



RAJIV GANDHI CANCER INSTITUTE & RESEARCH CENTRE

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EDITORIAL

IS YOUR PATIENT SATISFIED?

'Vox Populi, Vox die'

(Voice of patients, is the voice of God)

Patients are the foundation of our medical practice; it is very obvious that they must be satisfied. But the question is "do we always succeed?"

Working for and taking action towards success will make us a master.

Working for and taking action towards satisfaction will make us a legend.

The primary function of a hospital is to provide patient care. The patient and his family are the ultimate consumers to the hospital. The Patient's experience begins right from the time he enters your Parking lot, the way he's greeted by your staff at the reception, his simple needs like wheel chair, assistance by ward boys etc. are understood even before he actually says it. All the organizations today lay huge focus on Patient satisfaction. Gone are the days when Clinical care was the only factor that patients looked forward to. Today the patient is pleased when he is greeted well when he rings your Clinic and is nicely guided, the food that he is served is palatable, the staff who is around is courteous and helpful etc.

As the hospital serves all the members of the society, the expectations of the users differ from one individual to another individual because everyone carries a particular set of thoughts, feelings and needs. Hence, determination of patient's real feelings is very difficult. It is the responsibility of the administrator to understand felt needs of the patients by 'Putting oneself in patient's shoes'. Though it is difficult, one can get it by using some tips such as listening to the patients, asking questions and seeking answers, training the staff in effective communication, problem solving and so on. By getting to know the patients a little more to get their views on the care, one ought to come closer to what the patients consider as a good care. Patients in the Cancer Hospital have different expectations as their treatment goes for months, even years and they visit the hospital again and again for their sessions. It is imperative on the part of Hospital management to improve each experience of the patient while he visits the Hospital. Also, if one experience is bad, the management does get a chance to improve future experiences which is not so in case of other general hospitals.

How do we achieve Patient Satisfaction?

1. **MONITOR & MEASURE:** Monitoring by way of Patient satisfaction surveys, Feedback forms, Interviews etc.

provides an insight into the patient's perception of our services and also specific areas that require improvement. It also gives a chance to get back to the patients and get to the root of the problems. Surprisingly, in many situations ineffective communication is the result of lapses. Analysis of feedback forms will help specific departmental issues to be resolved.

2. **PATIENT FRIENDLY PROCESSES:** The quality patient experience doesn't happen by accident. If it happens, you can bet it was designed. A consistently GREAT patient experience is not a matter of attitude, awareness or positive intent. It's a matter of design and sticking to processes. We must understand the importance of patient involvement in their own health as co-producers not as consumers.
3. **COMMUNICATE WELL:** Our customers are highly anxious. To create an exceptional patient experience, we need to focus on preventing or lessening anxiety for patients and families. Even simply listening to their problems would give them a feeling of being heard and create a trust in the Hospital. Patients and relatives want care and services to feel "personal".
4. **BE ACCOUNTABLE:** Ineffective accountability is evidence of Casual attitude & laxity in patient care delivery. We must honour the appointments. Appointment system should be accurate and flexible. We must communicate well with them in day to day language & avoid medical jargons. We must listen to their problems patiently and give them enough time. We must master the art of listening and show personal concern for the patient.
5. **COMMITMENT:** The more strongly your hospital's culture supports the quality patient experience, the more sustainable and impressive is patient satisfaction. Our passion for quality patient experience should be infectious. Everyone in the organization should be passionate about patient satisfaction. Patient satisfaction levels should increase consistently.

"Delight the Customer" should become the new buzz word to go beyond the patients' expectations.

Dr. A. K. Dewan

Medical Director

Acknowledgement: - Dr. Sippy Batra, Manager Quality

Jan. 2012

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RGCI & RC Newsletter

RAPID ARC IN RADIATION ONCOLOGY

Rajiv Gandhi Cancer Institute and Research Centre is a 241 bedded hospital, with state of the art facility for the diagnosis and treatment of cancer and is recognised as one of the premium Institutes not only in northern India but also in the entire country. The radiotherapy department is equipped with five LINACs with facilities of photon beam, electron beam, 3D-CRT, IMRT, IGRT and RAPID ARC and brachy therapy. Rajiv Gandhi Cancer Institute and Research Centre is the first cancer centre in the country to put IMRT into clinical practice. Radiotherapy department today treats more than 110 patients with IMRT and IGRT per day. Rapid arc is new induction in our department.

Overview :

RapidArc™ radiotherapy technology is a new approach to image-guided, intensity-modulated radiation therapy (IGRT/IMRT) that delivers precise treatments in shorter times than conventional IMRT.

RapidArc represents a major medical advance and is more comfortable for patients because they spend less time in their daily treatments. A fast, precise RapidArc treatment takes 80% less time. Patients can be in and out of treatment quickly and return to their daily routine.

RapidArc rotates 360 degrees around the patient, enabling the very small beams with varying intensity to be aimed at the tumor from multiple angles. Unlike helical IMRT treatments or other forms of radiation therapy, with RapidArc the radiation treatment being delivered to the patient can be modulated continuously throughout treatment. This means that higher doses of radiation are delivered to hit the tumor harder, and less radiation is delivered to surrounding healthy tissue.



RapidArc treatments are delivered using a Varian Linear accelerator outfitted with imaging capabilities. The RapidArc imaging capabilities let the clinician see the location of the tumor in three dimensions before treatment. If the cancer has moved due to physical changes, treatment can be adjusted so the patient receives a precise treatment.

How it Works?

RapidArc™ radiotherapy technology delivers treatments using a Varian Linear accelerator, outfitted with an On-Board Imager® kV imaging system and Cone Beam CT (CBCT) for using images to guide patient placement and treatment delivery. The linear accelerator rotates around the patient to deliver radiation treatments from nearly any angle. During a RapidArc treatment, radiation is shaped and reshaped as it is delivered continuously from virtually every angle in a 360-degree revolution around the patient.

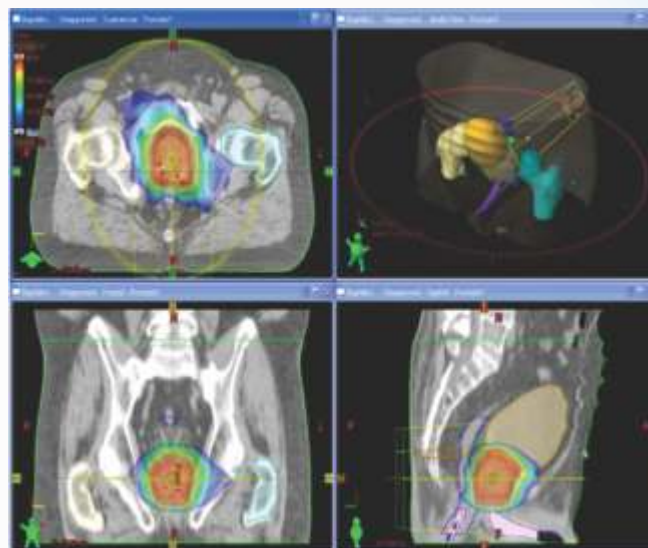
RapidArc Planning

Like other forms of radiation therapy, RapidArc treatments are planned using sophisticated computer programs that analyze diagnostic image data and calculate the best way of delivering the radiation dose to minimize impact on healthy tissues for each patient.

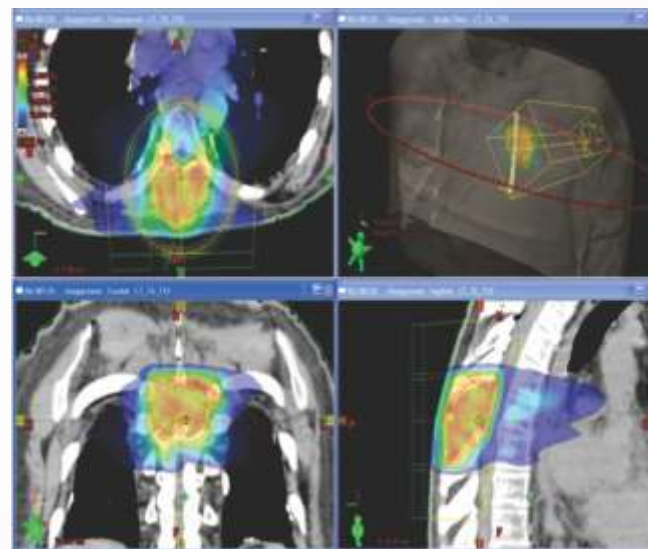
RapidArc Imaging

Immediately prior to treatment, the exact location, size, and shape of the patient's tumor is visually observed through a simple two-minute imaging procedure using the machine's On-Board Imager or Cone Beam CT

How it Works?



Prostate Rapid Arc Plan




Spine Rapid Arc Image/Plan

RapidArc Positioning

After imaging is completed, the images are reviewed by the therapist and the patient's position can be adjusted so that an accurate treatment can be delivered. The patient does not need to move off the treatment couch for this process—all adjustments are made automatically by the treatment couch.

RapidArc Treatment

A RapidArc radiotherapy treatment is delivered quickly - usually in less than two minutes and with just one turn of the



machine around the patient. RapidArc shapes and modulates a highly focused treatment beam so that it targets the tumor precisely, sparing surrounding healthy tissues. It treats the entire tumor with pinpoint accuracy and is easier on the patient, who does not have to hold still for long periods of time.

Patient Benefits

RapidArc™ radiotherapy technology represents a new revolution in cancer care. Rapid Arc enables your clinician to treat some types of cancer with great precision in significantly less time.

RapidArc is a new approach to delivering image-guided, intensity-modulated radiation therapy (IG-IMRT). Image guidance improves tumor targeting, and IMRT shapes the radiation dose so that it conforms closely to the three-dimensional shape of the tumor. That means more radiation is delivered to the tumor and less to surrounding healthy tissues.

The treatments are fast. That makes it easier on you—you don't have to hold still for long, and you're in and out in a matter of minutes each day. With RapidArc, the treatment time is reduced by about 80%.

A RapidArc radiotherapy system incorporates technology that makes it possible for your treatment team to position you for treatment with sub-millimeter accuracy. An On-Board Imager® kV imaging system or a CBCT (Cone Beam CT) mounted on the treatment machine provides high-resolution X-ray or CT images of the targeted area just before each daily treatment. Other benefits are,

- Stereotactic frame or frameless immobilization for patient positioning - treat any area of the body.
- Real-time Position Management™ (RPM) system - for gating perfectly timed beam delivery with minimal margins.
- Gated RapidArc with advanced motion management and open third-party interface.
- Portal Dosimetry IMRT treatment delivery verification.
- Dynamic high resolution MLC for exquisite beam sculpting.
- Delivery verification and quality assurance in Argus Linac and Argus IMRT quality assurance software.

Clinical benefits:

- Highest dose rate for shorter sessions.
- Faster treatment times.
- Tight isocenter alignments on all three axes. Targets the smallest lesions.
- Rapid on-board imaging. Reposition patients quickly and accurately. Cone-Beam CT, fine tune patient set ups with ultra-precision.

Radiation Oncology Team

ENDOBONCHIAL ULTRASOUND – A new technique for sampling mediastinal masses

Mediastinal masses and lymph nodes are seen commonly in clinical practice. The advent of new imaging modalities like CT, MRI and PET scan have made the detection of these lesions quite simple even in the presence of a seemingly normal X ray chest. However the differential diagnosis of these lesions can be quite varied with both benign and malignant etiologies and mostly requires histological proof for confirmation. Also in patients with known malignancies the presence of mediastinal nodes poses the challenge of proving whether these are due to metastasis. Due to

close proximity of these mediastinal lesions to the heart and large vessels, tissue sampling is not easy. Till recently this was done by CT guided FNAC or bronchoscopy with blind transbronchial needle aspiration (TBNA). In those cases where these failed or were technically not possible, a surgical mediastinoscopy under general anesthesia had to be done for an adequate tissue sample. Endobronchial Ultrasound (EBUS) is a new modality by which mediastinal nodes or masses abutting the tracheobronchial tree can be visualized and accessed by real time TBNA.

Technique

EBUS is performed with the help of a specialized bronchoscope which has an ultrasound probe at the tip (figure 1). With the help of a saline filled balloon which is inflated at the tip of this instrument an interface can be created with mucosa of the bronchus and masses which are abutting on the outside can be visualised (figure 2). A colour Doppler system which is inbuilt helps to distinguish solid masses from adjoining vessels. Once a node/mass is identified, a needle can be passed through the channel of the bronchoscope and inserted into it under real time ultrasound guidance (figure 3). Through this needle material can be sucked in for cytology and core biopsies. This procedure is performed under conscious sedation as an outpatient procedure.

Indications

EBUS is indicated in the following clinical situations:

- 1) For diagnosis of mediastinal lymphadenopathy due to TB, Sarcoidosis, Lymphoma, Bronchogenic carcinoma etc.
- 2) Staging of lung carcinoma – before treatment, or for assessment during or after treatment.
- 3) It can be used instead of mediastinoscopy in planning for surgery or other modalities like radiation and chemotherapy.

Advantages

The advantage of EBUS TBNA over conventional bronchoscopy with TBNA is increased yield with almost 95% sensitivity and specificity. It is also an equally safe procedure with minimal complications. Also it scores over mediastinoscopy in avoiding a surgical, more expensive procedure under general anaesthesia.

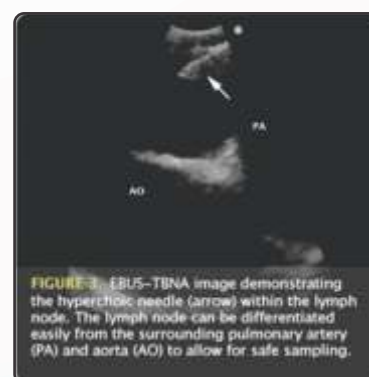
The EBUS system has been installed at the Rajiv Gandhi Cancer and Research Institute and we have started performing the procedure for the indications mentioned above.



Fig. 1 - The tip of the EBUS bronchoscope with needle



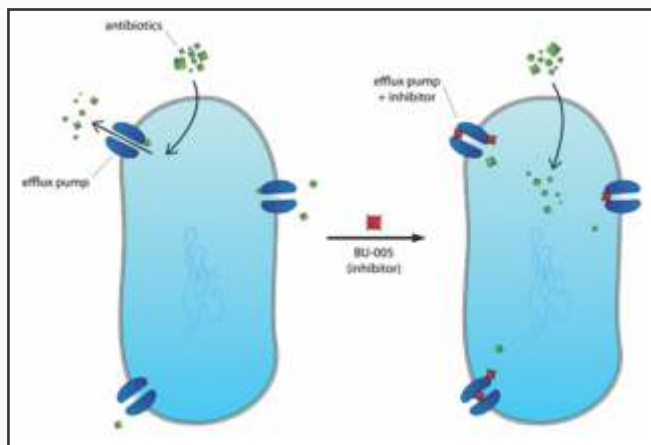
Fig. 2 - Tip of the EBUS with inflated balloon and TBNA needle



Dr. Rajiv Goyal
MD, MRCP (UK), EDRM
Sr. Chest Specialist

NEW WAY TO DEFEAT DRUG-RESISTANT SUPERBUGS

How do you defeat an opponent who has acquired an effective new defense mechanism? Either develop a more powerful weapon, or find a way to undermine his clever new defense device. In the war against superbugs, this is equivalent of either developing new drugs, or make them susceptible again to existing drugs. Well, now scientists have discovered a way to do this for drug-resistant bacteria that have acquired an ingenious defense mechanism: efflux pumps. These pumps are proteins located in the membranes of bacteria that can recognize and expel drugs that have breached the membranes. In some cases, the bacterial pumps have become so advanced that they can recognize and expel drugs with completely different structures and mechanisms.



(New life for old antibiotics Bacteria can use efflux pumps to rid themselves of antibiotics, becoming drug-resistant until newer antibiotics are developed. By blocking those pumps, researchers can restore the potency of old antibiotics to which bacteria have become resistant.)

"This turns out to be a real problem in clinical settings, especially when a bacterial pathogen acquires a gene encoding an efflux pump that acts on multiple antibiotics. In the worst case, a bacterium can go from being drug-susceptible to resistant to five or six different drugs by acquiring a single gene."

Scientists have synthesized a new compound called BU-005 that is used to block efflux pumps used by bacteria to expel an antibacterial agents. BU-005 is a compound which belongs to family of C-capped dipeptides, which have recently been shown

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to be effective against gram positive bacteria and mycobacterium tuberculosis in addition to gram negative bacteria.

The efflux pump being most important defense device in drug resistance can thus be effectively addressed by 'BU-005'

If drug efflux pumps are inhibited, then bacteria will be susceptible to drugs again," "This approach is of interest because one would have to discover efflux pump inhibitors rather than entirely new kinds of antibacterial drugs."

Dr. Neelam Sachdeva
Sr. Const. Microbiology

TOTAL COMMITMENT !! BLOOD DONATION BY RGCI & RC STAFF



On the occasion of Makar Sankranti, a voluntary Blood Donation Camp was organised in the blood bank on 14th January 2012. The hospital staff contributed generously by donating 75 units of blood, upkeeping the spirit of the festival. The hospital staff was very enthusiastic about the camp and the noble deed is greatly appreciated. The donors have even registered themselves as regular donors, who will be coming to donate whenever the need arises. The management was also very supportive and arranged to provide attractive gifts to the voluntary donors.



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