

*2011* PARKVIEW  
C A N C E R

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ANNUAL REPORT



## PROVIDING OUTSTANDING CARE, SUPPORT AND HOPE

In 2011, hundreds of cancer patients and their family members turned to the physicians and dedicated staff members of the Parkview Comprehensive Cancer Center for help in their fight against this disease. I'm personally proud of the outstanding care, support and hope we provided.

The cancer center offers residents of this region the very best cancer treatment grounded in research, collaboration, advanced technology and genuine concern for each patient as an individual. Our clinical and administrative staff members serve patients with compassion and professionalism, and we continue to enhance our network of support services to help patients with the complex medical, emotional, financial and other challenges cancer brings. Finally, we're working harder than ever to prevent new cancers and diagnose existing cases earlier: our cancer educators visit hundreds of events each year with prevention information and screening tests for early cancer detection.

I invite you to review this 2011 report. It includes a special focus report on lung cancer – which remains a treatment challenge despite some encouraging progress – as well as an overview of cancer center services and select 2011 highlights.

The Cancer Committee and I welcome discussion with any healthcare professional who works with cancer patients and their families. Please feel free to contact us at (260) 266-9100.



**David A. Trenkner, MD**  
Cancer Committee Chair  
Radiation Oncology Associates

## CANCER COMMITTEE

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**Stephen Schreck, MD, ENT Specialists**

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**Dianne May, President & CEO  
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## Focus Report: LUNG CANCER

By Douglas L. Gray, MD, FACS

Parkview Physicians Group – Cardiovascular Surgery



Lung cancer remains the leading cause of death from cancer in this country, causing more deaths annually than breast, colon and prostate combined. With the advent of lung cancer screening, early diagnosis and new advances in surgical treatment, we hope to greatly impact the devastating outcome of this malignancy.

Approximately 222,500 new cases of lung cancer were diagnosed in the U.S. in 2010; unfortunately, 60% of these patients will not be alive at one year. We reviewed our Cancer Registry data for 435 patients from 2001 to 2003 and 626 patients from 2005 to 2009, comparing local survival rates to national data. More men than women were diagnosed (56% to 44%) during this time period (Figure 1).

### Lung Cancer Diagnosed at Parkview, 2005-2009

(Figure 1)

AGE AT DIAGNOSIS	20-29	30-39	40-49	50-59	60-69	70-79	80-89	90-99	TOTAL
MALE	0	5	13	75	129	150	73	4	449 (56%)
FEMALE	1	3	17	66	100	122	42	2	353 (44%)
PERCENT	0.1	1	3.7	17.6	28.6	33.9	14.3	0.7	100%

At Parkview, we are committed to increasing awareness of this difficult disease. Northeast Indiana has historically had a high rate of tobacco consumption, which is the primary risk factor in developing lung cancer, putting our friends and neighbors at increased risk. Most people are unaware that 10% to 15% of lung cancers occur in lifelong non-smokers, and that there are many proven risk factors – such as radon, asbestos, and other chemical and viral exposures – which can predispose patients to this type of cancer.

**Focus Report: LUNG CANCER** continued

Efforts are being made toward early detection of lung cancer in “at-risk groups.” The National Lung Screening Trial Research Team (NLST) announced in 2010 – and published in the *New England Journal of Medicine* (NEJM) in August 2011 – that there is a reduction in mortality (death) with low-dose CT scan screening in “at-risk patients” ages 55 to 74. This finding demonstrated a 20% reduction in mortality in the patients screened with CT as opposed to chest X-ray. Prior to this study, which looked at more than 53,000 patients, there had been no statistically significant, proven role for lung cancer screening. These findings are consistent with our data where most people are diagnosed between ages 50 and 80, and rarely before the age of 45 (Figure 1).

In a recent study (NEJM 2006), an 88% 10-year survival was demonstrated in 412 patients found to have early-stage lung cancers discovered by CT scan screening of more than 31,000 patients. This presents a stark contrast to the very poor five-year survival (10% to 15%) for an aggressively treated node-positive lung cancer. Very simply, the prognosis for lung cancer depends on the stage (size, location, involvement of lymph nodes) at the time of diagnosis. Cost, however, remains an issue for this type of service, and is certain to challenge the complex, high-cost healthcare system of the future.

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**Many treatment options exist for patients with lung cancer. Surgical treatment remains the gold standard for non-small cell lung cancers (NSCLC), which account for over 80% of all pulmonary malignancies. Other non-surgical options certainly exist for patients in both favorable and unfavorable general health.**

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Parkview Health physicians function under National Comprehensive Cancer Network (NCCN) practice guidelines in treating all lung cancer patients. Standard and modified surgical approaches, along with minimally invasive and robotic procedures, are available at Parkview. In addition, Parkview Comprehensive Cancer Center is the only medical facility in the region able to provide CyberKnife®, or stereotactic radiosurgical treatment, for early-stage lung cancers in patients unfit for surgical intervention. Our community tertiary referral program for radiosurgery is one of the most experienced and longest-lived in the Midwest, having more years of practice than any program in Ohio or Michigan. We have also shown great activity and interest in research for this particular treatment modality. Our active participation in multiple Phase III clinical trials will help us objectively address the question of which subset of patients will be best served with each treatment modality.

Focus Report: **LUNG CANCER** continued

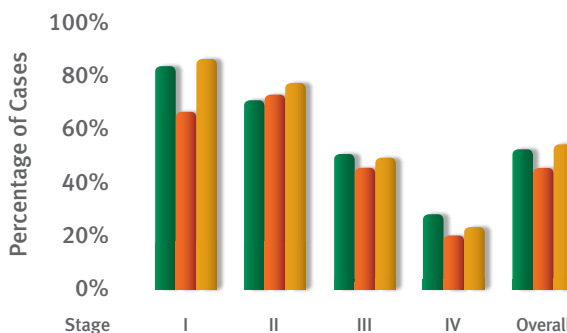
Our survival information for the treatment of non-small cell lung cancer at Parkview is consistent with the outcomes of the National Cancer Data Base (NCDB), with dramatic improvement over the past decade (Figures 2 and 3). This is particularly evident in our Stage I patients, improving from a 66% to an 86% one-year survival, and five-year survival improvements from 47% to 59%. A slight improvement in late survival of the more advanced Stage III patients likely reflects an increase in patients' receiving a surgical lymphadenectomy at the time of their operation and the administration of adjuvant chemotherapy in the subgroup of node-positive patients. In addition, we have become surgically more aggressive with highly functioning young Stage III patients, often utilizing chemotherapy prior to surgery (neoadjuvant treatment). This particular subset of patients should have continued improved survival over time.

The survival for cancers that present at advanced stage (IIIB and IV) remains abysmal. Hopefully, with the implementation of the new class of medications, gene mutation receptor inhibitors such as EGFR, EML4-ALK and others, we will see prolonged survival in these unfortunate, challenging cases.

**1-Year Survival for Lung Cancer**

(Figure 2)

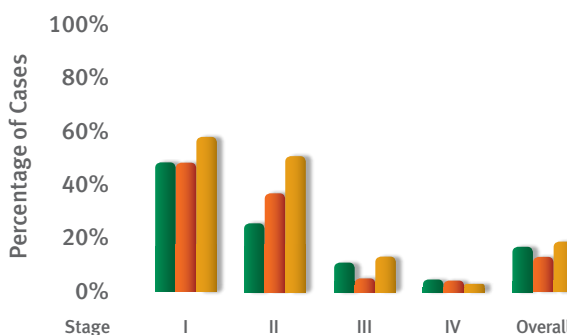
- National Cancer Data Base, 2001-2003
- Parkview Health, 2001-2003
- Parkview Health, 2005-2009\*



**5-Year Survival for Lung Cancer**

(Figure 3)

- National Cancer Data Base, 2001-2003
- Parkview Health, 2001-2003
- Parkview Health, 2005-2009\*

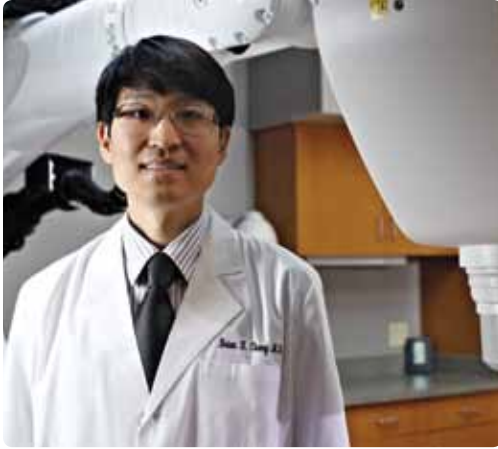


\*National Cancer Data Base data not yet available for these years.

## Focus Report:

# RADIATION THERAPY IN EARLY LUNG CANCER

By Brian K. Chang, MD  
Radiation Oncology Associates



The treatment of early non-small cell lung cancer (NSCLC) with radiation therapy has undergone a dramatic change over the past decade. Historically, patients would undergo a series of 30 or more daily treatments with a dismal 35% local control rate, which relegated the use of conventionally fractionated radiation therapy (CFR) to those patients deemed to be medically inoperable. However, technological advances over the past decade have allowed us to accurately target and deliver radiation to tumors with a high degree of precision.

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**We can now safely deliver potent doses of radiation to these early non-small cell lung cancers using a technique termed stereotactic ablative radiotherapy (SABR). This treatment provides impressive local control, and survival rates that may rival surgery, in just three non-invasive, outpatient treatments. The CyberKnife Robotic Radiosurgery System is the most advanced radiation treatment unit capable of delivering SABR. CyberKnife is the only commercially available radiation treatment unit capable of “real-time tracking,” which allows us to accurately treat the NSCLC tumor with sub-millimeter accuracy as it moves with normal respiration.**

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Based on Phase I and II trials conducted at Indiana University using a three-fraction schema showing a 95% local control rate, a multicenter Phase II trial conducted by the Radiation Therapy Oncology Group (RTOG) was undertaken. The results were published in JAMA (the *Journal of the American Medical Association*) last year, showing an impressive local control rate of 97.6% and 3.6% nodal failure rate at three years, which is a dramatic improvement over the historical 35% local control rate seen with 30 conventional treatments. A Phase III trial comparing CFR over 30 treatments to three treatments using SABR was proposed, but patient advocates at the Cancer Therapy Evaluation Program (CTEP) refused to allow the trial given the dramatic difference in local control with minimal side effects using SABR over the historic results seen with CFR. As a result, SABR is now considered the standard of care for medically inoperable non-small cell lung cancer.

Now that SABR has been established as the standard of care for the medically inoperable population, the current question is: what is the role of SABR in those patients who are medically operable? A retrospective series from Japan, examining SABR in medically operable patients, reported a five-year overall survival of 72% and 62% for Stage IA and IB patients, which is comparable to the overall survival seen in the conventional surgical literature. The RTOG has completed a Phase II trial for medically operable NSCLC patients. We will have to wait a couple of years before the final results are published.

Currently, there are three Phase III randomized controlled trials directly comparing surgery to SABR for medically operable patients, two of which are open to enrollment for all our patients. One is being conducted by the RTOG, comparing sub-lobar resection versus SABR in high-risk medically operable patients, and another is sponsored by Accuray, and is directly comparing lobectomy and lymph node dissection to SABR. The third trial, comparing surgery to SABR in Stage IA patients, is being conducted in the Netherlands.

SABR has become the standard of care for our medically inoperable NSCLC patients, providing superior local control and survival rates with the added benefit of being a non-invasive, convenient series of three to five outpatient treatments, with very little risk of side effects. It is important that, as a community, we support our current ongoing Phase III clinical trials to assess the role of SABR in the medically operable patient population.



Parkview Comprehensive Cancer Center is home to the region's only CyberKnife. This robotic radiosurgery system offers patients a highly accurate, painless, non-invasive treatment option especially useful for tumors in difficult-to-reach areas of the body. During the outpatient treatments, patients can wear street clothes and relax to music while gazing at the illuminated "sky" overhead. For more information, contact the CyberKnife coordinator at (260) 266-9165.

## Focus Report: MEDICAL ONCOLOGIST'S PERSPECTIVE ON LUNG CANCER

By Sreenivasa R. Nattam, MD

Fort Wayne Medical Oncology & Hematology



Lung cancer is the most common cancer worldwide. It is the leading cause of cancer deaths in American men and women. It accounts for 12.4% of all new cases of cancer – more than 200,000 cases in the U.S. and greater than 1 million worldwide. The World Health Organization estimates that lung cancer will account for 18.4% of all cancer deaths by 2015.

Just look at these facts: A new lung cancer diagnosis is made every three minutes in America. Every hour, 18 lung cancer patients die of their disease.

What causes lung cancer? Tobacco, environmental exposure to substances such as asbestos and radon, and passive exposure to smoke are all causes. It does occur in non-smokers (adenocarcinoma).

Non-small cell lung cancer (NSCLC) accounts for 75% to 85% of cancer, whereas small cell lung cancer (SCLC) accounts for 15% to 25% of cases. Mixed histologies are treated based on small cell component.

Updated TNM staging in 2009 provided improved distinction between early stages of the disease, IB – IIA and IIA – IIB. Same-lobe nodule is T4 (IIB), ipsilateral lung nodule is IIIA or IIIB, depending on nodular status; pleural effusion is M1a (Stage IV).

In terms of treatment approaches for NSCLC, surgery, radiation therapy and chemotherapy are the three modalities commonly used. They can be used either alone or in combination, depending on the disease status. Stages I-IIIa are surgically resected and offered adjuvant chemotherapy that is Cisplatin-based (Cisplatin with VP-16, Gemzar®, Navelbine® or Taxotere®). Absolute improvement in survival is 5%. However, Carboplatin-based programs have not been tested as adjuvant therapy.

Stage III unresectable NSCLC is typically treated with combined modalities – radiation therapy combined with chemotherapy. Level I efficacy data is available for combination radiation therapy and chemotherapy using Cisplatin and VP-16 for two cycles (developed by SWOG, Southwestern Oncology Group). It appears weekly Carboplatin and Taxol® is inferior to Cisplatin plus VP-16. Elderly patients and patients with poor PFS (performance status) don't tolerate Cisplatin plus VP-16. Neoadjuvant chemotherapy is given in select patients (50% of NCCN institutions give neoadjuvant CMRT and 50% use chemotherapy only).

For management of recurrences and distant metastases, the type of systemic therapy depends on histologic subtype, EGFR (Epidermal Growth Factor Receptor) mutation status and PFS. NCCN guidelines now recommend that histologic subtype should be determined before selection of therapy. EGFR mutation testing is recommended in patients with non-squamous NSCLC (e.g. adeno large cell) because Erlotinib (small molecule TK1 of EGFR) is recommended for these patients if the mutation is positive.

For patients without EGFR mutations and non-squamous NSCLC, Cisplatin/Premetrexed (category 1) Bevacizumab is another option. For patients with squamous histology, Cisplatin/Gemcitabine is an option. (These patients are usually negative for EGFR mutation.)

Fifty percent of never-smokers have EGFR mutations and are treated with Erlotinib first line. Approximately 25% of never-smokers without EGFR mutation have EML4-ALK mutation (these mutations are mutually exclusive) and are candidates for Crizotinib with 50% response rate.

Approximately 30% of patients with advanced NSCLC respond, and median overall survival is one year; 35% survive five years. Patients who are responding or have stable disease after four to six cycles of chemotherapy are offered maintenance therapy with Erlotinib or Premetrexed. Second-line therapies include Erlotinib.

## PARKVIEW COMPREHENSIVE CANCER CENTER

For 35 years, the cancer center has been dedicated to helping patients and their families obtain the individualized treatment and support they need.

- **Region's first Comprehensive Community Cancer Program** accredited by the American College of Surgeons; reaccredited with commendation in 2009.
- In a **multidisciplinary, collaborative approach**, physicians work as a team with professional staff, the patient and his or her family to create a personalized treatment plan.
- **Home of the region's only CyberKnife**, non-invasive robotic radiosurgery that painlessly targets tumors in difficult-to-reach areas, often in one to five outpatient treatments. To learn more, visit [cyberknife.parkview.com](http://cyberknife.parkview.com).

### SOPHISTICATED TREATMENT OPTIONS

CyberKnife | IMRT (Intensity-modulated radiation therapy) | IGRT (Image-guided radiation therapy)  
 External beam therapy | High- and low-dose brachytherapy | Intraoperative radiation therapy  
 Prostate seed implants | Robotic surgery using the da Vinci® Surgical System | Targeted therapy  
 Surgery | Chemotherapy (systemic therapies) | Biological therapy

### RESEARCH

- Conducted with Parkview Research Center
- Patients have opportunity to participate in national studies
- Cancer research accounted for 75% of the 60 clinical research trials approved by the Parkview Health Institutional Review Board in 2010. The IRB monitors approximately 235 trials annually.

### ABUNDANT SERVICES/RESOURCES FOR PATIENTS AND FAMILIES

- Lab testing and imaging (MRI, CT, X-ray, ultrasound, nuclear medicine)
- Oncology advanced practice nurse and oncology-certified nurse navigators
- Cancer resource libraries
- Support groups for breast cancer, prostate cancer, leukemia, lymphoma, myeloma, lymphedema
- Specialty physician offices including radiation oncology, medical oncology, general and oncology surgery, women's health, colorectal surgery, urology, plastic surgery, and ear, nose and throat
- Dedicated inpatient oncology center with private rooms and hospice care
- Outpatient Infusion Clinic
- Nutritional counseling, financial planning assistance and referral to other community resources
- Satellite offices for American Cancer Society and Cancer Services of Northeast Indiana
- Complementary care services: | Cancer exercise | Cancer massage | Reflexology | Healing Touch | Music therapy (inpatient)
- Palliative care
- Free educational programs

da Vinci® Surgical System is a registered trademark of Intuitive Surgical, Inc.

## COORDINATING CARE

Parkview Comprehensive Cancer Center staff members and physicians do their utmost to provide patients with care that is not only effective in eradicating or controlling cancer, but also supports and respects their individual needs. **To hear patients' own words about their treatment experiences, as well as comments from a number of care team members, visit the "Cancer Stories" pages on parkview.com.**

### NURSE NAVIGATORS

Two experienced, oncology nurse navigators help patients through the treatment process by answering questions, listening to concerns, offering tips and connecting patients with needed resources, services and equipment.

### ADVANCED PRACTICE NURSE (APN)

An expert nurse with a master's degree in nursing, certified in oncology, is available to provide patients and families with information about cancer, treatments and community resources, as well as coping strategies. In addition to offering patient support, she educates the community about cancer with special emphasis on prevention and screening for early detection. **To speak with a nurse navigator or the advanced practice nurse, call (260) 266-9100.**

### BREAST CARE TEAM

Parkview's Breast Care Team was created to help women deal with the prospect of a breast cancer diagnosis. The APN and nurse navigators are available to meet with any woman *before* her breast biopsy, to introduce themselves, answer questions and provide resources. (One nurse navigator is a certified breast care nurse.) If the biopsy is positive, team members can also meet with the woman soon after she receives the results and will continue to provide support through her cancer experience.

### TUMOR BOARD

The Tumor Board promotes collaboration in determining the best treatment options for patients. Physicians from surgery, medical oncology, radiation oncology, pathology, radiology, family practice and other disciplines meet weekly to discuss cases of interest. This approach enables the treating physician to draw on colleagues' expertise in various medical specialties in caring for his or her patient. In addition, the Tumor Board serves as a forum for educating physicians in new techniques, tools and technology in the field of cancer diagnosis and treatment. We also present review boards dealing with breast cancer and colorectal cancer. **For information, or to arrange your attendance, contact the Tumor Board coordinator at (260) 266-9184.**

### OUTREACH CLINIC IN LAGRANGE COUNTY

The Parkview Medical Oncology Clinic at Parkview LaGrange Hospital opened in September 2010, thanks to collaboration between the hospital, Parkview Comprehensive Cancer Center and Fort Wayne Medical Oncology & Hematology. LaGrange County-area patients can conveniently access services including infusion treatments, targeted therapies, consultations and follow-up care, as well as research through both the cancer center and Fort Wayne Medical Oncology & Hematology.

### PARKVIEW CANCER REGISTRY

The Cancer Registry is an important part of Parkview's Comprehensive Cancer Program. The three certified cancer registrars are responsible for collecting and analyzing cancer data concerning patients who have been diagnosed and/or treated at Parkview Hospital (analytic patients). This body of data is a critical element in the evaluation of cancer care. The Cancer Registry is also responsible for maintaining lifetime follow-up on all analytic patients.

# COMMUNITY OUTREACH AND EDUCATION

## BUILDING AWARENESS, DETECTING CANCER EARLY

Educating community residents on cancer prevention and early detection is an important part of our mission. Cancer center outreach efforts in 2011 included:

- Educational presentations to hundreds of school-age students on cancer prevention and screening
- Cancer screenings and early detection at health fairs, screening events and education programs
- Professional symposium on lung cancer and free community forum, including physician, nurse navigator and patient perspectives
- Distribution of nearly 10,000 home test kits to screen for blood in the stool as part of a Colorectal Cancer Awareness Campaign across the Parkview Health service area

To book presentations, arrange for a cancer center representative at a health event, or obtain information on upcoming screenings, contact the community outreach coordinator at (260) 266-9180.

## FRANCINE'S FRIENDS MOBILE MAMMOGRAPHY

The mobile mammography program is a partnership between Francine's Friends, Parkview Comprehensive Cancer Center and the Breast Diagnostic Center. Created seven years ago, the program has significantly increased access to lifesaving mammography for women across the region by making the screening test available where they live and work.



In 2011, the program:

- Provided more than 3,800 mammograms, many for repeat patients who have become more proactive about their health
- Met women where they were by visiting 255 businesses, schools and community sites, often repeatedly during the year
- Served both insured and uninsured women, providing funding for follow-up testing when necessary
- Replaced its aging, well-traveled motor coach with a brand-new coach, featuring digital equipment and an interior built for privacy during screening

To learn more about the mobile mammography program, call (260) 266-9180.

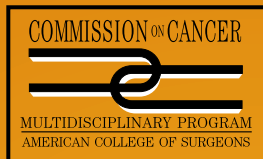
## Parkview Top Primary Cancer Sites by Gender

Information obtained from Parkview Hospital's Cancer Registry 2010 data.

	MALE	CASES	FEMALE	CASES
	Lung	126 (20.8%)	Breast	213 (34.3%)
	Prostate	106 (17.5%)	Lung	106 (17.1%)
	Colorectal	71 (11.7%)	Colorectal	58 (9.3%)
	Urinary Bladder	62 (10.2%)	Corpus Uteri	36 (5.8%)
	Kidney	24 (4.0%)	Kidney	21 (5.8%)
	Pancreas	24 (4.0%)		
	<b>TOTAL MALE CASES</b>	<b>605</b>	<b>TOTAL FEMALE CASES</b>	<b>621</b>

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Originally accredited as a Comprehensive Community Cancer Program by the American College of Surgeons in 2006, Parkview Hospital's Cancer Center was re-certified with commendation in 2009. Designation as a Comprehensive Community Cancer Program is the highest level of accreditation for non-university hospitals and identifies Parkview as one of the top cancer treatment programs in the United States.

 **PARKVIEW**  
COMPREHENSIVE CANCER CENTER