.5 225.0 233.4 244.0 249.1 238.7 221.1 247.3 234.6 266.9 251.6 South 205.5\* 212.1 216.4<sup>\*</sup> 221.1 210.4\* 218.1 205\* 212.9 208.6\* 211.8 189.1\* 195.7 Midwest 208\* 223.3 211.4\* 233.3\* 233.5 232.9\* 221.5\* 217.9 241.0 220.6\* 253.7 239.8 West 143\* 147.4 148.7\* 143.8\* 147.3\* 150.7<sup>\*</sup> 151.6<sup>\*</sup> 153.6 151.4 155.4 155.6 149.7 Gender Female 163.4\* 172.8\* 180.1\* 179.4\* 180.0 188.3\* 179.1\* 166.2 169.6 177.1 192.6 180.6 ► Male 238.5 262.5 250.8 276.5 242.8 269.6 236.0 261.7 242.6 264.9 225.7 248.1

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

<sup>...</sup> Data unavailable.

<sup>►</sup> Denotes reference group.

<sup>\*</sup>Statistically different from reference group (p<.05).

<sup>\*</sup>Rate based on a count less than 600, should be interpreted with caution.

<sup>&</sup>lt;sup>a</sup>Rate per 100,000 based on enrollment in calendar years for individuals in the same demographic stratum.

<sup>&</sup>lt;sup>b</sup>Rate per 100,000 age-adjusted to the 2005 US standard population (US Population Estimates from Current Population Survey).

age-adjusted rateb 2002 (N=11,435) 2003 (N=11,241) 2004 (N=12,103) 2005 (N=12,691) 2006 (N=11,616) Age-Age-Age-Age-Age-Rate Adjusted Rate **Adjusted** Rate **Adjusted** Rate Adjusted Rate Adjusted Rate Rate Rate Rate Rate Total 139.7 158.4 155.5 181.9 190.4 198.6 138.6 155.3 160.3 160.6 Age 18-24 61.4\* 59.4\* 61.6\* 65.1\* 72.1\* 25-34 146.3\* 135.6\* 140.6\* 127.6\* 134.6\* 35-39 136.2 130.7\* 136.9\* 143.1\* 142.6\* 40-44 149.1\* 137.6\* 149.9\* 151.2<sup>\*</sup> 148.2\* 45-54 145.4\* 142.0<sup>\*</sup> 162.7\* 165.1\* 168.7\* 55-64 152.9<sup>\*</sup> 164.1 186.8 190.7\* 218.6 130.6 233.0 ▶ 65-74 166.9 196.4 224.5 75-84 268.3\* 199.4\* 265.3\* 270.5\* 280.1\* 85+ 140.3\* 191.5\* 230.2\* 262.0\* Race/ethnicity 138.9 137.9 ▶ White 130.2 125.5 158.4 181.8 167.2 196.0 166.2 200.2 117.9\* 122.0 87.2\* 173.0 149.3 Black 103.7\* 114.4 154.0 137.3<sup>\*</sup> 117.0\* Hispanic 107.4\* 116.5 110.1\* 121.2 137.5\* 157.3 132.6\* 161.5 141.5\* 200.2 79.9\* 102.1 59.8\* 87.0 77.8\* 105.2 67.8\* 110.2 75.6\* 142.5 Asian Other 110.4\* 134.6 108.7\* 139.6 160.7\* 184.7 121.9\* 164.0 117.6\* 163.1 Unknown 129.8\* 108.1\* 150.0<sup>\*</sup> 148.0\* 152.8\* Missing 201.7\* 182.9<sup>\*</sup> 189.3\* 158.1<sup>\*</sup> 180.6\* Region Northeast 134.5 144.3 177.8 181.2 160.2\* 216.0 110.2\* 118.1\* 145.5\* 147.2<sup>\*</sup> 157.5 181.7 190.7 201.1 South 144.7\* 140.9\* 151.9 156.3<sup>\*</sup> 159.5\* 159.9\* ▶ Midwest 159.0 184.1 160.5 180.7 181.8 208.5 194.1 221.8 193.2 228.9 92.5\* 101.6 102.6 West 92.4\* 98.5\* 116.3 103.8\* 126.1 106.4\* 134.3 Gender Female 124.5 121.8 127.5 121.8 148.6 149.7 154.0 157.7 158.0 167.4

► Male

154.7<sup>\*</sup>

196.3

150.2\*

190.7

162.1\*

214.6

166.8\*

224.6

163.3\*

228.6

<sup>...</sup> Data unavailable.

<sup>►</sup> Denotes reference group.

<sup>\*</sup>Statistically different from reference group (p<.05).

<sup>\*</sup>Rate based on a count less than 30, should be interpreted with caution.

<sup>&</sup>lt;sup>a</sup>Rate per 100,000 based on enrollment in calendar years for individuals in the same demographic stratum.

<sup>&</sup>lt;sup>b</sup>Rate 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 9-7. Hospital outpatient visits by Medicare beneficiaries for upper urinary tract stones listed as primary diagnosis,

rate, age-adjusted rate

	2002 (	N=16,100)	2003 (	N=17,580)	2004 (	N=18,840)	2005 (	(N=20,280)	2006 (	(N=20,360)	2007 (N=20,280)	
	Rate	Age- Adjusted Rate	Rate	Age- Adjusted Rate								
Total	45.3	42.5	48.2	41.1	50.9	45.7	54.6	49.4	56.0	47.9	56.1	51.1
Under 65/65+												
< 65 Years	59.2*	59.2	79.3 <sup>*</sup>	79.3	75.2 <sup>*</sup>	75.2	76.3 <sup>*</sup>	76.3	86.9*	86.9	76.2 <sup>*</sup>	76.2
► 65+ Years	41.7	42.5	40.0	41.1	44.4	45.7	48.6	49.4	47.2	47.9	50.0	51.1
Age												
<b>►</b> 65-69	48.6		54.7		58.2		57.4		57.4		65.2	
70-74	52.8*		47.4*		62.2*		67.4 <sup>*</sup>		61.3*		57.5 <sup>*</sup>	
75-79	42.2*		36.0*		32.5*		47.2 <sup>*</sup>		50.4*		51.9 <sup>*</sup>	
80-84	27.7*		28.2*		27.3*		28.8*		24.5*		35.7*	
85-89	25.6 <sup>*</sup>		20.1 <sup>*</sup>		28.7*		23*		22.1*		20.8**	
90-94	21.1*		10.2*		12.0 <sup>*</sup>		23.6**		33.6* <del>*</del>		21.6 <sup>*</sup>	
95-97					0.0**		9.7 <sup>*</sup>		0.0**		9.9 <sup>*</sup>	
98+					0.0**		10.4 <sup>*</sup>		0.0**		10.2 <sup>*</sup>	
Race/ethnicity												
▶ White	42.7	41.7	43.4	37.9	46.4	41.6	51.2	45.8	55.6	47.8	55.5	49.9
Black	45.2 <sup>*</sup>	34.7	55.5*	47.3	60.8*	60.6	57.5 <sup>*</sup>	54.2	50.7*	37.4	49.9*	48.2
Hispanic	100.2*	56.5	139.9*	83.5	138.5*	71.7	96.1*	56.7	81.5 <sup>*</sup>	43.0	77.0 <sup>*</sup>	71.1
Asian	44.4* <del></del>	47.9	26.5 <sup>*</sup>	28.8	35.8* <del>*</del>	38.4	77.3 <sup>*</sup>	78.0	43.2* <del>*</del>	50.7	28.5 <sup>*</sup>	31.5
Other	107.2*	91.2	157.8 <sup>*</sup>	156.5	117.9*	141.5	128.4*	132.8	84.1*	94.4	113.7*	120.8
Unknown	133.5 <sup>*</sup>		86.0 <sup>*</sup>		135.7 <sup>*</sup>		88.2* <del>*</del>		93.8 <sup>*</sup>		33.7 <sup>*</sup> ◆	
Region												
▶ Northeast	55.4	46.0	65.8	53.6	71.1	63.3	66.7	55.9	86.6	74.9	77.9	69.1
South	36.1*	34.7	37.7*	30.6	36.3*	33.2	40.3*	36.0	39.2*	32.2	35.4*	32.4
Midwest	47.7*	47.7	46.2*	45.6	53.2*	49.5	61.2*	59.0	60.7*	54.2	68.4*	64.8
West	50.9 <sup>*</sup>	48.3	55.0*	42.8	58 <sup>*</sup>	47.7	63.8*	57.7	52.7*	43.4	60.3*	52.4
Gender												
Female	35.3*	32.8	42.3*	36.8	41.3*	36.6	42.3*	38.1	45.4*	36.3	44.8*	38.6
► Male	58.0	55.8	55.7	47.0	63.0	57.6	70.1	64.7	69.2	63.3	69.9	67.4

<sup>...</sup> Data unavailable.

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

<sup>►</sup> Denotes reference group.

<sup>\*</sup>Statistically different from reference group (p<.05).

<sup>\*</sup>Rate based on a count less than 600, should be interpreted with caution.

<sup>&</sup>lt;sup>a</sup>Rate per 100,000 based on enrollment in calendar years for individuals in the same demographic stratum.

<sup>&</sup>lt;sup>b</sup>Rate per 100,000 age-adjusted to the 2005 US standard population (US Population Estimates from Current Population Survey).

Table 9-8. Hospital outpatient visits by privately insured individuals for upper urinary tract stones listed as primary

diagnosis, rate, a age-adjusted rate

	2002 (I	N=45,757)	2003 (I	N=49,173)	2004 (	N=57,161)	2005 (I	N=65,905)	2006 (N=67,229)	
	Rate	Age- Adjusted Rate	Rate	Age- Adjusted Rate	Rate	Age- Adjusted Rate	Rate	Age- Adjusted Rate	Rate	Age- Adjusted Rate
Total	518.5	657.0	498.9	648.1	568.3	721.9	617.6	741.4	646.0	864.7
Age										
18-24	219.7*		206.0*		238.1*		266.0 <sup>*</sup>		276.0*	
25-34	403.6*		371.9 <sup>*</sup>		443.5*		481.7 <sup>*</sup>		479.2*	
35-39	488.8*		477.7*		538.1*		610.1*		621.4*	
40-44	546.2*		506.1*		579.4 <sup>*</sup>		651.3 <sup>*</sup>		655.9 <sup>*</sup>	
45-54	637.1*		610.0*		691.7*		756.0		767.9 <sup>*</sup>	
55-64	842.1*		801.1*		853.0		929.1*		958.7*	
<b>►</b> 65-74	695.6		756.1		844.7		736.2		1,193.0	
75-84	439.2*		631.0 <sup>*</sup>		714.4*		571.1 <sup>*</sup>		1002.0*	
85+			266.9* <del>*</del>		322.7*◆		272.7 <b>**</b>		398.8 <sup>*</sup>	
Race/ethnicity										
► White	589.9	714.1	594.0	745.6	628.2	773.7	682.3	792.6	712.8	874.1
Black	367.7 <sup>*</sup>	488.1	326.3 <sup>*</sup>	429.1	377.3 <sup>*</sup>	504.5	395.3 <sup>*</sup>	509.5	378.6 <sup>*</sup>	518.2
Hispanic	479.2 <sup>*</sup>	597.7	464.5*	621.5	449.4*	598.1	479.4*	611.1	508.3*	716.9
Asian	319.2* <del>*</del>	541.6	282.1* <del>^</del>	443.4	280.8*	419.9	304.7 <sup>*</sup>	477.6	290.3*	488.2
Other	466.6**	583.5	542.2**	699.6	560.2 <sup>*</sup>	789.5	573.2**	742.1	548.0 <sup>*</sup>	719.1
Unknown	527.2 <sup>*</sup>		508.7 <sup>*</sup>		512.5*		580.4 <sup>*</sup>		598.1*	
Missing	481.0 <sup>*</sup>		410.0*		513.1*		547.0 <sup>*</sup>		606.1*	
Region										
Northeast	442.2*	610.9	428.5 <sup>*</sup>	621.6	486.4*	677.2	531.7*	701.9	545.6*	756.0
South	573.0 <sup>*</sup>	695.2	545.5 <sup>*</sup>	674.1	619.4*	765.3	666.5*	769.9	686.9	862.1
► Midwest	503.9	646.2	487.4	639.7	558.9	700.9	634.4	759.4	691.6	1,015.0
West	446.4*	595.7	436.2*	605.8	495.0*	688.1	501.3 <sup>*</sup>	647.0	517.3 <sup>*</sup>	685.3
Gender										
Female	390.1*	420.9	376.7 <sup>*</sup>	416.3	442.9*	481.2	484.4*	500.0	514.2 <sup>*</sup>	647.1
► Male	654.5	902.7	628.3	892.2	700.5	974.3	757.9	998.2	783.5	1,091.0

<sup>...</sup> Data unavailable.

<sup>►</sup> Denotes reference group.

<sup>\*</sup>Statistically different from reference group (p<.05).

<sup>&</sup>lt;sup>a</sup>Rate per 100,000 based on enrollment in calendar years for individuals in the same demographic stratum.

<sup>&</sup>lt;sup>b</sup>Rate 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 9-9. Nationally representative hospital outpatient visits for upper urinary tract stones listed as primary diagnosis, 2002-2007 (merged), 6-year count

	6-Year Count	
Total	621,245	
Age		
40-44	112,227	
45-54	208,798	
55-64	167,774	
65-74	90,761	
75-84	26,079	
85+	15,606	
Race/ethnicity		
White	536,700	
Black	68,690	
Other	10,944	
Region		
Northeast	88,470	
South	245,157	
Midwest	191,037	
West	96,581	
Gender		
Female	239,070	
Male	382,175	

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

Table 9-10. Ambulatory surgery center visits by Medicare beneficiaries for upper urinary tract stones listed as primary

diagnosis, rate, age-adjusted rate

ulagriosis, rate,	2002 (N=65,000)		2003 (I	N=70,160)	2004 (	N=59,180)	2005 (	N=50,200)	2006 (	(N=49,580)	2007 (N=51,300)	
	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	182.7	198.5	192.4	205.6	144.9	172.3	135.3	143.3	136.4	146.5	141.8	151.8
Under 65/65+												
< 65 Years	135.8*	125.2	153.4*	145.8	128.0*	128.0	121.1*	121.1	114.8*	103.2	119.8*	119.8
► 65+ Years	194.7	191.3	202.7	189.5	168.6	172.3	139.2	143.3	142.6	125.0	148.4	151.8
Age												
<b>►</b> 65-69	187.8		208.0		172.6		159.0		159.1		164.6	
70-74	205.1*		212.0*		182.6*		166.9*		169.8*		159.7*	
75-79	220.3*		221.7*		195.9*		142.6*		147.2*		166.8*	
80-84	197.2*		200.8*		159.3*		116.2*		130.5*		136.9*	
85-89	171.4*		160.6*		120.7*		90.5*		84.3*		92.0*	
90-94	130.9*		157.4*		94.0*		49.1 <sup>*</sup>		61.4*		88.2*	
95-97	41.0 <sup>*</sup>		50.1 <sup>*</sup>		29.6 <sup>*</sup>		0.0**				49.7 <sup>*</sup>	
98+	10.8 <sup>*</sup>		0.0**		10.6**		10.4 <sup>*</sup>					
Race/ethnicity												
▶ White	190.7	206.3	202.5	214.1	168.4	178.4	145.4	151.3	147.8	156.9	154.4	162.6
Black	141.9 <sup>*</sup>	152.3	128.2*	140.4	105.3*	132.2	77.6*	92.7	69.7*	71.4	62.3*	68.2
Hispanic	88.0 <sup>*</sup>	81.7	142.8*	161.6	113.1*	101.6	65.9 <sup>*</sup>	56.7	73.1* <del>*</del>	106.0	85.2*	97.2
Asian	72.7 <sup>*</sup>	78.5	83.3* <del>*</del>	87.2	43.0 <sup>*</sup>	47.6	30.2 <sup>*</sup> ♦	40.1	49.9 <sup>*</sup>	43.4	50.7 <sup>*</sup>	54.0
Other	183.3*	223.5	198.9*	240.4	196.5*	204.0	142.6*	158.8	100.9*	99.6	124.5*	113.4
Unknown	427.4* <del>•</del>		286.8 <sup>*</sup>		325.7 <sup>*</sup>		176.3* <b>*</b>		312.8 <sup>*</sup>		269.3*	
Region												
▶ Northeast	192.6	212.2	190.7	204.9	164.7	177.6	131.4	133.3	132.3	144.2	140.1	149.0
South	171.1*	183.3	192.8*	203.1	150.0*	160.8	130.0*	134.0	137.9 <sup>*</sup>	148.7	136.3*	145.5
Midwest	220.0*	238.2	233.6*	250.4	199.4*	214.3	175.1*	191.5	162.1*	172.5	176.3 <sup>*</sup>	192.8
West	139.9*	153.6	130.1*	142.5	118.6*	128.3	93.2*	102.6	100.2*	106.9	107.7*	110.8
Gender												
Female	139.4*	144.1	148.1*	151.0	115.8*	118.5	89.5*	87.7	100.7*	102.8	102.4*	99.3
► Male	238.1	274.1	248.6	280.3	215.5	244.8	192.5	217.5	180.5	204.3	190.2	220.0

<sup>...</sup> Data unavailable.

<sup>►</sup> Denotes reference group.

<sup>\*</sup>Statistically different from reference group (p<.05).

<sup>\*</sup>Rate based on a count less than 600, should be interpreted with caution.

<sup>&</sup>lt;sup>a</sup>Rate per 100,000 based on enrollment in calendar years for individuals in the same demographic stratum.

<sup>&</sup>lt;sup>b</sup>Rate 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 9-11. Ambulatory surgery center visits by privately insured individuals for upper urinary tract stones listed as primary

diagnosis, rate, age-adjusted rateb

	2002	(N=5,417)	2003	(N=5,528)	2004	(N=5,477)	2005	(N=5,845)	2006	(N=5,663)
	Rate	Age- Adjusted Rate	Rate	Age- Adjusted Rate	Rate	Age- Adjusted Rate	Rate	Age- Adjusted Rate	Rate	Age- Adjusted Rate
Total	61.4	80.3	56.1	72.1	54.5	65.1	54.8	71.1	54.4	72.4
Age										
18-24	20.1*		14.5*		13.4*		14.2*		15.6*	
25-34	41.5*		38.4*		35.5*		32.5*		31.8*	
35-39	54.1*		51.8*		50.3*		50.4*		51.2*	
40-44	67.0		57.6		54.1*		58.9		51.8*	
45-54	81.6*		77.5*		77.3*		75.7 <sup>*</sup>		75.1	
55-64	120.8*		106.1*		98.5*		100.6*		97.8*	
<b>►</b> 65-74	66.1		60.0		65.4		60.5		76.3	
75-84	27.4*		37.2*		37.9*		42.4*		52.7*	
85+			12.9* <del>*</del>		16.6**		13.2* <del>*</del>		15.4**	
Race/ethnicity										
➤ White	72.0	89.0	66.7	81.7	60.4	76.0	60.5	74.6	61.3	78.4
Black	40.1*	57.7	31.2*	39.2	33.1*	49.5	31.3*	44.7	29.1*	43.1
Hispanic	33.2*	49.3	40.8*	56.5	40.0*	49.6	37.4*	57.4	42.3*	70.3
Asian	37.7*	68.8	33.4*	51.8	28.6*	42.7	33.4*	55.1	29.6*	50.0
Other	72.0 <sup>*</sup>	140.9	46.6* <del>*</del>	69.6	54.9*	57.0	57.2 <sup>*</sup>	110.3	45.2*	68.7
Unknown	55.0*		55.4*		49.4*		53.1*		55.9 <sup>*</sup>	
Missing	57.7 <sup>*</sup>	***	48.6*	***	50.0*		50.3*	***	41.7*	
Region										
Northeast	61.9*	86.2	58.8	80.2	53.1*	60.8	48.4*	74.3	48.3*	68.4
South	65.2*	83.3	59.5	75.1	58.4	74.1	57.7 <sup>*</sup>	73.7	58.9 <sup>*</sup>	79.8
▶ Midwest	70.0	91.7	62.4	78.8	60.5	67.7	65.1	83.0	63.2	82.8
West	25.4*	31.2	26.4*	36.2	28.2*	33.3	28.6*	36.3	29.6*	36.8
Gender										
Female	46.6*	52.6	41.8*	45.6	43.4*	45.7	44.4*	53.0	42.7*	46.9
► Male	77.1	109.1	71.2	100.3	66.1	85.5	65.6	90.2	66.6	98.0

<sup>...</sup> Data unavailable.

<sup>►</sup> Denotes reference group.

<sup>\*</sup>Statistically different from reference group (p<.05).

<sup>\*</sup>Rate based on a count less than 30, should be interpreted with caution.

<sup>&</sup>lt;sup>a</sup>Rate per 100,000 based on enrollment in calendar years for individuals in the same demographic stratum.

<sup>&</sup>lt;sup>b</sup>Rate per 100,000 age-adjusted to the 2005 US standard population (US Population Estimates from Current Population Survey).

Table 9-12. Nationally representative ambulatory surgery center visits for upper urinary tract stones listed as primary diagnosis, count, rate, age-adjusted rate

	Count	Rate	Age-Adjusted Rate
Total	481,626	80.2*	219.1
Age		121.8*	
18-24	22,441	238.4*	
25-34	48,081	195.4*	
35-39	49,526	210.1*	
40-44	43,670	320.7	
45-54	89,935	383.7	
55-64	99,347	379.4*	
<b>►</b> 65-74	71,197	206.9*	
75-84	49,176		
85+	8,253	228.6	
Gender		208.9	
Female	259,509		228.6
► Male	222,117	191.5*	208.9

<sup>►</sup> Denotes reference group.

SOURCE: National Survey of Ambulatory Surgery, 2006.

<sup>\*</sup>Statistically different from reference group (p<.05).

<sup>&</sup>lt;sup>a</sup>Rate per 100,000 individuals in the same demographic stratum is based on 2006 population estimates from Current Population Survey (CPS).

<sup>&</sup>lt;sup>b</sup>Rate per 100,000 age-adjusted to the 2005 US standard population (US Population Estimates from Current Population Survey).

Table 9-13. Physician office visits by Medicare beneficiaries for upper urinary tract stones listed as any diagnosis, rate, ageadjusted rateb

aujusteu rate	2002 (N	l=274,280)	2003 (N	=299,360)	2004 (N	=319,480)	2005 (N	I=336,040)	2006 (N	l=332,520)	2007 (N	l=337,300)
	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	771.1	820.6	820.8	878.2	863.5	920.5	905.4	969.5	914.7	987.0	932.4	1,013.0
Under 65/65+												
< 65 Years	663.0*	663.0	684.9 <sup>*</sup>	684.9	739.2 <sup>*</sup>	739.2	773.9 <sup>*</sup>	773.9	761.4 <sup>*</sup>	761.4	753.8 <sup>*</sup>	753.8
► 65+ Years	798.7	820.6	856.6	878.2	897.2	920.5	942.4	969.5	958.7	987.0	986.0	1,013.0
Age												
<b>►</b> 65-69	972.7		1,047.0		1,057.0		1,110.0		1,123.0		1,142.0	
70-74	929.7*		967.2*		1057.0 <sup>*</sup>		1125.0*		1158.0*		1179.0*	
75-79	840.2*		915.9*		945.1*		984.9*		978.3 <sup>*</sup>		1067.0*	
80-84	617.5 <sup>*</sup>		654.8 <sup>*</sup>		705.5 <sup>*</sup>		748.4 <sup>*</sup>		789.0 <sup>*</sup>		780.1 <sup>*</sup>	
85-89	431.4*		480.2*		520.6*		543.7 <sup>*</sup>		557.5 <sup>*</sup>		534.2*	
90-94	198.4*		278.0 <sup>*</sup>		271.9 <sup>*</sup>		280.7 <sup>*</sup>		302.8*		437.0 <sup>*</sup>	
95-97			220.4**		256.6* <del>*</del>		165.4 <sup>*</sup>		199.1**		139.2* <del>*</del>	
98+			21.4**		63.6* <del>*</del>		41.4* <del>*</del>		40.9 <sup>*</sup>		102.1* <del>*</del>	
Race/ethnicity												
➤ White	814.7	855.4	869.6	915.0	909.7	955.7	964.7	1,015.0	984.0	1,040.0	999.4	1,065.0
Black	409.2 <sup>*</sup>	457.6	426.1*	459.6	496.2*	560.3	496.3 <sup>*</sup>	575.0	434.1*	490.0	481.1 <sup>*</sup>	539.6
Hispanic	573.7 <sup>*</sup>	490.2	448.9*	481.0	638.9 <sup>*</sup>	625.2	568.3 <sup>*</sup>	570.2	632.5*	716.2	607.5 <sup>*</sup>	601.3
Asian	432.0 <sup>*</sup>	378.5	503.4*	498.8	433.2 <sup>*</sup>	446.7	457.0 <sup>*</sup>	439.8	694.6*	690.0	655.8*	741.3
Other	1093.0*	1,134.0	1231.0 <sup>*</sup>	1,369.0	1239.0*	1,240.0	1061.0*	1,088.0	771.0 <sup>*</sup>	865.0	847.1*	919.2
Unknown	1522.0 <sup>*</sup>		1893.0*		1656.0*		1704.0*		1470.0*		1346.0*	
Region												
Northeast	818.3	895.6	870.9	950.2	892.9	968.6	928.1	1,013.0	982.1	1,093.0	1,024.0	1,111.0
South	912.5*	967.7	959.3*	1,027.0	1012.0*	1,077.0	1073.0*	1,139.0	1051.0*	1,122.0	1071.0*	1,161.0
Midwest	617.1*	654.2	678.8 <sup>*</sup>	712.9	720.6 <sup>*</sup>	761.1	739.0 <sup>*</sup>	786.8	770.6 <sup>*</sup>	822.3	787.4 <sup>*</sup>	861.3
West	616.3*	653.2	652.3*	707.9	699.3*	760.6	744.8*	819.0	739.8*	816.1	727.6*	804.8
Gender		000.2		101.7		700.0		017.0		010.1		001.0
Female	533.0*	547.3	572.0 <sup>*</sup>	581.8	617.3*	625.7	644.6*	659.8	666.3*	691.9	687.6 <sup>*</sup>	703.4
► Male	1,075.0	1,194.0	1,136.0	1,280.0	1,173.0	1,315.0	1,231.0	1,382.0	1,222.0	1,375.0	1,233.0	1,414.0

<sup>...</sup> Data unavailable.

<sup>►</sup> Denotes reference group.

<sup>\*</sup>Statistically different from reference group (p<.05).

<sup>\*</sup>Rate based on a count less than 600, should be interpreted with caution.

<sup>&</sup>lt;sup>a</sup>Rate per 100,000 based on enrollment in calendar years for individuals in the same demographic stratum.

<sup>&</sup>lt;sup>b</sup>Rate 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 9-14. Physician office visits by privately insured individuals for upper urinary tract stones listed as any diagnosis, rate,

age-adjusted rateb

	2002 (	N=70,419)	2003 (	N=73,951)	2004 (	N=79,748)	2005 (	N=85,728)	2006 (	N=82,813)
	Rate	Age- Adjusted Rate								
Total	797.9	979.5	750.2	937.1	792.9	999.4	803.3	999.0	795.8	1,035.0
Age										
18-24	312.5*		277.3*		278.8*		279.5*		291.0*	
25-34	628.9 <sup>*</sup>		568.7*		579.4*		575.8 <sup>*</sup>		550.1*	
35-39	803.5*		727.5*		765.9 <sup>*</sup>		793.0 <sup>*</sup>		754.1*	
40-44	855.9 <sup>*</sup>		788.9 <sup>*</sup>		830.8*		861.4*		828.7*	
45-54	1019.0*		952.0		1,022.0		1,016.0		1003.0*	
55-64	1247.0*		1236.0*		1272.0*		1277.0*		1280.0*	
▶ 65-74	945.4		967.6		1,046.0		1,025.0		1,239.0	
75-84	508.4*		617.2*		744.1*		716.9 <sup>*</sup>		854.6*	
85+			287.8*		294.0*		324.1*		363.5*	
Race/ethnicity										
► White	920.0	1,080.0	884.9	1,061.0	852.0	1,042.0	859.3	1,033.0	867.4	1,090.0
Black	494.1*	606.9	457.4*	615.0	434.5*	573.8	441.7*	588.6	420.5*	575.4
Hispanic	769.9*	961.4	724.5*	986.7	668.6*	936.3	673.3 <sup>*</sup>	904.0	681.9 <sup>*</sup>	992.5
Asian	626.8*	970.7	596.1*	922.7	539.0*	848.5	562.2*	894.6	479.5 <sup>*</sup>	774.3
Other	886.1*	1,181.0	768.4 <sup>*</sup>	1,009.0	826.3*	1,145.0	749.3 <sup>*</sup>	1,035.0	765.2 <sup>*</sup>	1,051.0
Unknown	814.7*		787.3 <sup>*</sup>		793.2 <sup>*</sup>		789.5 <sup>*</sup>		765.9 <sup>*</sup>	
Missing	726.1*		614.8*		759.9 <sup>*</sup>		792.9 <sup>*</sup>		727.4*	
Region										
Northeast	760.7*	1,001.0	705.3*	942.3	811.3*	1,080.0	820.3*	1,089.0	808.9*	1,138.0
South	919.2*	1,094.0	845.1*	1,023.0	888.9*	1,109.0	896.0*	1,101.0	887.0*	1,131.0
► Midwest	714.4	879.0	679.7	849.2	696.7	860.7	721.6	882.9	720.3	921.9
West	658.0 <sup>*</sup>	849.3	654.5*	863.7	691.7*	926.9	685.0 <sup>*</sup>	891.6	668.5*	900.5
Gender										
Female	601.2*	628.4	586.1*	635.3	633.0*	691.1	651.7*	707.3	653.8*	726.8
► Male	1,006.0	1,346.0	924.1	1,256.0	961.6	1,325.0	963.2	1,309.0	944.0	1,347.0
Unknown	603.2*		331.0*		745.2 <sup>*</sup>		507.0 <sup>*</sup>		484.5*	

<sup>...</sup> Data unavailable.

<sup>►</sup> Denotes reference group.

<sup>\*</sup>Statistically different from reference group (p<.05).

<sup>\*</sup>Rate based on a count less than 30, should be interpreted with caution.

<sup>&</sup>lt;sup>a</sup>Rate per 100,000 based on enrollment in calendar years for individuals in the same demographic stratum.

<sup>&</sup>lt;sup>b</sup>Rate per 100,000 age-adjusted to the 2005 US standard population (US Population Estimates from Current Population Survey).

Table 9-15. Nationally representative physician office visits for upper urinary tract stones listed as any diagnosis, 2002-2007 (merged), 6-year count

	6-Year Count	
Total	6,796,898	
Age		
40-44	899,140	
45-54	1,860,627	
55-64	1,566,632	
65-74	1,597,977	
75-84	792,610	
85+	79,912	
Race/ethnicity		
White	6,049,039	
Black	425,938	
Hispanic	321,921	
Region		
Northeast	1,363,189	
South	2,719,476	
Midwest	1,276,521	
West	1,437,712	
Gender		
Female	2,678,435	
Male	4,118,463	

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

Table 9-16. Emergency room visits by Medicare beneficiaries for upper urinary tract stones listed as primary diagnosis, rate, age-adjusted rateb

age-aujusteu		(N=37,480)	2003 (1	N=42,420)	2004 (I	N=47,520)	2005 (I	N=52,460)	2006 (	N=53,700)	2007 (	N=53,980)
	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	105.4	95.6	116.3	104.7	128.4	115.6	141.3	122.9	147.7	127.7	149.2	128.3
Under 65/65+												
< 65 Years	155.1*	155.1	169.1*	169.1	185.2 <sup>*</sup>	185.2	218.7*	218.7	228.0*	228.0	229.3*	229.3
► 65+ Years	92.7	95.6	102.4	104.7	113.1	115.6	119.5	122.9	124.7	127.7	125.2	128.3
Age												
<b>►</b> 65-69	132.1		154.1*		164.0		170.5		169.0		174.1	
70-74	107.6*		118.3*		138.9*		137.2*		158.3*		151.2*	
75-79	83.8*		84.0*		92.8*		111.6*		107.1*		114.9*	
80-84	57.8 <sup>*</sup>		69.9*		71.5*		75.7 <sup>*</sup>		80.1*		79.9 <sup>*</sup>	
85-89	49.4*		35.1*		45.2 <sup>*</sup>		55.1*		60.6*		52.8*	
90-94	16.9* <del>*</del>		30.7 <sup>*</sup>		34.0* <del>*</del>		23.6 <sup>*</sup>		43.5 <sup>*</sup>		47.0 <sup>*</sup>	
95-97	10.2* <del>*</del>		0.0**		9.9 <sup>*</sup>		19.5**		29.9 <sup>*</sup>		0.0**	
98+			10.7 <sup>*</sup>		10.6* <del>*</del>		20.7 <sup>*</sup>				10.2* <del></del>	
Race/ethnicity												
▶ White	110.9	101.1	119.1	107.3	133.2	119.7	150.6	130.7	157.5	135.1	159.2	137.3
Black	63.0*	46.7	88.2*	72.6	83.6*	77.0	83.5*	67.2	78.6 <sup>*</sup>	53.7	90.1*	62.4
Hispanic	97.1*	42.0	104.9*	54.9	130.1*	60.5	98.8*	66.9	123.7*	85.4	96.2*	42.6
Asian	52.5 <sup>*</sup>	44.1	34.1* <del>*</del>	62.6	68.0 <sup>*</sup> ◆	64.0	26.9 <sup>*</sup>	28.3	73.1* <del>*</del>	87.2	69.7 <sup>*</sup>	63.6
Other	124.5*	108.6	183.1*	168.3	199.5*	131.9	162.6*	100.7	143*	123.4	143.4*	80.1
Unknown	106.8*		458.8 <sup>*</sup> ◆		162.9 <sup>*</sup>		235.1* <del>*</del>		375.4* <del>•</del>		101.0 <sup>*</sup>	
Region												
▶ Northeast	88.8	80.6	91.2	85.0	101.1	93.1	112.7	98.9	122.5	114.7	121.2	104.0
South	121.6*	105.1	135.6*	116.4	150.7*	130.9	166.2*	137.4	169.2*	137.1	171.7*	141.6
Midwest	106.7*	100.1	107.8*	98.0	124.2*	116.1	138.4*	125.8	144.8*	123.5	152.8*	142.6
West	84.8*	85.0	114.1*	111.8	115.0*	106.5	121.7*	114.6	131.7*	127.8	125.4*	107.5
Gender												
Female	61.5 <sup>*</sup>	54.5	68.0*	57.2	76.0 <sup>*</sup>	62.6	87.6*	73.2	89.3*	74.2	90.9*	71.0
► Male	161.4	151.6	177.5	169.0	194.5	186.3	208.6	188.9	220.0	198.0	220.7	202.7

<sup>...</sup> Data unavailable.

<sup>►</sup> Denotes reference group.

<sup>\*</sup>Statistically different from reference group (p<.05).

<sup>\*</sup>Rate based on a count less than 600, should be interpreted with caution.

<sup>&</sup>lt;sup>a</sup>Rate per 100,000 based on enrollment in calendar years for individuals in the same demographic stratum.

<sup>&</sup>lt;sup>b</sup>Rate 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 9-17. Emergency room visits by privately insured individuals for upper urinary tract stones listed as primary

diagnosis, rate, age-adjusted rate

	2002 (	N=15,448)	2003 (	N=13,062)	2004	(N=7,610)	2005	(N=4,895)	2006	(N=3,909)
	Rate	Age- Adjusted Rate	Rate	Age- Adjusted Rate	Rate	Age- Adjusted Rate	Rate	Age- Adjusted Rate	Rate	Age- Adjuste Rate
Total	175.0	180.5	132.5	144.3	75.7	92.4	45.9	60.8	37.6	37.6
Age										
18-24	113.2*		71.9*		39.8*		25.0*		25.8	
25-34	170.6*		125.1*		66.4*		40.2*		36.1*	
35-39	184.8*		141.0		74.8*		45.2*		34.8*	
40-44	197.2*		139.0		74.1*		38.3*		42.1*	
45-54	206.1*		149.3		84.4*		43.7*		40.7*	
55-64	192.9*		176.1*		100.7*		55.6*		50.1*	
<b>►</b> 65-74	143.7		146.0		117.9		110.4		28.1	
75-84	92.8*		89.3*		103.5*		96.8*		14.4 <sup>*</sup>	
85+			54.7*		63.3*		62.2*		6.6 <sup>*</sup>	
Race/ethnicity										
➤ White	190.0	182.1	145.4	150.8	71.9	83.6	35.8	50.2	26.5	24.5
Black	118.7*	125.1	95.1*	107.3	50.0*	69.6	26.7*	41.4	24.3*	29.2
Hispanic	125.8*	148.2	106.5*	136.4	69.2*	98.3	39.0*	58.3	38.0*	54.0
Asian	64.6*	91.1	54.3*	82.2	29.7*	43.0	17.5*	33.9	15.1*	24.3
Other	126.6*	196.1	134.7*	162.8	57.4*	110.2	19.1* <del>*</del>	33.2	29.8 <sup>*</sup>	43.9
Unknown	182.7*		143.9*		73.1*		43.8*		33.0*	
Missing	173.5*		126.0*		112.6*		116.9*		108*	
Region										
Northeast	50.6*	58.7	49.5*	57.1	32.9*	37.2	24.4*	32.5	18.0*	13.3
South	159.2*	158.9	120.1*	131.7	57.3 <sup>*</sup>	80.4	28.2*	53.1	22.1*	28.8
► Midwest	275.8	282.9	218.7	228.3	146.7	159.6	99.1	105.8	87.0	79.7
West	62.8*	64.7	28.8*	30.6	4.0*	5.4	2.6*	5.3	3.7*	3.4
Gender										
Female	122.6*	102.9	101.6*	90.4	62.8*	64.2	43.6*	48.3	35.8*	28.2
► Male	230.7	263.0	165.3	201.7	89.2	122.0	48.3	73.7	39.4	47.6

<sup>...</sup> Data unavailable.

<sup>▶</sup> Denotes reference group.

<sup>\*</sup>Statistically different from reference group (p<.05).

<sup>\*</sup>Rate based on a count less than 30, should be interpreted with caution.

<sup>&</sup>lt;sup>a</sup>Rate per 100,000 based on enrollment in calendar years for individuals in the same demographic stratum.

<sup>&</sup>lt;sup>b</sup>Rate per 100,000 age-adjusted to the 2005 US standard population (US Population Estimates from Current Population Survey).

Table 9-18. Nationally representative emergency room visits for upper urinary tract stones listed as primary diagnosis, 2002-2007 (merged), 6-year count

	6-Year Count	
Total	1,855,929	
Age		
40-44	416,084	
45-54	715,984	
55-64	427,963	
65-74	180,818	
75-84	110,714	
Race/ethnicity		
White	1,745,214	
Black	57,013	
Hispanic	45,220	
Asian	6,936	
Region		
Northeast	349,210	
South	628,062	
Midwest	475,520	
West	403,137	
Gender		
Female	651,928	
Male	1,204,001	

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

Table 9-19. Procedures among Medicare beneficiaries for upper urinary tract stones listed as any diagnosis, count, rate

	20	002	20	003	20	004	20	005	20	006	20	007
	Count	Rate										
Total	100,260	20,616.0	105,540	20,241.0	111,280	19,919.0	111,520	19,137.0	107,440	18,144.0	102,140	16,965.0
PCNL	15,080	3,101.0	14,320	2,746.0	13,560	2,427.0	11,580	1,987.0	12,860	2,172.0	12,340	2,050.0
Ambulatory Surgery Center	2,820	580.0	2,280	437.0	1,600	286.0	440	76.0	680	115.0	560	93.0
Emergency Room	180	37.0	40	8.0	60	11.0	60	10.0	20	3.0	0	0.0
Hospital Outpatient	240	49.0	260	50.0	160	29.0	20	3.0	100	17.0	60	10.0
Inpatient	11,780	2,422.0	11,640	2,232.0	11,740	2,101.0	11,000	1,888.0	12,040	2,033.0	11,640	1,933.0
Physician Office	60	12.0	100	19.0	0	0.0	60	10.0	20	3.0	80	13.0
ESWL	45,600	9,377.0	49,000	9,397.0	51,600	9,236.0	53,540	9,188.0	48,060	8,116.0	43,180	7,172.0
Ambulatory Surgery Center	20,720	4,261.0	21,140	4,054.0	23,280	4,167.0	23,920	4,105.0	22,440	3,790.0	20,820	3,458.0
Emergency Room	800	165.0	760	146.0	620	111.0	860	148.0	820	138.0	580	96.0
Hospital Outpatient	18,440	3,792.0	20,720	3,974.0	21,360	3,823.0	22,460	3,854.0	19,720	3,330.0	16,980	2,820.0
Inpatient	2,800	576.0	3,180	610.0	3,140	562.0	3,000	515.0	2,340	395.0	2,360	392.0
Physician Office	2,840	584.0	3,200	614.0	3,200	573.0	3,300	566.0	2,740	463.0	2,440	405.0
Ureteroscopy	37,840	7,781.0	40,660	7,798.0	44,600	7,983.0	45,200	7,756.0	45,820	7,738.0	45,780	7,604.0
Ambulatory Surgery Center	20,700	4,256.0	23,020	4,415.0	25,460	4,557.0	26,340	4,520.0	26,960	4,553.0	28,500	4,734.0
Emergency Room	1,580	325.0	1,280	245.0	1,980	354.0	2,320	398.0	2,240	378.0	1,820	302.0
Hospital Outpatient	1,840	378.0	2,000	384.0	2,220	397.0	1,860	319.0	1,760	297.0	1,680	279.0
Inpatient	12,100	2,488.0	13,020	2,497.0	13,220	2,366.0	12,680	2,176.0	13,180	2,226.0	12,000	1,993.0
Physician Office	1,620	333.0	1,340	257.0	1,720	308.0	2,000	343.0	1,680	284.0	1,780	296.0
Open stone surgery	1,740	358.0	1,500	288.0	1,500	268.0	1,180	202.0	700	118.0	820	136.0
Ambulatory Surgery Center	480	99.0	440	84.0	200	36.0	180	31.0	40	7.0	120	20.0
Emergency Room	20	4.0	20	4.0	0	0.0	0	0.0	20	3.0	0	0.0
Hospital Outpatient	120	25.0	20	4.0	20	4.0	40	7.0	0	0.0	0	0.0
Inpatient	1,040	214.0	900	173.0	1,140	204.0	820	141.0	600	101.0	700	116.0
Physician Office	80	16.0	120	23.0	140	25.0	140	24.0	40	7.0	0	0.0
Laparoscopic removal	0	0.0	60	12.0	20	4.0	20	3.0	0	0.0	20	3.0
Ambulatory Surgery Center	0	0.0	60	12.0	20	4.0	20	3.0	0	0.0	0	0.0
Emergency Room	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0
Hospital Outpatient	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0
Inpatient	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0	20	3.0
Physician Office	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0

PCNL: Percutaneous nephrolithotomy.

ESWL: Extracorporeal shock wave lithotripsy.

NOTE: Counts less than 600 should be interpreted with caution.

SOURCE: Centers for Medicare and Medicaid Services, 5% Carrier and Outpatient Files, 2002-2007.

<sup>&</sup>lt;sup>a</sup>Unweighted counts multiplied by 20 to arrive at counts in table.

<sup>&</sup>lt;sup>b</sup>Rate per 100,000 based on number of Medicare beneficiaries with a diagnosis of kidney stones.

Table 9-20. Procedures among privately insured individuals for upper urinary tract stones listed as any diagnosis, count, ratea

	20	002	20	003	20	004	20	005	20	006
	Count	Rate								
Total	18,335	26,465.0	24,669	26,569.0	26,490	26,430.0	28,113	25,169.0	26,357	24,185.0
ESWL	10,310	14,881.0	14,308	15,410.0	14,985	14,951.0	15,492	13,870.0	14,412	13,224.0
Ambulatory Surgery Center	2,809	4,055.0	3,631	3,911.0	3,215	3,208.0	3,217	2,880.0	3,246	2,978.0
Hospital Outpatient	6,430	9,281.0	8,590	9,252.0	9,498	9,477.0	10,490	9,392.0	9,846	9,035.0
Inpatient	664	958.0	841	906.0	845	843.0	849	760.0	873	801.0
Physician Office	407	587.0	1,246	1,342.0	1,427	1,424.0	936	838.0	447	410.0
Open stone surgery	183	264.0	202	218.0	220	220.0	224	201.0	199	183.0
Ambulatory Surgery Center	2	3.0	0	0.0	10	10.0	11	10.0	19	17.0
Hospital Outpatient	48	69.0	37	40.0	67	67.0	43	38.0	44	40.0
Inpatient	102	147.0	128	138.0	108	108.0	129	115.0	110	101.0
Physician Office	31	45.0	37	40.0	35	35.0	41	37.0	26	24.0
PCNL	1,061	1,531.0	1,484	1,598.0	1,505	1,502.0	1,538	1,377.0	1,422	1,305.0
<b>Ambulatory Surgery Center</b>	39	56.0	90	97.0	92	92.0	134	120.0	139	128.0
Hospital Outpatient	324	468.0	414	446.0	385	384.0	273	244.0	248	228.0
Inpatient	695	1,003.0	971	1,046.0	1,009	1,007.0	1,111	995.0	1,020	936.0
Physician Office	3	4.0	9	10.0	19	19.0	20	18.0	15	14.0
Ureteroscopy	6,781	9,788.0	8,675	9,343.0	9,780	9,758.0	10,859	9,722.0	10,324	9,473.0
<b>Ambulatory Surgery Center</b>	515	743.0	622	670.0	830	828.0	888	795.0	1,002	919.0
Hospital Outpatient	3,778	5,453.0	4,903	5,281.0	5,608	5,595.0	6,288	5,630.0	6,048	5,550.0
Inpatient	2,423	3,497.0	3,072	3,309.0	3,268	3,261.0	3,614	3,236.0	3,214	2,949.0
Physician Office	65	94.0	78	84.0	74	74.0	69	62.0	60	55.0

ESWL: Extracorporeal shock wave lithotripsy.

PCNL: Percutaneous nephrolithotomy.

<sup>a</sup>Rate per 100,000 based on member months of enrollment in calendar year.

NOTE: Counts less than 30 should be interpreted with caution.

Table 9-21. Nationally representative inpatient stays for lower urinary tract stones listed as primary diagnosis, rate, ageadjusted rateb

	2002	(N=6,070)	2003	(N=5,329)	2004	(N=5,108)	2005	(N=4,821)	2006	(N=4,750)	2007	(N=4,168)
	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	2.8	2.8	2.5	2.4	2.4	2.4	2.2	2.2	2.2	2.2	1.9	1.9
Age												
18-24	0.5		0.7		0.4		0.4		0.3		0.3	
25-34	0.7		0.5		0.5		0.6		0.6		0.5	
35-39	0.6		0.7		0.7		0.5		0.7		0.6	
40-44	0.6		0.7		0.4		0.6		0.6		0.5	
45-54	1.1		1.1		1.0		0.7		0.9		0.8	
55-64	3.1		2.7		2.8		2.4		2.1		1.7	
<b>▶</b> 65-74	9.7		8.2		7.4		7.4		7.0		5.6	
75-84	11.4*		9.2*		11.9*		11.0*		10.4*		9.3*	
85+	17.3 <sup>*</sup>		14.0*		13.1*		10.8*		11.9*		10.8*	
Race/ethnicity												
► White	2.0	2.0	2.0	1.9	2.0	2.0	2.0	2.0	1.8	1.8	1.5	1.5
Black	1.4*	1.4	1.1*	1.1	1.2*	1.5	0.9*	1.2	1.0*	1.4	1.1*	1.0
Hispanic	†	†	1.6*	1.6	1.1*	1.1	1.1*	1.1	1.7*	2.0	1.1*	1.0
Asian	1.0*	1.8	1.1*	1.4	0.9*	2.3	0.5*	1.2	1.0*	2.0	0.7*	1.0
Other	7.3*	6.9	2.8*	2.7	2.2*	2.5	2.8*	4.0	3.2*	4.0	1.8*	3.5
Region												
Northeast	4.0	3.7	3.4	3.2	3.2	3.2	3.3	3.3	2.9	2.9	2.5	2.4
South	2.7	2.6	2.2	2.1	2.2	2.2	2.0	2.0	2.2	2.2	1.7	1.7
► Midwest	2.8	2.7	2.5	2.4	2.4	2.5	1.8	1.8	2.0	2.0	1.9	1.9
West	2.1*	2.1	2.0*	2.0	1.9*	1.9	1.9*	1.9	1.6*	1.6	1.6*	1.6
Gender												
Female	0.6*	0.6	0.6	0.6	0.5	0.5	0.6	0.6	0.5	0.5	0.5	0.5
► Male	5.3	5.1	4.5	4.4	4.3	4.4	3.9	3.9	3.9	3.9	3.3	3.3

<sup>▶</sup> Denotes reference group.

<sup>\*</sup>Statistically different from reference group (p<.05).

<sup>+</sup> Figure does not meet standard for reliability or precision.

<sup>&</sup>lt;sup>a</sup>Rate per 100,000 individuals in the same demographic stratum is based on 2002-2007 population estimates from Current Population Survey (CPS).

<sup>&</sup>lt;sup>b</sup>Rate 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 9-22. Inpatient stays by Medicare beneficiaries for lower urinary tract stones listed as primary diagnosis, rate, ageadjusted rateb

	2002	(N=1,800)	2003	(N=1,560)	2004	(N=1,240)	2005	(N=1,340)	2006	(N=1,280)	2007	(N=1,300)
	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	5.1	5.7	4.3	4.9	3.4	4.7	3.6	3.9	3.5	4.1	3.6	4.2
Under 65/65+												
< 65 Years	2.5 <sup>*</sup>	2.5	2.4* <del>*</del>	2.4	0.8**	1.3	2.5**	2.5	1.5 <sup>*</sup>	1.5	2.2**	2.2
► 65+ Years	5.7	5.7	4.8	4.9	4.1	4.7	3.9	3.9	4.1	4.1	4.0	4.2
Age												
<b>►</b> 65-69	4.4 <sup>•</sup>		2.3		2.0 <sup>*</sup>		1.7 <b>*</b>		3.0 <sup>•</sup>		2.5 <sup>+</sup>	
70-74	5.8 <sup>*</sup>		3.2* <del>*</del>		4.7 <sup>*</sup>		3.9 <sup>*</sup>		5.0 <sup>*</sup>		1.6 <sup>*</sup>	
75-79	7.1 <sup>*</sup>		6.3* <del>*</del>		4.0 <sup>*</sup>		4.8 <sup>*</sup>		3.6**		3.3* <del>*</del>	
80-84	7.6 <sup>*</sup>		6.5 <sup>*</sup>		5.9* <del>*</del>		6.8 <sup>*</sup>		5.6 <sup>*</sup>		8.1 <b>*</b>	
85-89	3.4* <del>*</del>		10.9* <del>*</del>		4.9 <sup>*</sup>		4.1 <sup>*</sup>		4.1 <sup>*</sup>		10.4 <sup>*</sup>	
90-94	4.2 <sup>*</sup>		4.1 <sup>*</sup>		6.0* <del>*</del>		5.9* <del>*</del>		5.9* <del>*</del>		3.9 <sup>*</sup>	
95-97	10.2* <del>*</del>		10.0 <sup>*</sup>		9.9 <sup>*</sup>		0.0**		0.0**		0.0**	
98+	0.0**				0.0**		0.0 <sup>*</sup>					
Race/ethnicity												
▶ White	5.2	5.7	4.4	5.1	3.6	4.2	3.8	4.2	3.8	4.3	4.1 <sup>•</sup>	4.8
Black	2.9 <sup>*</sup>	3.6	2.8 <sup>*</sup>	4.5	1.6* <b>*</b>	3.0	1.6 <sup>*</sup>	2.0	1.1* <del>*</del>	0.9	1.1**	1.0
Hispanic	9.1 <sup>*</sup>	17.6	2.9* <del>*</del>	7.7	2.8 <sup>*</sup>	4.5	5.5 <sup>*</sup>	5.1	5.6* <b>*</b>	11.2	0.0**	0.0
Asian	8.1 <sup>*</sup>	13.3	3.8* <del>*</del>	0.0	0.0**	0.0	0.0**		0.0**	0.0	0.0**	0.0
Other	3.5 <sup>*</sup>	12.1	9.5 <sup>*</sup>	21.3	3.0* <del>*</del>	5.6	5.7 <sup>*</sup>	6.5	5.6**	9.1	2.7* <del>*</del>	0.0
Unknown			0.0**				0.0**		0.0**			
Region												
▶ Northeast	6.5 <sup>+</sup>	7.9	4.5 <sup>◆</sup>	3.4	3.1 <b>*</b>	3.4	4.2 <sup>•</sup>	4.9	4.9 <sup>◆</sup>	5.8	4.6 <sup>•</sup>	5.5
South	4.5*	4.4	4.0 <sup>*</sup>	4.0	3.3* <del>*</del>	4.0	3.6* <del>*</del>	3.8	4.0* <del>*</del>	5.0	3.4 <sup>*</sup>	3.6
Midwest	4.2 <sup>*</sup>	5.1	5.0* <del>*</del>	4.3	3.2* <del>*</del>	4.3	3.0* <del>*</del>	3.2	2.2**	2.0	3.4 <sup>*</sup>	4.0
West	5.9* <del>*</del>	7.2	3.7 <b>*</b>	4.3	3.9* <del>*</del>	4.3	3.8* <del>*</del>	4.3	2.9* <del>*</del>	3.2	3.2 <sup>*</sup> ♦	4.1
Gender												
Female	0.3**	0.2	0.3**	0.8	0.5**	0.6	0.4* <del>•</del>	0.5	0.7**	0.4	0.4 <sup>*</sup>	0.4
► Male	11.1	13.3	9.3	4.0	7.0	10.3	7.6	8.6	7.0	9.0	7.5	9.2

<sup>...</sup> Data unavailable.

<sup>►</sup> Denotes reference group.

<sup>\*</sup>Statistically different from reference group (p<.05).

<sup>\*</sup>Rate based on a count less than 600, should be interpreted with caution.

<sup>&</sup>lt;sup>a</sup>Rate per 100,000 based on enrollment in calendar years for individuals in the same demographic stratum.

<sup>&</sup>lt;sup>b</sup>Rate 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 9-23. Inpatient stays by privately insured individuals for lower urinary tract stones listed as primary diagnosis, rate, age-adjusted rateb

2002 (N=312) 2003 (N=354) 2004 (N=305) 2005 (N=311) 2006 (N=291) Age-Age-Age-Age-Age-Rate Adjusted Rate Adjusted Rate Adjusted Rate Adjusted Rate **Adjusted** Rate Rate Rate Rate Rate Total 3.8 6.3 4.4 6.9 3.9 6.7 3.9 6.2 4.0 7.2 Age 1.4\*\* 1.7\*<del>\*</del> 1.2\*\* 1.6\*\* 1.9\*\* 18-24 1.2\*\* 25-34 2.6\* 2.5\* 1.8\*\* 2.4\* 2.2\*\* 1.7\*\* 1.5\*\* 1.9\*\* 2.9\*\* 35-39 2.6\*\* 2.6\*\* 1.3\*\* 2.5\*\* 2.6\*\* 40-44 45-54 2.0\* 2.9\* 2.0\* 3.5\* 2.8\* 6.2\* 3.4\* 6.5\* 55-64 5.8\* 5.2\* ▶ 65-74 9.6 13.0 5.3\* 8.5 12.2 19.1\* 20.9\*\* 75-84 23.3\* 17.9\* 11.4 11.9\*\* 21.0\*\* 13.4\*\* 85+ 18.1\*<del>\*</del> Race/ethnicity ► White 3.9 6.3 4.0 6.7 3.6 6.2 4.4 7.4 4.4<sup>•</sup> 7.8 5.7<sup>\*</sup> 4.4<sup>\*</sup> 2.0<sup>\*</sup> 3.1\*\* Black 7.9 3.0\*\* 7.3 8.6 4.0 6.3 Hispanic 2.0\*\* 5.9 5.4\*<del></del> 9.7 3.0\*• 6.2 3.0\*\* 5.5 3.0\*\* 5.6 2.8\*\* 1.5\*\* 2.2\*\* Asian 10.3 13.9 2.6\* 8.2 3.1\*\* 4.3 21.8 Other 2.3\*\* 10.2 8.6\*\* 33.4 3.1\*\* 1.6\*\* 3.4\*\* 3.8\*\* 5.2\*\* 3.4\*<del>•</del> 3.5\*\* Unknown Missing 4.1\* 3.6\* 3.9\* 5.0\* 5.8\* Region 4.8 5.8\* 9.7 Northeast 7.6 5.0 8.4 4.8 10.0 4.9 10.2 South 3.3\* 4.4 4.3 6.4 3.5 5.9 3.8 6.2 3.4\* 6.8 4.3 7.9 4.2 ► Midwest 4.6 7.5 4.0 6.6 6.0 8.0 4.6 3.4\* 3.1\* West 6.3 3.1\* 5.3 3.0\* 6.8 4.9 4.1\* 5.6 Gender 3.2 2.2 Female 2.4 2.3 2.5 3.3 2.5 3.0 2.6 3.6 5.3\* 9.2 6.6\* 5.4\* 10.1 5.4\* 9.3 5.5\* 10.5 ► Male 11.5

<sup>...</sup> Data unavailable.

<sup>►</sup> Denotes reference group.

<sup>\*</sup>Statistically different from reference group (p<.05).

<sup>\*</sup>Rate based on a count less than 30, should be interpreted with caution.

<sup>&</sup>lt;sup>a</sup>Rate per 100,000 based on enrollment in calendar years for individuals in the same demographic stratum.

<sup>&</sup>lt;sup>b</sup>Rate per 100,000 age-adjusted to the 2005 US standard population (US Population Estimates from Current Population Survey).

Table 9-24. Hospital outpatient visits by Medicare beneficiaries for lower urinary tract stones listed as primary diagnosis, rate, age-adjusted rate

rate, age-auj		2 (N=800)	2003	(N=1,060)	200	4 (N=920)	200	5 (N=780)	2006	(N=1,300)	200	7 (N=800)
	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	2.2	2.2	2.9	3.1	2.5	1.4	2.1	1.5	3.6	3.9	2.2	2.3
Under 65/65+												
< 65 Years	3.3*	3.3	2.9 <sup>•</sup>	2.9	6.4 <sup>*</sup>	6.4	4.2 <sup>*</sup>	4.2	2.5**	2.5	2.2 <sup>*</sup>	2.2
► 65+ Years	2.0	2.2	2.9	3.1	1.4	1.4	1.5	1.5	3.9	3.9	2.2	2.3
Age												
<b>►</b> 65-69	1.0 <sup>•</sup>		2.5 <sup>*</sup>		1.7 <sup>*</sup>		1.0 <sup>•</sup>		5.0 <sup>*</sup>		3.0 <sup>*</sup>	
70-74	0.9 <sup>*</sup>		2.9**		0.9**		0.9**		3.4* <del>*</del>		1.0 <sup>*</sup>	
75-79	3.4 <sup>*</sup>		2.7**		1.3**		0.3**		3.9* <del>*</del>		2.6**	
80-84	2.4* <del>*</del>		3.2 <sup>*</sup>		2.3**		5.4* <del>*</del>		3.2* <del>*</del>		2.9**	
85-89	5.1* <del>*</del>		5.9 <sup>*</sup>		0.8**		0.8**		3.3* <del>*</del>		1.6 <sup>*</sup>	
90-94	0.0**		0.0**		0.0**		2.0 <sup>*</sup>		4.0 <sup>*</sup>		2.0**	
95-97					9.9 <sup>*</sup>							
98+	0.0 <sup>*</sup>											
Race/ethnicity												
▶ White	2.4	2.3	2.5	2.8	2.2	1.2	2.1 <sup>•</sup>	1.3	3.5	3.8	2.4	2.3
Black	1.7 <sup>*</sup>	1.7	3.3* <del>*</del>	4.7	3.3* <del>*</del>	2.0	1.6 <sup>*</sup>	3.7	1.7 <b>*</b> *	8.4	1.1 <sup>*</sup>	1.0
Hispanic	0.0**	0.0	14.6 <sup>*</sup>	31.8	5.7 <sup>*</sup>	10.1	0.0	0.0	8.4**	22.5	0.0**	0.0
Asian					3.6 <sup>*</sup>	17.9	3.4 <sup>*</sup>	25.6	3.3* <del>*</del>	10.3		
Other	3.5 <sup>*</sup>	17.8	12.6 <sup>*</sup>	17.5	6.0 <sup>*</sup>	7.7	5.7 <sup>*</sup>	10.0	11.2* <del>*</del>	41.8	0.0**	0.0
Unknown					0.0**		0.0**		0.0**		67.3 <sup>*</sup>	
Region												
▶ Northeast	2.0 <sup>•</sup>	2.0	6.4 <sup>*</sup>	7.1	<b>4</b> .7 <sup>◆</sup>	1.4	1.7 <sup>•</sup>	0.8	4.6 <sup>*</sup>	5.6	2.6	2.4
South	2.8 <sup>*</sup>	2.4	1.3* <del>*</del>	1.3	2.1**	1.3	1.5 <sup>*</sup>	0.9	2.8**	3.1	1.3* <del>*</del>	1.0
Midwest	2.2 <sup>*</sup>	2.0	1.7 <sup>*</sup>	2.3	1.9 <sup>*</sup>	2.0	2.4* <del>*</del>	2.2	4.0 <sup>*</sup>	4.2	2.7**	3.4
West	1.4 <sup>*</sup>	2.0	4.3* <del>*</del>	3.6	1.6 <sup>*</sup>	0.9	3.5 <sup>*</sup>	2.6	3.5 <sup>*</sup>	3.5	3.2* <del>*</del>	3.8
Gender												
Female	1.1* <del>*</del>	0.9	1.5 <sup>*</sup>	1.6	0.6 <sup>*</sup>	0.1	1.2* <del>*</del>	0.8	1.1 <sup>*</sup>	0.8	0.5**	0.4
► Male	3.7⁴	3.9	4.7	5.3	4.9	3.2	3.3	2.5	6.6	8.1	4.3	4.7

<sup>...</sup> Data unavailable.

<sup>▶</sup> Denotes reference group.

<sup>\*</sup>Statistically different from reference group (p<.05).

<sup>\*</sup>Rate based on a count less than 600, should be interpreted with caution.

<sup>&</sup>lt;sup>a</sup>Rate per 100,000 based on enrollment in calendar years for individuals in the same demographic stratum.

<sup>&</sup>lt;sup>b</sup>Rate 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 9-25. Hospital outpatient visits by privately insured individuals for lower urinary tract stones listed as primary

diagnosis, rate, age-adjusted rate

	2002	(N=1,217)	2003	(N=1,316)	2004	(N=1,396)	2005	(N=1,742)	2006	(N=1,535)
	Rate	Age- Adjusted Rate	Rate	Age- Adjusted Rate	Rate	Age- Adjusted Rate	Rate	Age- Adjusted Rate	Rate	Age- Adjusted Rate
Total	13.8	23.6	13.4	24.7	13.9	25.0	16.3	28.5	14.8	28.8
Age										
18-24	4.2*		3.7*		4.5*		4.1*		3.5*	
25-34	7.1*		6.8*		7.5 <b>*</b>		10.1*		8.4*	
35-39	8.7*		9.3*		9.2*		10.5 <b>*</b>		10.9*	
40-44	12.4*		10.7*		9.7*		11.7*		13.2*	
45-54	14.5 <b>*</b>		13.1*		14.5 <b>*</b>		15.0 <b>*</b>		14.8*	
55-64	30.9 <b>*</b>		27.0 <b>*</b>		26.6*		30.6*		28.0*	
<b>►</b> 65-74	40.6		50.3		45.4		40.7		49.1	
75-84	32.5 <b>*</b>		46.3*		54.3 <b>*</b>		82.3*		71.4 <b>*</b>	
85+			19.3 <b>**</b>		22.6**		19.1 <b>*</b> ◆		37.5 <b>**</b>	
Race/ethnicity										
► White	15.4	24.6	16.5	29.9	15.7	28.6	17.3	27.9	16.4	30.3
Black	7.2 <b>**</b>	12.4	8.8**	12.1	8.1*	16.5	9.4*	13.7	8.8*	23.1
Hispanic	12.8 <b>*</b>	24.7	14.1*	24.6	10.7*	18.5	10.9*	22.9	12.7*	25.2
Asian	6.5 <b>**</b>	16.7	7.5 <b>**</b>	17.2	6.7 <b>*</b> ◆	14.3	7.8 <b>**</b>	21.3	5.0 <b>*</b>	15.3
Other	7.4 <b>*</b>	17.5	6.9 <b>**</b>	25.0	17.1 <b>**</b>	55.1	17.9 <b>*</b>	26.3	17.6 <b>**</b>	35.2
Unknown	20.3*		15.3 <b>*</b>		10.1*		24.6*		14.3*	
Missing	12.8 <b>*</b>		9.9*		12.4*		14.5 <b>*</b>		12.0*	
Region										
Northeast	16.8 <b>*</b>	29.5	14.3	31.1	13.4	27.0	13.8*	26.1	17.4 <b>*</b>	35.3
South	14.3	23.5	13.5	23.9	15.4 <b>*</b>	26.6	16.9	27.2	15.1	28.8
► Midwest	13.1	22.5	12.9	21.9	13.3	23.4	17.0	30.8	14.4	28.3
West	11.7 <b>*</b>	20.9	13.1*	31.8	10.8*	22.5	15.2 <b>*</b>	26.5	12.4*	25.2
Gender										
Female	7.4 <b>*</b>	8.4	6.4*	7.6	7.2*	8.9	8.9*	10.4	7.5 <b>*</b>	10.5
► Male	20.6	39.4	20.8	42.1	20.9	41.6	24.2	47.3	22.3	45.8

<sup>...</sup> Data unavailable.

<sup>►</sup> Denotes reference group.

<sup>\*</sup>Statistically different from reference group (p<.05).

 $<sup>\</sup>ensuremath{^{\bullet}}\xspace$  Rate based on a count less than 30, should be interpreted with caution.

<sup>&</sup>lt;sup>a</sup>Rate per 100,000 based on enrollment in calendar years for individuals in the same demographic stratum.

<sup>&</sup>lt;sup>b</sup>Rate per 100,000 age-adjusted to the 2005 US standard population (US Population Estimates from Current Population Survey).

Table 9-26. Ambulatory surgery center visits by Medicare beneficiaries for lower urinary tract stones listed as primary

diagnosis, rate, age-adjusted rateb

	2002	(N=5,700)	2003	(N=6,040)	2004	(N=6,560)	2005	(N=6,200)	2006	(N=6,840)	2007	(N=5,980)
	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	16.0	18.0	16.6	19.1	17.7	19.6	16.7	18.8	18.8	20.5	16.5	19.1
Under 65/65+												
< 65 Years	9.4*	9.4	7.6 <b>*</b> *	7.6	11.7 <b>*</b>	11.7	12.0 <b>*</b>	12.0	13.8 <b>*</b>	13.8	9.6*	9.6
► 65+ Years	17.7	18.0	18.9	19.1	19.4	19.6	18.0	18.8	20.2	20.5	18.6	19.1
Age												
<b>►</b> 65-69	13.6		14.4		13.7		15.4		13.7		15.5	
70-74	18.9 <b>*</b>		18.0 <b>*</b>		23.3*		17.1 <b>*</b>		23.3 <b>*</b>		17.8 <b>*</b>	
75-79	18.6 <b>*</b>		22.7*		19.1*		24.1*		23.9*		21.5 <b>*</b>	
80-84	27.2 <b>*</b>		26.4*		27.3 <b>*</b>		23.0*		23.1 <b>*</b>		24.7 <b>*</b>	
85-89	13.6 <b>*</b>		16.7 <b>*</b> ◆		17.2**		14.8 <b>*</b>		22.1* <del>*</del>		18.4 <b>*</b>	
90-94	12.7 <b>*</b> *		16.4**		16.0 <b>*</b> *		3.9 <b>**</b>		21.8* <del>*</del>		15.7 <b>*</b> ◆	
95-97			10.0 <b>*</b>		9.9 <b>*</b> ◆				10.0**			
Race/ethnicity												
▶ White	17.8	19.4	17.9	20.4	19.2	21.3	18.1	20.0	20.7	22.2	17.8	20.4
Black	5.2**	9.0	9.4**	12.8	6.0 <b>*</b>	10.1	7.1 <b>*</b> *	10.7	5.0 <b>*</b>	8.0	9.1 <b>*</b> *	12.7
Hispanic	3.0 <b>*</b>	12.4	8.7 <b>*</b> *	27.0	0.0**	0.0	13.7 <b>*</b> *	17.7	8.4**	15.6	13.7 <b>*</b> *	27.0
Asian	0.0**	0.0	11.4**	29.9	10.7 <b>*</b>	28.9	10.1 <b>**</b>	19.3	13.3 <b>*</b> *	24.6	6.3 <b>*</b> *	14.7
Other	13.8 <b>*</b> *	33.1	6.3**	14.3	36.3**	33.5	14.3**	20.1	16.8 <b>*</b> *	16.7	8.1 <b>**</b>	14.3
Unknown	53.4**		0.0**		27.1 <b>*</b>				62.6 <b>*</b> *	•••	33.7 <b>*</b>	
Region												
Northeast	17.3	19.6	18.7	21.2	18.1	20.7	21.2	24.7	20.6	22.3	15.8	19.1
South	15.4 <b>*</b>	18.4	14.5 <b>*</b>	17.1	15.7 <b>*</b>	17.6	14.1 <b>*</b>	16.0	16.5 <b>*</b>	18.0	16.4 <b>*</b>	18.6
Midwest	18.0 <b>*</b>	18.3	17.9 <b>*</b>	20.0	20.5*	23.1	18.5 <b>*</b>	20.5	21.4*	23.9	18.7 <b>*</b>	21.9
West	12.9*	14.8	17.0*	20.1	17.8*	17.6	14.9*	15.5	18.3 <b>*</b>	18.7	14.5*	16.2
Gender												
Female	4.2*	3.6	4.1*	4.2	3.9 <b>*</b>	3.3	4.2*	3.7	5.3 <b>*</b>	4.3	5.4 <b>*</b>	4.4
► Male	31.1	38.1	32.3	39.9	35.2	41.9	32.4	39.1	35.6	42.0	30.2	38.4

<sup>...</sup> Data unavailable.

<sup>►</sup> Denotes reference group.

<sup>\*</sup>Statistically different from reference group (p<.05).

<sup>\*</sup>Rate based on a count less than 600, should be interpreted with caution.

<sup>&</sup>lt;sup>a</sup>Rate per 100,000 based on enrollment in calendar years for individuals in the same demographic stratum.

<sup>&</sup>lt;sup>b</sup>Rate 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 9-27. Ambulatory surgery center visits by privately insured individuals for lower urinary tract stones listed as primary

diagnosis, rate, age-adjusted rate

	200	)2 (N=81)	200	3 (N=111)	2004	4 (N=123)	200	5 (N=149)	200	6 (N=128)
	Rate	Age- Adjusted Rate	Rate	Age- Adjusted Rate	Rate	Age- Adjusted Rate	Rate	Age- Adjusted Rate	Rate	Age- Adjusted Rate
Total	0.9	2.0	1.1	2.3	1.2	2.4	1.4	2.7	1.2	3.0
Age										
18-24	0.3**		0.2**		0.2**		0.2**		0.1**	
25-34	0.3**		0.4**		0.3**		0.5**		0.2**	
35-39	0.3**		0.5**		0.4**		0.5**		0.6**	
40-44	0.7 <b>*</b> *		1.0 <b>*</b> *		0.8**		0.8**		1.2**	
45-54	0.7**		1.2**		1.2**		1.4*		1.2**	
55-64	2.3**		2.6*		4.0		3.3*		3.3	
▶ 65-74	5.0 <sup>•</sup>		4.6 <sup>•</sup>		<b>4.4</b> <sup>◆</sup>		6.4		3.2 <sup>•</sup>	
75-84	3.8 <b>**</b>		4.8 <b>**</b>		2.6 <b>*</b> *		3.7 <b>*</b>		10.2**	
85+			1.6 <b>**</b>		1.5**		4.8 <b>**</b>		6.6 <b>**</b>	
Race/ethnicity										
▶ White	1.2	2.6	1.2	2.5	1.4	2.7	1.7	3.1	1.3	3.2
Black		•••	1.3 <b>**</b>	4.2	1.4**	8.5	0.8**	2.5	0.5**	1.4
Hispanic	0.3**	11.6	1.7 <b>*</b> ◆	4.0	0.3**	1.0	0.6**	1.3	0.9**	3.2
Asian	0.7**	5.9	0.5**		0.4**	2.8				
Other		•••							1.1 <b>**</b>	
Unknown	0.9**	•••	1.5 <b>**</b>		0.8**		1.0**		1.4**	
Missing	0.8*	•••	0.9*		1.4**		1.3**		1.5 <b>**</b>	
Region										
Northeast	0.9	8.0	1.6 <b>**</b>	5.4	1.1 <sup>•</sup>	2.1	1.2 <sup>•</sup>	3.8	1.4**	3.8
South	1.0	2.2	1.4*	2.9	1.7*	3.4	1.8*	3.9	1.4*	3.5
► Midwest	$0.8^{\bullet}$	1.6	0.5	0.9	0.8	2.3	$0.8^{\bullet}$	1.6	$0.8^{\bullet}$	2.1
West	1.1 <b>**</b>	2.0	1.3* <del>*</del>	3.1	0.8**	2.2	1.6 <b>*</b> *	2.8	1.2**	3.0
Gender										
Female	0.4**	0.5	0.4**	0.7	0.5**	0.9	0.6**	1.0	0.5**	0.9
► Male	1.5	3.6	1.9	4.1	2.0	4.2	2.3	4.6	2.0	5.0

<sup>...</sup> Data unavailable.

<sup>►</sup> Denotes reference group.

<sup>\*</sup>Statistically different from reference group (p<.05).

<sup>\*</sup>Rate based on a count less than 30, should be interpreted with caution.

<sup>&</sup>lt;sup>a</sup>Rate per 100,000 based on enrollment in calendar years for individuals in the same demographic stratum.

<sup>&</sup>lt;sup>b</sup>Rate per 100,000 age-adjusted to the 2005 US standard population (US Population Estimates from Current Population Survey).

Table 9-28. Nationally representative ambulatory surgery center visits for lower urinary tract stones listed as primary diagnosis, count, rate, age-adjusted rate

	Count	Rate	Age-Adjusted Rate
Total	14,640	6.7	7.4
Age			
18-24	139	0.5*	
25-34	433	1.1*	
35-39	813	3.9*	
40-44			
45-54	138	0.3*	
55-64	4,662	15.0	
<b>►</b> 65-74	6,068	32.7	
75-84	1,443	11.1*	
85+	944	23.7*	
Gender			
Female	2,380	2.1*	5.9
► Male	12,260	11.5	18.8

<sup>...</sup> Data unavailable.

SOURCE: National Survey of Ambulatory Surgery, 2006.

<sup>►</sup> Denotes reference group.

<sup>\*</sup>Statistically different from reference group (p<.05).

<sup>&</sup>lt;sup>a</sup>Rate per 100,000 individuals in the same demographic stratum is based on 2006 population estimates from Current Population Survey (CPS).

 $<sup>^{\</sup>mathrm{b}}\mathrm{Rate}$  per 100,000 age-adjusted to the 2005 US standard population (US Population Estimates from Current Population Survey).

Table 9-29. Physician office visits by Medicare beneficiaries for lower urinary tract stones listed as any diagnosis, rate, ageadjusted rateb

aujusteu rate	2002 (	N=15,700)	2003	(N=16780)	2004 (	N=17,620)	2005 (I	N=19,100)	2006 (	N=18,080)	2007 (	(N=18,040)
	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	44.1	49.0	46.0	52.6	47.6	54.3	51.5	58.6	49.7	58.7	49.9	58.7
Under 65/65+												
< 65 Years	26.5 <b>*</b>	26.5	26.8*	26.8	27.7 <b>*</b>	27.7	30.9 <b>*</b>	30.9	23.9*	23.9	24.4*	24.4
► 65+ Years	48.6	49.0	51.1	52.6	53.0	54.3	57.3	58.6	57.1	58.7	57.5	58.7
Age												
<b>►</b> 65-69	43.1		43.0		43.4		42.3		45.2		52.5	
70-74	50.8 <b>*</b>		48.3 <b>*</b>		58.1 <b>*</b>		68.0 <b>*</b>		62.8 <b>*</b>		55.3 <b>*</b>	
75-79	52.7 <b>*</b>		68.4 <b>*</b>		66.6*		65.8 <b>*</b>		68.9 <b>*</b>		65.2 <b>*</b>	
80-84	58.7 <b>*</b>		62.5 <b>*</b>		61.4 <b>*</b>		64.8*		61.1*		64.2 <b>*</b>	
85-89	40.1*		41.8 <b>*</b>		40.2*		58.4 <b>*</b>		61.4*		61.6 <b>*</b>	
90-94	40.1 <b>**</b>		20.4* <del>*</del>		24.0* <del>*</del>		35.3**		45.5 <b>**</b>		52.9* <del>*</del>	
95-97	30.7**		10.0 <b>**</b>		29.6 <b>*</b> *		38.9* <del>*</del>				9.9 <b>*</b> *	
98+	10.8* <del>*</del>						10.4**					
Race/ethnicity												
➤ White	46.6	51.1	50.0	56.5	50.8	56.9	54.1	61.2	52.6	61.4	52.4	60.4
Black	24.6*	33.7	21.1*	25.6	16.3*	20.4	27.7 <b>*</b>	38.1	25.1*	36.4	28.9 <b>*</b>	39.5
Hispanic	9.1 <b>*</b> ◆	27.6	23.3**	39.7	36.8 <b>**</b>	34.8	52.2 <b>*</b> *	37.2	45 <b>*</b> ◆	57.0	55.0 <b>*</b>	60.0
Asian	40.4**	56.8	15.1**	63.9	46.5 <b>*</b> ◆	51.9	33.6 <b>**</b>	53.1	49.9 <b>**</b>	97.0	38 <b>*</b> *	40.8
Other	69.2**	87.0	47.3 <b>**</b>	60.5	78.6 <b>*</b> *	119.3	65.6 <b>*</b> ◆	100.5	47.7 <b>*</b> *	46.3	51.4**	81.9
Unknown	106.8 <b>**</b>		28.7 <b>*</b>		81.4 <b>*</b> *		146.9 <b>*</b>		125.1 <b>**</b>		33.7 <b>*</b>	
Region												
▶ Northeast	51.8	60.4	55.5	65.0	52.2	63.4	70.6	82.8	61.1	76.4	61.0	71.0
South	47.4 <b>*</b>	52.1	46.6 <b>*</b>	52.0	48.0 <b>*</b>	52.3	47.4 <b>*</b>	53.3	48.9 <b>*</b>	56.8	50.6 <b>*</b>	59.4
Midwest	35.7 <b>*</b>	40.5	38.3 <b>*</b>	43.8	38.2 <b>*</b>	43.5	38.8 <b>*</b>	42.2	39.7 <b>*</b>	44.9	35.9 <b>*</b>	41.7
West	40.1*	41.6	45 <b>*</b>	52.7	55.4 <b>*</b>	64.6	57.5 <b>*</b>	68.0	53.3 <b>*</b>	62.8	55.6 <b>*</b>	67.7
Gender												
Female	16.4*	16.7	13.9 <b>*</b>	14.0	14.8*	15.0	15.5 <b>*</b>	15.2	13.5*	14.1	14.3 <b>*</b>	15.1
► Male	79.5	94.0	86.7	106.0	88.9	107.7	96.4	117.0	94.6	117.8	93.5	116.0

<sup>...</sup> Data unavailable.

<sup>►</sup> Denotes reference group.

<sup>\*</sup>Statistically different from reference group (p<.05).

<sup>\*</sup>Rate based on a count less than 600, should be interpreted with caution.

<sup>&</sup>lt;sup>a</sup>Rate per 100,000 based on enrollment in calendar years for individuals in the same demographic stratum.

<sup>&</sup>lt;sup>b</sup>Rate 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 9-30. Physician office visits by privately insured individuals for lower urinary tract stones listed as any diagnosis, rate,

age-adjusted rateb

	2002	(N=1,431)	2003	(N=1,427)	2004	(N=1,368)	2005	(N=1,527)	2006	(N=1,470)
	Rate	Age- Adjusted Rate								
Total	16.2	28.8	14.5	27.1	13.6	25.0	14.3	26.6	14.1	30.3
Age										
18-24	5.6 <b>*</b>		4.7*		4.0*		3.8*		2.4*	
25-34	9.4*		7.2 <b>*</b>		6.9 <b>*</b>		5.9 <b>*</b>		5.7 <b>*</b>	
35-39	10.4*		7.3*		9.1*		7.9*		9.9*	
40-44	13.3*		12.0*		9.7 <b>*</b>		10.4*		9.7*	
45-54	15.4 <b>*</b>		14.6*		14.5*		13.6*		15.1 <b>*</b>	
55-64	30.4*		30.8*		26.4*		29.4*		30.0*	
<b>►</b> 65-74	57.2		55.7		40.0		45.0		56.6	
75-84	54.7 <b>*</b>		46.8 <b>*</b>		56.4 <b>*</b>		63.4 <b>*</b>		73.1 <b>*</b>	
85+			22.5 <b>*</b> *		40.7 <b>*</b> ◆		29.9 <b>*</b> *		50.7 <b>*</b> ◆	
Race/ethnicity										
➤ White	18.2	30.3	16.4	30.2	14.5	26.7	14.9	28.5	14.6	29.9
Black	13.4 <b>**</b>	20.3	12.3 <b>*</b>	19.3	8.6*	16.3	11.5 <b>*</b>	23.6	7.9*	18.1
Hispanic	16.7 <b>*</b>	37.3	17.4 <b>*</b>	39.6	13.3*	25.9	11.6*	21.8	11.7*	34.3
Asian	11.6 <b>*</b> *	36.6	8.0**	24.9	11.0 <b>*</b> *	24.9	110 <b>**</b>	34.6	10.7*	32.4
Other	7.4 <b>*</b> *	12.4	17.3**	37.4	15.9 <b>*</b> *	39.0	9.0 <b>*</b> *	26.0	23.2**	42.9
Unknown	25.6 <b>*</b>		16.2 <b>*</b>		13.0*		12.7 <b>*</b>		15.1 <b>*</b>	
Missing	14.4*		12.0*	•••	12.1*		15.7 <b>*</b>		15.1 <b>*</b>	
Region										
Northeast	21.4*	44.6	16.9 <b>*</b>	34.6	15.9 <b>*</b>	35.1	15.4 <b>*</b>	36.3	15.8 <b>*</b>	37.8
South	16.4 <b>*</b>	29.5	14.7 <b>*</b>	28.4	15.0 <b>*</b>	27.3	14.0	26.6	13.6	27.9
▶ Midwest	13.9	22.5	13.0	22.8	11.0	18.1	13.0	22.4	13.3	27.4
West	17.6 <b>*</b>	26.3	15.2 <b>*</b>	27.2	13.3*	30.0	17.4 <b>*</b>	30.3	16.3*	33.5
Gender										
Female	9.8 <b>*</b>	11.8	7.8 <b>*</b>	9.7	7.7*	9.2	8.0*	10.3	7.7*	11.0
► Male	23.0	46.2	21.6	45.0	19.9	41.2	20.9	43.2	20.8	48.1
Unknown										

<sup>...</sup> Data unavailable.

<sup>►</sup> Denotes reference group.

<sup>\*</sup>Statistically different from reference group (p<.05).

<sup>\*</sup>Rate based on a count less than 30, should be interpreted with caution.

<sup>&</sup>lt;sup>a</sup>Rate per 100,000 based on enrollment in calendar years for individuals in the same demographic stratum.

<sup>&</sup>lt;sup>b</sup>Rate per 100,000 age-adjusted to the 2005 US standard population (US Population Estimates from Current Population Survey).

Table 9-31. Emergency room visits by Medicare beneficiaries for lower urinary tract stones listed as primary diagnosis, rate, age-adjusted rateb

	200	2 (N=740)	2003	(N=1,100)	200	4 (N=900)	200	5 (N=940)	2006	(N=1,160)	200	7 (N=880)
	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	2.1	1.9	3.0	2.7	2.4	2.3	2.5	2.3	3.2	3.4	2.4	2.1
Under 65/65+												
< 65 Years	3.0 <b>*</b>	3.0	4.2 <b>*</b> ◆	4.2	3.0 <b>*</b>	3.0	3.4**	3.4	2.5 <b>*</b> *	2.5	3.1 <b>*</b>	3.1
► 65+ Years	1.8 <sup>•</sup>	1.9	2.7	2.7	2.3	2.3	2.3	2.3	3.4	3.4	2.2	2.2
Age												
<b>►</b> 65-69	1.8 <sup>*</sup>		3.0 <sup>*</sup>		2.7		3.2 <sup>*</sup>		6.2 <sup>*</sup>		2.5 <sup>*</sup>	
70-74	1.5 <b>**</b>		3.8 <b>*</b> *		2.9 <b>*</b> *		1.5 <b>**</b>		2.8 <b>**</b>		4.1 <b>*</b> ◆	
75-79	1.7 <b>**</b>		2.3**		2.0**		2.1 <b>**</b>		2.1 <b>**</b>		0.7 <b>*</b>	
80-84	2.4 <b>*</b> *		2.8 <b>*</b> *		1.8 <b>*</b> *		2.3**		2.3 <b>**</b>		1.9 <b>*</b> *	
85-89	2.6 <b>**</b>		0.0**		0.8**		2.5 <b>**</b>		1.6 <b>*</b> *		0.0	
90-94	2.1 <b>**</b>		2.0**		2.0* <del>*</del>		2.0 <b>*</b> *		0.0**		3.9**	
95-97									10.0 <b>*</b> *			
Race/ethnicity												
➤ White	2.4	2.1	3.3	2.8	2.6	2.5	2.6	2.4	3.3	3.6	2.7	2.4
Black	0.0**	0.0	1.7 <b>*</b> ◆	4.6	1.1 <b>*</b> *	0.0	2.2**	6.7	2.2**	2.4	1.1**	0.0
Hispanic			2.9 <b>*</b> *	26.5	0.0**	0.0	5.5 <b>*</b> *	51.7	2.8 <b>*</b> *	16.8		
Asian	0.0**	0.0	0.0**	0.0	3.6 <b>*</b> *	27.0	3.4**	14.6	3.3 <b>*</b> *	52.0	0.0**	0.0
Other	3.5 <b>*</b> ◆	21.0	0.0**		3.0 <b>*</b>	0.0	0.0**	0.0	2.8 <b>*</b> *		2.7 <b>*</b> *	
Unknown												
Region												
▶ Northeast	1.4 <sup>•</sup>	2.2	2.2	3.3	1.4 <sup>•</sup>	1.3	1.1 <sup>•</sup>	1.3	3.4 <sup>•</sup>	3.4	2.3	4.0
South	2.2 <b>*</b> *	1.9	4.0 <b>*</b>	3.0	3.6 <b>*</b> *	3.5	2.9* <del>*</del>	2.6	3.1 <b>*</b> *	3.5	2.4**	1.7
Midwest	2.4* <del>*</del>	2.1	2.8 <b>*</b> *	3.5	1.7 <b>*</b> ◆	1.9	2.4**	3.2	3.5 <b>*</b> *	4.0	2.5 <b>*</b> *	2.3
West	2.1 <b>**</b>	3.1	2.0**	2.1	1.9 <b>*</b> *	4.0	3.5 <b>**</b>	3.6	2.6 <b>*</b>	3.6	2.5*	2.9
Gender												
Female	0.7 <b>*</b> *	0.7	1.7 <b>*</b> *	1.7	1.1* <del>*</del>	1.1	1.6 <b>*</b>	1.0	1.6 <b>*</b>	2.0	0.6 <b>*</b>	1.1
► Male	3.8	3.5	4.7	4.4	4.2	4.2	3.8	4.1	5.2	5.8	4.7	4.2

<sup>...</sup> Data unavailable.

<sup>►</sup> Denotes reference group.

<sup>\*</sup>Statistically different from reference group (p<.05).

<sup>\*</sup>Rate based on a count less than 600, should be interpreted with caution.

<sup>&</sup>lt;sup>a</sup>Rate per 100,000 based on enrollment in calendar years for individuals in the same demographic stratum.

<sup>&</sup>lt;sup>b</sup>Rate 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 9-32. Emergency room visits by privately insured individuals for lower urinary tract stones listed as primary diagnosis, rate, age-adjusted rate

	200	2 (N=381)	200	3 (N=324)	200	4 (N=192)	200	05 (N=89)	200	6 (N=66)
	Rate	Age- Adjusted Rate								
Total	4.3	4.8	3.3	4.2	1.9	3.1	0.8	1.4	0.6	0.9
Age										
18-24	2.1**		1.9 <b>**</b>		0.5**		0.2**		0.2	
25-34	4.1*		2.4*		1.4*		0.6**		0.5	
35-39	5.8		3.0*		1.3 <b>**</b>		0.6**		$0.4^{ullet}$	
40-44	4.8		3.6*		2.0**		0.5**		0.3	
45-54	3.9*		3.7*		1.9*		0.6**		1.0 <sup>*</sup>	
55-64	5.6		5.4		2.9*		1.2**		1.1 <sup>*</sup>	
<b>►</b> 65-74	7.1 <sup>•</sup>		5.7 <sup>•</sup>		6.4 <sup>*</sup>		3.9 <sup>*</sup>		0.6	
75-84	2.1**		2.1**		5.1 <b>**</b>		2.9**		0.8**	
85+					3.0 <b>**</b>		1.2**			
Race/ethnicity										
➤ White	5.0	4.8	3.5	4.4	1.8	2.7	0.7	1.5	$0.4^{ullet}$	0.5
Black	1.9**	3.2	4.5 <b>*</b> ◆	8.4	0.9**	3.7	0.6**	1.9		
Hispanic	2.1**	12.3	4.1 <b>*</b> ◆	7.9	1.8 <b>*</b> *	4.0	1.1**	7.4	0.5**	6.7
Asian	2.9 <b>*</b> *	17.0	2.0**	3.9	0.7**	4.2	0.3**	3.7	0.3**	70.6
Other			1.7 <b>*</b> ◆		1.2 <b>*</b> *	6.2				
Unknown	2.1*		3.4**		1.1 <b>**</b>		0.3**		0.3**	
Missing	4.4*		2.9*		3.5 <b>*</b>		2.0*		2.5*	
Region										
Northeast	1.4**	2.1	2.1 <b>**</b>	3.3	0.8**	1.0	1.2 <sup>*</sup>	1.4	0.4**	1.4
South	4.7*	5.5	3.4*	4.6	1.5*	3.6	0.6*	1.4	0.4**	0.7
► Midwest	5.9	6.3	4.5	5.7	3.6	4.7	1.5	2.2	1.4	1.8
West	1.2**	1.9	1.1 <b>**</b>	1.3	0.1**		0.1**	0.6	0.1 <b>*</b>	0.4
Gender					-		-		-	
Female	2.2*	1.8	2.1*	1.9	1.3*	1.8	0.7	1.0	0.5 <b>*</b> *	0.6
► Male	6.6	7.8	4.6	6.6	2.6	4.6	1.0	1.9	0.8	1.1

<sup>...</sup> Data unavailable.

<sup>►</sup> Denotes reference group.

<sup>\*</sup>Statistically different from reference group (p<.05).

<sup>\*</sup>Rate based on a count less than 30, should be interpreted with caution.

<sup>&</sup>lt;sup>a</sup>Rate per 100,000 based on enrollment in calendar years for individuals in the same demographic stratum.

<sup>&</sup>lt;sup>b</sup>Rate per 100,000 age-adjusted to the 2005 US standard population (US Population Estimates from Current Population Survey).

Table 9-33. Use of imaging procedures in Medicare beneficiaries for evaluation of urinary tract stones , count, rate

14510 5 00. 000 01 1111		002		003		004		005		006	•	007
	Count	Rate	Count	Rate	Count	Rate	Count	Rate	Count	Rate	Count	Rate
Total	447,480	96,920.0	497,360	100,266.0	541,580	101,682.0	578,480	104,099.0	581,360	103,096.0	589,140	102,473.0
Intravenous pyelogram	44,520	9,643.0	38,600	7,782.0	32,240	6,053.0	25,820	4,646.0	19,300	3,423.0	13,440	2,338.0
Ambulatory Surgery	2,060	446.0	1,220	246.0	940	176.0	960	173.0	860	153.0	460	80.0
Center												
Emergency Room	4,660	1,009.0	2,940	593.0	1,840	345.0	940	169.0	660	117.0	340	59.0
Hospital Outpatient	18,440	3,994.0	16,520	3,330.0	14,320	2,689.0	11,380	2,048.0	8,680	1,539.0	6,240	1,085.0
Inpatient	5,720	1,239.0	4,720	952.0	3,640	683.0	3,040	547.0	2,260	401.0	1,580	275.0
Physician Office	13,640	2,954.0	13,200	2,661.0	11,500	2,159.0	9,500	1,710.0	6,840	1,213.0	4,820	838.0
Plain film/KUB	205,060	44,414.0	217,260	43,799.0	230,640	43,303.0	233,880	42,087.0	223,980	39,720.0	214,820	37,365.0
Ambulatory Surgery	22,840	4,947.0	23,200	4,677.0	23,520	4,416.0	23,760	4,276.0	21,220	3,763.0	19,580	3,406.0
Center												
Emergency Room		2,863.0	15,820	3,189.0	14,280	2,681.0	15,960	2,872.0		2,284.0	12,320	2,143.0
Hospital Outpatient		16,244.0		16,112.0		16,413.0		15,724.0		15,528.0		14,621.0
Inpatient	16,960	3,673.0	17,580	3,544.0	16,720	3,139.0	15,860	2,854.0	14,300	2,536.0	13,480	2,345.0
Physician Office	77,040	16,686.0	80,740	16,277.0	88,700	16,654.0	90,920	16,361.0	88,020	15,609.0	85,380	14,851.0
Ultrasound (renal)	79,360	17,189.0	86,300	17,398.0	88,700	16,654.0	94,000	16,916.0	90,340	16,021.0	88,940	15,470.0
Ambulatory Surgery Center	960	208.0	980	198.0	900	169.0	780	140.0	500	89.0	540	94.0
Emergency Room	1,320	286.0	1,360	274.0	1,300	244.0	1,360	245.0	1,120	199.0	1,440	250.0
Hospital Outpatient	17,340	3,756.0	19,660	3,963.0	20,060	3,766.0	19,940	3,588.0	18,920	3,355.0	19,320	3,360.0
Inpatient	15,220	3,297.0	15,420	3,109.0	15,520	2,914.0	17,020	3,063.0	15,880	2,816.0	16,740	2,912.0
Physician Office	44,520	9,643.0	48,880	9,854.0	50,920	9,560.0	54,900	9,879.0	53,920	9,562.0	50,900	8,853.0
Magnetic resonance		147.0		198.0		169.0	1,100	198.0		209.0		240.0
imaging, abdomen												
Ambulatory Surgery Center	0	0.0	60	12.0	20	4.0	20	4.0	100	18.0	20	3.0
Emergency Room	0	0.0	0	0.0	0	0.0	0	0.0	40	7.0	40	7.0
Hospital Outpatient	300	65.0	340	69.0	320	60.0	440	79.0	220	39.0	520	90.0
Inpatient	240	52.0	360	73.0	360	68.0	320	58.0	480	85.0	380	66.0
Physician Office		30.0	220	44.0	200	38.0	320	58.0	340	60.0	420	73.0
CT scan abdomen/pelvis		25,527.0		31,090.0		35,504.0		40,252.0		43,724.0		47,060.0
Ambulatory Surgery		606.0		653.0		687.0		781.0		738.0		807.0
Center	_,,,,,		-,		-,		.,		.,		.,	
Emergency Room	33,020	7,152.0	41,200	8,306.0	51,240	9,620.0	59,320	10,675.0	63,440	11,250.0	67,860	11,803.0
Hospital Outpatient		7,277.0		9,290.0		10,799.0		11,902.0		12,641.0		13,247.0
Inpatient		6,225.0		7,120.0	41,340	7,762.0	47,500	8,548.0	52,340	9,282.0		10,074.0
Physician Office	19,700	4,267.0	28,380	5,721.0	35,340	6,635.0	46,380	8,346.0	55,340	9,814.0		11,129.0

 $\hbox{KUB: Kidneys, Ureters, and Bladder X-ray}.$ 

NOTE: Counts less than 600 should be interpreted with caution.

SOURCE: Centers for Medicare and Medicaid Services, 5% Carrier and Outpatient Files, 2002-2007.

<sup>&</sup>lt;sup>a</sup>Unweighted counts multiplied by 20 to arrive at counts in table.

<sup>&</sup>lt;sup>b</sup>Rate per 100,000 based on number of Medicare beneficiaries with a diagnosis of urinary tract stones.

