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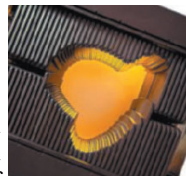
# INSPIRATION

## Prostate Cancer Treatments: Intensity Modulated Radiotherapy

Intensity Modulated Radiotherapy (IMRT) is one of the newest forms of radiation treatment delivery. “The process involves a series of sophisticated components”, reports Dr. Jay Bosworth, senior physician and NRAD partner. Unlike other forms of external beam radiation, IMRT employs a technique called “inverse treatment planning”. During the process of inverse planning, a physician, physicist and dosimetrists carefully delineate each anatomical structure within the region to be irradiated. “When I treat a patient with prostate cancer, I contour the prostate, seminal vesicles, regional lymph nodes, bladder and rectum”,

reports Dr. Bosworth. “I can then place dose limitations on these structures”, he added. A sophisticated computer will generate a plan, which delivers a highly conformal (focused) dose of radiation to the cancerous tissues, sparing the neighboring normal tissues.

The delivery of conformal radiation is facilitated using a series of small movable blocks, called multi-leaf collimators (MLCs). The medical research on IMRT continues to support its role in the management of most tumors. Side effects from treatment have been significantly



reduced, with many patients experiencing few, if any, events. “The whole process of radiation therapy delivery has been revolutionized with this technology”, commented Dr. Bosworth. Using IMRT allows one to effectively target very small areas with amazing precision. “Verifying our precision, daily, using image guided radiotherapy (IGRT) technology is an essential step to the process”, said Dr. Bosworth. More details about NRAD’s IMRT treatment are on the web: [www.nrad.com](http://www.nrad.com), or email :



[TomoTherapy@nrad.com](mailto:TomoTherapy@nrad.com)

### JANUARY 2011

### CERVICAL CANCER AWARENESS MONTH

“Cervical cancer remains an important concern in the field of oncology”, said Dr. Amy Solan, Board Certified Radiation Oncologist. “What troubles me”, she added, “is that there is a readily available screening test that is not used by all patients”. This screening procedure, a PAP test, is commonly incorporated into an annual gynecologic exam. The American College of Obstetrics and Gynecology recommends annual PAP testing for all women over the age of 21. “Approximately 11,000 patients will be diag-

nosed with cervical cancer each year”, reports Dr. Solan. “Screening these women with PAP tests, would definitely reduce the number of patients presenting with an invasive tumor”, she added. The National Cervical Cancer Coalition reported that 50% of all patients diagnosed with invasive cervical carcinoma in 2009 had either never undergone PAP testing or that the testing was performed more than 5 years ago.

Cervical cancer can be associated with the human papilloma virus (HPV). Vaccina-

tions designed to treat two of the most commonly involved strains (16 & 18) are available for use in the prevention of infection for females between ages 9-26.

Dr. Solan encourages all women to seek regular follow-up care with their gynecologist. Give yourself the gift of health. Screening saves lives!



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#### Special points of interest:

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- WHEN QUALITY CARE DELIVERED IN A COMPASSIONATE ENVIRONMENT IS IMPORTANT, THERE'S ONLY ONE CHOICE: NRAD. WE PROVIDE BOTH DIAGNOSTIC AND THERAPEUTIC RADIOLOGY SERVICES TO THE SUBURBAN METROPOLITAN AREA

# Cancer Treatment: Selecting a Radiation Oncologist and Your Radiation Therapy Facility

Patients will often travel great distances in search of the “best” physician for “their” diagnosis. History is replete with life lessons, not the least of which is one about expertise. In part, skill at any task is due to repetitive action. Stated more simply, the star baseball player has hit the ball thousands of times, the successful actress has rehearsed her lines countless times, and the skilled physician will have personal experience dealing with both simple and complicated presentations of many forms of tumor.

Selecting a physician to lead the team that will facilitate your road to recovery can be a daunting challenge. There are no simple formulas for picking the “right” physician. In fact, the process is often guided by referrals from other specialists with whom a patient has already visited. Common is the situation where a surgeon will see a patient and refer them to a medical oncologist and radiation oncologist. The synergy that is seen in structured relationships between physicians is undeniable; however, in some instances geography, personal preferences or lack of guidance will force patients to choose a physician without a clearly defined referral. “In these instances, patients should consider talking to their primary care providers”, said Dr. Paul Cayea, senior physician and NRAD partner. He went on to say that “patients should look for guidance from a resource whom they trust”. Existing primary care relationships will often provide deeper insight for the patient who is faced with many decisions.



Often primary care physicians have the unique perspective of seeing patients who are diagnosed with varying forms of tumor. Because these physicians are not solely focused on the treatment of one disease site or type, they can often provide information about which practices provide comprehensive services and true expertise in all forms of cancer therapy. This information is critical in determining where one will seek therapy. Although the person responsible for one’s care is the Radiation Oncologist, the team supporting the physician is equally important. Dr. Cayea commented that, “we are fortunate to have so many dedicated and skilled individuals providing care in our therapy offices”. He further added, “we have spent years building a highly qualified team of physicians, physicists, dosimetrists, therapists, and support staff in each of our offices”.

Seeking input from trusted sources, including one’s primary care physician (PCP), surgeon, medical oncologist, and other medical specialists is always prudent. Creating an objective method of assessing a particular physician or practice is critical in optimizing the probability of both a good doctor/patient experience and more importantly, a good clinical outcome. How then, should a patient begin to objectively assess whether a particular physician or facility will meet their treatment needs? Below are some considerations that should be of assistance.

## Choosing Your Radiation Oncologist

- 1) Was this person recommended by a trusted source (e.g. PCP, surgeon, oncologist, former patient, etc.)?
- 2) Is the physician Board Certified?

- 3) Does the physician have experience treating my form of cancer/tumor?
- 4) Does the physician work with other physicians, should I need additional medical assistance or have questions?
- 5) Is the physician able to effectively answer my questions about therapy?

Meeting all of these goals is desired, but will not guarantee treatment success. Lastly, consider an internet search of the physician, which may provide additional links about the doctor’s unique capabilities.

## Choosing Your Treatment Facility

Most physicians will practice in a particular office or hospital. Therefore, choosing a treatment facility may follow your decision to work with a particular physician. Some additional considerations should be made when finalizing your decision.

- 1) Who works with the physician(s)? Are these team members experienced? Licensed?
- 2) Can I receive treatment in an office that is geographically convenient for me?
- 3) Can the practice accommodate my appointment time needs?
- 4) Does the practice offer the latest technologies in treatment (e.g. TomoTherapy, Rapid Arc, IGRT, stereotactic therapy)?

If you have questions, when making choices about your healthcare, always discuss these concerns with your existing doctors, including your primary care physician.

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## Easing Treatment Side Effects: **INCREASED BOWEL FREQUENCY**

Side effects from treatment are the direct effects of radiation on “normal” tissues. Minimizing treatment side effects is often possible with modern treatment planning concepts (e.g. IMRT). The treatment of pelvic tumors (e.g. rectal, bladder, cervical, etc.) will often result in large segments of the small bowel receiving some radiation. As a result of the radiation, digested food may move through the bowel more quickly. In turn,

**Limiting your consumption of uncooked vegetables and fried foods will reduce your risk for bowel irritations.**

patients may experience increased frequency of bowel movements. Limiting this effect is always considered in designing a patient’s radiation treatment plan; however, additional patient-centered efforts are often needed.

Following a “radiation” diet can be beneficial and may be necessary for patients who are either experiencing more frequent bowel movements or softer stools. There is no “standard” radiation diet for

those receiving abdominal or pelvic radiation, but some guidelines can be implemented for symptomatic patients.

- 1) Limit consumption of high fiber fruits and cereals.
- 2) Limit consumption of uncooked vegetables and fried foods.
- 3) Avoid spicy and acidic foods.

As always, discuss any questions you may have with your radiation oncologist.



# Rectal Cancer: Radiation Therapy

Colorectal cancer remains one of the most commonly diagnosed tumors in this country. In fact, the American Cancer Society reports that over 100,000 cases of colon cancer will be diagnosed in 2010. Nearly 40,000 patients will be diagnosed with rectal cancer. The rectum, is the most distal portion of the large bowel. As the third most common tumor in men and women, this disease is often treated using combinations of radiation, surgery, and chemotherapy. "The sequencing of these treatments has changed over the past 10-15 years", reports Dr. David Ebling, Radiation Oncologist and NRAD partner. He went on to say, "When I first entered clinical practice, all patients underwent surgery, which was often



followed by radiation (RT) and chemotherapy (CTX)". Recent efforts to limit the number of patients requiring a colostomy have resulted in the regular use of RT/CTX prior to surgery. Often, patients who undergo a 5-6 week course of treatment, prior to surgery, will be able to maintain normal bowel function (i.e. avoid colostomy). "This is exciting news for patients", said Dr. Ebling. Recent advances in radiation technology, including our use of image guided radiotherapy (IGRT), have allowed patients to receive more targeted radiation treatments. "By limiting the normal tissues exposed to radiation, patients are experiencing significantly fewer side-effects", reports Dr. Ebling. "We are fortunate to have the only TomoTherapy units on Long Island, available to our patients", he said. This technology, resembles the

appearance of a diagnostic CT scanner, but is capable of generating powerful x-rays, which can target and destroy cancer. Being able to reproducibly target the same region each day, allows one to reduce the normal "safety" margins that were historically used in radiation treatment.

Dr. Ebling stressed that all patients should consider colorectal screening, above the age of 50. Those with a family history may require screening at an earlier age. "Screening can eliminate most colorectal cancers", he added. If tumor is detected, it is important to understand your options and see if RT and CTX may be of benefit. More information on TomoTherapy is available on our website:

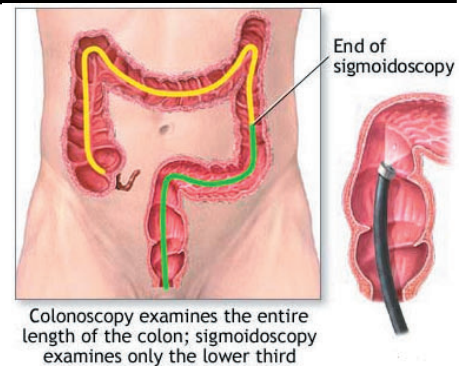
[www.nrad.com](http://www.nrad.com)

## Medical Journal Spotlight

### Sigmoidoscopy reduces colorectal cancer incidence & mortality

A recent article (Lancet, April 2010) reports on the results of the largest British trial looking at the benefits of sigmoidoscopy. This screening test examines the lower 1/3 of the large bowel (see insert to right). Slightly more than 170,000 patients were followed. Of those, approximately 113,000 were assigned to the control group (no screening sigmoidoscopy) and the remainder received a single colonoscopy between the ages of 55-64. Median follow-up was more than 11 yrs.

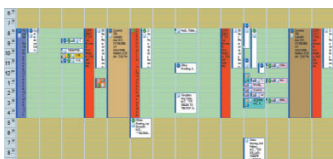
Wendy Atkin, PhD, and senior author commented that a single sigmoidoscopy in patient of this age group reduces overall incidence and mortality by 31 and 43%, respectively. The benefits of this type of study are great. For every 491 patients screened, mortality from colorectal cancer was reduced by one (i.e. one life saved for every 491 people tested). Flexible sigmoidoscopy is readily available to patients. Discuss colorectal cancer screening with your physician.



## Technical Corner

### MISSED APPOINTMENTS

As we hunker down for another snow-filled New York winter, I am reminded that some patients become concerned if they are not able to attend their regularly scheduled radiotherapy appointments. It is important for patients to understand that receiving treatment in the



planned manner (typically M-F) is desired and

every effort to meet this goal should be made. Despite one's good intentions, situations arise that may not make this goal practical, desired, or safe. Our primary goal is to ensure that every patient receives treatment as prescribed by their radiation oncologist. During the winter months, there may be days during which travel to and from the office is impossible. Our 2010, post-Christmas storm is a good example. The NRAD website ([www.nrad.com](http://www.nrad.com)) will update patients regarding changes to office hours of operation, should weather become particularly prob-

### Sal Campo, RTT

lematic. If one is having trouble reaching the office, it is always wise to call and see if the appointment can be rescheduled later that day, or postponed to another day.

Completing treatment in a timely manner should be your goal; however, if situations arise that may alter your ability to attend your scheduled appointment, please call your therapy center to inquire about rescheduling. If you find yourself with more questions, please ask one of our physicians, or contact me with concerns: 516-394-8100 X 2817



## RADIATION SAFETY ISSUES



In late December of 2010, an article appeared in the NY Times that detailed the unfortunate experiences of several radiation oncology patients treated in Illinois and Missouri. The author explained how several patients receiving a highly specialized form of radiation, termed “stereotactic radiosurgery” were inadvertently given a higher dose of radiation than planned. Combinations of human, computer and machine error likely resulted in the misadministrations. NRAD takes great pride in the efforts it makes to eliminate treatment errors. Ensuring appropriate staff training and periodic equipment upgrades have resulted in successful outcomes for the past few decades. We would like to take this opportunity to renew our commitment to excellence in patient care. Our active quality assurance program is continually focused on risk reduction activities.

### Conveniently Located Offices

#### Garden City

700 Stewart Avenue Garden City, NY 11530  
516-222-2020

#### Great Neck

415 Northern Boulevard Great Neck, NY 11021  
516-365-6544

#### Lake Success

6 Ohio Drive (Suite 103) Lake Success, NY 11042  
516-394-8100

#### Woodbury

105 Froehlich Farm Boulevard Woodbury, NY 11797  
516-422-7710

**Quality Radiation Care by Caring  
Radiation Oncologists**



### Radiation Oncology: Understanding the RT Jargon

Like many other fields of medicine, radiation oncology has evolved to include its own lexicon of words and expressions that may not be familiar to patients. Each quarter, we will share a few of these terms in an effort to improve communication with our patients.

**CBCT:** Cone beam computerized tomography: Detailed x-ray images that are taken prior to therapy to optimize patient positioning. These images are typically taken daily, prior to each treatment session.

**Port Films:** X-ray images on the treatment machine that help in patient positioning. These are typically taken once each week.

## Upcoming News and Events

### CT (Computerized Tomography) Screening for Lung Cancer is Now Available at NRAD's Diagnostic Facilities

- Lung Cancer is the most lethal form of cancer in the US
- Those patients with a “significant history” of smoking are most likely to benefit (i.e. smoking 1 pack per day for 30 years, or more) from lung cancer screening tests
- Unscreened patients typically present with locally advanced disease (average 5 year survival less than 15%). Patients diagnosed using CT based screening (reported in NEJM, October 2006) are often diagnosed with Stage I disease, (5 year survival 80% and greater).
- Unlike conventional CT imaging, screening studies offer a reduced dose of radiation to the patient.

For more information about potentially life saving screening tests and treatment see our website: [www.nrad.com](http://www.nrad.com)

### MARCH IS COLORECTAL CANCER AWARENESS MONTH

- Approximately 150,000 people will be diagnosed with colorectal cancer, this year.
- Almost 50,000 will die from the disease.
- 90% of all patients are diagnosed over the age of 50
- It is estimated that 90% of all invasive colorectal cancers could be eliminated with screening procedures/tests
- Risk factors for colorectal ca include:
  - 1) Family History
  - 2) Diet high in red meats
  - 3) Being overweight
  - 4) Smoking and excessive alcohol use

For more information, see the American Cancer Society website:

[www.cancer.org](http://www.cancer.org)



Look Good...Feel Better.

NRAD is pleased to announce a “Look Good Feel Better” Program, in partnership with the American Cancer Society. Meetings are in our Woodbury office on the first Tuesday of each month. All female patients are invited.



Look for more exciting information in our Spring issue, available late April 2011

