Cancer Annual Report and Outcomes 2009

Lahey CLINIC

SOPHIA GORDON CANCER CENTER

This annual report and outcomes report for 2009 features data and information for specific cancers diagnosed and treated at the Sophia Gordon Cancer Center at Lahey Clinic. Designed for physicians and interested patients, this information demonstrates the patient-centered, high-quality approach to care that Lahey patients received.

About Lahey Clinic

Lahey's comprehensive approach to cancer care is a natural outgrowth of the multidisciplinary tradition that began 85 years ago when Frank Lahey, MD, a prominent Boston surgeon, founded the group practice in the heart of Boston. At first, the clinic saw only outpatients. This was the start of Lahey's comprehensive, integrated care model of total patient care. Lahey Clinic remained at the Boston location for 55 years and in 1980, a product of its phenomenal success, the Clinic relocated and expanded in Burlington, 10 miles north of the capital.

The reputation that Lahey had developed for innovative technology, pioneering medical treatment and leading-edge research was built on Dr. Lahey's premise that group practices should also serve as centers for research and learning. From the beginning, the Clinic offered residents and fellows a chance to polish their skills under the careful supervision of the nation's leading physicians.

Today the Lahey model of integrated medical care is the preferred model of health care delivery noted in modern health care reform initiatives. The Dartmouth Atlas consistently ranks this model, used by Cleveland Clinic and Mayo Clinic, as high quality, lower cost care. In 2009 The American Nurses Credentialing Center (ANCC) honored Lahey Clinic with Magnet® recognition for excellence in nursing care. Lahey Clinic is one of six hospitals in Massachusetts to achieve Magnet status.

About Sophia Gordon Cancer Center

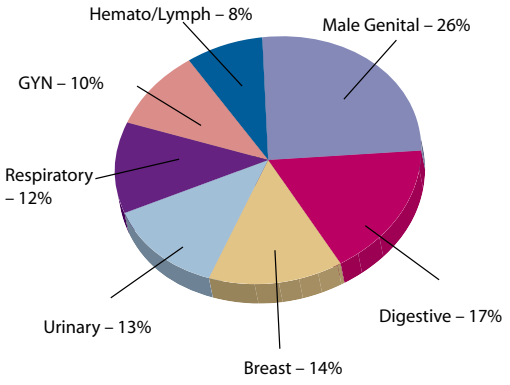
The Sophia Gordon Cancer Center at Lahey Clinic offers a full range of comprehensive medical and surgical specialists who are board-certified in medical oncology, radiation oncology and surgical oncology. They work in collaboration to bring personalized, compassionate care to patients.

Clinicians treating the same patient readily consult one another, review test results and work in partnership on treatment plans. Regular tumor conferences are held to exchange information on complex and common diagnoses, and then together, doctors plan the best therapies for patients. Cancer therapies are designed using the most advanced treatments, research, clinical trials and support resources. Treating the whole patient by understanding the emotional and physical effects of cancer is central to Lahey's model of care.

Lahey has developed teams of cancer care, each headed by a physician director-leader and comprised of at least one hematologist, oncologist, radiation oncologist, surgeon, as well as various allied health care providers. Each team focuses on one specific cancer site.

In addition, Lahey's strong support teams augment the cancer team. They are comprised of specialists from pain management, palliative medicine, behavioral medicine, nutrition, physical therapy, social services and nationally certified oncology nurses.

Lahey Clinic 2008 Top Diagnostic Work Groups
n = 2,781 82%



In 2008, Lahey Clinic's cancer specialists diagnosed and/or treated nearly 3,000 unique new patients. Highlights of that activity include the following:

- There were 2,781 total new primaries diagnosed and treated at Lahey in 2008, representing an increase of 11.9% over 2007.
- In 2008, 71% of new cancer patients were diagnosed at Lahey at an early stage.
- Seventy-one percent of new cancer patients seen were between the ages of 50 and 79. The age range for new cancer patients seen was 20 to 96 years, with a mean of age 64.
- The cumulative total of cases in Lahey Clinic's cancer database since 1995 grew to 34,200, with 2,321 cases being added in 2008.
- The total of living patients successfully followed during 2008 was13,391, reflecting an overall follow-up rate of 82%.

2008 Cancer Center Activity, By Primary Site

Following is more detailed information about the new cancer cases seen, by primary tumor site.

PRIMARY SITE	TOTAL	ANALYTIC	RECUR/METS	MALE	FEMALE
HEAD AND NECK	**52**	**45**	**7**	**38**	**14**
TONGUE	26	23	3	21	5
GUM & OTH MOUTH	8	6	2	4	4
FLOOR OF MOUTH	3	3	0	2	1
SALIVARY GLANDS	7	6	1	4	3
TONSIL	6	6	0	5	1
OROPHARYNX	1	0	1	1	0
HYPOPHARYNX	1	1	0	1	0
DIGESTIVE SYSTEM	**418**	**395**	**23**	**255**	**163**
ESOPHAGUS	34	33	1	29	5
STOMACH	30	28	2	21	9
SMALL INTESTINE	12	11	1	7	5
COLON	125	116	9	58	67
RECTOSIGMOID JCT	11	11	0	5	6
RECTUM	51	47	4	31	20
ANUS AND ANAL CANAL	11	11	0	3	8
LIVER-INTRAHEPATIC BILE DCTS	70	67	3	52	18
GALLBLADDER	8	8	0	5	3
OTHER BILIARY TRACT	10	10	0	8	2
PANCREAS	55	52	3	35	20
OTHER DIGESTIVE	1	1	0	1	0
RESPIRATORY SYSTEM	**283**	**266**	**17**	**156**	**127**
NASAL CAVITY	3	2	1	2	1
LARYNX/TRACHEA	17	16	1	16	1
BRONCHUS AND LUNG	263	248	15	138	125
SOFT TISSUE AND HEART	**25**	**24**	**1**	**9**	**16**
HEART, MEDIASTINUM	8	8		5	3
CONNECTIVE & OTH SOFT TISS	7	7		1	6
RETRO & PERITONEUM	10	9	1	3	7
BONES AND JOINTS	**2**	**0**	**2**	**0**	**2**
SKIN-NON-EPITHELIAL	**144**	**143**	**1**	**90**	**54**
SKIN, MELANOMA	139	138	1	88	51
SKIN, OTHER	5	5	0	2	3

PRIMARY SITE	TOTAL	ANALYTIC	RECUR/METS	MALE	FEMALE
BREAST	**336**	**327**	**9**	**4**	**332**
FEMALE GENITAL SYSTEM	**248**	**242**	**6**	**0**	**248**
VULVA	27	26	1	0	27
VAGINA	2	2	0	0	2
CERVIX UTERI	27	24	3	0	27
CORPUS UTERI	123	123	0	0	123
UTERUS NOS	3	3	0	0	3
OVARY	61	59	2	0	61
OTH FEMALE GENITAL ORGS	5	5	0	0	5
MALE GENITAL SYSTEM	**632**	**606**	**26**	**632**	**0**
PENIS	7	7	0	7	0
PROSTATE GLAND	621	595	26	621	0
TESTIS	4	4	0	4	0
URINARY SYSTEM	**316**	**290**	**26**	**229**	**87**
KIDNEY	148	144	4	104	44
RENAL PELVIS	19	17	2	14	5
URETER	9	9	0	6	3
BLADDER	133	113	20	99	34
OTHER URINARY ORGS	7	7	0	6	1
BRAIN AND NERVOUS SYSTEM	**166**	**153**	**13**	**70**	**96**
MENINGES	81	75	6	20	61
BRAIN	55	49	6	33	22
OTHER CENTRAL NERVOUS SY	30	29	1	17	13
THYROID AND ENDOCRINE	**90**	**88**	**2**	**35**	**55**
THYROID GLAND	72	71	1	27	45
THYMUS	2	2	0	1	1
OTH ENDOCRINE GLDS/REL S	16	15	1	7	9
HEMATOPOIETIC AND LYMPHATIC	**182**	**179**	**3**	**103**	**79**
LEUKEMIAS	46	45	1	30	16
OTHER HEMATOPOIETIC	54	52	2	26	28
NON-HODGKIN LYMPHOMA	74	74	0	44	30
HODGKIN LYMPHOMA	8	8	0	3	5
OTHER ILL-DEFINED SITES					
UNKNOWN PRIMARY SITE	23	23	0	15	8
TOTAL	**2917**	**2781**	**136**	**1636**	**1281**

Cancer Program Year in Review

Community Outreach

- 4th Annual Lahey Festival of Life (June 7, 2009)
- American Cancer Society/Lahey Clinic collaborative agreement
- Wellness Wednesday Programs
- Freedom from Smoking sessions
- Arms around Arlington Center for Cancer Support and Education
- Prostate Cancer Symposium - Boston Marriott Burlington (October 5, 2009)

Clinical

- EMR - LaheyView outpatient electronic record
- Nursing Magnet Status achieved
- Breast Care Center application for NAPBC Accreditation
- Palliative Care Celebration of Life
- Opening of new, expanded Cancer Center at Lahey Clinic Medical Center, North Shore in Peabody, Mass. (fall 2009)

Programmatic

- Safe Handling of Hazardous Materials Program
- Remote access for Cancer Registry
- Cancer Registrars Association of New England Annual Meeting

New Clinicians

Edward Dow, MD
Hematology/Oncology

Paul Hesketh, MD
Hematology/Oncology

From John Libertino, MD

Director, Sophia Gordon Cancer Center

Health care reform will undoubtedly alter ways we organize and deliver care—care that is central to all patients, but in particular, patients with chronic diseases like cancer. Integrated medical models like ours continue to demonstrate that better patient outcomes are achieved when specialists collaborate and deliver care from a central umbrella network. At the Sophia Gordon Cancer Center, we believe in extending our reach to cancer patients by forming partnerships.

We are forming affiliations and partnerships with health care and academic entities, regionally and internationally, to more broadly meet the demand for high quality cancer services. Today Lahey cancer care is solidly established at three sites: Lahey Clinic Medical Center in Burlington, Lahey Clinic North Shore in Peabody, and Parkland Medical Center in Derry, NH. We offer cancer services at other hospitals, as well. However, our affiliations and partnerships are not limited to hospitals.

This year we are most proud of our beginning translational research relationship with the Massachusetts Institute of Technology. We are collaborating on several exciting projects relating to tumors, including targeted therapy based on genetic changes, venous blood sampling of cells, and ways to eliminate metastatic margins.

We are moving forward thoughtfully and with great speed, and we are leading efforts to defeat a killer that affects nearly every member of society.

At the same time, we are creating an exciting intellectual atmosphere for our faculty who are readying the next generations of physicians and scientists at Tufts University School of Medicine, Boston University School of Medicine, and Harvard Medical School. Nearly all of our cancer physicians are fellowship trained and all are board certified; because of their exceptional expertise, many are sought out to present research findings at international cancer conferences.

As the nation prepares for historic expansion of health coverage, we believe a stronger health care system is near. Mindful of quality of life, doctors and patients will witness improvements to cancer patient survival. There will be advances in cancer prevention and the promise of new targeted therapies. Some of these developments will be small, others will be monumental in scope.

Just like Lahey's thriving collaborative model of care, we will value and welcome all these developments, because in aggregate they will lead us closer to beating cancer.

The Three Components of Cancer Care

Report Contents

- **About The Sophia Gordon Cancer Center**
- **Cancer Center Activity**
- **Cancer Treatment Activity, by Primary Site**
- **Cancer Program HIghlights**
- **Three oncology components: Hematology/Oncology, Surgical/ Oncology, Radiation/Oncology**
- **Focus on the Institute of Urology**
  - Prostate
  - Kidney
  - Urinary
- **Center Disease Teams**
  - Breast
  - Thoracic
  - Colorectal/GI
  - Gynecologic
  - Head and Neck
  - Hematologic
  - Hepatobiliary
  - Skin
  - Neuro-oncologic
- **Supportive Services**
  - Palliative Care
  - Research/Clinical Trials
  - Patient Satisfaction
  - Support Groups
- **Contact Information**
  - Cancer Committee
  - Locations

Hematology/Oncology

Lahey's highly regarded Hematology and Oncology Department is a combined program offering advanced care for patients with blood disorders and/or cancer. The team works closely with associated subspecialists throughout the practice to coordinate and develop state-of-the-art comprehensive diagnostic and therapeutic plans of care, individualized to meet the needs of each patient. Physicians, nurse practitioners, physician assistants and certified oncology nurses practice a unique brand of compassionate care with the goal of providing evidenced based practice to improve the overall experience of the patient with hematologic or malignant diseases.

Lahey offers autologous stem cell transplantation for the treatment of hematologic malignancies, and an aggressive interventional oncology approach for localized treatment of many solid tumors. A wide range of investigational therapies is currently offered, and participation in national and international clinical study organizations, such as the Southwest Oncology Group, is ongoing.

Radiation/Oncology

Lahey's Department of Radiation Oncology is known for the development and use of specialized procedures in the treatment of cancers. These include the rotational therapy technique and conformal therapy for protecting radiosensitive normal tissue during treatment. A wide range of specialized modalities is available, including external beam therapy, electron therapy, stereotactic radiosurgery and brachytherapy.

Stereotactic radiosurgery is available for intracranial (brain) and extracranial (body) treatment of tumors. Through stereotactic radiosurgery, highly focused radiation is directed at the tumor by multiple rotational beams to deliver precise radiation treatments that minimize the impact on adjacent healthy tissue. Three-dimensional treatment simulation uses CT imaging or CT imaging enhanced fusion technology with clinical input from PET or MRI imaging to precisely map the tumor location so that radiation beams can be shaped to provide highly targeted, optimal treatment to the tumor site.

Specialized Technologies and Services

- Dual energy linear accelerators, including the Varian Trilogy, Varian 21EX and Varian 2100. Capabilities: intensity modulated radiation therapy (IMRT), image-guided radiotherapy (IGRT) and stereotactic radiotherapy/radiosurgery (SRS)
- Clinac 6/100 radiotherapy unit
- GE Lightsped RT 4 CT simulator
- Ximatron Simulator
- GammaMed Plus system for high-dose, short-term brachytherapy
- ADAC treatment planning system
- RSA X-Knife fractional stereotactic radiosurgery program
- GammaMed high-dose-rate afterloading brachytherapy program for prostate cancer
- I-125 seed implant program for prostate cancer

At time of printing, the Radiation Oncology Department has added the following technologically advanced services:

- Novalis Brain Lab
- OBI for all Linear Accelerators
- Fully capable Stereotactic Services

Surgical/Oncology

Lahey's surgical specialists have expertise in all cancers. Our surgical oncologists are active participants and leaders in many national cancer cooperative clinical trial groups, including the National Surgical Adjuvant Breast and Bowel Program and the American College of Surgeons' Oncology Group.

The surgical oncology team manages tumors, sarcomas and cancers of the breast, bile ducts and gallbladder, bowel, colon, endocrine system, esophagus, liver, pancreas, skin and soft tissue and stomach.

Institute of Urology

Lahey's Institute of Urology is recognized internationally for its advanced diagnosis and treatment services.

Lahey has pioneered treatments for kidney, adrenal, bladder, prostate and testicular cancers, offering every available option for appropriate care. Innovative therapies for superficial bladder cancer, bladder reconstruction, low-dose rate and high-dose rate brachytherapy (radioactive seed implantation) for prostate cancer, and an active research agenda are hallmarks of genitourinary care at Lahey. Urologists have led the way in developing open and minimally invasive treatments for prostate cancer, drastically improving the quality of life for those who undergo treatment for the disease.

- Laparoscopic and robotic surgery, radical prostatectomy, adrenalectomy, nephrectomy, partial nephrectomy, retroperitoneal lymph node dissection, cystectomy, and urinary diversion
- Surgery for urologic malignancies
- YAG laser therapy for superficial and deep-seated bladder cancers
- Alternatives to prostatectomy, including: brachytherapy (radioactive seed implants), high dose radiation (HDR), external beam radiation therapy (EBRT), and medical management

Fully integrated Urological Cancer team

Directors: John Libertino, MD
Andrea Sorcini, MD
Christopher Tretter, MD

Oncologist: Christopher Tretter, MD

Radiation Oncologist:
Theodore Lo, MD

Surgeons: Andrea Sorcini, MD
Jason Gee, MD,
Karim Hamawy, MD
David Canes, MD
Ali Moinzadeh, MD

Extender: Erin Weidemann, PA

Pathologist: Mark L. Silverman, MD

Nurse Navigator: Sharon O'Brien, RN

Clinical Research Assistant:
Nevin Bhardwaj

Administrative Liaison: Gail Reynolds

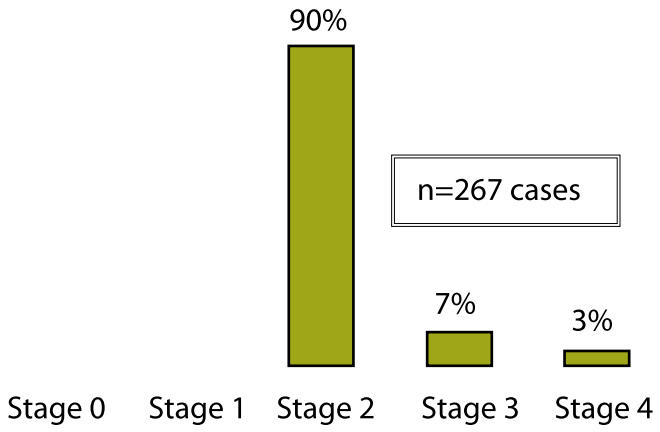
When deemed a viable alternative to open surgery, traditional and robot-assisted laparoscopic methods are preferred. In some cases, however, surgeons may recommend open surgery as the means to the best possible outcome.

Laparoscopic techniques pioneered by members of the Center for Minimally Invasive Urologic Surgery have had significant impacts on the lives of men and women with urologic cancer.

The Prostate Center physicians work together with patients in a clinical environment to decide whether one of the following options might be an alternative to or used in conjunction with surgery:

- Brachytherapy (radioactive seed implants)
- High-dose rate brachytherapy
- Hormone therapy
- Medical management (i.e., "watchful waiting")
- External beam radiation therapy
- Transurethral needle ablation
- Robot-assisted surgery

2008 Prostate Stage at Diagnosis

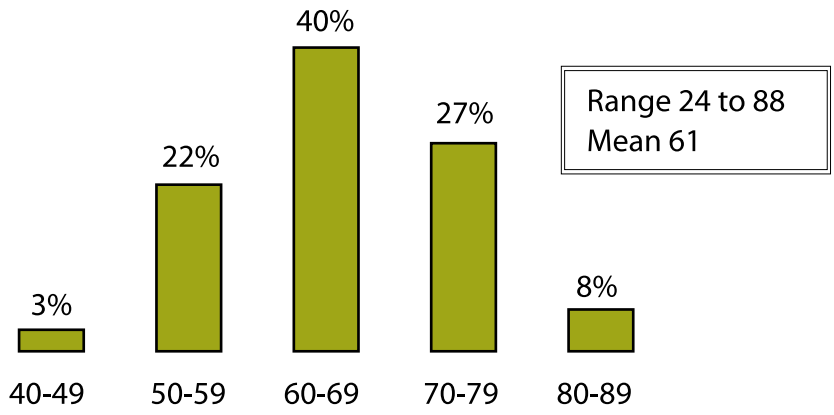


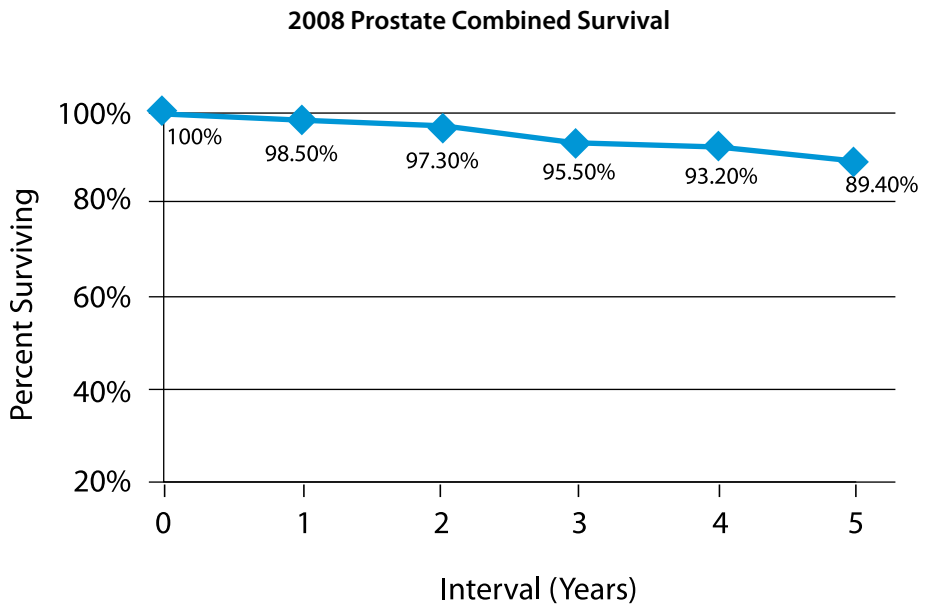
Lahey is recognized as one of the highest volume urologic cancer centers in the nation. The urology team is fellowship trained with the most comprehensive technologies available. Midlevel providers and nurses are an integral part of the patient care team and are directly involved in pre and post-operative assessment, preparation, education and support.

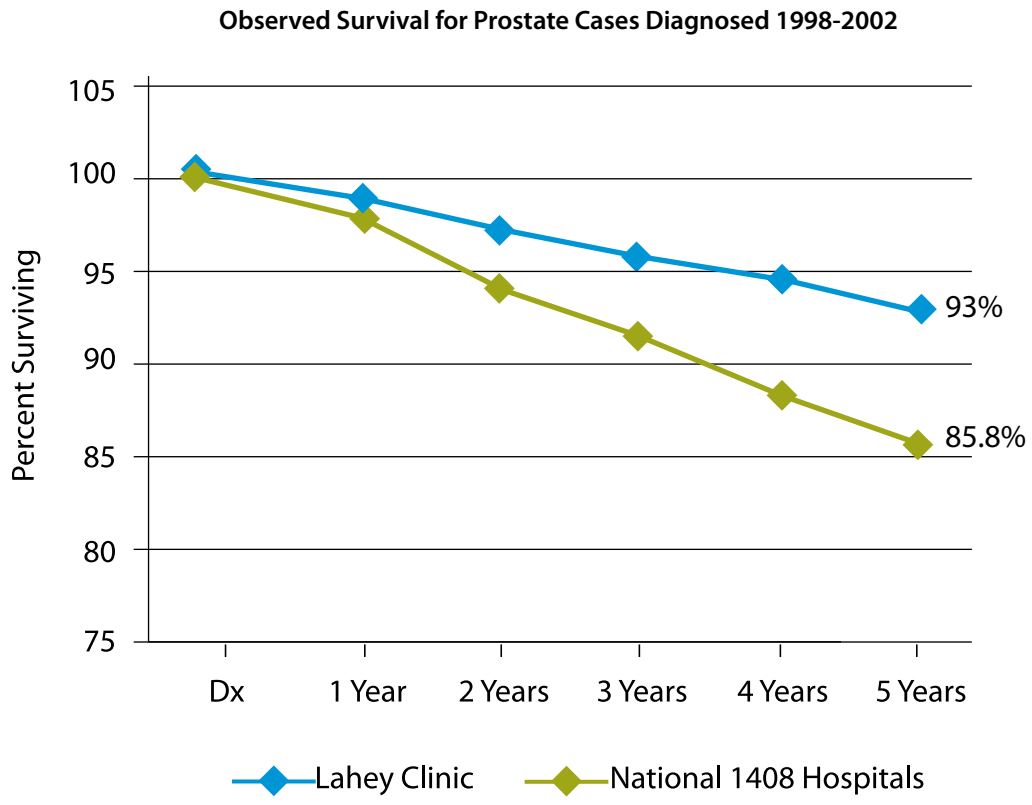
Recently Lahey introduced nurse navigation to meet the unique needs of each patient, assisting, educating and providing emotional support to patients and families.

Lahey urologists take part in a wide range of clinical research. The translational research program has included work related to the understanding of how tumors grow, proliferate and spread. This has led to enhanced understanding of urologic cancers. These new genomic information and technological findings then translate into the clinical arena where patients benefit.

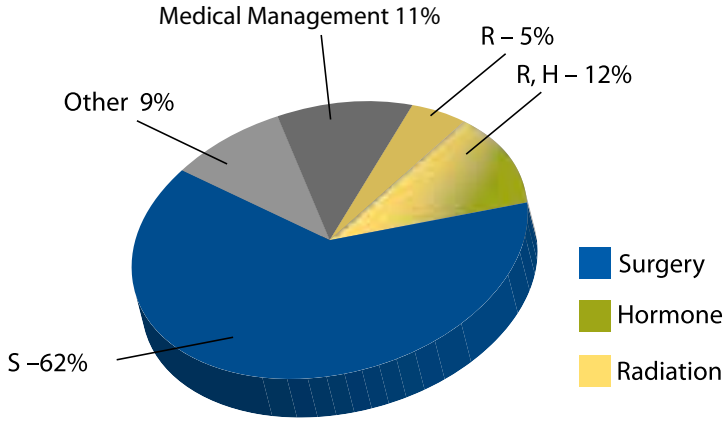
2008 Prostate Age at Diagnosis



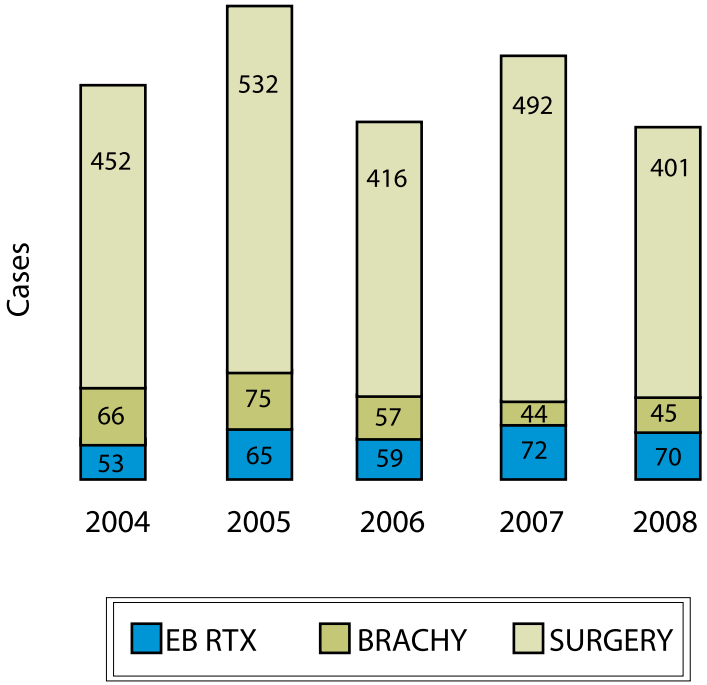

2008 Prostate Combined Survival
100%
80%
60%
40%
20%
Percent Surviving
100%
98.50%
97.30%
95.50%
93.20%
89.40%
0
1
2
3
4
5
Interval (Years)


Observed Survival for Prostate Cases Diagnosed 1998-2002
105
100
95
90
85
80
75
Percent Surviving
93%
85.8%
Dx
1 Year
2 Years
3 Years
4 Years
5 Years
Lahey Clinic
National 1408 Hospitals

2008 Prostate First Course of Treatment



Prostate Cancer First Course of Treatment



Kidney

Lahey's comprehensive kidney cancer team members are experts in diagnosing and managing both localized and advanced kidney tumors. Lahey physicians use the most current and advanced forms of therapy, and in fact, have pioneered several treatments for kidney cancer.

Our surgeons use minimally invasive, as well as open surgical approaches. Among the surgeries they perform are radical and partial nephrectomies and removal of metastases. External radiation therapy, chemotherapy and immunotherapy are also performed in the management of kidney cancer patients.

Fully integrated Kidney Cancer team

Director: John Libertino, MD

Oncologist: Christopher Tretter, MD

Radiation Oncologist: Theodore Lo, MD

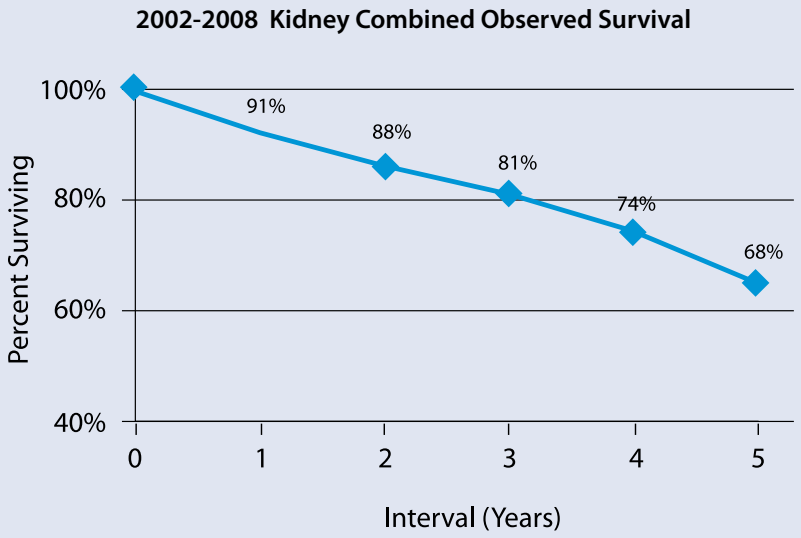
Surgeons: David Canes, MD
Karim J. Hamawy, MD
John A. Libertino, MD
Ali Moinzadeh, MD

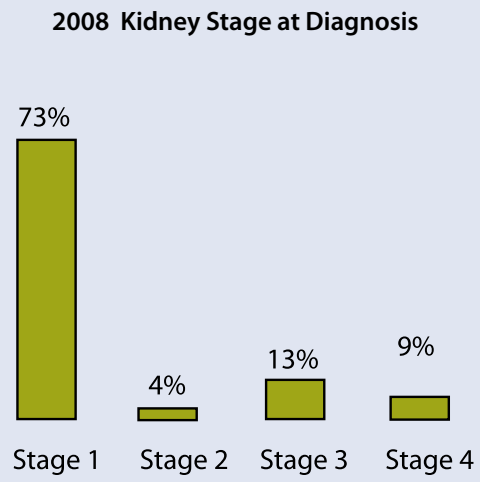
Physician Assistant: Erin Weidemann, PA

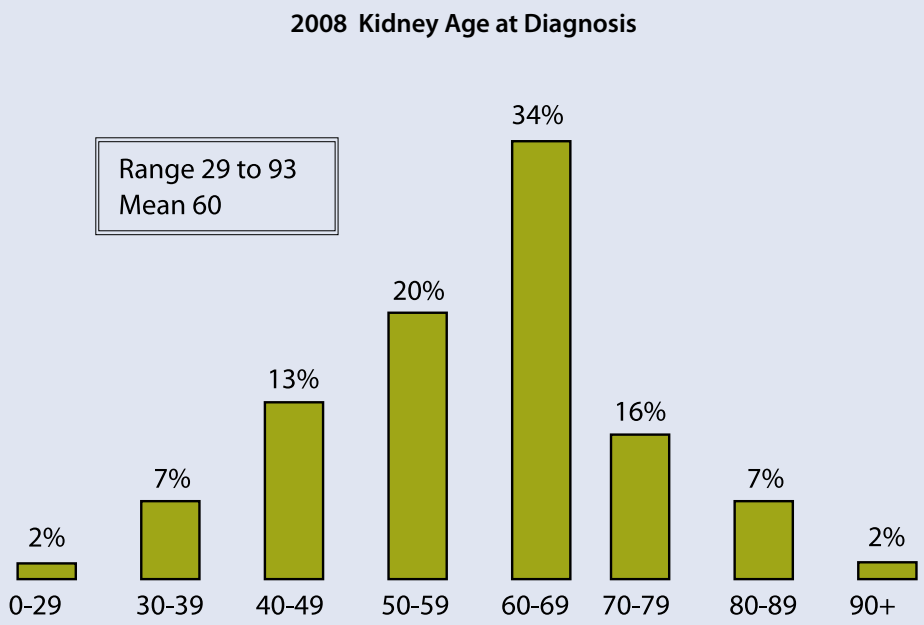
Pathologist: Mark L. Silverman, MD

Clinical Research Assistant: Nevin Bhardwaj

Administrative Liaison: Gail Reynolds


2002-2008 Kidney Combined Observed Survival
100%
80%
60%
40%
Percent Surviving
91%
88%
81%
74%
68%
0
1
2
3
4
5
Interval (Years)


2008 Kidney Stage at Diagnosis
73%
4%
13%
9%
Stage 1
Stage 2
Stage 3
Stage 4


2008 Kidney Age at Diagnosis
Range 29 to 93
Mean 60
2%
7%
13%
20%
34%
16%
7%
2%
0-29
30-39
40-49
50-59
60-69
70-79
80-89
90+

Urinary

Lahey's bladder cancer specialists excel in the treatment of transitional cell carcinoma, squamous cell carcinoma and adenocarcinoma. Lahey physicians use the latest techniques in surgery, radiation therapy, chemotherapy and immunotherapy to treat cancers.

Fully integrated Urinary Cancer team

Director: Andrea Sorcini, MD

Oncologist: Christopher Tretter, MD

Radiation Oncologist: Theodore C.M. Lo, MD

Surgeons: Andrea Sorcini, MD
Jason Gee, MD
John A. Libertino, MD

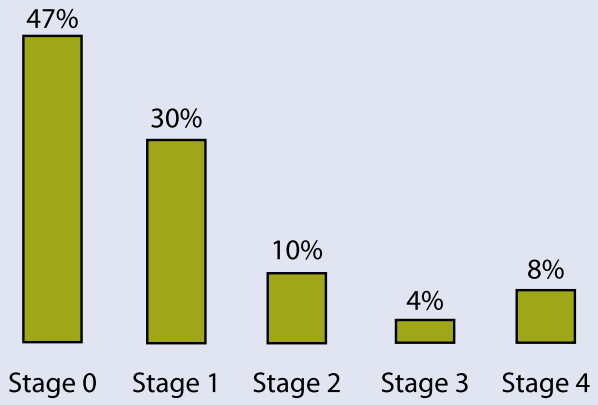
Pathologist: Mark L. Silverman, MD

Nurse Practitioner: Michelle Barber, NP

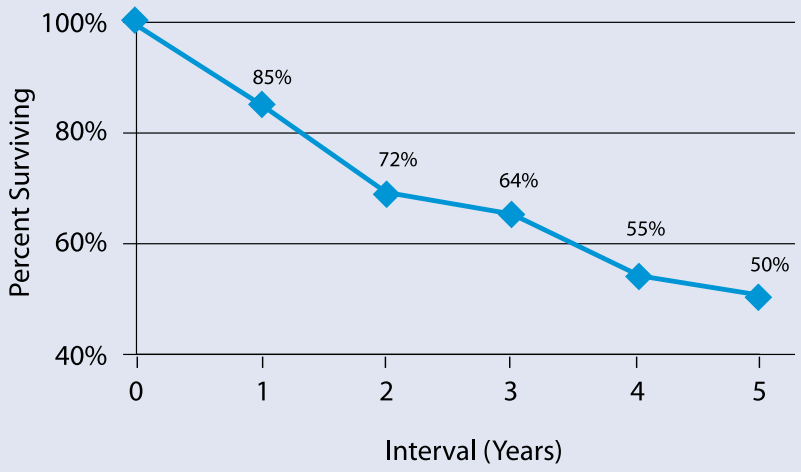
Clinical Research Assistant: Nevin Bhardwaj

Administrative Liaison: Gail Reynolds

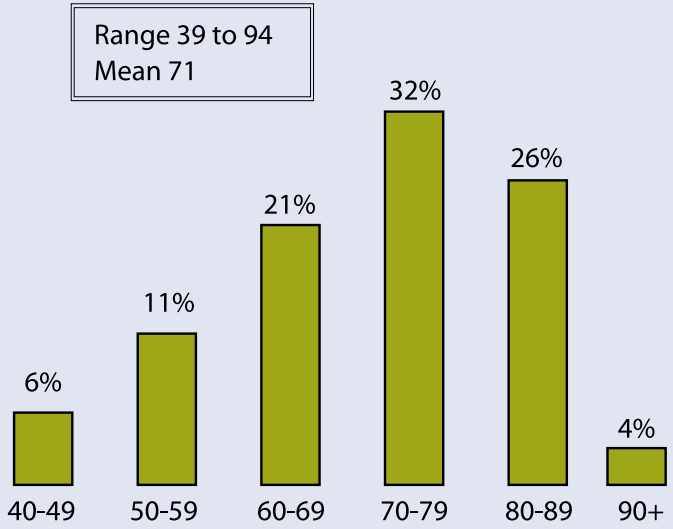
2008 Urinary Stage at Diagnosis



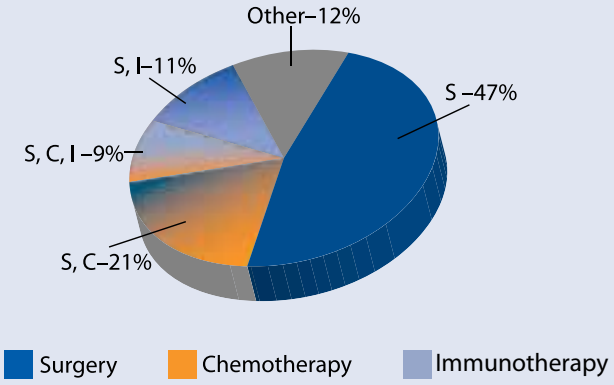
2002-2008 Urinary Combined Observed Survival



2008 Urinary Age at Diagnosis



2008 Urinary First Course of Treatment



Breast Cancer

Lahey's Breast Center treats both malignant and benign breast conditions. Stereotactic prone biopsy options yield digital images of suspicious masses, and in nearly 98 percent of cases, diagnosis can be made without a traditional operating room biopsy.

The Breast Center provides diagnosis and expert treatment of noncancerous breast conditions and breast cancer. Lahey offers minimally invasive biopsies, comprehensive treatments for breast cancer and benign breast conditions, genetic counseling and testing services, and risk assessment.

The Breast Center's dedicated team of board-certified surgeons, nurse practitioners and a genetic counselor are expertly trained in breast health. They work closely with Lahey's Diagnostic Radiology/Breast Imaging Department. The team includes Social Services, Radiation Oncology, Medical Oncology, Plastic and Reconstructive Surgery and the Lymphedema Clinic.

The Breast Center, after completing a rigorous application process for the National Accreditation Program for Breast Centers (NAPBC) was awarded a three-year full accreditation designation. Only a handful of hospitals in the state of Massachusetts hold this distinction. Of the 27 standards and 17 components that were reviewed, the Breast Center was rated fully compliant.

Fully integrated Breast Cancer team

Directors: Stephen E. Karp, MD
Rebecca Yang, MD (Lahey Clinic North Director)
Corinne Zarwan, MD

Oncologists: Corrine Zarwan, MD
Paola Rode, MD
Neela Natarajan, MD

Radiation Oncologist: Lyubov Girshovich, MD

Surgeons: Stephen E. Karp, MD
Rebecca Yang, MD

Nurse Practitioner: Mary McNeice, NP

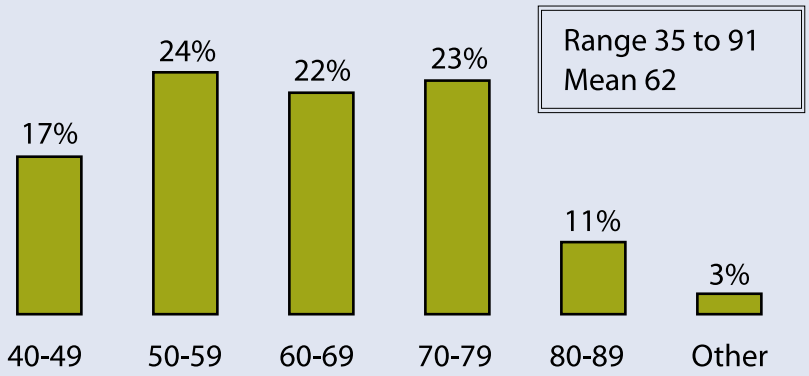
Pathologist: K. Greg Chang, MD

Clinical Research Assistant: Kori Hesse

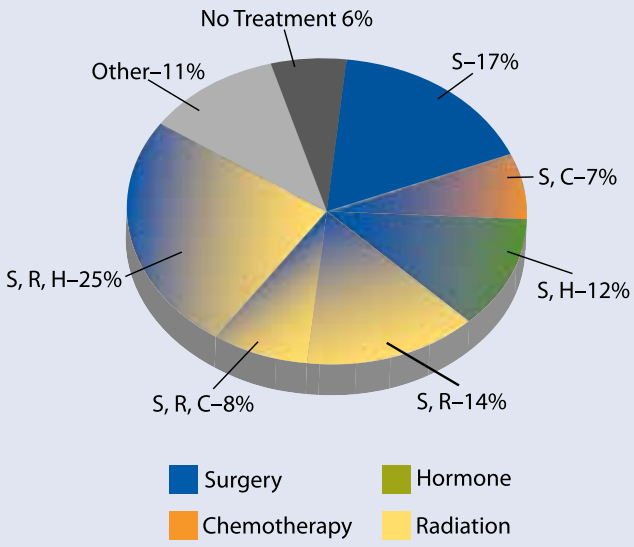
Administrative Liaison: Brenda Hill, RN, BSN, OCN

Genetic Counselor: Rebecca Madore

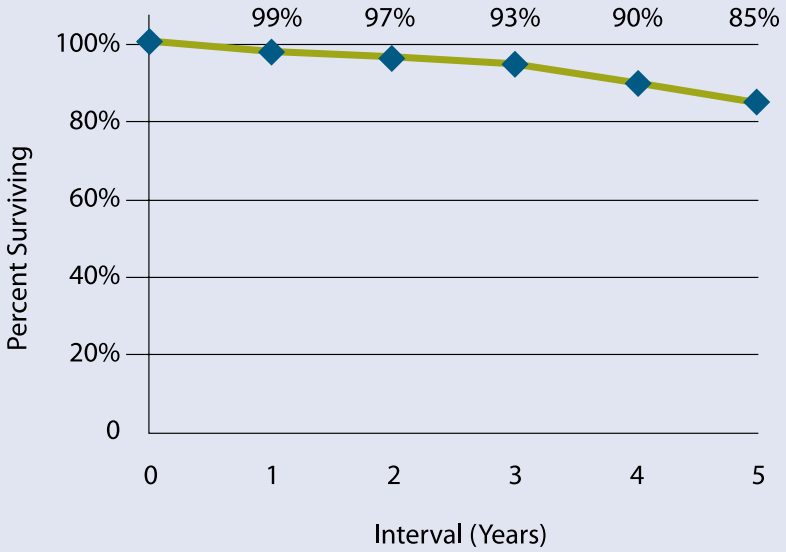
2008 Age at Diagnosis



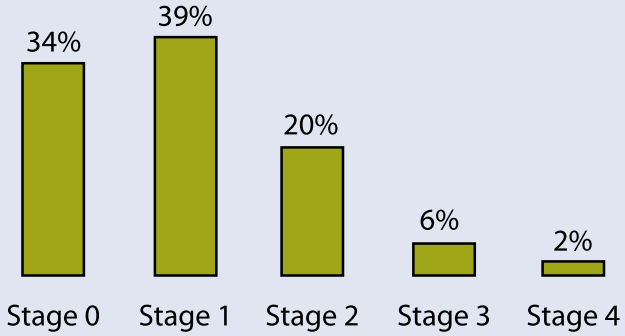
2008 Breast First Course of Treatment



2008 Breast Observed Survival



2008 Breast CS/AJCC Stage at Diagnosis



Thoracic

The Multidisciplinary Thoracic Oncology Center at Lahey specializes in treating malignant disorders of the chest with the most advanced medical and interventional pulmonary approaches, supported by therapeutic and state-of-the-art technologies.

Malignant diseases treated include non-small cell and small cell lung cancers, esophageal cancers, tracheal tumors, carcinoma in situ of airway and thymoma. Diagnostic and therapeutic interventions are available in interventional pulmonology, medical oncology, radiation oncology, radiology and thoracic surgery. Cutting-edge clinical trials augment the services.

Fully integrated Thoracic Cancer team

Director: Paul Hesketh, MD

Oncologist: Paul Hesketh, MD

Radiation Oncologist: J. Robert Cassady, MD

Surgeon: Christina Williamson, MD

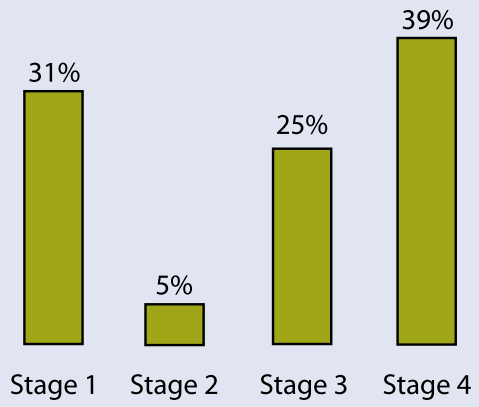
Nurse Practitioner: Bridget Mello, NP

Pathologist: John Dugan, MD

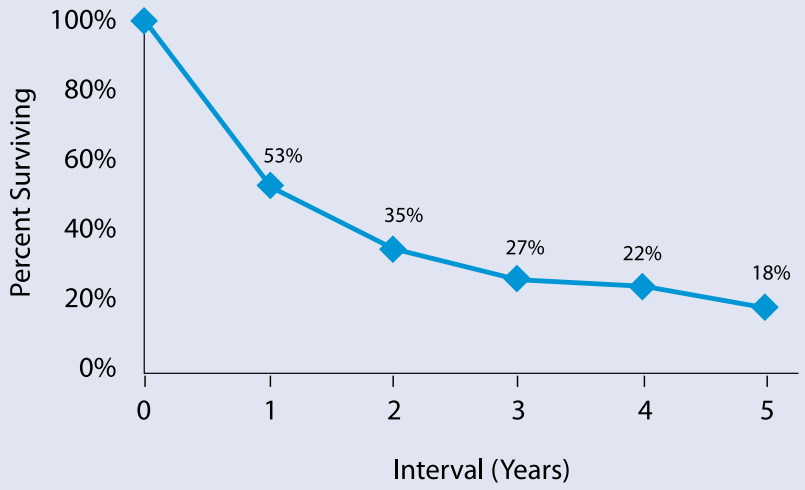
Clinical Research Assistants: Sharon DiGregorio
Joyce Pelletier
Julie Roache

Administrative Liaison: Paul Shannon

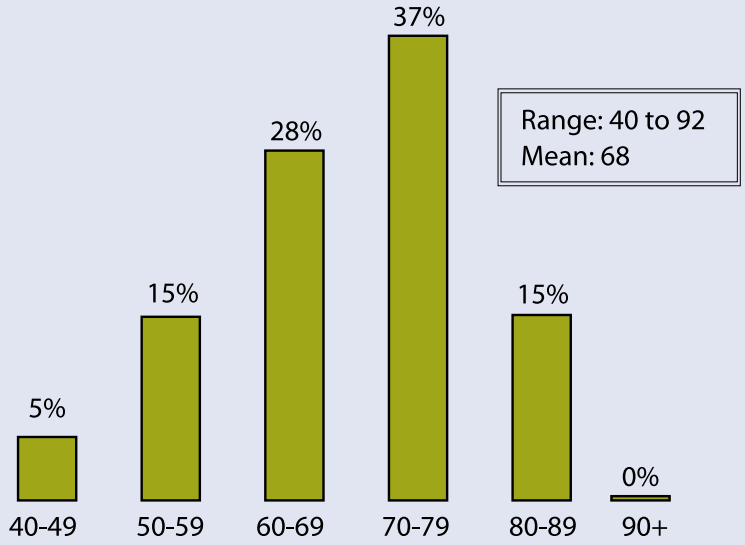
2008 Thoracic Stage at Diagnosis



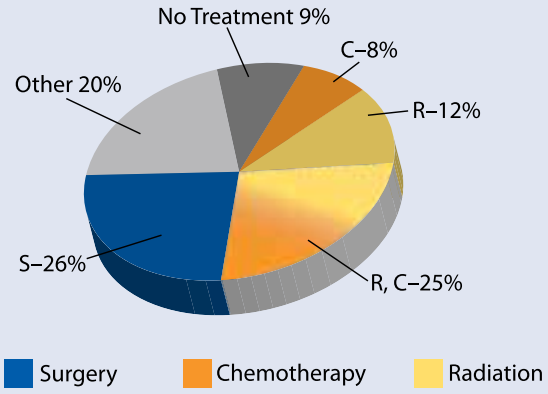
2002-2008 Thoracic Observed Combined Survival



2008 Thoracic Age at Diagnosis



2008 Thoracic First Course of Treatment



Colorectal/GI

Lahey offers unique strengths in treating colon and rectal cancers—from screening and medical management to complex transplant and reconstructive surgical approaches. The Departments of Gastroenterology, Colon and Rectal Surgery, Diagnostic Radiology, and Hepatobiliary and Liver Transplant Surgery collaborate with radiation and medical oncologists on treatment plans and on bringing novel therapies to patients via clinical research protocols.

Lahey's Department of Colon and Rectal Surgery is the largest group of colon and rectal surgeons in New England. As with most forms of cancer, colorectal cancer is a highly active area of clinical research. The Department of Hematology and Oncology at Lahey Clinic works on a number of investigational protocols for patients with both early and advanced colorectal cancers. Lahey physicians participate in important studies assessing the effectiveness of new surgical techniques and chemotherapy combinations, all with the goal of improving outcomes for patients with colorectal cancer.

Cancers treated include colorectal, gallbladder, liver, pancreas and stomach.

Fully integrated GI Cancer team

Directors: Keith Stuart, MD
Rocco Ricciardi, MD

Hematologist: Keith Stuart, MD

Oncologists: Keith Stuart, MD
FW Nugent, MD

Radiation Oncologists: Joshua Garren, MD
Gene Wong, MD

Surgeons: Larry Munson, MD
Roger L. Jenkins, MD
Rocco Ricciardi, MD
Thomas Read, MD
Lawrence C. Rusin, MD

Additional Clinical Professionals: Deb Hanna, RN
Jo Underhill, RN, BSN

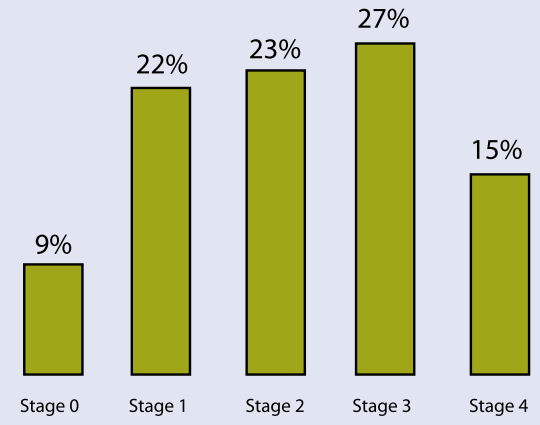
Pathologist: Atoussa Goldar-Najafi, MD

Clinical Research Assistants: Sharon DiGregorio
Joyce Pelletier
Julie Roache
Amy Lownds

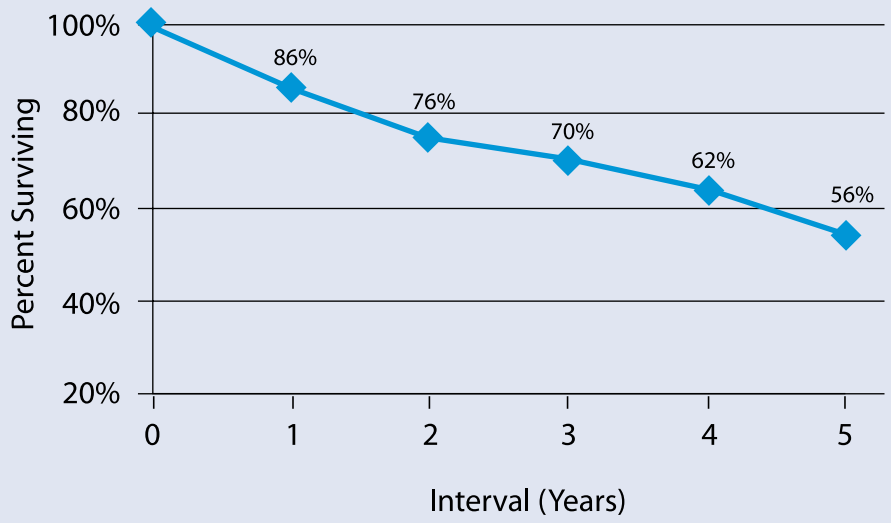
Administrative Liaison: Jo Underhill, RN, BSN

Genetic Counselor: Rebecca Madore, MS, CGC

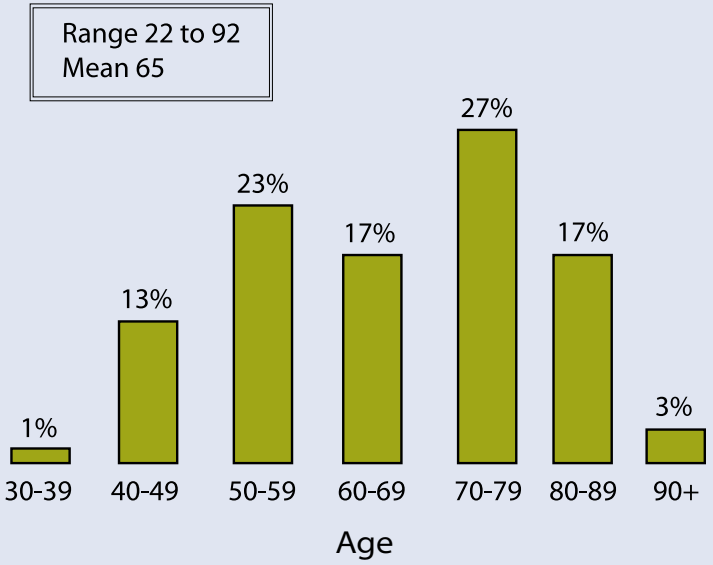
2008 GI Summary Stage at Diagnosis



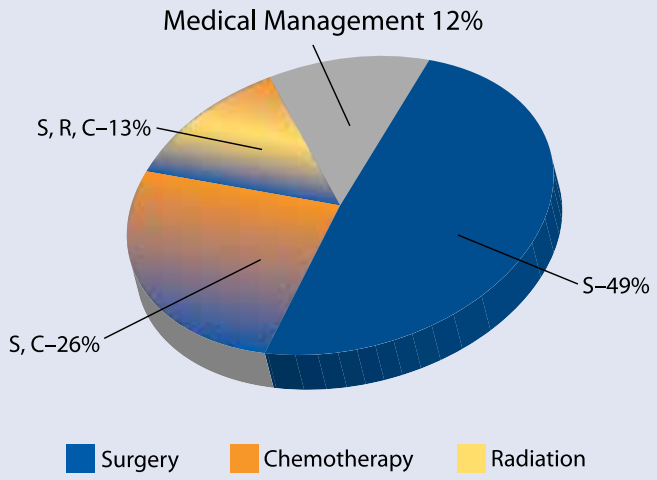
2002-2008 GI Combined Observed Survival



2008 GI Age at Diagnosis



2008 GI First Course of Treatment



Gynecologic Cancer

Gynecologic oncology at Lahey involves screening, surgery, medical treatment, and continual follow-up for cervical, endometrial (uterine) and ovarian cancers.

Treatment is provided for:

– Cervical cancer
– Endometrial cancer
– HPV and dysplasia
– Ovarian cancer
– Peritoneal cancer
– Uterine cancer
–Vaginal cancer
– Vulvar cancer

Lahey's GYN cancer specialists are experts in minimally invasive and robotic surgery. They are board-certified gynecologic oncologists who have specialized training in surgical treatments of GYN cancers.

Services are provided at both Lahey Clinic locations, as well as:

– Portsmouth Regional Hospital
– Southern New Hampshire Medical Center
– New Hampshire Oncology/Hematology
– Beverly Hospital
– Saints Memorial Hospital

Fully integrated GYN Cancer team

Director: Anne P. Shapter, MD

Oncologist: Corinne Zarwan, MD

Radiation Oncologist: Lyubov Girshovich, MD

Surgeons: Robert McLellan, MD
Anne P. Shapter, MD
Valena Soto-Wright, MD

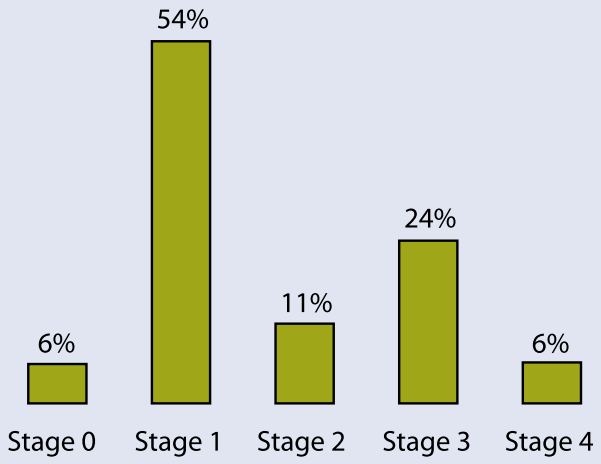
Nurse Practitioner: Mary McNeice, NP

Pathologist: Hongwei Bai, MD

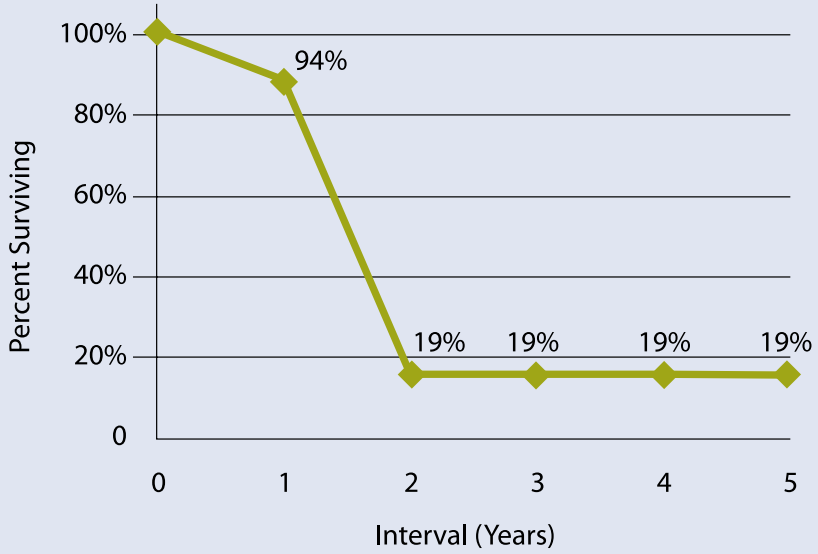
Clinical Research Assistant: Kori Hesse

Administrative Liaison: Nellee Fine, RN, MA, AOCN

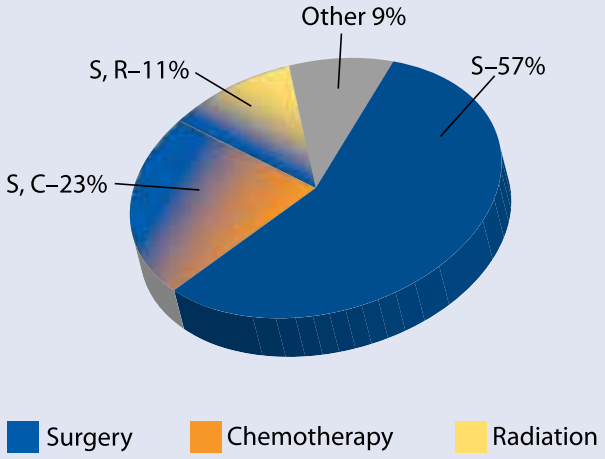
2008 GYN Stage at Diagnosis



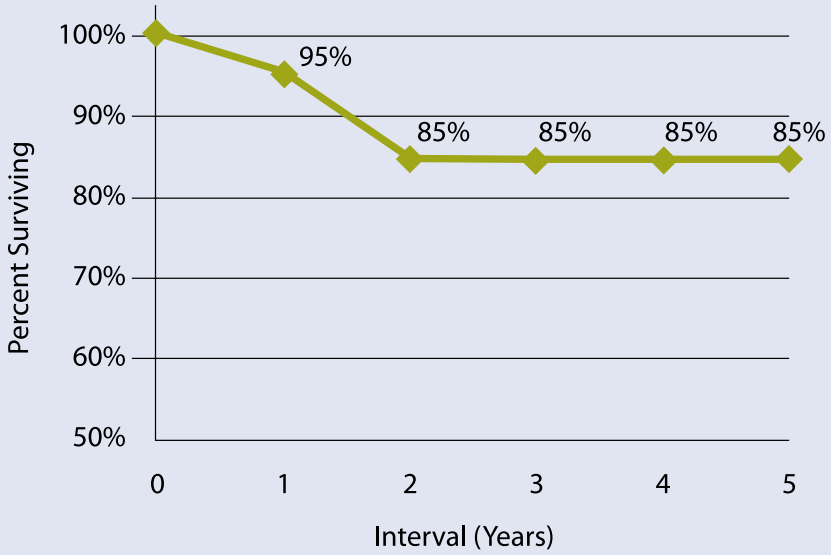
2002-2008 All GYN Combined Observed Survival



2008 GYN First Course of Treatment



2002-2008 GYN Combined Observed Survival w/o Ovary



Head and Neck

The Head and Neck Oncology Clinic at Lahey provides a highly coordinated and centralized approach to the evaluation and care of patients with tumors involving the head and neck. This team includes experts from Food and Nutrition, Hematology and Oncology, Maxillofacial Surgery, Otolaryngology, Plastic and Reconstructive Surgery, Radiation Oncology, Rehabilitation Services, Speech, Voice and Swallowing Center and Social Services.

Cancers treated:

- Larynx
- Middle ear
- Mouth
- Nasal cavity
- Salivary glands
- Sinuses
- Tongue
- Tonsils

Fully integrated Head & Neck Cancer team

Director: Robert Dolan, MD

Oncologist: F. W. Nugent, MD

Radiation Oncologists: Joshua Garren, MD
J. Robert Cassady, MD

Surgeon: Robert Dolan, MD

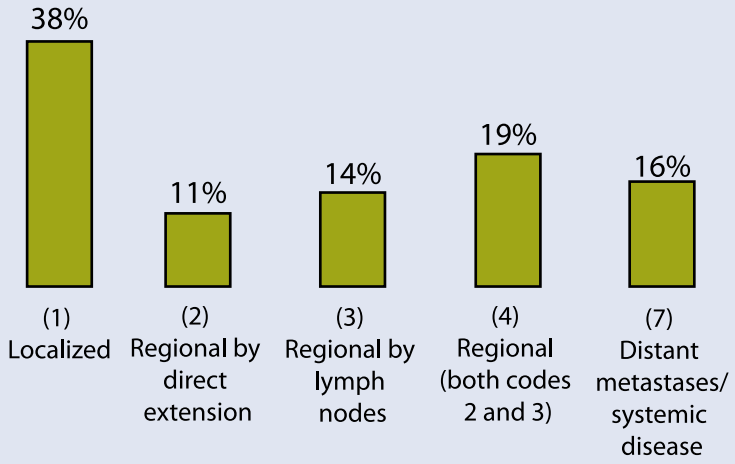
Nurse Practitioner: Michelle Barber, NP

Pathologist: Mark Silverman, MD

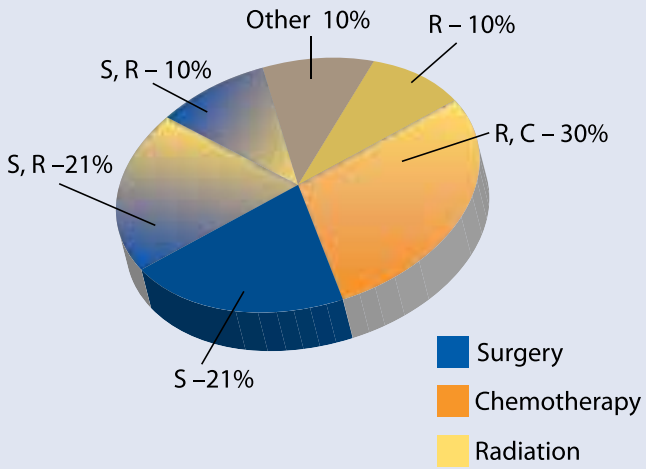
Clinical Research Assistant: Julie Roache

Administrative Liaison: Marie Kelleher

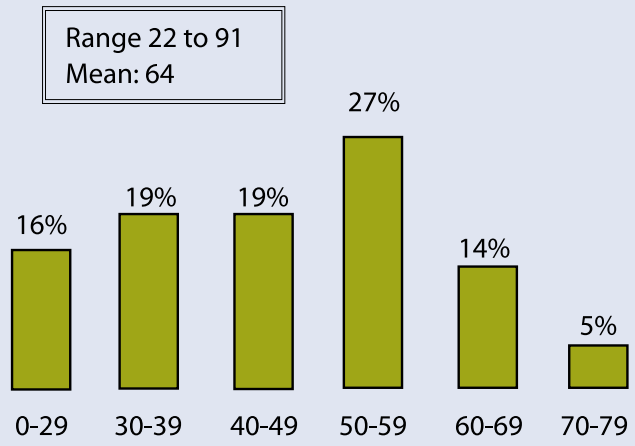
2008 Head & Neck Sites Stage at Diagnosis



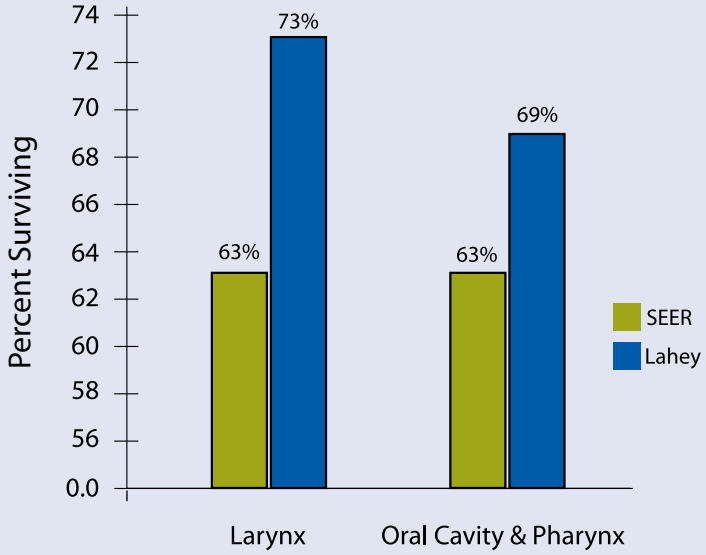
2008 Head & Neck First Course of Treatment



2008 Head & Neck Age at Diagnosis



5-Year Relative Survival by Site Lahey vs. National



Hematology

Hematologists at Lahey Clinic diagnose and treat patients with acute and chronic leukemia, Hodgkin's, and non-Hodgkin's lymphoma, multiple myeloma and amyloidosis. Hematologists work in close collaboration with physicians, nurses and technicians from a number of other clinical departments, using state-of-the-art techniques to provide the best in patient care.

Nurses administering chemotherapy and other treatments to our cancer patients are certified by the national Oncology Nursing Society (ONS) and receive extensive specialized training. Cancers treated:

- Leukemia
- Hodgkin
- Non-Hodgkin
- Multiple Myeloma

Fully integrated Hematologic Cancer team

Director: Tarun Kewalramani, MD

Hematologist: Tarun Kewalramani, MD

Radiation Oncologist: J. Robert Cassady, MD

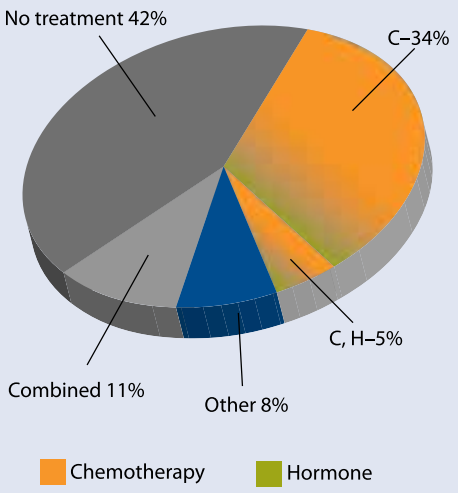
Nurse Practitioner: Jane Freeman, NP

Pathologist: Eric J. Burks, MD

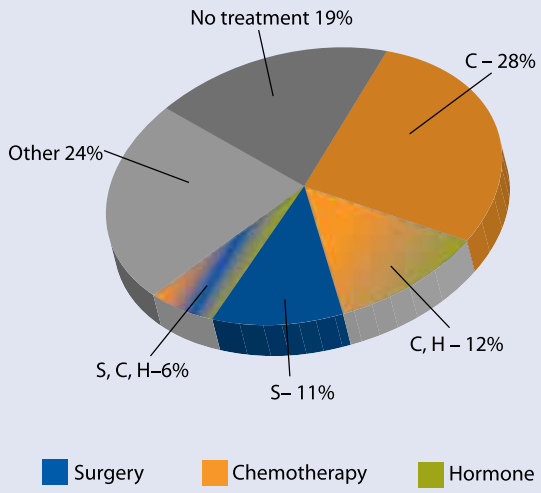
Clinical Research Assistants: Celeste Hastings
Nancy Shinopulos

Administrative Liaison: Erika Rosato, RN, MHA, OCN

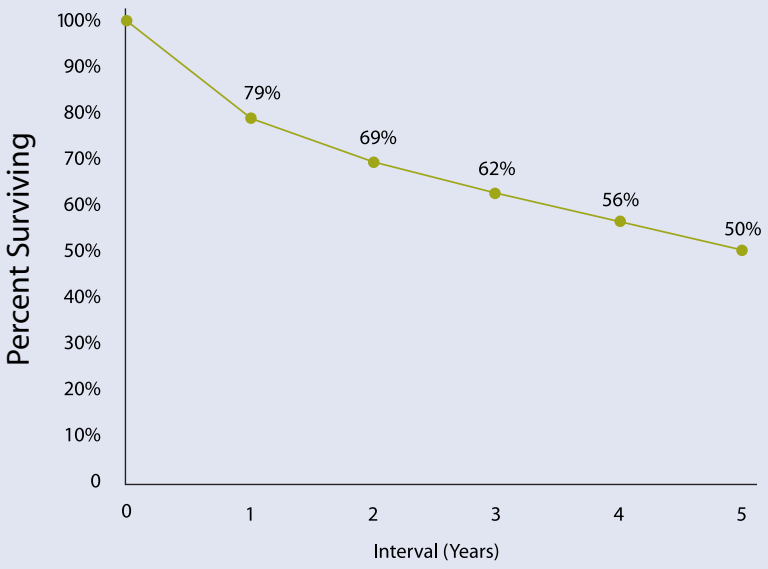
2008 Hematology First Course of Treatment



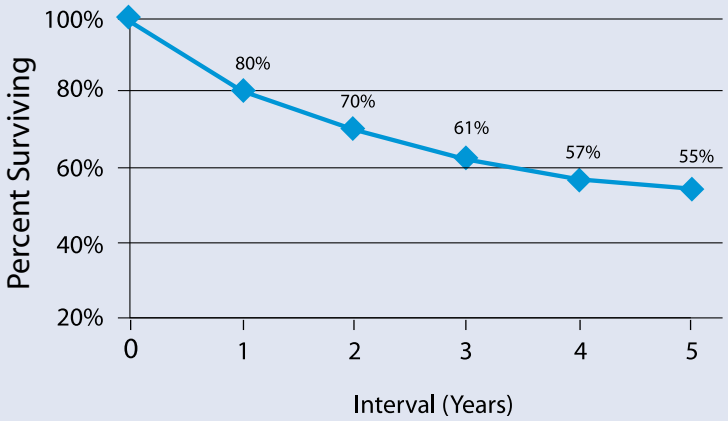
2008 Lymphoma First Course of Treatment



2002-2008 Hematology Observed Combined Survival



2002-2008 Lymphoma Observed Combined Survival



Hepatobiliary

Lahey offers unique strengths in treating pancreatic and liver cancers, from screening and medical management to complex transplant and reconstructive surgical approaches. The cancer team brings novel therapies to patients via clinical research trials.

Fully integrated Hematobiliary Cancer team

Director: Keith Stuart, MD

Hematologist: Keith Stuart, MD

Radiation Oncologist: Joshua Garren, MD

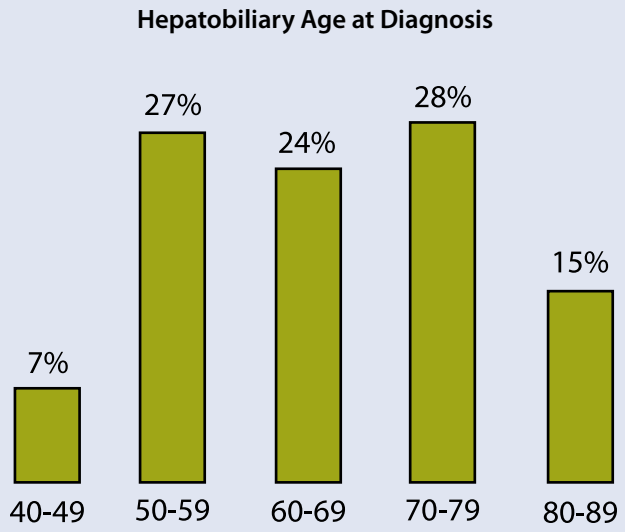
Surgeon: Roger L. Jenkins, MD

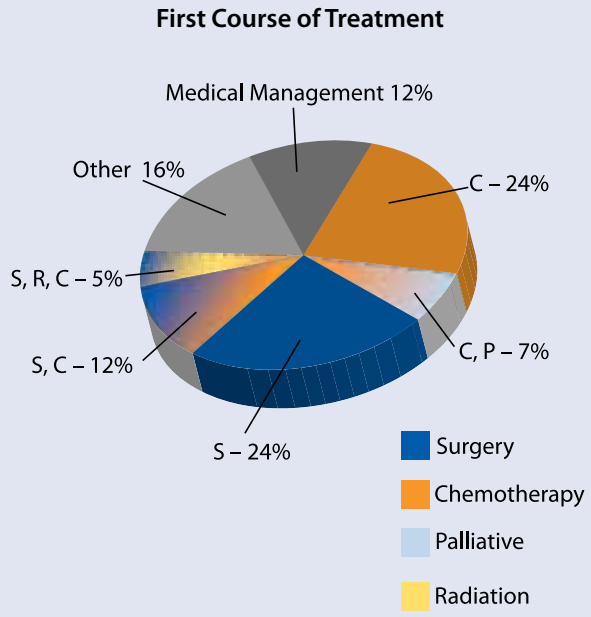
Pathologist: Atoussa Goldar-Najafi, MD

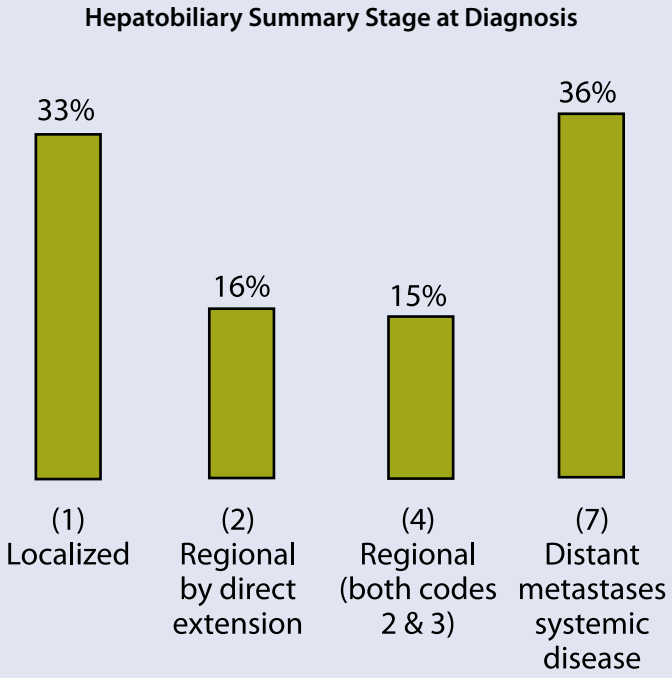
Additional Clinical Professionals: Deb Hanna, RN
Jo Underhill, RN, BSN

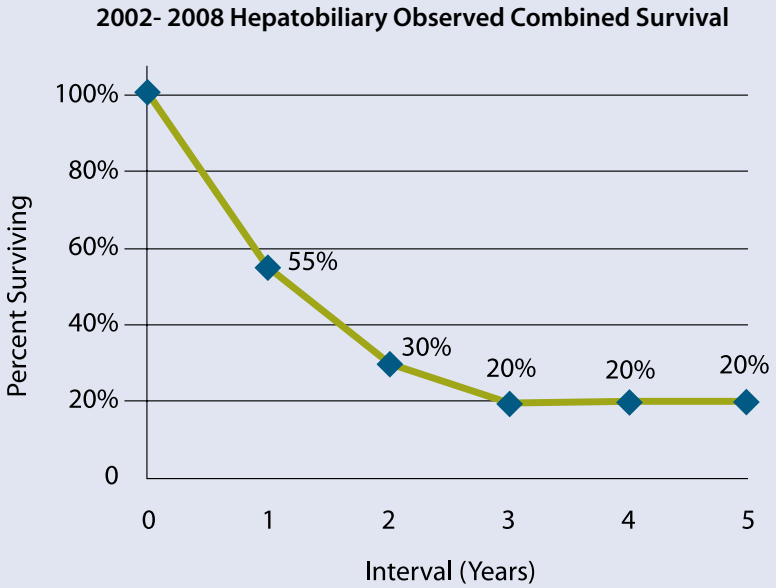
Clinical Research Assistants: Amy Lownds
Sharon DiGregorio
Joyce Pelletier

Administrative Liaison: Jo Underhill, RN, BSN


Hepatobiliary Age at Diagnosis
7%
27%
24%
28%
15%
40-49
50-59
60-69
70-79
80-89


First Course of Treatment
Medical Management 12%
Other 16%
C – 24%
S, R, C – 5%
C, P – 7%
S, C – 12%
S – 24%
Surgery
Chemotherapy
Palliative
Radiation


Hepatobiliary Summary Stage at Diagnosis
33%
16%
15%
36%
(1) Localized
(2) Regional by direct extension
(4) Regional (both codes 2 & 3)
(7) Distant metastases systemic disease


2002- 2008 Hepatobiliary Observed Combined Survival
Percent Surviving
100%
80%
60%
40%
20%
0
55%
30%
20%
20%
20%
0
1
2
3
4
5
Interval (Years)

Skin

Lahey dermatologists offer Mohs' surgery, a specialized procedure to improve cure rates and lessen the effects of surgery for basal cell and squamous cell skin cancers. Lahey dermatologists also treat malignant melanoma, the most serious form of skin cancer. In late 2009, a special Melanoma Clinic was established to diagnose and treat patients with this form of cancer.

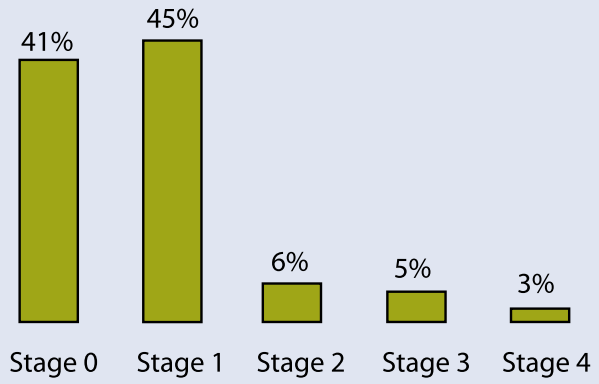
The team has expertise in diagnosis and treatment of cutaneous lymphomas and skin signs of internal cancers. Dermatologists, general surgeons and plastic surgeons collaborate on the most difficult cases.

In the early 1950's, Lahey Clinic radiation oncologists were the first in the nation to perform total skin electron therapy.

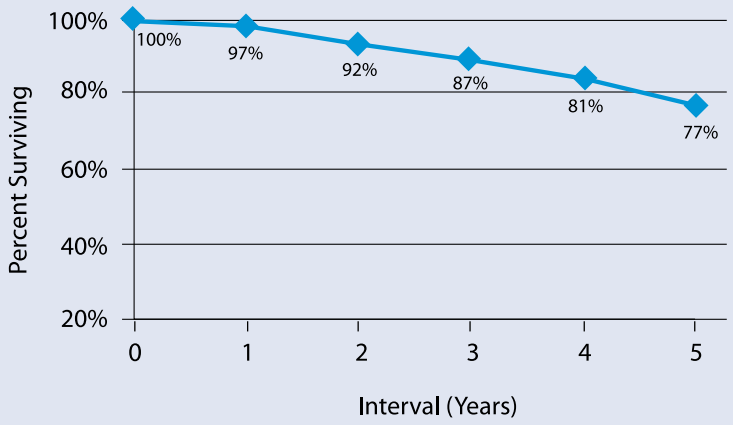
Fully integrated Skin Cancer team

Director: Caroline Bevona, MD
Radiation Oncologist: Theodore Lo, MD
Surgeon: Suzanne M. Olbricht, MD
Physician Assistant: Erin Weidemann, PA
Pathologist: Artur Zembowicz, MD, PhD
Clinical Research Assistant: Julie Roache
Administrative Liaison: Deborah Perry

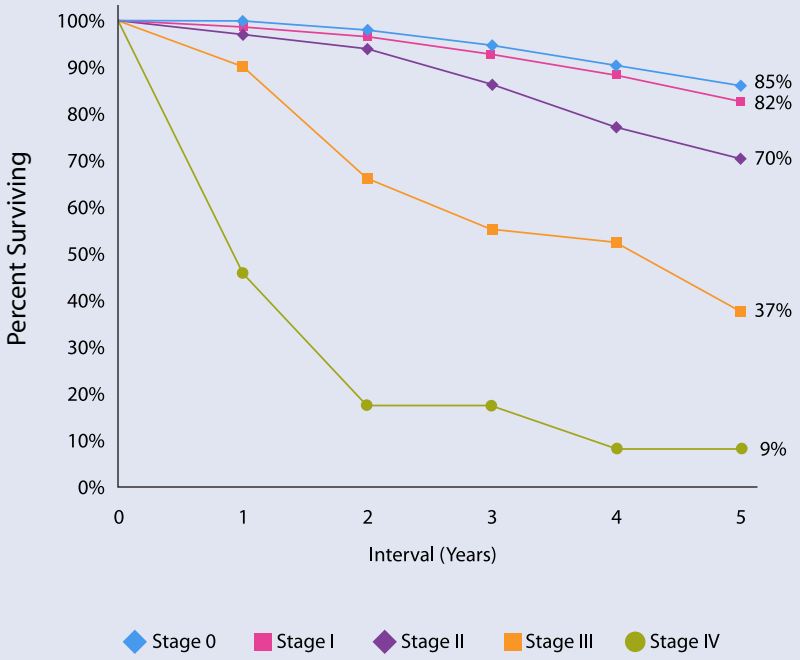
2008 Melanoma Stage at Diagnosis



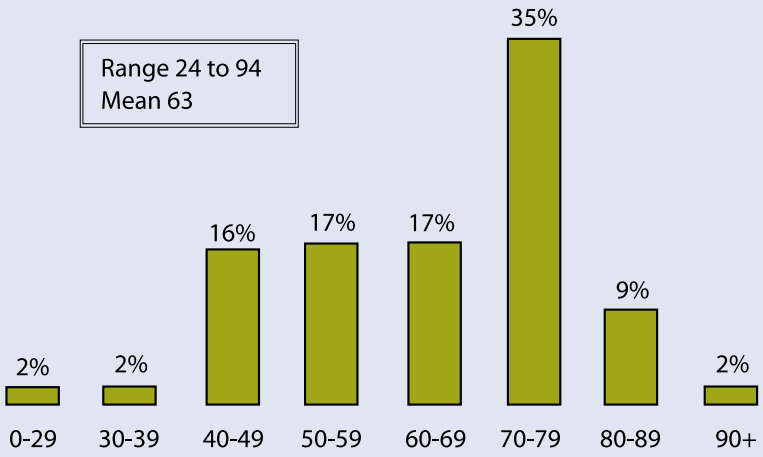
2008 Melanoma Combined Observed Survival



2002-2008 Melanoma Survival by Stage



2008 Melanoma Age at Diagnosis



Neuro-Oncology

Brain Tumor Clinic patients are cared for by a neurosurgeon, neuro-oncologist, radiation oncologist, nurse practitioner, a social worker, neuroradiologists and neuropathologists to make the most accurate diagnoses and to develop a customized treatment plan for each patient.

At Lahey, an intra-operative neuro-navigation device is used to help localize brain tumors with a high degree of accuracy. This allows for much smaller and more precise surgical incisions and less manipulation of the brain during a tumor resection. When radiosurgery is performed at Lahey, a modified linear accelerator is used to deliver the pinpoint radiation to areas deep within the brain without injuring the surrounding brain structures.

Tumors treated:

- Astrocytoma
- Craniopharyngioma
- Ependyoma
- Meningioma
- Metastatic brain tumors
- Pituitary adenoma
- Skull based tumor

Fully integrated Neuro–Oncology Cancer team

Oncologists: Lloyd Alderson, MD, DSc
John H. Wolff, MD

Radiation Oncologist: Joshua Garren, MD

Surgeons: Carlos David, MD
Peter Dempsey, MD

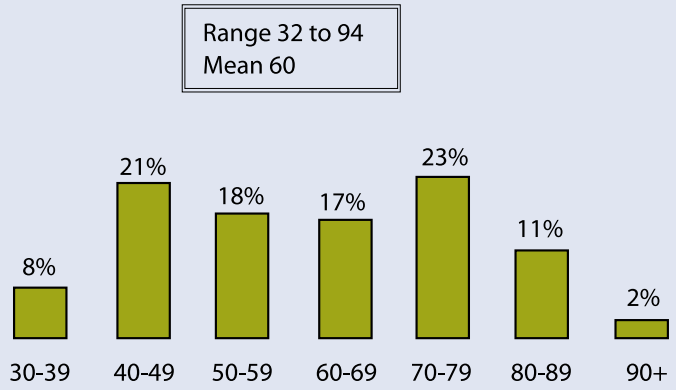
Nurse Practitioner: Gina Kolak, NP

Pathologist: Christine Thomas, MD

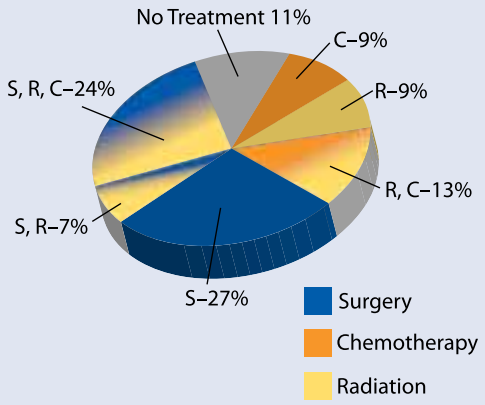
Clinical Research Assistant: Christine Gould

Administrative Liaison: Jeff O'Brien

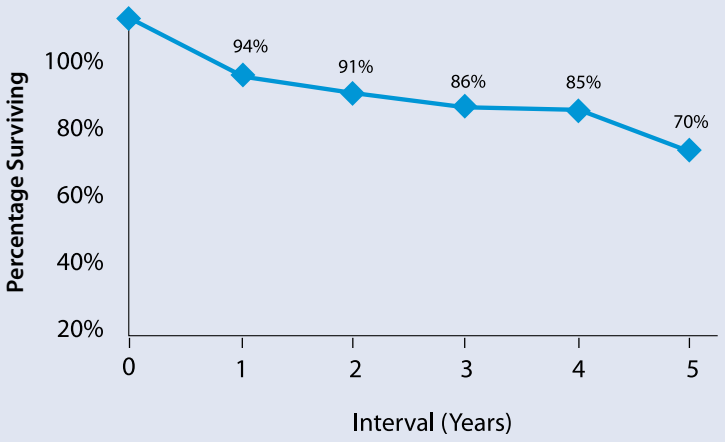
2008 CNS All Age at Diagnosis



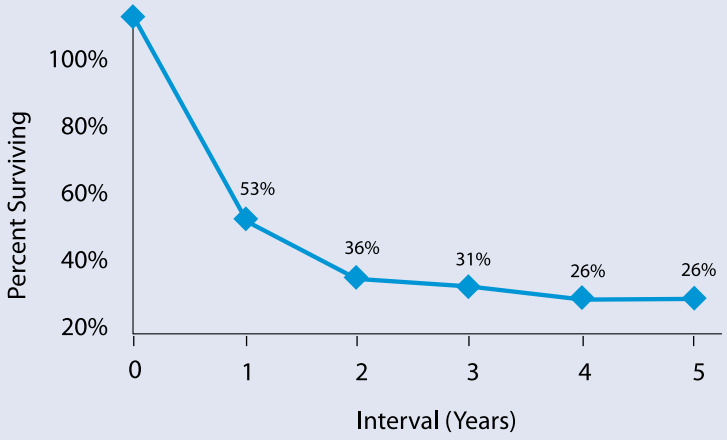
2008 CNS First Course of Treatment



2002-2008 CNS Combined Observed Survival Benign



2002-2008 CNS Malignant Combined Observed Survival



Palliative Care Outcomes

Lahey's palliative care services in 2008 provided inpatient consultations as part of the Department of General Internal Medicine. In 2010, the service celebrated its fifth year and is a rapidly growing hospital specialty. The palliative care team includes physicians, social workers, pharmacists, dieticians, researchers, clergy, nurses, a harpist and volunteers.

More than 3,000 palliative care consults have been made at Lahey since the service began in 2005. Total requests for consults in 2008 were 718 and half were for cancer patients.

To extend Palliative Care services to all Lahey patients, an outpatient program is currently being developed, specifically with our cancer patients. The demand for accessing Palliative Care services in the outpatient setting has grown nationally as well as at Lahey Clinic. Over 200 outpatients have been seen by Palliative Care, with > 60% of patients being treated for cancer. This necessary service will be expanded and become available to all Lahey oncology patients in 2011.

The Palliative Care Service has a research component as well. In 2010, the team was awarded a $35,000 grant from Tufts Health Plan Foundation for "Transitions of Care Healthcare Partnership." In June 2010, the team was awarded a grant for the Lahey/Palliative Care project developed through the Schwartz Compassionate Care Faculty Development Program.

Fully integrated Palliative Care team

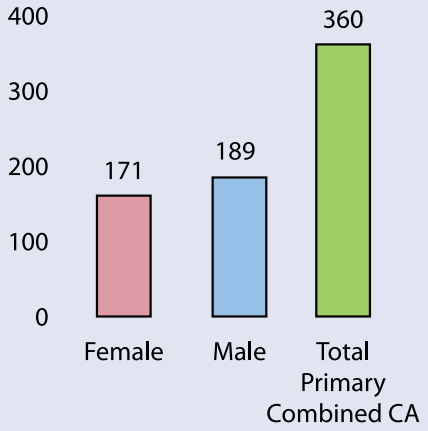
Director: Elizabeth Collins, MD

Palliative Care Physicians: Elizabeth Collins, MD
Margaret Seaver, MD

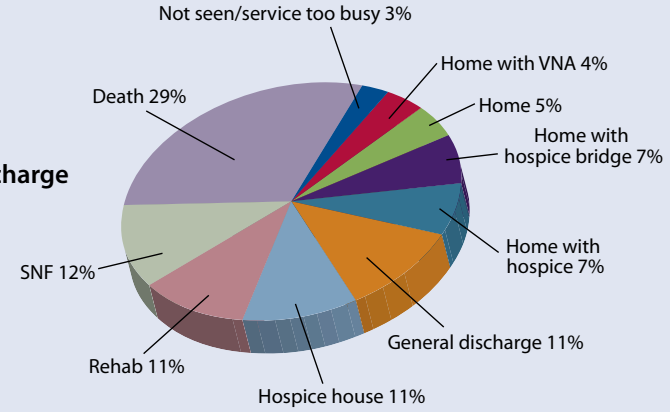
Nurse Practitioner: Caroline Duquette, NP

Administrative Liaison: Nellee Fine, RN, MA, AOCN

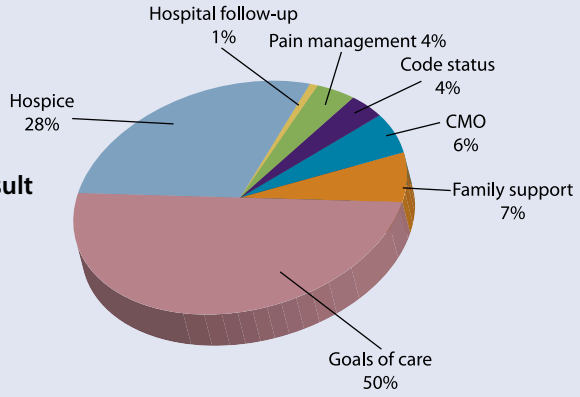
2008 Consult Requests with Primary CA DX



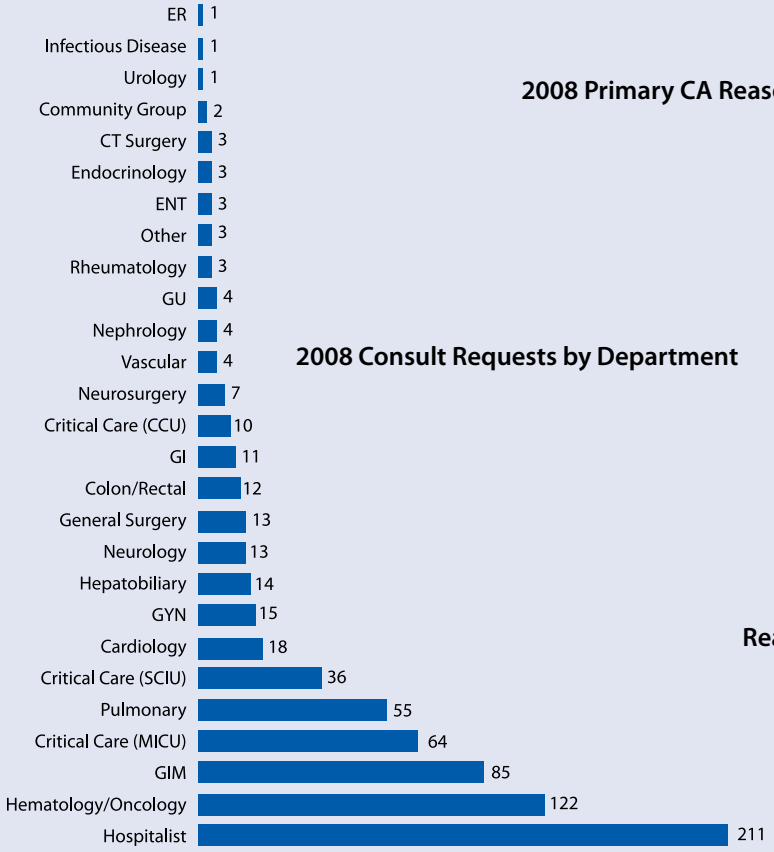
Patient Discharge



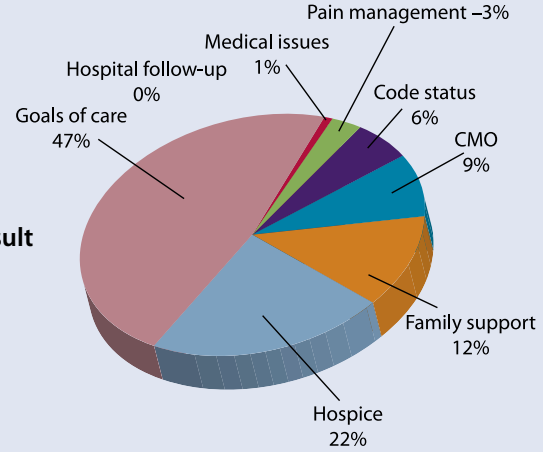
2008 Primary CA Reason for Consult



2008 Consult Requests by Department



Reason for Consult

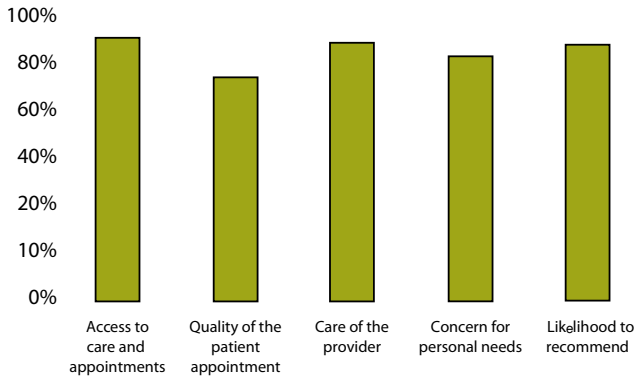


Patient Experience

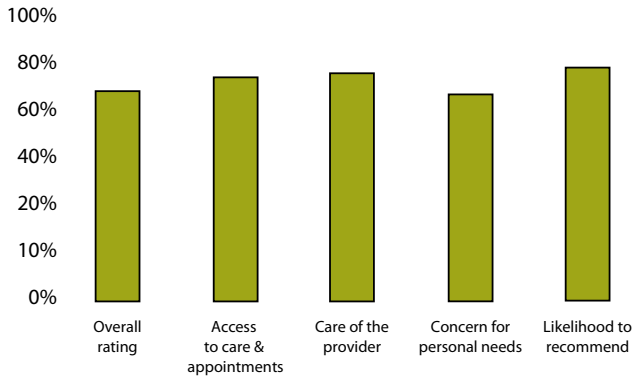
The Sophia Gordon Cancer Center at Lahey Clinic is devoted to meeting and exceeding the needs of our patients. Because we see patients at an extremely difficult juncture, we want to know what their experiences are when they first become our patients and through the continuum of their care.

Lahey's cancer services clinicians pride themselves on delivering high quality, comprehensive, compassionate care, scoring high on all patient satisfaction surveys, including Press Ganey. We measure ourselves quarterly on 50 key data points to stay abreast of patient needs and improve where and when indicated. These data points focus on five key areas: access, quality, compassion, competency and overall satisfaction. Our patients tell us they're satisfied, but we constantly strive to move the needle every opportunity we have.

2008 Patient Satisfaction–Radiation Oncology



2008 Patient Satisfaction–Hematology Oncology



Research/Clinical Trials

Lahey Clinic is involved in hundreds of clinical trials every year. A sampling of these trials are for:

- Blood and marrow transplant
- Brain tumor
- Breast cancer
- Carcinoid syndrome
- Colon cancer prevention
- Colon cancer
- Head and neck
- Hepatocellular cancer
- Kidney cancer/renal cell cancer
- Leukemia/CLL
- Liver cancer
- Lung cancer
- Lymphoma
- Microvascular anatomy
- Multiple myeloma
- Myelodysplastic syndrome
- Ovarian cancer
- Pancreatic cancer
- Prostate cancer
- Rectal cancer
- Urologic cancer

For the most current open and pending trials, visit www.lahey.org/research

Lahey's Patient and Family Support Groups

- General Cancer Support Group for patients and/or families
- Breast Cancer Support Group for newly diagnosed patients
- Warm Hugs Project (support to newly diagnosed patients with breast cancer when they are discharged from ambulatory surgery at Lahey Clinic, North Shore)
- Breast Cancer Support Group for women who have been living with breast cancer
- Look Good/Feel Better Program (free professional help using cosmetics to hide appearance-related side effects from chemotherapy or radiation)
- Ovarian Cancer Support Group
- Carcinoid Cancer Support Group
- Brain Tumor Support Group
- Ostomy Support Group (run by the Ostomy Association of Boston)

Sophia Gordon Cancer Committee

Keith Stuart, MD
Chairman, Cancer Committee
Chair, Hematology/Oncology

Anne P. Shapter, MD
ACoS
Gynecological Oncology
Cancer Liaison

Gregory Chang, MD
Pathology

Robin Clavelle, RD
Nutrition

Elizabeth Collins, MD
Internal Medicine
Palliative Care

Margie Coloian, MSJ
Communications and Marketing

John Cuttino, MD
Diagnostic Radiology

Jeff Doran
Senior Vice President

Nellee Fine, RN, MA, AOCN
Nursing Education

Kameel Garas, MD, FIPP
Anesthesiology, Pain Management

Lyubov Girshovich, MD
Radiation Oncology

Karim Hamawy, MD
Urological Surgery

Benita Handa, MD
Behavioral Medicine

Brenda Hill, RN, OCN, BSN
Clinical Manager, Hematology/ Oncology
QI Coordinator

Steven Karp, MD
General Surgery, Breast Care Center

Jeffrey O'Brien, MHA
VP, Cancer Services & Neurosciences
Community Outreach Coordinator

Denise McIntosh, RPT
Physical Therapy

Zaven Norigian, RPh
Chemotherapy Pharmacist

Deborah Perry
Director, Research Administration

Gail Reynolds, MS, CTR, RHIA
Cancer Program Coordinator
Physician QA Coordinator

Pam Reznick, MSW, LICSW
Social Services

Julie Roache, CRA
Clinical Research

Erika Rosato, RN, OCN, MHA
Nurse Manager, Inpatient Oncology

Lawrence Rusin, MD
Cancer Liaison
Colon & Rectal Surgery

JoAnn Wentworth
ACS Cancer Prevention

Donna L. Smith, RN
Radiation Oncology

Mary St. Jean, BS, CTR
Cancer Conference Coordinator

Neil Weiner, MD
Hematology/Oncology

For a complete listing of Lahey's cancer specialists, go to www.lahey.org

Lahey Clinic Oncology Services Locations

Hematology/Oncology and Radiation Oncology
Lahey Clinic Medical Center
41 Mall Road
Burlington, MA 01805
781-744-8410

Hematology/Oncology and Radiation Oncology
Lahey Clinic Medical Center North Shore
One Essex Center Drive
Peabody, MA 01960
978-538-4180

Dermatology
20 Wall Street
Burlington, MA 01805
781-744-8444

Other Lahey Clinic Oncology Services Locations

Lahey Urology at Emerson Hospital
131 Old Road to Nine Acre Corner, Suite 740
Concord, MA 01742
978-369-5551

Lahey Urology at Nashua
17 Riverside Street
Nashua, NH 03062
603-594-0800

Lahey Institute of Urology
at Parkland Medical Center
44 Birch Street, Suite 306
Derry, NH 03038
603-421-3663

Lahey Hematology and Oncology
at Parkland Medical Center
6 Tsienneto Road
Derry, NH 03038
603-537-2060

Lahey Clinic Medical Center
41 Mall Road
Burlington, MA 01805-0105
781-744-8410

Lahey Clinic Medical Center, North Shore
One Essex Center Drive
Peabody, MA 01960
978-538-4180