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C A N C E R S E R V I C E S
ANNUAL REPORT



SURROUNDING
OUR PATIENTS WITH CARE

Backus
backushospital.org/cancer

CANCER SERVICES MEDICAL DIRECTOR'S MESSAGE

BY **DINESH KAPUR, MD**
Medical Director of Cancer Services



It is the tireless dedication of everyone involved with our Cancer program that made 2010 a very successful year.

This was our 14th year and the foundations laid down from previous years led to a three-year accreditation from the American College of Surgeons, Commission on Cancer, which conducted our survey. We received 5 commendations as part of the survey.

Clinical research is a cornerstone of an excellent program and we currently have 30 active research protocols. These encompass the entire breadth of Oncology, Hematology and Radiation Oncology including cancers such as breast, colon, prostate and lung, to name a few. Our clinical trial enrollment has been consistently high.

Other highlights include:

- **Cancer Survivors' Day** was celebrated in conjunction with Relay for Life. This was well attended. This is a testament to our patients who consider us part of their families and are willing to share experiences with other patients and families.
- **Our weekly multidisciplinary Tumor Board** continues to be very active. The participation in this conference increases every year, further validating the premise that active involvement leads to exceptional results. We are currently hosting tumor boards dedicated to Breast, Thoracic, Genitourinary, Neurologic, Head and Neck cancers. In total we are conducting eight multidisciplinary tumor boards every month.

- **Our educational programs** included presentations on advanced bronchoscopy techniques, role of radio-immunotherapy, histo-pathology of BRCA 1 and 2 breast cancers and cervical cancer screening and treatment.
- 2010 saw our commitment to **further enhancing the delivery of cancer care**. The Breast Cancer Advisory Board continues to move forward. We plan to seek accreditation as a breast cancer center in 2011.

Moving forward in 2011 we will be starting palliative care as well as survivorship programs. These initiatives will complement the wide range of capabilities of our Cancer program.

There are going to be challenges in the future of cancer care delivery. We are well prepared to tackle these and I am confident that with all of your continued support the future of cancer care in eastern Connecticut is very bright.

I would like to again thank everyone involved with our cancer program, making it the premier oncology center in the region.

A handwritten signature in black ink, appearing to read "Dinesh Kapur", enclosed within a simple, hand-drawn oval shape.

Clinical research is a cornerstone of an excellent program and we currently have 30 active research protocols.



Ginny Mabesoone, RN, Cancer Services Clinical Director, left offers a hug and support to patient Penny Sargent.

CANCER REGISTRY REPORT

DATA FOR RESEARCH, PREVENTION AND TREATMENT

BY **DONNA GOSS, CTR**

Cancer Program Coordinator and Cancer Registrar



Cancer registry abstracting chronicles pertinent information about the patient and the site-specific disease process from the time a diagnosis is established until the end of the patient's life. Information collected and reported on the abstract is performed in accordance with guidelines established by The State Department of Public Health, Connecticut Central Registry and The American College of Surgeons, Commission on Cancer.

The Cancer Registry has seen an increase of 4% from 659 cases in 2008 to 734 cases in 2009. The five most common analytical sites treated at Backus were breast, lung, prostate, colon and bladder. Lung cancers diagnosed and treated increased 2% when compared with 2008 data, while prostate revealed a 4% increase.

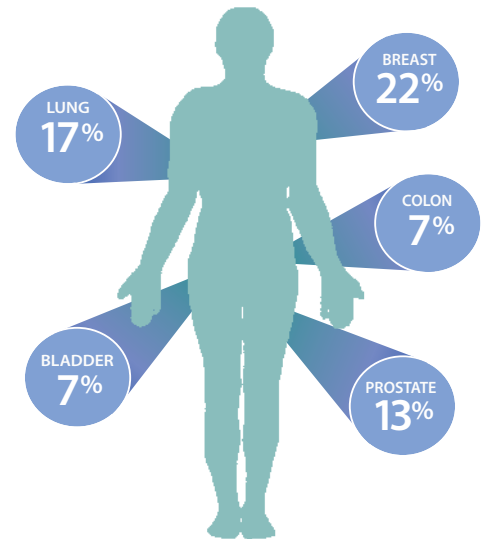
The registry profession has experienced a big year of changes for cases diagnosed January 1, 2010, starting with the 7th edition of the AJCC staging. When compared to the 6th edition the number of pages went from 435 to 646 and the number of chapters from 48 to 57. The goal of the

7th edition was to improve clinical utility, enhance prediction of individual outcomes and predict treatment response. Seven new chapters were added, which include mucosal melanoma of head and neck, appendix carcinomas, gastrointestinal stromal tumors, neuroendocrine tumors (carcinoid tumors of stomach, small intestine, large intestine, appendix, pancreas, lung), merkel cell carcinoma, adrenal cortex and ocular adnexal lymphoma.

At the same time Collaborative staging has released Version 2 with new data collection fields. Site-Specific Factor (SSF) data collection also increased. An example is breast cancers went from 6 SSF to 24, prostate from 5 to 12, colon & rectum from 1 to 10. The registry staff has attended several educational sessions on these changes to ensure the integrity of the data reported.

In addition The Surveillance, Epidemiology and End Results (SEER) has revised the report ability of hematopoietic and lymphoma diagnoses. In the next year the registry goal will be to capture/identify more of these cases, which are often diagnosed and treated in an office setting.

Cancer Registrars play a key role in cancer surveillance by providing ongoing cancer data that is timely, complete and accurate.



2009 TUMOR SITE TABLE

Lip	2	Melanoma-Skin	21
Tongue	10	Other Nonepithelial Skin	1
Salivary Glands	1	Breast	167
Floor of Mouth	3	Cervix Uteri	10
Gum & Other Mouth	5	Corpus and Uterus, NOS	18
Nasopharynx	2	Ovary	6
Tonsil	3	Vulva	1
Oropharynx	1	Prostate	102
Esophagus	7	Testis	3
Stomach	18	Urinary Bladder	52
Small Intestine	2	Kidney and Renal Pelvis	18
Colon Excluding Rectum	44	Ureter	3
Rectum & Rectosigmoid	11	Eye & Orbit	2
Anus, Anal Canal and Anorectum	1	Brain	5
Liver and Intrahepatic Bile Duct	7	Cranial Nerves & Nervous System	3
Gall Bladder	1	Thyroid	14
Other Biliary	1	Other Endocrine Including Thymus	1
Pancreas	8	Hodgkin's Lymphoma	5
Retroperitoneum	1	Non-Hodgkin's Lymphoma	25
Nose, Nasal Cavity & Middle Ear	2	Myeloma	8
Larynx	6	Leukemia	9
Lung and Bronchus	129	Mesothelioma	1
Soft Tissue (Including Heart)	6	Miscellaneous	19
TOTAL		TOTAL	765

TOP 5 PRIMARY SITES

	BACKUS	STATE	NATIONAL
Breast	22% 167	5.6% 2,960	0.88% 207,090
Lung	17% 129	4.8% 2,640	0.06% 222,520
Prostate	13% 101	3.4% 2,940	0.04% 217,730
Colon	7% 55	3.1% 1,770	0.04% 142,570
Bladder	7% 52	4.6% 1,110	0.07% 70,530

ENDOBONCHIAL ULTRASOUND A NEW PROCEDURE TO DIAGNOSE LUNG DISEASE

BY STEVEN POWELL, MD
and PAUL GREIF, MD

Backus Hospital is the only hospital in the region that offers a less invasive, high-tech procedure to diagnose lung cancer and other lung diseases or infections.

Endobronchial ultrasound (EBUS) allows physicians to access the lymph glands and obtain tissue or fluid samples from the lungs and surrounding lymph nodes for diagnosing and staging lung cancer.

Steven Powell, MD, a member of the Backus Medical Staff, said the conventional diagnostic procedure, known as mediastinoscopy, required an incision in the neck above the breastbone. Then a thin scope would be inserted through the opening to collect tissue or fluid. With this procedure, doctors can only access certain areas, and couldn't see internally as they were performing the biopsy, instead using a previous scan for guidance.

With the new procedure, a bronchoscope, a long, flexible telescope, is used along with ultrasound technology. With a light and an ultrasound device at the tip, this allows the physician to see if there are enlarged lymph nodes, cysts or enlarged blood vessels. A needle can be inserted to obtain tissue or fluid samples for biopsy.

"Using light and ultrasound technology we are able to get a more accurate diagnosis without surgery," Dr. Powell said.

Paul Greif, MD, a member of the Backus Medical Staff, said this helps determine whether lung cancer has spread to the lymph nodes and whether the patient is a surgical candidate or not.

"We are able to access lymph glands that were not accessible through the surgical procedure, glands around and underneath the trachea and esophagus," Dr. Greif said. "This can help determine whether a patient is a candidate for surgery and if they need interventions before surgery, such as radiation or chemotherapy."

A numbing medicine and light sedation is used in the outpatient procedure.

"This is the first step towards forming a comprehensive interventional pulmonology program," Dr. Greif said.

According to the American Cancer Society, approximately 222,520 new cases of lung cancer were expected in 2010, accounting for about 15 percent of cancer diagnosis. The rate is declining in men, and reaching a plateau in women after an increase for many years. Lung cancer accounts for more deaths than any other cancer in both men and women. An estimated 157,300 deaths, accounting for 28 percent of all cancer deaths are expected to occur in 2010.

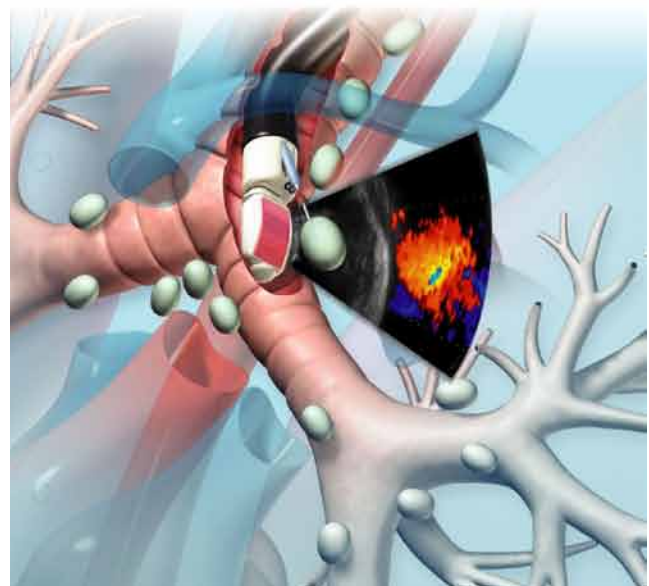


*Steven Powell, MD,
Pulmonary Physicians
of Norwich*



*Paul Greif, MD,
Pulmonary and
Critical Care Medicine*

Backus Hospital is the only hospital in the region that offers a less invasive, high-tech procedure to diagnose lung cancer and other lung diseases or infections. This innovative scope provides superior ultrasound imaging.



LUNG CANCER RISK FACTORS

BY JUAN ESCALON, MD
Backus Physician Services



Lung cancer arises from the lung parenchyma or bronchial tubes. It is broadly divided into two categories, small cell lung cancer and non-small cell lung cancer. Approximately 80% of these cancers are classified as non-small cell lung cancer, which can be surgically treated. Lung cancer is the second most common cancer diagnosed in the United States today. Approximately 219,440 cases of lung cancer were diagnosed in 2010. Of these, 116,090 in men and 103,350 in women. It is associated with the most cancer deaths, accounting for more deaths than the next four cancer types combined (colon, breast, prostate, and pancreas). There were approximately 159,390 deaths from lung cancer in 2010. The overall 5 year survival for lung cancer patients is only 15%.

There are many risk factors associated with lung cancer. These include tobacco use, occupational exposures, genetic factors, gender, diet, and chronic lung disease. Tobacco use is one of the most widely studied risk factors for lung cancer, showing a clear-cut dose response relationship between smoking and risk for lung cancer development.

Factors shown to affect this risk are: duration of smoking, amount of smoking, and age smoking began. A greater than 10-pack-year history of smoking seems to be the cut-off for definitive increase risk of lung cancer. Smoking cessation, with abstinence for greater than 15 years, has shown to decrease risk of lung cancer, yet risk still remain 2-3 times higher than a lifetime nonsmoker. Occupational exposures associated with increased risk of lung cancer include smelting of metals, mining, milling, shipyards, and manufacturing of plastics.

Genetic factors such as having a first degree relative with lung cancer have a 2-6 fold increase in the risk of development of lung cancer, independent of tobacco exposure. Gender differences in lung cancer are also becoming more apparent, with multiple studies demonstrating a 1.2-1.7 fold

increase risk of developing lung cancer in women smokers when compared to men smokers. Potential explanations for this difference include gender difference in nicotine metabolism, variations in cytochrome P450 enzymes, and effect of hormones in the development of cancer.

Dietary factors that affect risk for lung cancer development include high level supplementation of vitamin A and beta carotene in smokers (relative risk 1.28), yet no increased risk is seen in non-smokers who use vitamin A and beta carotene supplements. Consumption of five servings of fruits and vegetables lowers the risk of lung cancer (relative risk 0.5). Chronic obstructive pulmonary disease (COPD) is an independent risk factor for lung cancer (relative risk 4).

The diagnoses of lung cancer can be difficult or delayed at times given that symptoms are nonspecific. Common presenting symptoms are cough (46%), weight loss (32%), dyspnea (30%), chest pain (30%), fever (28%), and hemoptysis (27%). However, up to 15% of patients are completely asymptomatic. There are currently no guidelines or consensus for lung cancer screening. Previous attempts at screening with sputum cytology, chest X-ray, and CT scan have had varied results, showing an increase in lung cancer detection but no changes in overall survival or mortality. More recently the National Lung Cancer Screening Trial, which used low-dose CT scan in high risk patients (current or former smoker, age 55-74, \geq 30-pack-year and <15 years from quitting) has shown promise in preliminary reports, with a 20% reduction in lung cancer mortality and 6.9% reduction in all cause mortality. A complete report of this trial will be out later this year and may pave the way for lung cancer screening.

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Lung cancer is the second most common cancer diagnosed in the United States today.



LUNG CANCER TUMOR REGISTRY DEMOGRAPHICS

Currently most patients get a presumptive diagnosis of lung cancer based on imaging studies. Chest X-ray, CT scan, and PET scan are the most commonly used modalities. This is usually followed by a more invasive test to obtain tissue for diagnosis. Transthoracic fine needle aspiration and bronchoscopy are commonly used to obtain tissue diagnosis in peripherally and centrally located masses, respectively. A clinical stage is assigned based on tumor size, location, nodal involvement, and evidence of distant disease determined by imaging. In 2009 the AJCC published a revised TNM staging system for lung cancer (7th Edition), based on the International Association for the Study of Lung Cancer (IASLC) database. This new edition addresses several disparities in survival by stage, making staging changes based on tumor size, presence of multiple nodules, and malignant effusions to name a few. These changes allow for more accurate and

homogeneous prediction of survival by stage (see Figure 1). Mediastinal staging is performed on patients with positive findings on imaging or a high probability of mediastinal involvement based on tumor size and location. Traditionally, mediastinal staging is performed via cervical mediastinoscopy and/or Chamberlain procedure. The use of video cervical mediastinoscopy has improved diagnostic accuracy, and more recent introduction of endobronchial ultrasound (EBUS) has made mediastinal node sampling less intrusive. The use of EBUS is now also available at our institution.

Treatment for lung cancer is broadly divided into three types of therapies. Surgery, chemotherapy, and radiation therapy are used as monotherapy or combination therapy depending on factors such as stage, assessment of resectability, co morbidities, and performance status. In broad terms,

stage I cancers are best treated by surgical resection; stage II cancers are usually treated by surgical resection and possible chemotherapy; stage III cancers are usually treated with chemotherapy and radiation, with only a highly selective population being candidates for neoadjuvant chemotherapy and radiation followed by surgery; stage IV cancers are treated with chemotherapy and possibly radiation therapy.

TUMOR REGISTRY DEMOGRAPHICS AT BACKUS HOSPITAL

At Backus Hospital 208 patients were treated for lung cancers from 2008 to 2009. The gender breakdown was 106 males (51.45%) and 100 females (48.54%), which are similar to the reported numbers of the National Cancer Data Base (NCDB) with 68,192 males (54.77%) and 56,311 females (45.23%). When comparing age at presentation and diagnosis, some disparities were noted (see Table 1).

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Figure 1

**SURVIVAL IN ALL NSCLC BY TNM STAGE
ACCORDING TO "BEST" BASED ON A COMBINATION
OF CLINICAL AND PATHOLOGIC STAGING**

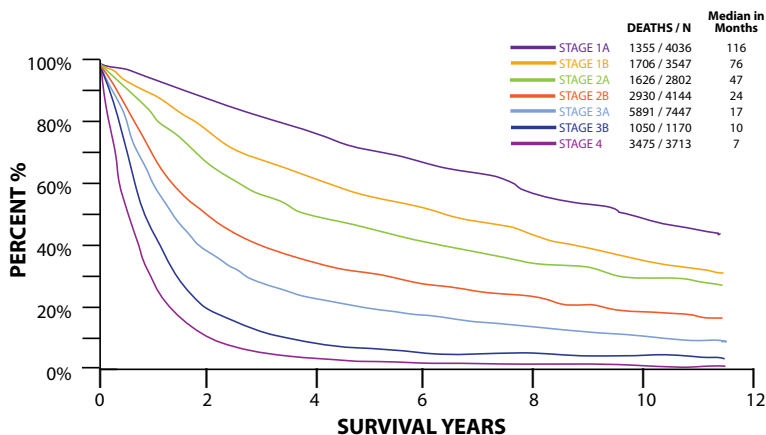
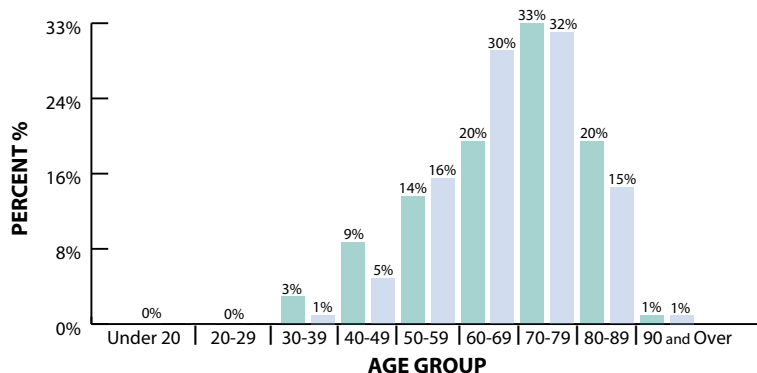


Table 1

**AGE GROUP OF LUNG, BRONCHUS —
NON-SMALL CELL CARCINOMACANCER DIAGNOSED IN 2008**
The William W. Backus Hospital vs. All Types of Hospitals In All States
All Diagnosed Cases



	Under 20	20-29	30-39	40-49	50-59	60-69	70-79	80-89	90 and Over
Backus Hospital	0%	0%	3%	9%	14%	20%	33%	20%	1%
All other hospitals	0%	0%	1%	5%	16%	30%	32%	15%	1%

LUNG CANCER FIRST COURSE OF TREATMENT

In 2008, Backus Hospital had 76 patients diagnosed with non-small cell lung cancer. There were marked differences in 3 age groups at our institution versus the national database. In the 30-39-year-old group we had 2 patients (2.63%) compared to 681 patients (0.55%) in the NCDB. In the 40-49 year-old group we had 7 patients (9.21%) compared to 6178 patients (4.96%) in the NCDB. Lastly, in the 60-69 year-old group we had 15 patients (19.74%) compared to 37,396 patients (30.04%) in the NCDB. The disparity could be a result of our low overall number of patients, yet a review of the 9 patients age 30-49 was done. Of these 9 patients, 8 presented with stage IV disease, 2 with bone metastases, 1 with liver metastases, 3 with brain metastases, 1 with pericardial and contra lateral lung metastases, and 1 with bone, liver, and brain metastases. This finding also highlights a difference in stage at presentation.

At Backus Hospital 37 of 76 patients (48.68%) presented with stage IV disease,

compared to 44,597 of 124,503 patients (35.82%) in the national database (see **Table 2**). Several factors could account for the high prevalence of stage IV disease at our institution. First, New London County has one of the highest rates of smoking in Connecticut. Second, a high density of milling, textile, and manufacturing industries previously present in our area may have raised occupational exposure incidence. Third, the presence of a well established oncology group at our hospital may increase the draw of patients with advanced disease to our institution.

Analysis of first course treatment for lung cancer may also support the above-mentioned statement. Compared to national averages, differences were seen at our institution in patients' whose first line of therapy was surgery only and chemotherapy only (see **Table 3**). In the first line treatment chemotherapy only group, 17 patients (22.37%) were treated at Backus versus 16,711 patients (13.42%) in the

national database. This high percentage of patients treated with chemotherapy only further supports the prevalence of stage IV patients in our population.

In 2008 at Backus Hospital, 11 patients (14.47%) were treated with surgery only, compared to 26,275 patients (21.1%) in the national database. The low number of surgically treated only patients at our institution is likely due to the lack of surgical support in the past and referral patterns.

This is also supported by **Table 3** showing 25% of patients with stage I/II disease at presentation needing surgical treatment, but only 14.47% receiving surgical treatment at Backus Hospital and the other 10% likely being referred elsewhere.

Results of this analysis show a high percentage of patients being younger age at presentation, higher stage at presentation, and a lower percentage of surgically treated patients at our institution.

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Table 2

**STAGE OF LUNG, BRONCHUS —
NON-SMALL CELL CARCINOMACANCER DIAGNOSED IN 2008**
The William W. Backus Hospital vs. All Types of Hospitals In All States
All Diagnosed Cases

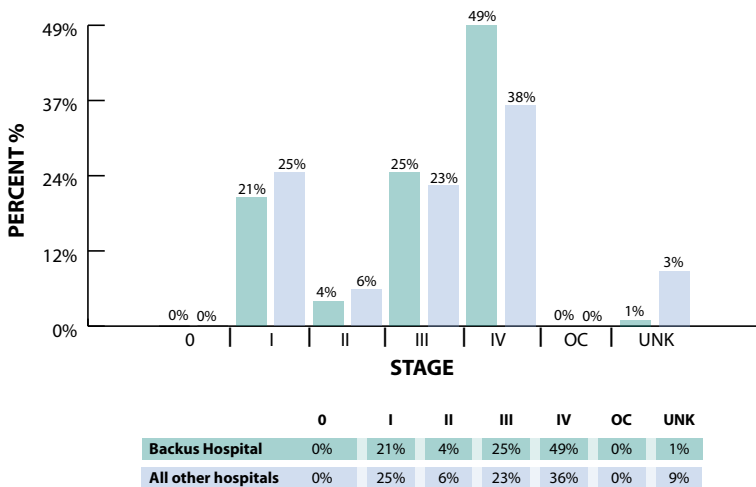
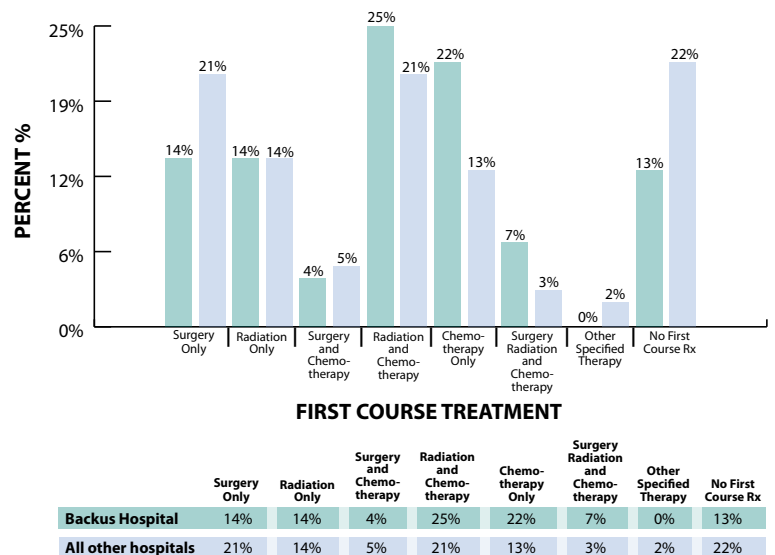


Table 3

**FIRST COURSE OF TREATMENT OF LUNG, BRONCHUS —
NON-SMALL CELL CARCINOMACANCER DIAGNOSED IN 2008**
The William W. Backus Hospital vs. All Types of Hospitals In All States
All Diagnosed Cases



LUNG CANCER SURGICAL TREATMENTS

SURGICAL TREATMENT OF LUNG CANCER AT BACKUS HOSPITAL

Specialized surgical treatment for lung cancer became available at our institution in the latter half of 2008. This includes minimally invasive thoracic surgery, also known as video assisted thoracoscopic surgery (VATS), with only approximately 30% of the thoracic surgeons nationally being able to perform this technique. The VATS technique consists of using 3-4 small incisions and a small camera for visualization, requires no rib spreading, and can be performed for many types of lung resections. Results of many studies show that the VATS technique in lung surgery results in decreased postoperative pain, decreased length of stay, decreased inflammatory response, and no difference in oncologic outcomes versus open thoracotomy. Performing surgeries via a VATS technique become difficult with tumors greater than 6 cm in size, for pneumonectomies, and when chest wall resection is needed. More recently, robotic-assisted minimally invasive surgery is being performed for lung cancer. The advantages over VATS are better visualization and ease in delicate tissue dissection using articulated instrumentation. The limitations are similar to those of VATS, as well as requiring a skilled assistant at the surgical table to operate the stapling devices.

For 2009, the volume of surgically treated lung cancer cases at Backus Hospital increased by 300% to 34 cases. Of these, 19 were performed through mini muscle-sparing thoracotomies, and 15 were performed via VATS technique. These numbers herald the start of Backus Hospital becoming a comprehensive center for the treatment of lung cancer. In addition to the advances in surgical treatment now available, a dedicated thoracic oncology multidisciplinary tumor board was created. At this conference, prospective lung cancer cases are discussed and a consensus decision is made leading to the best possible treatment for an individual's lung cancer. With these advances and our institution's continued strength in radiology, oncology, pulmonary medicine, and radiation oncology, Backus Hospital is poised to offer high quality cutting edge care for the treatment of lung cancer.

Dr. Escalon is a Board-certified thoracic surgeon. He completed a fellowship in cardiothoracic surgery at the Yale University School of Medicine after attending the University of Texas Medical Branch, where he completed his general surgery residency.



*Specialized surgical treatment
for lung cancer available at
Backus includes minimally
invasive thoracic surgery.*

LUNG CANCER CLINICAL TRIALS AT BACKUS

In the last few decades, important progress has been made in cancer diagnosis and treatment modalities, with improvement in the overall survival and quality of life of patients with cancer. However, sometimes the best available treatments may be less than satisfactory in most of the malignancies. Identifying new, effective treatments can be done only through clinical research. It is through this science that exciting new ways to treat cancer are being discovered, providing a better quality of life for our patients.

There are thousands of people who have benefited from clinical trials. Over the years many of the drugs that were tested are now considered standard treatment for cancer patients all over the world.

A clinical trial involves taking a new drug or therapy from the laboratory, testing its efficiency and safety prior to it being approved by the Food and Drug Administration (FDA). Clinical trials help ascertain if new treatments are a safe and effective way to treat patients. During trials, important information is gathered about the new treatment, the risks and how effective the drug may be.

Before a drug is approved for use, it goes through various stages:

A cancer drug is initially discovered in the laboratory. It is then tested on laboratory animals and specific cancer cell lines. Once it appears that a particular drug may be effective in inhibiting growth, then it enters the clinical phase of development.

A Phase I clinical trial is the first step in determining if a newly discovered drug is safe for patient use. It is during this phase that it is determined how the drug would be best administered, if there are any harmful side effects and what would be the safest dose to use.

During Phase II trials, doctors test to find the effectiveness of the new drug on specific cancers with the goal that the new drug would improve on the present available treatments.

By the time it reaches a Phase III clinical trial, the effectiveness and safety of the new drug has already been tested. In this phase, doctors compare the new treatment to the standard treatment. This is accomplished through a randomized study. A study includes two separate groups:

- The Intervention Group- those who are given the new treatment
- The Control Group - this group receive either the standard treatment or a placebo (a treatment that contains no active ingredient).

Phase IV, is the post marketing phase of a trial. After the drug is approved by the FDA and is available on the market, it can be further studied for better ways of administering it.

Other clinical research studies address the management of chemotherapy-induced side effects and cancer symptoms that continue to be inadequately treated in cancer patients, with significant impact on their quality of life.

Clinical trials are required to follow very strict guidelines. Each clinical trial is overseen by a chief investigator, usually a doctor, who develops a protocol for the new medicine. Each protocol has specific criteria for who may participate, how many patients will participate in the study, how the drug will be administered and how the information regarding the results will be gathered. Every center participating in a trial follows the same protocol, insuring that all the information gathered will be true and accurate.

At Backus Hospital and Eastern Connecticut Hematology and Oncology (ECHO),

patients are offered participation in Phase II, Phase III and Phase IV clinical studies. Other trials include quality of life and prevention trials that study ways of reducing the risk of getting cancer, particularly in persons at high risk. These trials imply either taking a certain medication, (such as hormonal medication or vitamins) or by modifying their lifestyle (for example: smoking cessation).

Research treatments offered by ECHO are reviewed at a number of levels nationally and/or locally, to ensure both the protection of patients' rights and the scientific merit of the research. The Institutional Review Board (IRB) is an independent body constituted of medical, scientific and non-scientific members, whose responsibility it is to ensure the protection of the patients rights and safety. The IRB assures the well-being of patients involved in every new trial by reviewing, approving and providing continuing review of trials, protocols and amendments and of the methods and material to be used in obtaining and documenting informed consent of the trial participants. The review process assures the trial is safe and beneficial to its participants and the medical community.

Offering patients the possibility to participate in clinical trials, an option sometimes available only in academic centers demonstrates our commitment to being in the forefront of new cancer treatments.

LUNG CLINICAL TRIALS

ECOG E1505

A Phase III Randomized Trial of Adjuvant Chemotherapy with or without Bevacizumab for Patients with Completely Resected Stage IB-IIIa Non-Small Cell Lung Cancer (NSCLC).

FIRST LINE ACORN AC01L08

A Multi-Center Randomized Phase 2b Study of Cetuximab (Erbix) in Combination with Platinum-Based Chemotherapy as First Line Treatment of Patients with Recurrent or Advanced Non-Small Cell Lung Cancer (NSCLC).

BSI-210 LUNG (ECLIPSE)

Gemcitabine/Carboplatin +/- BSI-201 (PARP-I) 1st Line Advanced Squamous Cell Lung Cancer.

MRI GUIDED BREAST BIOPSY STREAMLINING THE DIAGNOSTIC PROCESS

BY **STACY SPOONER, MD**
Diagnostic Imaging Radiologist



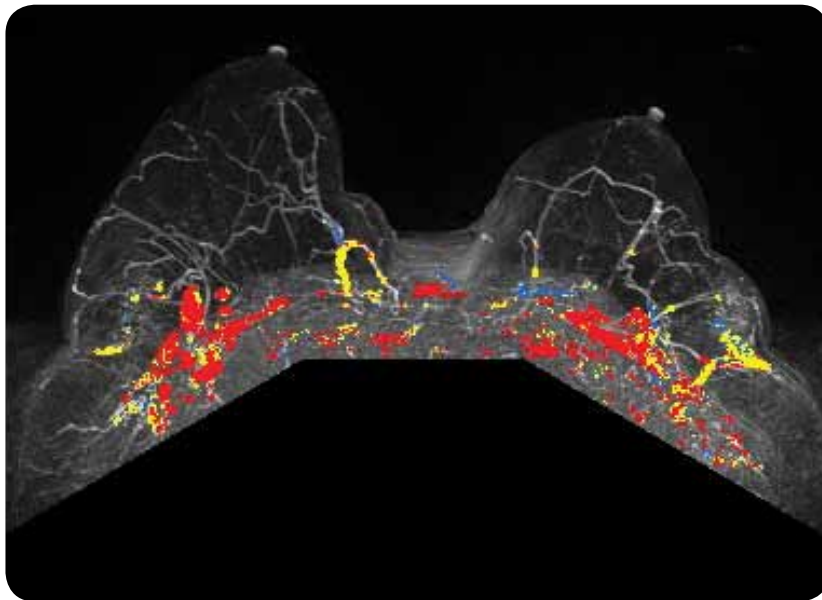
MRI guided breast biopsies made their debut at Backus Hospital in September 2009, completing the array of diagnostic imaging breast services already offered. This is a welcome necessity, as patients previously traveled long distances to have this procedure performed.

Breast MRI guided biopsies are no different than any other type of biopsy, except that instead of using mammographic or ultrasound guidance, magnetic resonance images are utilized to target an abnormality. With this comes specialized equipment that is MRI-compatible and a sophisticated computer system that assists in biopsy

planning. These types of biopsies are reserved for abnormalities that are seen only on MRI (and not mammograms or ultrasounds).

Backus has performed approximately 40 of these types of biopsies in its first year of offering them, with approximately 425 breast MRI studies performed over the same period. These types of biopsies and studies are typically performed on patients at high risk for developing breast cancer or patients with newly diagnosed breast cancer. The information that results can help shape a patient's overall treatment plan, making them an essential component in the work up of many of these patients.

The information that results can help shape a patient's overall treatment plan.



Breast MRI with Computer-Aided-Detection (CAD)

Cancer information

If you or a loved one has been diagnosed with cancer, or want to learn about screenings and lifestyle changes to help prevent the disease, visit our patient information center at

www.backushospital.org/multimedia

Simply click on "cancer" and you can watch videos that feature Backus Hospital physicians and clinicians on topics such as digital mammography, colon cancer awareness and more.

To learn more about state-of-the-art cancer care at Backus, or to read the Backus Cancer Center's annual report, visit

www.backushospital.org/cancer



MINIMALLY INVASIVE SURGERY FOR COLORECTAL CANCER AT BACKUS

BY **SERGIO CASILLAS, MD**
Backus Physician Services



In the United States, colorectal cancer is the third most common cancer diagnosis among men and women and the second most common cause of cancer-related death. Surgical treatment continues to be the cornerstone of therapy for most patients. Over the last few years, minimally invasive techniques have been introduced for the treatment of colorectal cancer. Despite initial concerns about the oncologic results, now there is clear evidence that substantiates similar, and in some series, even better oncologic outcomes with the use of laparoscopic surgery by experienced laparoscopic surgeons.

Since 2004, we have implemented at Backus Hospital a comprehensive minimally invasive colorectal surgery program for the treatment of colorectal cancer from which several hundred patients have already benefited in our community. In addition, Backus Hospital built a technologically advanced operating room designed for minimally invasive procedures. This operating room is also suitable for future potential upgrades as technology continues to improve. Our minimally invasive program includes: laparoscopic colorectal resections, robotic assisted resections, and transanal minimally invasive excisions.

LAPAROSCOPIC COLORECTAL RESECTIONS

Most patients with colon cancer are candidates for laparoscopic resections except for those with large tumors. Although the length of the surgery may be longer compared to traditional surgery, there are several benefits of laparoscopic surgery: 1) Decreased pain as much smaller incisions are required. This usually allows quicker recovery as patients are able to return to "normal" function after only 2-3 weeks. 2) Shorter length of hospital stay as most patients undergoing laparoscopic surgery are able to leave the hospital within 2 to 3 days as compared to the traditional length of stay of 5-7 days for open surgery. 3)



Quicker return of bowel function. 4) Decreased wound infection rate and incisional hernia.

Although no long-term outcomes are available, our immediate and short-term outcomes have been excellent with the use of laparoscopic techniques. In addition the oncologic criteria for resection that includes surgical margins, lymph nodes harvested, and non-touch cancer technique, have been at least equivalent than traditional "open" resections.

ROBOTIC-ASSISTED RESECTIONS

Robotic surgery has become the preferred approach for the treatment of many urologic and gynecologic conditions. The robotic platform provides a unique high-definition tridimensional visualization into the patient's pelvic and abdominal cavities hardly matched by standard laparoscopic techniques. The Da Vinci Surgical System is powered by state-of-the-art robotic technology, which enables surgeons to perform even the most complex and delicate procedures through very small incisions with unmatched precision. The robot enhances the dexterity of the surgeon, allowing for more precision in the dissections, which increases preservation of the nerves and other structures. Other advantages of laparoscopic procedures are smaller incisions and faster recovery time.

Despite these significant advantages, the application of robotic technology for the treatment of colorectal cancer still is in its early stages. In fact, there are only a handful of colorectal surgeons in the country using this advanced technology. In 2010, we performed at Backus Hospital a dozen robotic cases for both benign and malignant colorectal conditions. All patients did very well and had a remarkably fast return to normal activities. More importantly, the oncologic short term results were at least equivalent to standard surgical techniques.

What we have confirmed from this series of patients is that the use of the robot for rectal cancer treatment is particularly advantageous. The robot is best when working in a confined space like the pelvis. It also allows us to see better nerve structures that need to be preserved and that if injured, would cause a significant deterioration in the patient's quality of life after surgery. In some cases, the robot may also help to prevent the need for a permanent colostomy.

The advantages for the patients of using the robotic platform are equivalent to standard

laparoscopic techniques, and probably superior when working in the pelvis (rectum). Currently we use the robot for the treatment of patients diagnosed with rectal cancer.

TRANSANAL MINIMALLY INVASIVE EXCISIONS

Transanal excision of rectal cancer is another surgical alternative for selected patients diagnosed with rectal cancer or pre-cancerous polyps. The cancer typically has to be in an early stage and/or the patient may be too debilitated to undergo "radical" surgery. The surgery involves excision of the tumor through the anal orifice using special instruments. However if the tumor is located several inches deep inside, traditional techniques may not be suitable to "reach" the tumor through the anal canal. Transanal minimally invasive technique has recently been the answer to these cases. With the technical evolution of laparoscopic instruments and ports, now we can excise those tumors or polyps through the anus with no need for external incisions or cuts. Patients are typically kept in the hospital for a day after surgery and subsequently discharged. Results have been encouraging and have proved that this technique is at least equivalent to traditional surgery but with much better short-term outcomes and disability for the patient.

The use of the robot for rectal cancer treatment is particularly advantageous.

At Backus Hospital we currently use the latest and most advanced minimally invasive techniques for the treatment of colorectal cancer. We have extensive experience and excellent surgical staff members familiar with these. This has translated into excellent patient outcomes and shorter hospital stays.

Dr. Casillas is a Board-certified colorectal surgeon. He trained at The Cleveland Clinic Foundation, a premier program in the nation for the treatment of colorectal diseases.

BREAST HEALTH PATIENT NAVIGATOR PROGRAM OFFERING INFORMATION AND COMFORT

BY **JOYCE KUUSELA, RN, CBHN**
Case Manager, Patient Navigator

Our Patient Navigator program, in operation since April 2008, provides a single comprehensive resource for women with abnormal mammograms. Through the Patient Navigator, women are guided through their diagnostic phase in a timely and expeditious manner. They receive educational information, supportive services and ancillary care. The Patient Navigator also follows-up with women who do not appear to have any diagnostic studies or procedures scheduled, which eliminates anyone failing to reach a definitive diagnosis.

The program, funded by donations to the Backus Office of Philanthropy and Development, is part of the hospital's Breast Health Initiative, which focuses on early detection, excellence in treatment and improving patients' healthcare experience. The program can help by providing educational resources, support referrals and other assistance. This past year there have been several highlights:

- **Our Interdisciplinary Breast Tumor Conference** is held every other week to discuss those cases that need a consensus to a woman's care should there be any question of treatment that arises. Upwards of 200 cases were discussed for the best approach to specific problems. All caregivers are cognizant of the suggested recommendations for continued care thereafter. This alone helps to decrease fragmentation of care.
- **A specifically designed and customized comprehensive tracking and documentation system** was implemented that is able to capture what is being offered to women who utilize the Patient Navigator services.
- **The Breast Steering Committee** meets every other week to discuss any issues or ways to improve the program. Representation on the Committee includes Surgery; Diagnostic Imaging; Pathology; Medical Oncology; Radiation Oncology; Administration; Tumor Registry; and Patient Navigator. The Committee has worked diligently on developing the guidelines and policies for the program, and setting standards for patient care.

- Recently the Patient Navigator was involved in **decreasing the timeline from screening mammogram to diagnostic testing** when a woman's results necessitated additional imaging. Reflex testing, which was approved by the Medical Executive Committee, is initiated by the Patient Navigator within a few days of the initial screening, eliminating the need for the ordering physician to wait for the results. Each physician and group practice is notified of the testing ordered on their patients so they are aware of the woman's status.

Our program continues to grow and improve as we increase patient participation through continued provider referral.

The program now has new offices, with room to meet with patients and their support team as well as a Breast Cancer Educational Resource Library. It also offers resources for cancer patients including wigs and garments and a more standardized protocol for inconclusive mammograms.

The office also has begun a new lymphedema assessment program, which will include baseline and follow-up measurements for patients scheduled for a mastectomy.

The lymphedema program will track women for up to three years following breast surgery. Lymphedema is a painful condition that can result from mastectomy surgery.



With a focus on early detection, excellence in treatment and improving patients' healthcare experience, the program can help by providing educational resources, support referrals and other assistance.

Susan Fongemie, right, talks about her experience with cancer treatment with Elynor Carey, LMFT, during a support group meeting.



CIRCLES OF CARE — RAISING MORE THAN DOLLARS

Please help support the Backus Initiative to Improve Breast Health by purchasing a Circle of Care. People can buy \$1 Pink Circles in honor of people they know impacted by cancer. The circles will be available in the Backus Gift Shop and the cafeteria, as well as many local businesses. Or to make an online donation, visit backushospital.org/give-online. The Circles are then hung in prominent locations in the hospital and throughout the community. **100% of the funds raised from the purchase of Backus Circles of Care will be used for the benefit of patients in our community.**

HOSPICE SOUTHEASTERN CONNECTICUT

HOPE AND COMFORT

BY **CAROL L. MAHIER, RN, MSN**
Executive Director



This past year Hospice Southeastern Connecticut celebrated 25 years of service to the people of southeastern Connecticut. Twenty-five years of being there for patients and families at their most vulnerable time: Providing them with a choice of how they will live their life to the fullest — no matter how long that may be.

Hospice Southeastern Connecticut has cared for over 9,000 patients and families since our beginning in 1985. We remain the oldest independent, community-based Medicare/Medicaid certified, non-profit hospice serving all of New London County.

As an affiliate of Backus Hospital we share the privilege of caring for patients and families with the excellent healthcare providers affiliated with Backus Cancer Services. This collaboration is focused on both of our missions to provide the very best quality healthcare to our neighbors. Some of these collaborative efforts include:

- **Dr. Kandhasamy Jagathambal** continues to be the Hospice Southeastern Connecticut Medical Co-Director, attending weekly Interdisciplinary Group meetings at the Hospice Southeastern Connecticut administrative offices and bereavement center in Norwich.

- **Kathy Franco, RN** is the Backus hospital liaison and works closely with the Backus staff to facilitate discharge of patients to Hospice Southeastern Connecticut.

- **The Hospice Core Course** is co-sponsored and supported by Backus Education staff. This twice yearly, day-long course has received excellent evaluations and is offered at no charge to Backus employees.

- **Cyndia Shook, LCSW, ACHP-SW**, Bereavement Program Administrator for Hospice Southeastern Connecticut, is facilitating a monthly support group on A-2 for healthcare professionals.

Statistics for Hospice Southeastern Connecticut show that the 629 patients and families were served in 2010. The average length of stay on the program increased to 49 days and 55% of those on the program had a diagnosis of cancer. Eleven percent of patients were referred by Backus to Hospice Southeastern Connecticut.

Who could have imagined we would have come this far 25 years ago and who can imagine where we will be 25 years from now? But, we will be here to do the work we have set out to do and do it well. We along with our partners at Backus will continue caring for those at the end of life, as has been our mission since 1985.

*Hospice celebrated
25 years of service
to patients and their
families at their most
vulnerable time.*



AMERICAN CANCER SOCIETY COLLABORATION

BY **KATHLEEN TURNER,**
Community Executive Health Initiatives



The American Cancer Society and Backus Hospital share a commitment to provide comprehensive and best practice cancer information, care, and support services to cancer patients. We reach out to all community members to raise awareness of cancer, to build and maintain support for the fight against cancer, and to encourage cancer prevention and early detection at all levels in the community. In order to enhance that shared commitment, the Society and Hospital agreed to collaborate on the following goals.

1. CANCER INFORMATION

Provide, via the Society's toll-free number, website, and Cancer Resource Network (CRN) brochures, up-to-date, understandable information about CRN programs/services, including clinical trials matching, for all recently diagnosed cancer patients (patients within one year of initial diagnosis), and their loved ones, using a systematic referral process.

Show each cancer patient a sample Personal Health Manager kit; and create Support for Patients forms that will be used to request Personal Health Organizer kits and other resources for newly diagnosed cancer patients.

2. PATIENT SUPPORT PROGRAMS

Implement an automatic system of referral for patient support programs/services that are part of the Society's Cancer Resource Network, providing day-to-day help and emotional support for cancer patients.

- **Road to Recovery:** Every day, cancer patients face the challenge of getting to and from their medical appointments. Volunteers help patients in our community get to and from treatment.
- **Reach to Recovery:** Society-trained breast cancer survivor is matched with a newly diagnosed breast cancer patient for emotional and practical peer support to help cope with their breast cancer experience.
- **Look Good Feel Better:** This community-based service teaches female cancer patients beauty tips to look better and feel good about how they look during chemotherapy and radiation

treatments. A licensed cosmetologist provides skin care and make-up tips, wigs, mastectomy bras and prostheses for patients in treatment.

- **Man to Man:** Society-trained prostate cancer survivors offer one-on-one peer education and support to recently diagnosed prostate cancer patients and their family members.

3. EVIDENCED BASED CANCER PREVENTION AND DETECTION INITIATIVE

Focus prevention and early detection efforts through screening, based on the priority (highest incidence and deaths) cancer types — breast, colon and lung.

Plan and conduct educational outreach activities targeting eastern Connecticut residents regarding cancer prevention and early detection including risky behaviors, such as tobacco use, associated with cancer incidence and death.

4. STATE COMPREHENSIVE CANCER CONTROL IMPLEMENTATION CONTRIBUTION

Support and strengthen membership and involvement in the CT Cancer Partnership's Comprehensive Cancer Control efforts.

5. ADVOCACY

Collaborate on efforts to raise awareness and advocate for public policy issues affecting cancer patients and survivors.

6. COMMUNICATIONS

Mutually promote and publicize programs and services beneficial to cancer patients and their families.

7. COMMUNITY EVENTS

Participate in and co-sponsor events such as Relay for Life, Daffodil Days, Backus Cancer Survivor Day and any opportunity to support and recognize cancer patients/survivors.

8. EVALUATION OF AGREEMENT

Meet periodically to review progress toward carrying out/achieving objectives in each section of the Collaboration Agreement. Monitor and modify practices and protocols as needed.

IMPACT

PERSONAL HEALTH ORGANIZERS 117

offered information to 117 newly diagnosed patients.

REACH TO RECOVERY 21

has helped 21 people cope with their breast cancer experience.

ROAD TO RECOVERY 8

escorted 8 patients in our community to and from treatment.

LOOK GOOD . . . FEEL BETTER 65

reached 65 newly diagnosed women through a session at Backus Hospital as well as 101 women who participated in sessions throughout New London County.

PATIENT SERVICES 30

30 patients at Backus Hospital received free brand new wigs from the American Cancer Society.

WORKING TO FULFILL OUR MISSION PRESIDENT'S MESSAGE

BY DAVE WHITEHEAD, PRESIDENT and CEO

It is no surprise that one of the highlights of our hospital's annual meeting this year was Penny Sargent, a cancer patient who has had multiple experiences with the Backus Cancer Center since she was first diagnosed with cancer in 2001 until her most recent stay on our oncology floor in August 2010.

Mrs. Sargent, pictured on the cover of this annual report, said she has witnessed many changes at Backus over the years — all of which were for the better. She spoke about our great physicians, our technology and our skilled clinicians. But most of all she will never forget the compassion she experienced.

"I know Backus has great computers and technology, and they are important," she said. "But when you're a patient, only a real person, at your side, in your room, can help you feel as if you are not alone."

We take great pride in words like these. The Backus Cancer Center and its partners offer the highest level of cancer care — right here in eastern Connecticut. But most importantly we put patients first, all the time.

We do this whether at the bedside or the board room. When we expand and

add the latest in radiation therapy and diagnostic imaging technology; invest in robotic surgery; partner with Yale in our radiation therapy department; collaborate with Eastern Connecticut Hematology and Oncology on patient care and the latest clinical trial; expand our Breast Health Patient Navigator Program; offer alternative therapy like massage and pet therapy; run support groups and community education programs; meet the standards of a the American College of Surgeons' Community Hospital Comprehensive Cancer Program; or even produce a community education video on our website; all of this is done with the patient in mind.

Patient-centered care is driving our decision-making going forward. Enhancing our Patient Navigator Program with a new lymphedema component is an example. This is another step towards being accredited as a Breast Health Center by the National Accreditation Program for Breast Centers, which assures patients that we offer multidisciplinary breast cancer care and prevention.

A community hospital cannot reach the heights we have in cancer care without true teamwork and collaboration. That is why I want to thank everyone involved,

including staff from our A-2 inpatient unit; AMC/IV therapy; radiation therapy; cancer registry; diagnostic imaging; the physicians and staff of Eastern Connecticut Hematology and Oncology; the Norwich Radiology Group; our Backus Medical Staff surgeons; the Patient Navigator Program; the care management team; dietitians; palliative care; Center for Healthcare Integration (CHI); Tumor Board participants; Hospice Southeastern Connecticut; volunteers; the American Cancer Society; and Yale-New Haven Hospital and the Yale University School of Therapeutic Radiology, which makes their vast resources available to eastern Connecticut patients.

Through teamwork and collaboration, the Backus Cancer Center and its partners are working to fulfill our mission of improving the health of the community, and do so within the framework of a vastly changing health-care landscape. That is the challenge and our opportunity. We will meet it together.



Patient-centered care is driving our decision-making.

RELAY FOR LIFE CELEBRATING SURVIVORSHIP

Fighting against every cancer in every community, Backus Hospital and the American Cancer Society celebrated cancer survivorship together where Team Backus raised over \$5,000.

"This was an exciting opportunity to combine two great events, celebrate survivorship and enhance fundraising for the cancer society," said Backus Cancer Services Clinical Director Ginny Mabesoone, RN.

An emotional event offering camaraderie for patients and their families, it offers support for survivors, who get to meet others who share their experiences.

"This event is all about courage, it is all about strength," said Dinesh Kapur, MD, Medical Director of Cancer Services at Backus Hospital.



Nancy Witt of Norwich celebrated 63 years as a cancer survivor.

Relay for Life opened with the Survivors' Lap, where survivors led the way around the track while being applauded by all participants. The lap is proudly sponsored by Backus Hospital each year.

THE WILLIAM W. BACKUS HOSPITAL CANCER SERVICES

BACKUSHOSPITAL.ORG

Cancer Committee

MATTHEW BROWN, MD
OB-GYN Services

ANCA BULGARU, MD; ECHO

ELYNOR CAREY, LMFT
Care Management,
Social Worker

BROOKE CRIDER, Registrar
Cancer Registrar

RENUKA DULALA, MD; ECHO

EDWARD HARGUS, MD
Pain Management Services

JUAN ESCALON, MD
Thoracic Surgery

ELIZABETH FRACCHIA, RN, BSN
Palliative Care
Program Coordinator

KATHY FRANCO
Hospice of Southeastern CT

DONNA GOSS, CTR
Cancer Program Coordinator

SISTER RITA JOHNSON
Pastoral Care

DINESH KAPUR, MD; ECHO
Medical Director, Cancer Services

THOMAS KING, MD
Director Pathology

JOYCE KUUSELA, RN
Breast Health Navigator

THOMAS LESNIK, MD
ENT Services

GINNY MABESOONE, RN
A2-AMC-IV Therapy

MEENA MORAN, MD
Director, Radiation Therapy

CAROL NASS, RTT, BS
Chief Therapist, Radiation Therapy

JAMES F. O'DEA, PhD, MBA
Assistant Vice President,
Business Operations

SUZANNE PLANTE, PT, CLT-LANA
Rehabilitation Services

OLYMPIA RADU, MD
Pulmonary Physicians of Norwich

JEFFREY RUDIHOFF, MD
Director, Diagnostic Imaging

BONNIE THOMPSON, APRN
Division of
Organizational Excellence

MARK TRAMONTOZZI, MD
General Surgery

KATHLEEN TURNER-ACS
Community Executive
Health Initiatives

CHRIS WARREN, RD, CD-N
Food and Nutrition

JIE YANG, MD; ECHO

ROSE ZMYSLINSKI, APRN
Psychiatric Services

***Oncology
Certified Nurses***

Kathy Boulanger, RN, OCN

Mary Gulya, RN, OCN

Charline Copeland, RN, OCN

Jessica Wolak, RN, OCN

Darlene Young, RN, OCN

Kathy Gernhard, RN, OCN

Lindsay Atwater, RN, OCN

Jane Straut, RN, OCN

Pat Brummett, RN, OCN

Mark Wainston, RN, OCN

Lisa Bazinet, RN, OCN

Donna Slonski, RN, OCN

Multidisciplinary Referrals

BREAST HEALTH PATIENT NAVIGATOR PROGRAM
860-425-3870 or 860-425-3809

Free to women who experience a suspicious mammogram and / or ultrasound reading. The Patient Navigator helps guide the woman from the suspicious reading to a definitive diagnosis in the shortest amount of time possible to facilitate more efficient access and guidance to breast health care services and information. Services include assistance with referrals to local resources and social support; assistance with appointments; educational support; and, one-on-one meetings to increase satisfaction with their breast health care experience.

CARE MANAGEMENT/ SOCIAL WORK SERVICES • 860-889-8331 ext. 6319
The Care Management Team is comprised of Registered Nurses and Social Workers whose job is to assess your healthcare and psychosocial needs, coordinate the resources necessary to meet those needs, and to ensure a smooth transition for your post-hospital care needs. The Nurse Care Manager will ensure compliance with Medicare and Medicaid guidelines, communicate with your insurance company as your advocate, and also coordinate your discharge planning needs. The Social Worker will assist you in accessing available community resources as well as offer supportive counseling and crisis intervention. The Care Management Social Worker also facilitates monthly Cancer Support Groups.

CLERGY • 860-889-8331 ext. 2298
The Hospital has a Pastoral Care Program in place to meet patient and family needs.

DEPARTMENT OF REHABILITATION • 860-823-6317
This department consists of physical, occupational and speech therapy. Each area is available to assist patients in reaching the maximum level of independence during cancer treatment. Some types of cancer therapy can cause limitations with walking, exercise, daily activities and swallowing. Services offered include exercise, gait training, speech/swallow therapy and Lymphedema therapy. Staff will provide information about equipment that is needed for recovery.

FINANCIAL ADVISOR • 860-889-8331 ext. 6394 or ext. 2212
The Patient Accounts Department has trained financial counselors to provide assistance to patients who have concerns regarding payment for their care, or to help review their insurance coverage. Many patients who are uninsured qualify for assistance programs.

HOSPICE SOUTHEASTERN CONNECTICUT • 860-848-5699
Hospice is an integral part of the Cancer Services Program. Referrals are made on a case-by-case basis.

NUTRITIONIST • 860-889-8331 ext. 3668
A Registered Dietitian provides a nutritional assessment and screening to evaluate dietary needs for those undergoing treatment for cancer. This assessment will provide information that determines whether a specific diet plan is needed for weight maintenance. Nutritional planning supports patients as they develop side effects from treatment. The dietitian may provide the patient with support and education.

INTERVENTIONAL RADIOLOGY • 860-823-6565 or 860-823-6397
Interventional radiology is a rapidly growing area of medicine. Interventional radiologists are physicians who specialize in minimally invasive, targeted treatments performed using image guidance. Interventional radiology procedures are an advance in medicine that often involve no large incisions, low risk, minimal pain and short recovery times. At Backus, board certified interventional radiologist do a wide range of interventions, including chemoembolization and percutaneous tumor ablations.

PAIN MANAGEMENT • 860-425-5900
At The William W. Backus Hospital's Pain Management Center, we provide oncology patients of southeastern Connecticut with appropriate individualized pain and palliative management. A consultation with the patient and family members, if requested, will be completed by a board-certified pain management physician specialists. The plan of care and treatment options, be they medication management and/or interventional procedures, are developed and instituted in a timely manner.

The **CANCER COMMITTEE** membership is multidisciplinary representing physicians from the diagnostic and treatment specialties and non-physicians from administrative and supportive services.

ON THE COVER
PENNY SARGENT
Norwich resident and Backus cancer patient