

2005 Annual Report

Including 2004 Cancer Registry Statistical Review

American College of Surgeons

Cancer Committee

Saint Francis/Mount Sinai Regional Cancer Center

Saint Francis Hospital and Medical Center

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CANCER COMMITTEE – 2005 MEMBERSHIP

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*Alessia Donadio, MD	Cancer Case Conference Coordinator
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Frank Setter, M.D.	Anesthesiology
Jonathan Sporn, MD	Research
Carolyn Tyler, M.A., R.D.	Health Promotion
Sandy Watcke, RN	Inpatient Nurse Manager
George Wislo, M.D.	Radiology
Bonnie Zebrowski, R.N.	Nurse Manager, Outpatient
*Program Activity Coordinators	

The Cancer Committee meets a minimum of four times a year, as required by the Commission on Cancer. The meetings are held on Friday mornings at 7:30 a.m. in Conference Room B, 3rd floor, in the Patient Care Tower.

TUMOR REGISTRY DATA

<u>ANALYTICAL CASES</u>		<u>2004</u>
CNS	Brain/CNS	46
ORAL	Pharynx	9
	Mouth	5
	Tongue	11
	Parotid/Salivary Gland	5
	Lip	0
	Tonsil	4
RESPIRATORY	Lung	171
	Larynx	7
	Other Respiratory	3
DIGESTIVE	Colon	123
	Rectum	50
	Pancreas	40
	Stomach	34
	Esophagus	22
	Liver/Biliary	17
	Other Digestive	6
	Small Intestine	5
GENITO-URINARY	Prostate	112
	Bladder	57
	Corpus Uteri	83
	Kidney/Other	30
	Other female	20
	Ovary	32
	Cervix Uteri	15
	Testis	4
	Other male	2
OTHER SITES	Breast	254
	Skin/Melanoma	38
	Thyroid	21
	Endocrine	2
	Connective Tissue	11
	Eye	1
	Bone	0
	Peritoneum	8
	HEMATOLOGIC	Non-Hodgkin Lymphoma
Leukemia		
Myeloma		
Hodgkin Lymphoma		
		100
MISC	All Other	34
	Totals	1382

TUMOR REGISTRY

The Cancer Registry is part of the Cancer Program at Saint Francis Hospital and Medical Center, the registry adds to the continuity of care through accurate and consistent documentation of data. The Registry data is used for research, assessment of treatment modalities and special studies. As required by law, cancer cases are reported to the Central Registry at the State of Connecticut.

The Cancer Registry is managed by the Assistant Director of Health Information Management, a Coordinator, Abstractor and Technician. Cancer cases are accessioned into the registry, abstracted, reported to the State of Connecticut and annual follow-up is maintained on our analytic cases.

Since our reference date of January 1, 1998, 11,460 cases have been accessioned. A total of 1,495 cases were accessioned in 2004; 1,386 are analytic cases (93%) and 109 (7%) are non-analytic cases. Analytic cases are cases that were diagnosed and the first course of treatment was given at SFHMC. The five major sites of cancer at SFHMC are Breast, Lung, Colon/Rectum, Prostate and Uterine. These major sites account for 54% of all analytic cases accessioned in 2004.

Our Cancer Committee meets on a quarterly basis and the Registry presents reports and provides data for special studies upon request. The Cancer Registry meets with the Chairman of the Cancer Committee providing an update of registry activity.

Registry activities for the past year include:

- Submitted data to the NCDB (National Cancer Data Base) annual call for data.
- Attended quarterly Cancer Committee meetings and combined Medical/Surgical and GYN Cancer Conferences on a weekly basis
- AJCC TNM staging system, General Summary Staging and SEER extent of disease staging system used

TUMOR BOARD

The Tumor Board is a multidisciplinary meeting with emphasis on prospective management and therapeutic strategy of complex cases. The meeting takes place every Tuesday at noon in the Chawla Auditorium where an average of four cases is presented for discussion by the group. Hospital based physicians as well as private attendings participate in the development of a recommended treatment strategy for the patient's management. The Gynecologic Tumor Board meets every Thursday in the Obstetrics Gynecologic Conference Room.

Bladder Cancer Site Study

Introduction

Generally, urinary bladder cancers arise in the epithelial lining of the bladder which is composed of transitional cells. Ninety to 95% of bladder cancers histologically represent transitional cell carcinomas with the remaining minority squamous cell carcinomas, adenocarcinomas, small cell carcinomas or mixed histology tumors. Urinary bladder cancers represent a spectrum of disease that ranges from superficial, to invasive to metastatic disease. The clinical behavior, prognosis, and primary management of these tumors differ according to the tumors stage at presentation.

Incidence

Bladder Cancer is a significant public health problem. It is the fourth most common cancer diagnosed in males and the seventh most common cancer diagnosed in females in the United States. It is estimated that 57,400 new cases diagnosed in 2003 will account for 12,500 deaths. Bladder cancer is primarily a disease of older men (age >65), and is rarely diagnosed before the age of 40. The incidence of bladder cancer in white males is twice that in black males and the disease is more common in urban rather than rural areas

The majority of bladder cancers, approximately 75%, present as papillary exophytic lesions in the superficial mucosal lining of the bladder or as lesions invading the submucosa of the bladder. These tumors are generally managed by local excision alone or in combination with topical therapies administered to bathe the bladder wall. Unfortunately, 50-70% of these tumors will recur or patients will develop additional transitional cell carcinoma lesions within five years. Five to 20% of patients will go on to develop more advanced stage disease despite local therapies.

Approximately 20% of new bladder cancers will present with locally advanced disease which can be defined as muscle invasive transitional cell carcinoma, extravesical growth or involvement of the regional lymph nodes and 5% of cases will present with *de novo* distant metastases.

Risk Factors

Cigarette smoking is the most important risk factor for bladder cancer. Exposure to dye, leather or rubber industries has also been attributed to an increased risk for developing bladder cancer. There appears to be a latency period of approximately 18 years from exposure to the development of bladder cancer. Cigarette smoking is believed to contribute to more than half of bladder cancers diagnosed in males and more than a third of those diagnosed in females. Smoking is felt to cause a field effect change in the bladder wall lining with atypia of bladder epithelial cells noted in greater than 50% of smokers and less than 5% of "never" smokers. There is a 2-4 fold increased risk of bladder cancer in smokers than non-smokers. Smoking cessation

does decrease the risk of bladder cancer however an increased risk over non-smokers remains for 10 years after an individual has stopped smoking.

A diet high in fried meats or fats appears to increase the risk of bladder cancer whereas vitamin A supplementation may be protective. Various drugs increase the risk of bladder cancer such as phenacetin and cyclophosphamide.

Exposure to schistosoma haematobium in endemic areas increases the risk for transitional cell carcinomas of the bladder as well as squamous cell carcinomas of the bladder.

A history of chronic bladder infection may be associated with squamous cell carcinomas but that link has not been made for transitional cell carcinomas.

Clinical Presentation and Diagnosis

Hematuria is the presenting sign of bladder cancer in 80-90% of cases though irritative bladder symptoms or symptoms related to ureteral obstruction by tumor resulting in flank pain can also occur. More infrequently patients present with pain from a metastatic site or locally advanced disease.

Patients over the age of 40 who present with hematuria should have an evaluation including a urine sample sent for cytology, a cystoscopy or a CT scan. Screening asymptomatic individuals has not been shown to change overall survival although it does increase the probability of diagnosing earlier stage disease. There is no approved screening test to identify patients with bladder cancer in high risk groups.

Cystoscopy remains the mainstay of diagnosis for bladder cancer with biopsies taken of visible tumors. A piece of muscularis mucosa should be included to verify the depth of invasion of the tumor.

Patients with positive urine cytology and a normal cystoscopy should go on to have an evaluation of the upper urinary tracts to identify the primary site of disease. Further staging work-up with IVP, CT scan MRI or bone scans can be based on the initial findings on cystoscopy and on physical exam.

Treatment

The treatment of bladder cancer is based on its stage at presentation. Early superficial bladder cancer is generally treated with complete cystoscopic resection of the tumor plus or minus local intravesicle therapy. For muscle invasive disease, the standard approach still remains surgical resection of the bladder by radical cystectomy with pelvic lymphadenectomy. Bladder sparing treatment options are an alternative and have been successful in treating bladder cancer patients in certain situations. These options have included radiation to the bladder alone or in combination with chemotherapy.

Combined modality therapy seems to have an evolving role in the treatment of bladder cancer. It is clear, however, that patients treated with multimodality bladder sparing

techniques must be followed with routine cystoscopies so that should their disease progress they could promptly be referred for TUR, intravesicle therapy or cystectomy. With appropriate selection, approximately 50% of patients with locally advanced disease survive 5 years using multimodality therapy and 33% of these maintain an intact bladder. Bladder sparing approaches for treatment of bladder cancer may result in reduced survival as compared with patients treated with radical cystectomy. There is increasing data that suggests that an adequate lymphadenectomy performed at the time of cystectomy may confer a further survival benefit.

Finally, recent data suggests a survival benefit when chemotherapy is given prior to surgery.

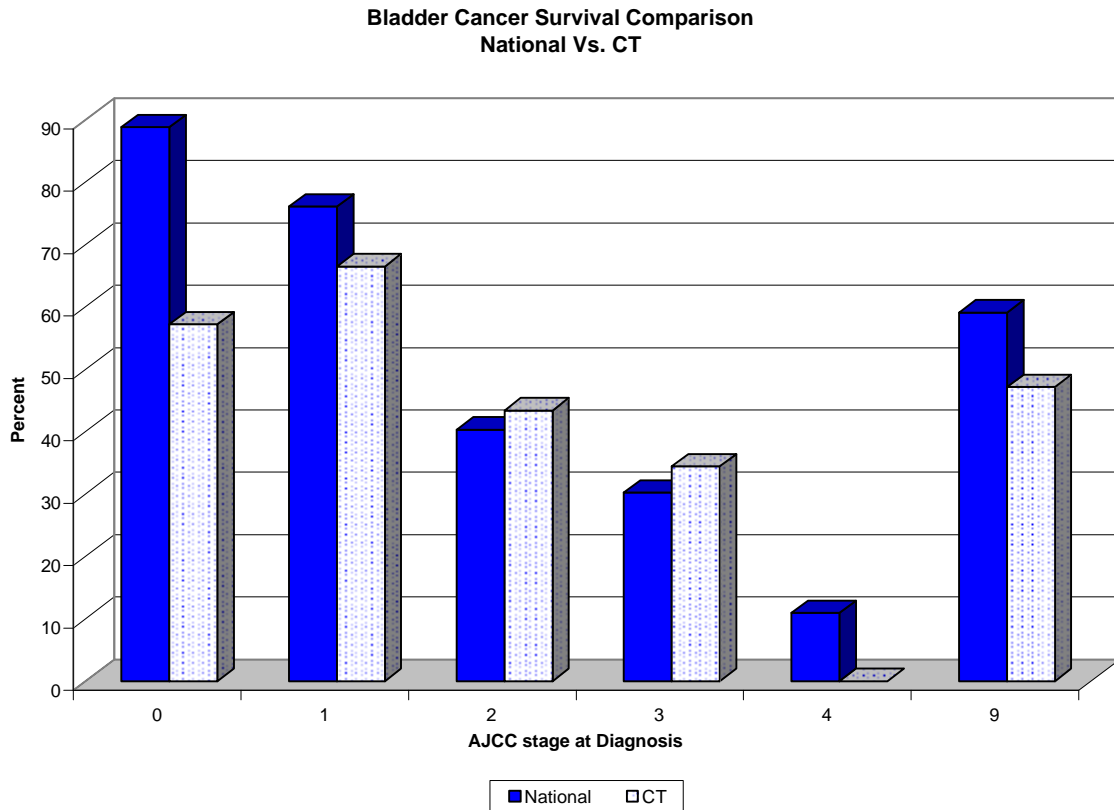
Case Volume

Between 1996-2003 there were 498 cases of bladder cancer at St. Francis Hospital and Medical Center. The majority of these were early stage, *in situ* tumors, where as a minority were invasive tumors. Bladder cancer was most often diagnosed in the 7th decade of life but patients ranged in age from age 30's-90's. Bladder cancer was diagnosed approximately twice as often in men as in women. The St. Francis Hospital and Medical Center data parallel the National Cancer Institutes Surveillance, Epidemiology and End Results (SEER) program results.

Survival

The survival of patients directly relates to the stage of the bladder cancer at diagnosis. Figure 1 shows survival of patients treated at SFH & MC from 1999-2003 by stage at diagnosis.

Figure 1



The National Cancer Institute SEER program follows approximately 14% of the population and is considered a reliable benchmark. We compared the relative survival of patients treated at SFH & MC with data from the SEER program and patients treated in the State of Connecticut overall (Figures 2a, 2b, 2c).

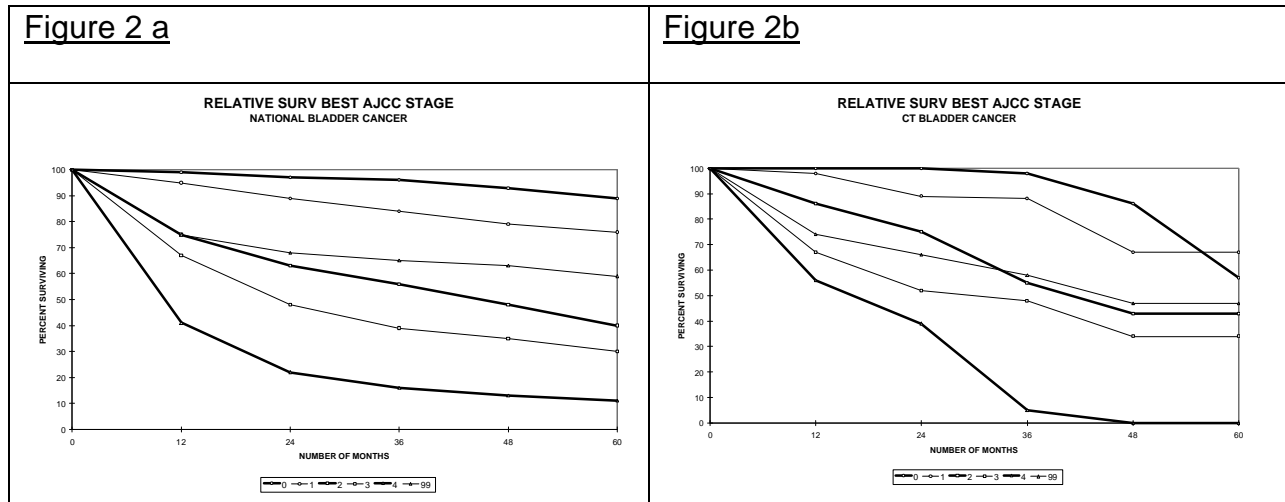
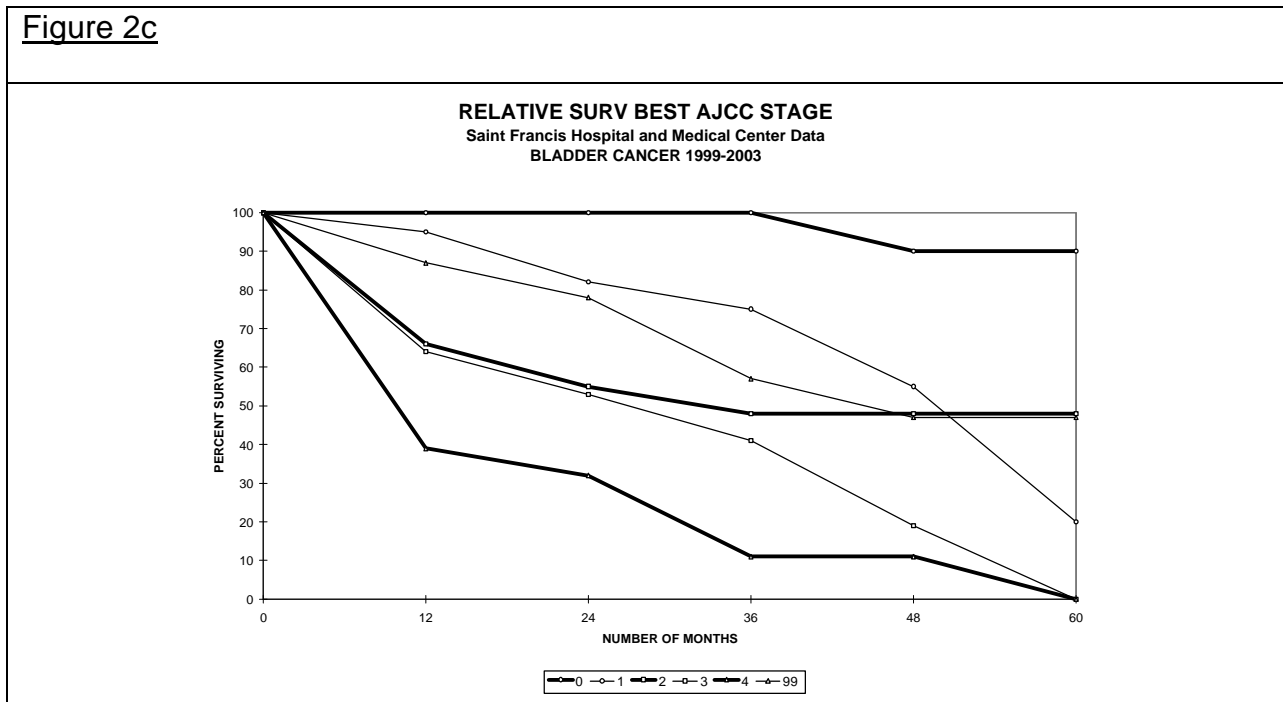


Figure 2c

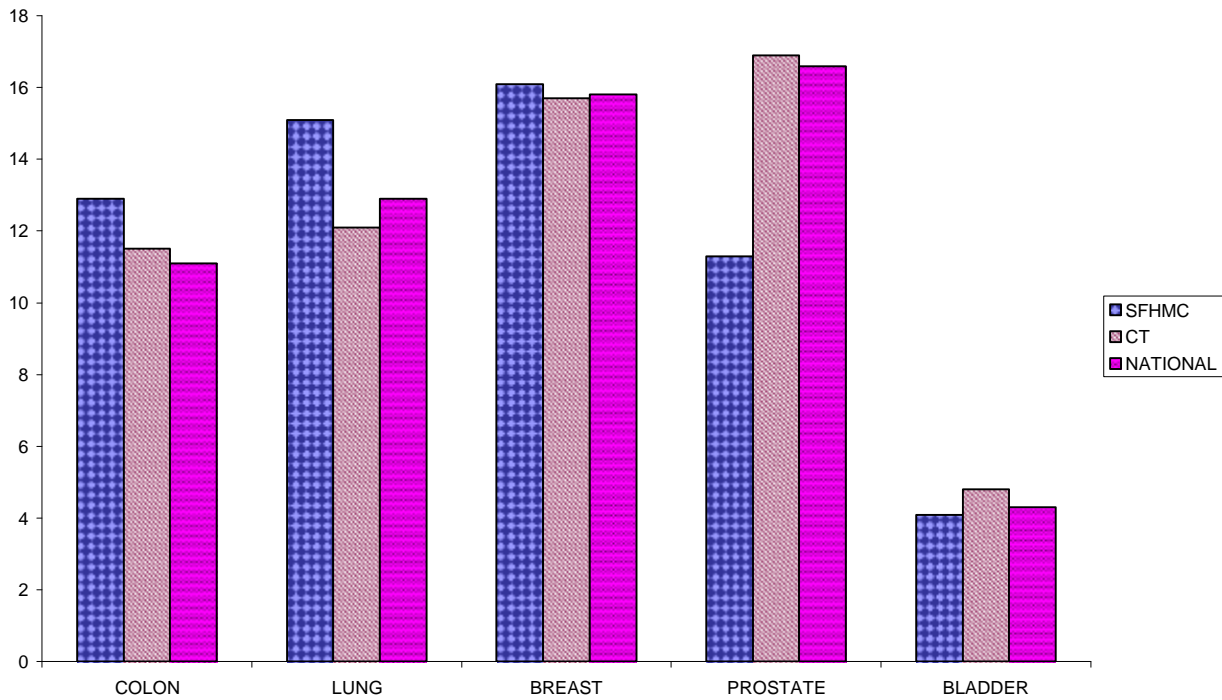


Incidence and Mortality Trends

The SEER incidence rates of bladder cancer remain relatively static in the period 1992-2001 but have clearly increased since 1973. SFH & MC bladder cancer incidence from 1996-2003 remains relatively stable, and parallels the SEER results. Figure 3.

Figure 3

FIVE MAJOR SITES NATIONAL AND LOCAL INCIDENCE* COMPARISON
***Cancer Society Facts & Figures Estimated Incidence**

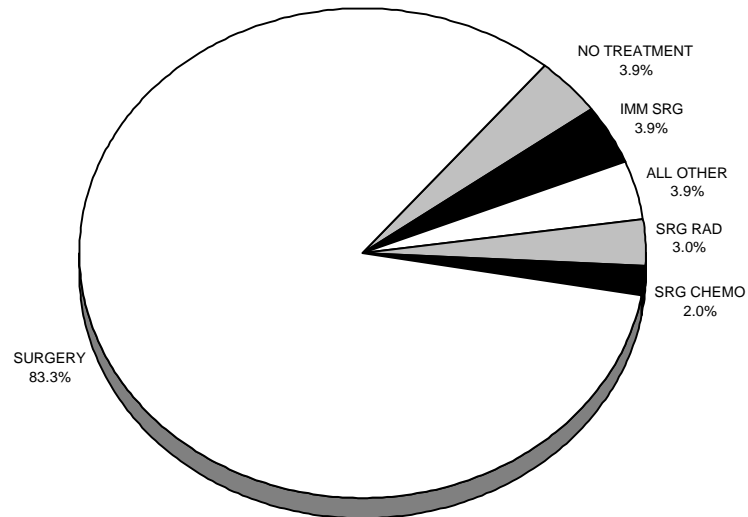


Treatment Practices at St. Francis and Nationally

Initial therapy for bladder cancer at SFH &MC is consistent with standard practice in the community. Surgery remains the gold standard for patient management with 83.3% of patients receiving surgery as their initial therapy. Between 2-4% of patients received surgery plus chemotherapy, surgery plus radiation, immunotherapy and surgery, other interventions or no therapy for their bladder cancers at diagnosis. Figure 4.

Figure 5

INITIAL THERAPY
Saint Francis Hospital and Medical Center
BLADDER CANCER 1999-2003



As increasing data becomes available regarding the benefit of multimodality therapy we may see an increasing role for chemotherapy, in this very chemosensitive disease and perhaps the use of chemotherapy earlier in the course of therapy i.e., the neoadjuvant setting. Furthermore, more extensive surgeries which include pelvic lymphadenectomy appear to impact survival and thus adequate lymph node dissection at the time of radical cystectomy, even in patients with no evidence of pathologically involved lymph nodes might become a new standard.

GENDER of Bladder Cancer Diagnosed 2003

All Reported Cases - HOSP. TYPE: Teaching/Research

Saint Francis Hospital And Medical Center, Hartford, CT vs Hospitals in State of Connecticut
- Data From 10
Hospitals

	N (cases)		% (percent)	
	Sum		Sum	
	Reported by		Reported by	
	Other	My Hosp.	Other	My Hosp.
GENDE R				
Male	332	40	71.55	70.18
Female	132	17	28.45	29.82
Total	464	57	100.00	100.00

Source: NCDB, Commission on Cancer, ACoS. Benchmark Reports, v7.0

GENDER of Bladder Cancer Diagnosed 2003

All Reported Cases - HOSP. TYPE: Teaching/Research

Saint Francis Hospital And Medical Center, Hartford, CT vs Hospitals in All States - Data
From 307 Hospitals

	N (cases)		% (percent)	
	Sum		Sum	
	Reported by		Reported by	
	Other	My Hosp.	Other	My Hosp.
GENDE R				
Male	9,077	40	75.27	70.18
Female	2,982	17	24.73	29.82
Total	12,059	57	100.00	100.00

Source: NCDB, Commission on Cancer, ACoS. Benchmark Reports,
v7.0

AGE of Bladder Cancer Diagnosed 2003

All Reported Cases - HOSP. TYPE: Teaching/Research

Saint Francis Hospital And Medical Center, Hartford, CT vs Hospitals in State of Connecticut - Data
From 10
Hospitals

	N (cases)		% (percent)	
	Sum		Sum	
	Reported by		Reported by	
	Other	My Hosp.	Other	My Hosp.
AGE				
30-39	7	0	1.51	0.00
40-49	18	0	3.88	0.00
50-59	62	6	13.36	10.53
60-69	96	15	20.69	26.32
70-79	150	26	32.33	45.61
80-89	117	9	25.22	15.79
90+	14	1	3.02	1.75
Total	464	57	100.00	100.00

Source: NCDB, Commission on Cancer, ACoS. Benchmark Reports, v7.0

AGE of Bladder Cancer Diagnosed 2003

All Reported Cases - HOSP. TYPE: Teaching/Research

Saint Francis Hospital And Medical Center, Hartford, CT vs Hospitals in All States - Data
From 307 Hospitals

	N (cases)		% (percent)	
	Sum		Sum	
	Reported by		Reported by	
	Other	My Hosp.	Other	My Hosp.
AGE				
Pediatric	7	0	0.06	0.00
16-29	20	0	0.17	0.00
30-39	119	0	0.99	0.00
40-49	598	0	4.96	0.00
50-59	1,777	6	14.74	10.53
60-69	2,859	15	23.71	26.32
70-79	3,972	26	32.94	45.61
80-89	2,479	9	20.56	15.79
90+	228	1	1.89	1.75
Total	12,059	57	100.00	100.00

Source: NCDB, Commission on Cancer, ACoS. Benchmark Reports, v7.0

HISTOLOGY of Bladder Cancer Diagnosed 2003

All Reported Cases - HOSP. TYPE: Teaching/Research

Saint Francis Hospital And Medical Center, Hartford, CT vs Hospitals in State of Connecticut
- Data From 10
Hospitals

	N (cases)		% (percent)	
	Sum		Sum	
	Reported by		Reported by	
	Other	My Hosp.	Other	My Hosp.
HISTOLOGY				
Transitional Cell Carcinoma, NOS	152	13	32.76	22.81
Papillary Transitional Cell Carcinoma	281	43	60.56	75.44
Other Specified Types	31	1	6.68	1.75
Total	464	57	100.00	100.00

Source: NCDB, Commission on Cancer, ACoS. Benchmark Reports, v7.0

HISTOLOGY of Bladder Cancer Diagnosed 2003

All Reported Cases - HOSP. TYPE: Teaching/Research

Saint Francis Hospital And Medical Center, Hartford, CT vs Hospitals in All States - Data From 307 Hospitals

	N (cases)		% (percent)	
	Sum		Sum	
	Reported by		Reported by	
	Other	My Hosp.	Other	My Hosp.
HISTOLOGY				
Transitional Cell Carcinoma, NOS	4,019	13	33.33	22.81
Papillary Transitional Cell Carcinoma	7,156	43	59.34	75.44
Other Specified Types	884	1	7.33	1.75
Total	12,059	57	100.00	100.00

Source: NCDB, Commission on Cancer, ACoS. Benchmark Reports, v7.0

STAGE of Bladder Cancer Diagnosed 2003

All Reported Cases - HOSP. TYPE: Teaching/Research

Saint Francis Hospital And Medical Center, Hartford, CT vs Hospitals in State of Connecticut
- Data From 10
Hospitals

	N (cases)		% (percent)	
	Sum		Sum	
	Reported by		Reported by	
	Other	My Hosp.	Other	My Hosp.
STAGE				
0	225	8	48.49	14.04
I	104	2	22.41	3.51
II	50	1	10.78	1.75
III	26	1	5.60	1.75
IV	24	4	5.17	7.02
Unknown	35	41	7.54	71.93
Total	464	57	100.00	100.00

Source: NCDB, Commission on Cancer, ACoS. Benchmark Reports, v7.0

STAGE of Bladder Cancer Diagnosed 2003

All Reported Cases - HOSP. TYPE: Teaching/Research

Saint Francis Hospital And Medical Center, Hartford, CT vs Hospitals in All States - Data
From 307 Hospitals

	N (cases)		% (percent)	
	Sum		Sum	
	Reported by		Reported by	
	Other	My Hosp.	Other	My Hosp.
STAGE				
0	4,868	8	40.37	14.04
I	2,586	2	21.44	3.51
II	1,455	1	12.07	1.75
III	901	1	7.47	1.75
IV	1,125	4	9.33	7.02
Unknow n	1,124	41	9.32	71.93
Total	12,059	57	100.00	100.00

Source: NCDB, Commission on Cancer, ACoS. Benchmark Reports, v7.0

TREATMENT of Bladder Cancer Diagnosed 2003

All Reported Cases - HOSP. TYPE: Teaching/Research

Saint Francis Hospital And Medical Center, Hartford, CT vs Hospitals in State of Connecticut
- Data From 10
Hospitals

	N (cases)		% (percent)	
	Sum		Sum	
	Reported by		Reported by	
	Other	My Hosp.	Other	My Hosp.
TREATMENT				
Surgery Only	370	49	79.74	85.96
Surgery & Chemotherapy	28	1	6.03	1.75
Surgery & BRM	23	2	4.96	3.51
Other Specified Therapy	26	4	5.60	7.02
No 1st Course Rx	17	1	3.66	1.75
Total	464	57	100.00	100.00

Source: NCDB, Commission on Cancer, ACoS. Benchmark Reports, v7.0

TREATMENT of Bladder Cancer Diagnosed 2003

All Reported Cases - HOSP. TYPE: Teaching/Research

Saint Francis Hospital And Medical Center, Hartford, CT vs Hospitals in All States - Data From 307 Hospitals

	N (cases)		% (percent)	
	Sum		Sum	
	Reported by		Reported by	
	Other	My Hosp.	Other	My Hosp.
TREATMENT				
Surgery Only	8,763	49	72.67	85.96
Surgery & Chemotherapy	925	1	7.67	1.75
Surgery & BRM	1,046	2	8.67	3.51
Other Specified Therapy	825	4	6.84	7.02
No 1st Course Rx	500	1	4.15	1.75
Total	12,059	57	100.00	100.00

Source: NCDB, Commission on Cancer, ACoS. Benchmark Reports, v7.0