

LAWRENCE GENERAL HOSPITAL

# Community Comprehensive Cancer Program

ANNUAL REPORT  
**2002**

JOINT CANCER COMMITTEE

# 2002 R E P O R T

The Joint Cancer Committee met six times in 2002. The more frequent Multidisciplinary Conferences continue weekly, alternating locations between the Lawrence General Hospital and the Holy Family Hospital. There are also additional multidisciplinary conferences sponsored by both the Continuing Medical Education Department and the Joint Cancer Committee.

Lawrence General Hospital has developed a new public education plan. The plan's philosophy "supports the right of patients to participate in decisions affecting their own care. We are committed to providing quality information to assist consumers in making informed health choices. We recognize that people need to take responsibility for their health by leading healthy lifestyles. To assist the citizens of the Merrimack Valley in the pursuit of good health, Lawrence General Hospital fosters a strong local system of preventive primary care, promotes healthy behaviors to help prevent cancer and other diseases and promulgates the importance of early detection."

This year, we have evaluated two areas of clinical oncology with studies that have provided interesting information: In the first study, we looked at rectal cancer. Every case with a stage II or III rectal cancer where adjuvant chemotherapy and radiotherapy were indicated was reviewed. The goal was to make sure there were no patients without the standard treatments. There were only one out of eight patients without the appropriate referral to radiation oncology initially; this was found early and corrected. The other study evaluated the ability of PET scanning in upstaging patients with stage III non-small cell lung cancer, and mainly, changing therapy on the basis of the new staging. There is a modest chance that PET scan changes the stage and modifies treatment in these patients. The abstract was submitted to the American Society of Clinical Oncology meeting and was published as an abstract in the proceedings of the meeting in May 2003.

The Cancer Registry is presently in compliance with the American College of Surgeons Commission on Cancer in the areas of abstracting and follow-up. The Committee has focused on improvement in stage documentation, with a number of modifications that have improved TNM staging completion in patients' records. We have actually seen an improvement in the documentation of TNM staging and have utilized upgrades in the Cancer Registry software from Impath Information Services.

In November the Cancer Program was re-accredited with no contingencies by the American College of Surgeons. This accreditation is valid for a three-year period.

The American College of Surgeons recommended splitting the Greater Lawrence Joint Cancer Committee into two separate committees, one for the Holy Family Hospital in Methuen and the other one for Lawrence General Hospital. This has happened as of January 1, 2003.

The Cancer Committee chairs would like to thank those who participated in the Cancer Committee, the Multidisciplinary Conferences and other activities that make our cancer program successful.

Respectfully submitted,

Pedro Sanz-Altamira, MD, PhD, Medical Oncology, Co-Chair, Cancer Committee

Santos K. Shetty, MD, Radiation Oncology, Co-Chair, Cancer Committee

The Cancer Program at Lawrence General Hospital is dedicated to providing the patient with the highest of quality care, offering a multidisciplinary approach.

Lawrence General Hospital holds the title of an approved Community Comprehensive Cancer Program from the American College of Surgeons Commission on Cancer. Dr. C. William Kaiser, MD, FACS from the Commission on Cancer surveyed our Cancer Program on November 14, 2002. We received a three-year Certificate of Approval with no contingencies.

The four components of our cancer program are the **Joint Cancer Committee**, **Quality Management Program** including Patient Care Evaluation (PCE) studies, **Multidisciplinary Cancer Conferences** (Tumor Boards) and a **Cancer Registry** for Data Management. Pedro Sanz-Altamira, MD, PhD, a medical oncologist for Lawrence General Hospital joins Santos Shetty, MD, a radiation oncologist for Holy Family Hospital in co-chairing the Joint Cancer Committee.

Intro

## 2002 Joint Cancer Committee Membership

### Co-Chairmen

Pedro Sanz-Altamira, MD, PhD  
*Medical Oncology/LGH*

Santos K. Shetty, MD  
*Radiation Oncology/HFH*

### Cancer Liaison Physician

Pedro Sanz-Altamira, MD, PhD  
*Medical Oncology/LGH*

William A. Cook, MD, *Thoracic Surgery*

William H. Edwards, MD, *OB/GYN*

Liam J. Hurley, MD, *Urology*

Megha Joshi, MD, *Pathology/LGH*

Harry D. Kaloustian, MD

*Director of CM Education*

Swadesh Mullick, MD, *OB/GYN*

Gokul V. Prakash, MD, *General Surgery*

Mark Rieumont, MD

*Interventional Radiologist/LGH*

Donald G. Ross, MD, *Pathology/HFH*

Richard Sawyer, MD, *Gastroenterology*

Yookyung Selig, MD, *Otolaryngology*

Frank Vittimberga, MD, *General Surgery*

Sewi S. Yu, MD, *General Surgery*

Arthur L. Zerbey, MD, *Radiology/HFH*

Janine Buis, RN, OCN

*Oncology Certified Nurse/LGH*

Jacqui Collins, RN, *Clinical Educator/HFH*

Carole Dwyer, *Merrimack Valley Hospice*

Lisa Eden, *Nutrition/HFH*

Beverly Ferrante, M.Div.

*Pastoral Care/LGH*

Lorraine Hess, CRT

*Cert. Tobacco Treatment Specialist/LGH*

Barbara Keller, *Public Affairs/LGH*

Deanna King, RPh, *Pharmacy/LGH*

Kathy Kinneen, LICSW, *Social Services/LGH*

Karl Magnussen, RN

*Manager, Cancer Management Center*

Nancy Masys, RN, *Public Education/LGH*

Martha McDrury, RN

*Chief Operating Office/HFH*

Rita Mae Mickey, RN

*Director of QI & Risk Management/HFH*

Kathryn Miller

*Radiology Operation Manager/HFH*

Janet Nelson, RN, *Quality Assurance/LGH*

Paula Pattison, RN

*Director of Wounds Ostomy/HFH*

Maureen Pierog, RN

*Director of Quality Improvement/LGH*

Deborah Ralls, *Director of Radiology/LGH*

Gail Reynolds, MS, CTR, RHIA

*Cancer Registry Manager/HFH*

Paula A. Riccio, *Cancer Registry/LGH*

Anne Saffie, *Cancer Registry/HFH*

Teresa Schirmer, LICSW

*Supervisor of Social Services/HFH*

Robert Tremblay

*Vice President, Fiscal Affairs/LGH*

William Van Gelder, RPh, *Pharmacy/HFH*

Marie Wilcox, *Cancer Registry/HFH*

Pam Woodman, RHIA

*Director Health Information/LGH*

# Quality Management Programs

## PATIENT CARE EVALUATION STUDIES

### STAGE 2 AND 3 RECTAL CANCER

One of the Cancer Committee's evaluation priorities for 2002 was to determine the adequacy of adjuvant treatment for rectal cancer patients. All Stage 2 and 3 2000 and 2001 rectal cancer patients were reviewed. The goal was to ensure there were no patients without standard treatment options. A total of eight patients were noted to have Stage 2 or 3 rectal cancers. Four of eight had surgery followed by adjuvant chemotherapy and radiation. One patient had pre-op chemotherapy and radiation, one had adjuvant chemotherapy with radiation therapy not recommended after consult, one patient moved to Florida shortly following surgery and expired shortly after and one patient refused all adjuvant treatment. These eight patients are the totality of the cases for the time period and reassured us that our patients were offered adjuvant treatment for their rectal cancer.

### PET SCAN FOR UPSTAGING LUNG CANCER

A study of Stage 3 non-small cell lung cancer patients was done to evaluate the ability of PET scanning in upstaging the patients' disease, and mainly changing therapy on the basis of the new staging. All Lawrence General Hospital 2001 analytic non-small cell lung cancer patients with stage 4 disease were evaluated and reviewed to see if PET scanning was responsible for upstaging their cancer. Thirty patients fit the criteria for this study. Twenty-four patients received a PET scan. Four of the twenty-four were upstaged and two of the four had treatment management changes. It was determined that there is a modest chance that PET scanning changes the stage and modifies the treatment in these patients. An abstract of this study, also including a group of patients from Holy Family Hospital, was submitted by Pedro Sanz-Altamira, MD, PhD to the American Society of Clinical Oncology meeting and was approved for publication as an abstract.

### STAGING FORM STUDY

The clinical management of patients is an integral part of patient care. One of the American College of Surgeon required standards is that the medical chart documentation demonstrates the American Joint Committee on Cancer (AJCC) stage assigned and initialed by the managing physician. One way to insure the completion of staging was to review medical charts for the completion of staging forms. The study is continuous, in that, all charts accessioned in our registry will be looked at for the completion of a staging form. The registry staff reviews all cases for completeness of staging forms in the patient medical record. All records with incomplete staging forms are returned to the managing physician for staging form completion.

### QUALITY DATA AUDITS

Quality control for the Cancer Registry includes four major areas of registry activity: casefinding, accurate and consistent abstracting and staging, timely data collection, and reporting. The registry physician advisor is Cancer Committee Co-Chair, Pedro Sanz-Altamira, MD.

Casefinding is done on a weekly basis along with review of cases on a monthly basis. Abstracting and staging are currently at a 5-month completion from date of diagnosis. Any staging questions are directed to the physician advisor, the Pathologist, or the attending physician. Timely data collection from other institutions involved in the analytic patients care is stressed for completeness of the abstract. Reporting to the National Cancer Database (NCDB) is done yearly. Monthly reports are made to the Massachusetts Cancer Registry.

# Multidisciplinary Cancer Conferences

Cancer Conferences continue to be a joint multidisciplinary conference between Lawrence General Hospital and Holy Family Hospital. This is generally because of the location of the two facilities being so close together. The physicians that support the surrounding community also represent themselves at both hospitals. As a result, a duplication of their efforts was foreseen if Cancer Conference would have met each week at each hospital. The Cancer Conference does meet every week, the 1st and 3rd Thursday at Lawrence General Hospital and the 2nd and 4th Wednesday at Holy Family Hospital. In 2002, there were twenty-three Cancer Conferences held at Lawrence General Hospital to do a general review of selected newly diagnosed cancer cases within the hospital.

A total of 103 cases were presented at Cancer Conference in 2002. This represents about 31% of our analytical cases (diagnosed at Lawrence General Hospital and/or all or part of the first course of treatment was given at LGH). Case presentations were mostly prospective reviews. The cases were selected by the pathologist and in conjunction with the attending physician associated with the case. The table below represents the diversity of case presentation at the multidiscipline cancer conferences.

## Multidisciplinary Cancer Management Conferences

### “THYROID FUNCTION TESTS: A REVIEW AND OPEN DISCUSSION”

Harry Kaloustian, MD

*Department of Medicine/Endocrinology*

*Lawrence General Hospital, Holy Family Hospital*

### “ENDOSCOPIC ULTRASONOGRAPHY OF THE UPPER GI TRACT”

Francis MacMillan, Jr., MD

*Department of Medicine, Gastroenterology*

*Lawrence General Hospital, Holy Family Hospital*

### “COMMUNICATING DIFFICULT NEWS”

Susan Block, MD

*Chief, Psychosocial Oncology and Palliative Care at Dana Farber Cancer Institute, Brigham and Women's Hospital Associate Professor of Psychiatry and Medicine.*

Table 1 Cancer Conference, 2002

<b>HEAD AND NECK</b>		<b>URINARY TRACT</b>	
Floor of mouth	1	Kidney	4
Tongue	5	Bladder	15
Lip	1	Renal Pelvis	1
Alveolar Ridge	2		
Parotid Gland	1	<b>MALE GENITAL</b>	
Oral Soft Palate	1	Prostate	9
Thyroid	1		
<b>DIGESTIVE SYSTEM</b>		<b>FEMALE GENITAL</b>	
Esophagus	3	Endometrium	2
Colon	7	Cervix	2
GE Junction	2		
Anal Junction	1	<b>CENTRAL NERVOUS SYSTEM</b>	
Anus, NOS	1	Brain	2
Stomach	2		
Pancreas	2	<b>LYMPHOMAS</b>	
Hepatocellular	1	NHL	6
<b>RESPIRATORY</b>		<b>SOFT TISSUE</b>	
Lung	8	Sarcoma	1
<b>BREAST</b>		<b>SKIN</b>	
Female Breast	16	Melanoma	2
<b>BLOOD</b>		<b>UNKNOWN</b>	
Leukemia	2		2

# Cancer Registry

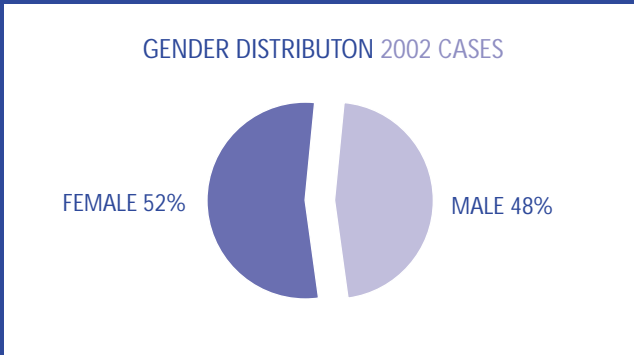


Figure 1. Defines the gender distribution that represents these accessioned cases in 2002. The breakdown indicates that there were a total of 174 females and 162 male patients.

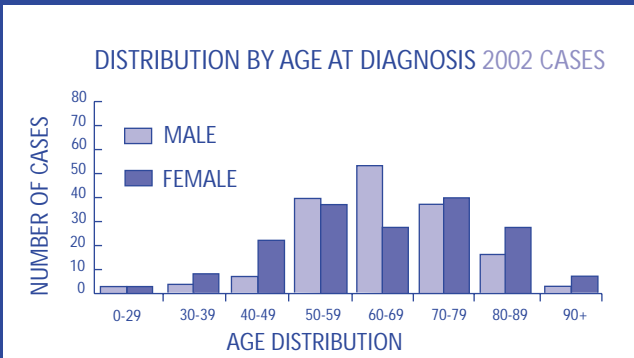


Figure 2. Shows that the predominate age at diagnosis for cancer patients at Lawrence General Hospital peaks between the ages of 50 - 79 for both male and female.

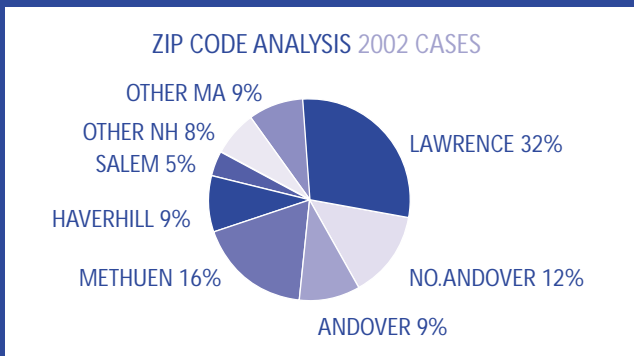


Figure 3. A zip code analysis shows that the largest percentage of patients (83%) come from within our community.

The cancer registry is a required component of every American College of Surgeons, Commission on Cancer approved program. It is the responsibility of the cancer registry to collect, record and analyze diagnosis and treatment data of patients with cancer at Lawrence General Hospital. The cancer registry also follows these patients on a yearly basis for life.

The data that is collected for Lawrence General Hospital Cancer Registry is recorded through computer software developed by Impath Information Services, Inc. in Hackensack, NJ. This software enables us to download our data to the Massachusetts Central Cancer Registry (MCR) and to the National Cancer DataBase (NCDB) in Chicago, IL.

At the end of 2002, Lawrence General Hospital cancer registry recorded 4,434 incidences of patients diagnosed with cancer and or treated for cancer at Lawrence General Hospital since its reference date of January 1, 1993. There were a total of 352 new cases accessioned in our Cancer Registry in 2002. According to the American College of Surgeons, a 90% successful follow-up rate is required to use registry data for survival (outcome) analysis. The current total adjusted living cases that are followed in our cancer registry is 2,252 with a rate of 93.12%. Annually, physician(s) reviews 10% of our analytic accessioned cases for quality improvements.

**Cancer Data Statistics in Brief - 2002**

Number of cancer cases this year	352
Analytic cases	336
Number of males with cancer	162
Number of females with cancer	174
Predominant age at diagnosis	60-69
Breast cancer is the top site	78 cases
Zip code distribution from our surrounding community	84%

The most common cancer sites at Lawrence General Hospital, which generally are the top cancer sites [those organs of the body that statistically develop cancer more often in a given population], have been compared to the common sites of Massachusetts and the United States. The top sites breast, prostate, lung, colon, and bladder represent 70% of all the cancer sites for LGH. Other sites represent 30% of cases.

Breast cancer is the most frequently diagnosed cancer at LGH followed by colorectal, bladder, prostate and lung. The State of Massachusetts and the United States most common sites of origin are similar to LGH with breast ranking as the top site of origin, followed by prostate, lung, colo-rectal and bladder.

Our cancer registrar at Lawrence General Hospital is member of the Cancer Registrar's Association of New England and the National Cancer Registrar's Association.

Paula A. Riccio  
Cancer Registry

# Cancer Registry CONT.

## SITE DISTRIBUTION

**Table 2.** Provides the primary site distribution for all of the 2002 analytic cases.

PRIMARY SITE	PATIENT COUNT	MALE	FEMALE
LIP	1	0	1
BASE OF TONGUE	3	3	0
OTH & UNSPEC TONGUE	7	4	3
FLOOR OF MOUTH	4	2	2
OTHR PARTS MOUTH	3	1	2
PAROTID GLAND	1	1	0
TONSIL	1	0	1
OROPHARYNX	1	0	1
ESOPHAGUS	6	4	2
STOMACH	5	3	2
SMALL INTESTINE	1	1	0
COLON	57	29	28
RECTUM	8	3	5
RECTOSIGMOID	1	1	0
ANUS & ANAL CANAL	2	1	1
LIVER/INTRAHEPATIC	2	2	0
PANCREAS	3	3	0
ACCESSORY SINUSES	1	1	0
LARYNX	2	2	0
BRONCHUS & LUNG	26	19	7
HEART/MED/PLEURA	1	0	1
BONE, JNT,ART CART	1	1	0
HEMATOPOIETIC	7	3	4
SKIN	12	5	7
PERITONEUM	1	0	1
SOFT TISSUE	1	0	1
BREAST	77	3	74
VAGINA	1	0	1
CERVIX UTERI	3	0	3
CORPUS UTERI	9	0	9
OVARY	1	0	1
PROSTATE	33	33	0
TESTIS	1	1	0
KIDNEY	5	4	1
RENAL PELVIS	1	1	0
URETER	1	1	0
BLADDER	30	21	9
OTHER URINARY ORGANS	1	1	0
BRAIN	2	2	0
THYROID	3	0	3
LYMPH NODES	6	2	4
UNKNOWN PRIMARY	4	4	0
<b>GRAND TOTAL</b>	<b>336</b>	<b>162</b>	<b>174</b>

## TOP FIVE SITES

The top five sites and cancer incidence by site and gender, along with the frequency distribution of cancer at Lawrence General Hospital is represented in Figure 4. These five sites represent 70% of all the other cancers accessioned at our facility this year.

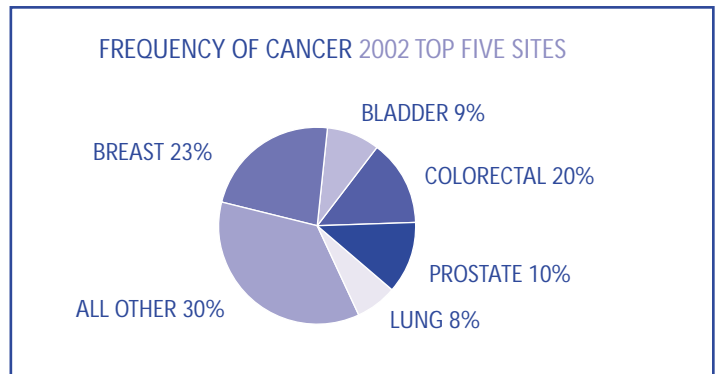


Figure 4

## COMMON SITES COMPARISON

The graph below (figure 5) illustrates the most common cancer sites at Lawrence General Hospital compared to those in the State of Massachusetts and in the United States for 2002.

\*American Cancer Society, Cancer Facts & Figures 2002, excludes basal and squamous cell skin cancers and in situ cancers except of the urinary bladder.

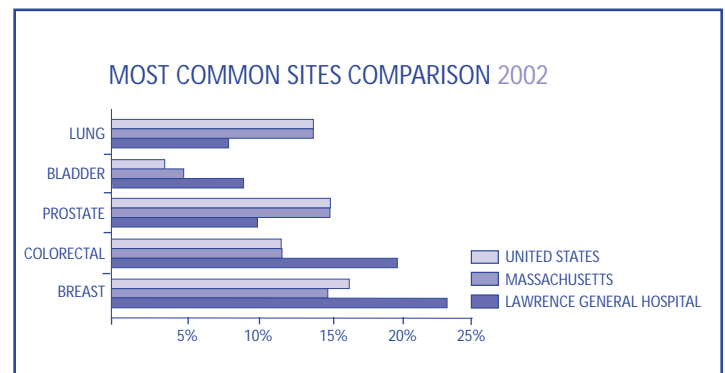


Figure 5

# Breast Cancer

## 1997 AND 2002 LAWRENCE GENERAL HOSPITAL

The American Cancer Society projected that 203,500 new cases of breast cancer are expected to occur among women in the United States during 2002. After increasing approximately 4.5% per year in the 1980's, the rate of breast cancer incidence among white women continued to increase more slowly through 1998. About 1500 new cases of breast cancer are expected in men in 2002.

The following is a comparison of breast cancer diagnosed and/or first treated at Lawrence General Hospital in 1997 and 2002. There were a total of 51 analytic breast cancer patients in 1997. There were 1 male and 50 female patients. In the year 2002 there were 77 analytic breast cancer patients, 3 males and 74 females.

### SCREENING

As a direct result of increased use of mammography screening 88% of the newly diagnosed breast cancer will be ductal carcinoma in situ (DCIS), a less advanced stage than might have occurred otherwise. Estimates are that 22% newly diagnosis breast cancers will be invasive cancer.

The American Cancer Society recommends that women begin monthly self-examination at the age of 20. In addition, they recommend women at age 40 and older have an annual mammogram and annual clinical breast examination by a health care professional.

According to the American Cancer Society there has been an increase among women age 40-64 getting screening. Overall 72.2% of women age 40 and older received a mammogram within the past year in Massachusetts. This probably explains why there has been an increase in the age group of 50 to 89 diagnosed with breast cancer at Lawrence General Hospital. The stage at diagnosis at Lawrence General Hospital has also changed; there is lower percent of stage 3 and stage 4. Stage 1 and stage 2 have increased. Screenings have probably helped in early detection of breast cancer.

### RISK FACTORS

As a person gets older the chances of getting breast cancer increases. Life style also plays an important role in the increase chances in getting breast cancer. A person's alcohol consumption, and obesity are associated with the risk of getting breast cancer.

Women who have a personal or family history, previous diagnosis of biopsy confirmed atypical hyperplasia, long menstrual history, increased breast density, recent use of post menopausal hormone replacement or oral contraception, who have never had children or first child after 30 years of age, also have increased risk for developing breast cancer.

### SYMPTOMS

When signs or symptoms are present the most common symptoms are lumps within the breast, thickening, swelling, distortion or tenderness. Breast pain is present in 5% of the breast cancers. It is commonly due to benign conditions and it is not usually the first symptom of breast cancer. Microcalcifications, asymmetry, a mass or architectural distortions are the signs that are identified on a mammography. These features warrant further work-up to confirm cancer.

## AGE AT DIAGNOSIS

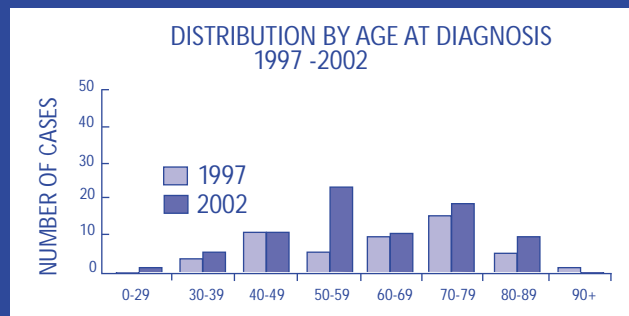


Figure 6 compares the distribution by age at diagnosis for patients diagnosed and/ or treated with breast cancer in the years 1997 and 2002

## STAGING

Staging is a common language developed by medical professionals to effectively communicate information about the severity of a disease to others. Staging of cancer at time of diagnosis has several significant factors. Determining the treatment plan for each patient, estimating the prognosis of a particular case by comparing it to similar cases, and using it as a mechanism for comparing the results of different therapeutic procedures or data published.

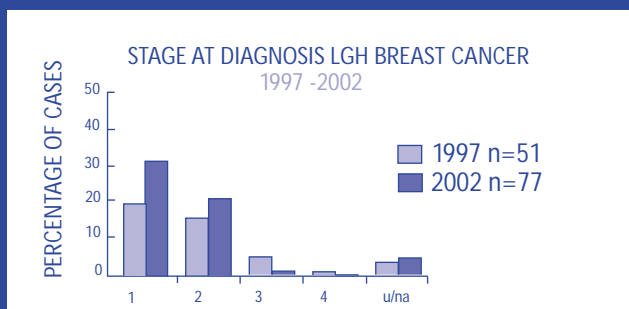


Figure 7 compares stage at diagnosis for 1997 breast cancer patients at Lawrence General Hospital to those diagnosed in 2002

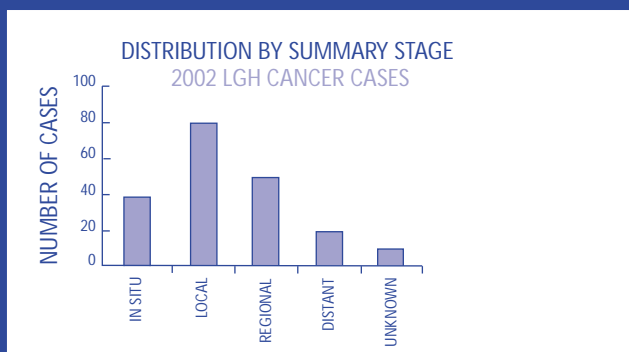


Figure 8 Represents distribution by General Summary Stage for all analytic 2002 cases at Lawrence General Hospital. The majority of patients were diagnosed with either local or regional disease.

**TREATMENT OPTIONS**

Depending on the stage of disease and the patient's preference the treatment options vary. The following are examples of treatment options: lumpectomy (local removal of the tumor) and removal of the lymph nodes under the arm, mastectomy (surgical removal of the breast) and the removal of the lymph nodes under the arm; chemotherapy; radiation therapy; or hormone therapy. You can have a combination of two or more therapies. Studies on breast cancer therapies are constantly being conducted. Patients should consult their physicians for treatment options. Breast reconstruction can be done immediately after a mastectomy in most cases.

The types of treatments at Lawrence General Hospital have shifted in 2002 from those in 1997. There was an 18% decrease in surgical only treatment and multidisciplinary approaches increased by 18%.

**SURVIVAL**

For localized breast cancer there has been an increase in the 5-year relative survival rate from 72% in the 1940s to 96% today; 78% for women with regional spread of the disease. For women who had distant metastases the rate is 21%. According to the American Cancer Society "survival after a diagnosis of breast cancer continues to decline beyond five years. Survival at 10 years or more is also stage dependent, with the best survival observed in women diagnosed with early stage disease."

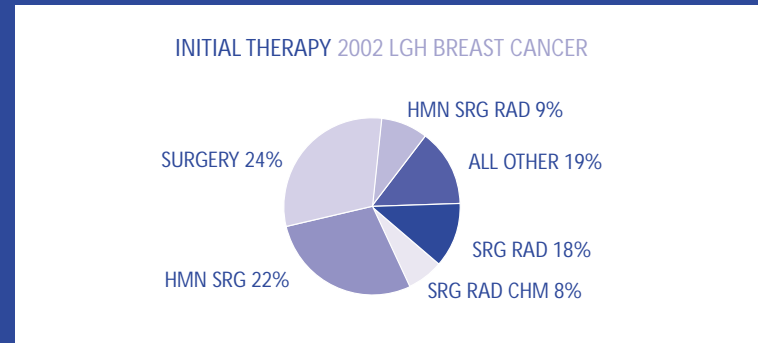
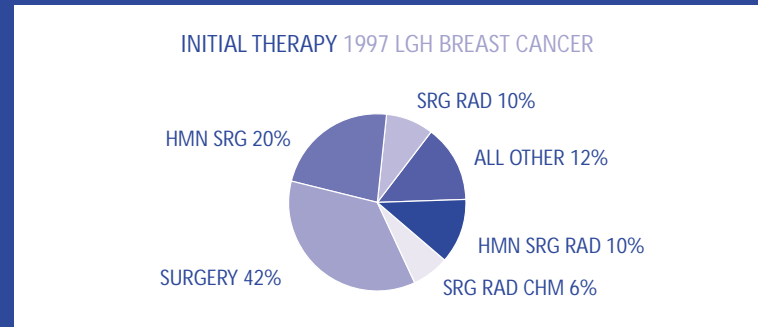
The 5-year relative survival rate for breast cancer patients diagnosed and/or treated in 1997 at Lawrence General Hospital is comparable to national data. All stage 3 (3 patients in total) and stage 4 (1 patient in total) have died within the 5 years. Half of the patients (7) with stage 2 breast cancer are still living at 5 years.

**SUMMARY**

Breast cancer continues to be the leading cause of cancer in women of all ages. Doctors both here and across the country suggest that with aggressive screening and awareness we can diagnose cancers earlier with better outcomes.

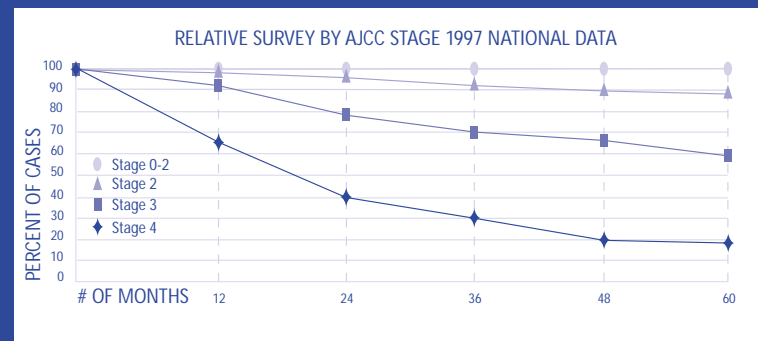
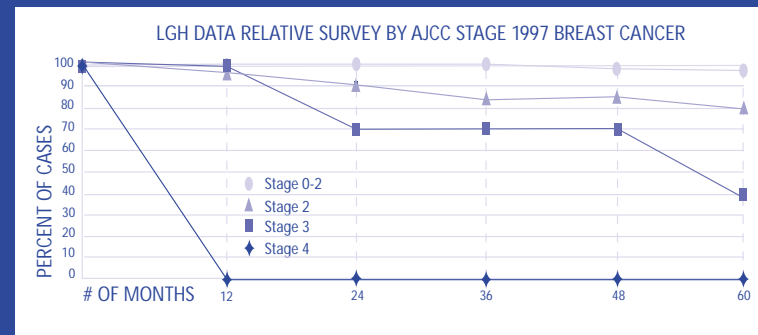
Frank J. Vittimberga, MD  
Surgery

**TREATMENT**



**SURVIVAL**

The graphs below compare the relative survival rate for breast cancer diagnosed in the year 1997 at Lawrence General Hospital to National data. As indicated from the data from the American Cancer Society Facts & Figures in 2002, LGH does show that the more advanced stage has a lower survival rate.



# Community Education/Outreach

Continuous community involvement is joined with the American Cancer Society through programs such as Daffodil Days in March, Reach to Recovery, Road to Recovery and the “Look Good Feel Better” program which is a support group where patients are encouraged to attend to discuss diet activities, hygiene, and cosmetic issues. Lawrence General also sends a free newsletter of health education and prevention to 48,000 households in its service area. Articles often address cancer prevention and early detection.

## **BREAST CANCER SCREENING**

Lawrence General Hospital participates in the Women and Cancer Education Initiative, Breast and Cervical Cancer Institutes and Well Women Medical Services Program (BCCI), a sponsorship program of the Massachusetts Department of Public Health –Women’s Health Network. The Program provides breast and cervical cancer screening and diagnostic services for low-income, uninsured and underinsured Massachusetts women ages 40-64. These screenings are free of cost to clients. BCCI Medical Services Programs also provide necessary program administration, client enrollment, recall and follow-up, case management, and linkage to free or low-cost treatment. In the year 2002, 416 patients received mammograms as part of this program; another 250 patients received pap smears for cervical cancer screening.

## **PROSTATE CANCER SCREENING**

The Laboratory at Lawrence General Hospital provided PSA testing for a Prostate Screening Day in the City of Lawrence on September 28, 2002. Physicians from the Greater Lawrence Family Health Center provided the exams. The event was target toward the uninsured and underinsured, with 150 tests funded by the Massachusetts Department of Public Health. The special testing day was part of Prostate Health Awareness Month sponsored by the Mayor’s Health Task Force (of which the Hospital is key member) and an initiative of the nationwide Mayor’s Coalition on Prostate Cancer.

## **TOBACCO INTERVENTION PROGRAM**

Lawrence General Hospital has a firm and ongoing commitment to reduce tobacco-related disease and help those who wish to pursue a healthier lifestyle. The smoking cessation program is led by Lorraine Hess, a Certified Tobacco Treatment Specialist and Certified Respiratory Specialist. The primary goal of the tobacco intervention program is to give each member an overview on proven methods for stopping the use of tobacco and many strategies and tools to incorporate in developing a quit-smoking plan. The Massachusetts Tobacco Control Program provides partial funding. The Hospital offers treatment services to members of the community that include the following:

- Information and Education
- Intake and Assessment
- Treatment Planning
- Referral Services
- Pharmacotherapy Support and Guidance
- Counseling
- Relapse Prevention
- Follow-up and Aftercare

Each participant received information on nicotine replacement products. Transdermal patches or gum may be provided for qualified Massachusetts residents in accordance with Tobacco Control Program Guidelines.

# Clinical Support Services

## MEDICAL ONCOLOGY/CHEMOTHERAPY

Chemotherapy, chemotherapeutic nursing and medical oncology services are offered on an inpatient and outpatient basis at LGH. The services include patient and family teaching that consists of information regarding treatment, nutrition, pain control and support services. In 2002, 646 patients visited the L4 oncology clinic.

## PATHOLOGY

The Department of Pathology at Lawrence General Hospital is actively involved with the hospital Cancer Program. Pathologists present cases weekly at the cancer conferences. Cases are selected depending on common sites of cancer in the region, unusual cases, and any which individual physicians request be brought up for discussion. Digital photography is used to discuss between 100 and 150 cases per year.

The Pathology Department follows CAP (College of American Pathology) for diagnostic reporting on cancer cases. A random review of reports is done internally to evaluate adherence to protocols. Included in the reports are pathologic staging of tumors as well. The department has a limited in-house immunohistochemistry lab to aid in the diagnosis of malignancies. In addition, outside consultative services from Massachusetts General Hospital, Boston University Medical Center, Impath Labs and Specialty Labs are utilized when needed. The turnaround time for special studies are constantly evaluated for quality and timeliness of reports.

The clinical Laboratory along with the reference Laboratory provides supportive timely service for management of cancer cases. The Blood Bank in conjunction with the American Red Cross provides adequate blood product support.

## DIAGNOSTIC RADIOLOGY

The Lawrence General Hospital Department of Radiology is an extremely busy imaging service, which provides a wide range of diagnostic exams as well as offering many minimally invasive interventional radiology procedures. High volume CT (computerized tomography), ultrasound, MRI (magnetic resonance imaging) and mammography are characteristic of the department and are regularly utilized by the referring oncology service. The hospital is currently arranging on expansion to house a state-of-the-art sixteen (16) slice multi-detector CT scanner to accommodate the growing utilization of the technology; this will allow for the most current applications of CT for cancer screening, diagnosis and treatment. The interventional radiology service performs imaging-guided biopsies daily in an effort to diagnose or exclude cancers in an expeditious and minimally invasive manner. Interventional radiologists staff the department with formal specialized fellowship training beyond residency; the interventional service is currently exploring the possibility of offering new cutting edge cancer therapies such as radiofrequency ablation and embolization techniques.

## NUCLEAR MEDICINE

The Nuclear Medicine Department at Lawrence General Hospital provides inpatient and outpatient services for oncology patients and for screening of malignant and benign diseases.

- Routine cardiac evaluation including left ventricular gated blood pool studies to evaluate the cardiotoxic side effects of chemotherapy.
- Gallium studies are routinely employed for the evaluation of staging in patients with a variety of malignancies especially that of Hodgkins and Non-Hodgkins lymphoma.
- Renal function studies are performed for a variety of disorders involving the urinary tract and can be used to evaluate the proportion of renal function provided by each kidney.
- Liver/Spleen scans can be performed to evaluate the presence or absence of space occupying pathology in the liver and to non-invasively establish the size of the spleen.
- Parathyroid scans can be performed to localize parathyroid adenomas and assist in the evaluation of patients with hypercalcemia.
- Thyroid scans are performed to evaluate the presence or absence of cold nodules of which up to 10% may represent thyroid cancer involving the thyroid gland and to help the overall work up of a patient with thyroid function abnormalities.
- Iodine-131 is used to treat hyperthyroidism and for thyroid ablation.
- Cisternography is performed for the evaluation of patients with hydrocephalus and to help determine which patients would benefit from ventricular shunts.
- Differential Lung Function Studies are performed to determine the patient's effective residual lung capacity should pulmonary resection be needed for lung cancer.
- In patients who develop gastrointestinal bleeding disorders a GI bleed scan can help localize the source of a GI bleed in a non-invasive way.
- HIDA scans can be performed to establish gallbladder function and to evaluate the extra hepatic biliary system.
- Ventilation and Perfusion Lung scanning can non-invasively determine the probability of a pulmonary embolus in those patients who had the complication of thrombophlebitis, which can be associated with malignant disease.
- Sentinel lymph node localization can be provided in patients with melanoma and breast cancer.

A talented and compassionate team of technologists, pathologists, and support personnel supports the Nuclear Medicine Department.

## **SOCIAL SERVICES**

The Social Services Department provides counseling and support for patients and families. Crisis intervention is also provided as necessary. They provide information and referrals to community support groups, and resources for supportive services such as financial and transportation assistance. The department coordinates discharge planning, which includes long-term care placement, hospice and home care services including VNA, home infusion, and durable medical equipment. Social Services also participates in employee support efforts and services.

## **NUTRITION**

Food and Nutrition Services are provided to all oncology patients within the nutrition referral and Physician diet order framework. Patients are screened for nutritional risk on admission by the Registered Nurse, and are further evaluated by the Registered Dietitian once identified to be at risk. Based on the nutritional evaluation, comprehensive diet, supplement/nutrition support and education plans are developed and implemented. Meals and between meal nourishment are provided based on each patient's individual needs and preferences. When indicated, patients may be referred for continuing nutrition services with the Outpatient Dietitian. In addition, outpatient oncology patients may be referred to the Outpatient Dietitian for nutritional counseling.

## **REHABILITATION SERVICES**

The Physical Therapy/Rehabilitation Department provides inpatient services to oncology and hospice patients. The staff includes physical therapists and assistants, occupational therapists and assistants and contracted speech therapists. All services provide a thorough evaluation and comprehensive treatment programs. The Physical Therapy/Rehabilitation Department provides inpatient services to oncology and hospice patients. The staff includes physical therapists and assistants, occupational therapists and provides assistance with discharge planning.

The focus of physical therapy is to decrease pain by utilizing a variety of modalities and maximizing mobility and functional independence. Physical therapy assesses and makes recommendations for any medical equipment needs and works closely with social services to provide for those needs.

The focus of occupational therapy is to maximize independence in activities of daily living through functional activity and/or adaptive equipment. The fabrication of orthotics to prevent or reduce deformity is also provided by occupational therapy. Relaxation and stress management is also addressed.

The focus of speech therapy is to provide restoration of language and functional communication utilizing various therapy materials, stimulation and exercise. Speech therapy also evaluates and treats disorders of swallowing and assists physicians, patients and families with diet modifications and feeding decisions.

## **PHARMACY**

The Department of Pharmacy at Lawrence General Hospital is an integral part of the multidisciplinary team approach to planning, providing, and evaluating the care delivered to cancer patients. The Pharmacy Department provides up-to-date chemotherapy treatment modalities for inpatient and outpatient care. Patients are closely monitored from visit to visit to ensure accurate dosing of all agents prescribed. Any significant change in the patient's weight would necessitate a change in their dose of chemotherapeutic agent.

Patient leaflets are also provided containing the brand and generic names of the medications, uses, how to use medications, side effects, when to notify your doctor, precautions, and drug interactions.

## **PASTORAL SERVICES**

Chaplains at Lawrence General Hospital provide spiritual and emotional support to patients, their families and hospital staff. The chaplains collaborate with multidisciplinary departments by attending multidisciplinary rounds to provide comprehensive pastoral care. Lawrence General Hospital has an Interfaith Chaplain, a Catholic Chaplain, a Protestant Chaplain and a Spanish-speaking Chaplain. Catholic priests are available on a daily basis to provide sacramental services. Volunteers bring communion to patients on a daily basis as well.

# Glossary

<b>ACoS</b>	American College of Surgeons, the regulatory agency for cancer programs
<b>AJCC Stage</b>	Method of describing how far a cancer has spread from its point of origin in terms of the tumor (T), involved regional lymph nodes (N) and distant metastases (M), also called TNM staging.
<b>Accession</b>	Refers to a unique number assigned to each patient in our cancer database that is significant to the year the patient was seen at the institution.
<b>Analytic Case</b>	Patients who are initially diagnosed and/or have received all or part of their first course of treatment at LGH.
<b>Extent of Disease</b>	<b>Local:</b> Tumor confined to organ of primary without extension beyond primary. <b>Regional:</b> Tumor involves more than one organ or origin by direct extension or spread to regional lymph node <b>Distant:</b> Tumor at sites in body remote from organ or origin
<b>NCDB</b>	National Cancer Data Base. A joint project of the Commission on Cancer, The American College of Surgeons and the American Cancer Society to facilitate hospital, state and national assessment of patient care.
<b>Non-analytic Case</b>	Patients who were initially diagnosed and/or treated elsewhere and are seen at LGH for metastatic or recurrent disease.
<b>Primary Site</b>	Organ of the body where the cancer originates.
<b>Prospective Review</b>	Presenting a case at Cancer Conference at a time when management of the patient could be influenced by the discussion.
<b>Reference Date</b>	The start date (January 1 of a given year) after which all eligible cases are included in the registry.
<b>Relative Survival</b>	Average (mean) or median survival time for a group of patients. Relative survival rates account for deaths from causes other than cancer. Survival is calculated from the date of best confirmation of diagnosis to the date of last contact for analytic cases only.

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