

# In Imaging

A compendium on the latest in radiology

January 2010

## CASE STUDY

### Ajit Scanning & Diagnostic Centre

**S.S. PARALIKAR**, Managing Director, Ajit Scanning & Diagnostic Centre is not a medico by qualification but has managed to grow in a suburb like Kalyan and had many of his equipments first before even the large hospitals in Mumbai could have them. He is planning to install a 3 Tesla MRI for Ajit Scan.



**SS Paralikar**

Asked to justify the viability of choosing to install in a tier II city of Kalyan of such a high end modality when it is still not available in large hospitals in Mumbai, SS Paralikar says, "That is the precise reason why we would like to go for it! There is nothing new about this. We had 1.5 Tesla seven years back, when it was not available in some of the best hospitals in the country. We had first 64-slice CT in the city and now it is 3 Tesla MRI. The high-end diagnostic imaging has always given us an edge."

#### IT and Business Growth

Encouraged by how IT gave a boost to cell phone operators or retail banking, Paralikar realised that IT could help him reach my destination faster. In an attempt to understand or rather experiment with IT, he implemented IT in billing, reporting and management information system, developed by Information Technology Training Institute next door.



**Sanjay Paralikar**

He paid Rs.25,000 and the training in-charge offered support. "We also tried to touch base the image archival and viewing using mini PACS solutions and workstations that we negotiated while procuring the modalities. And we thought that we have got best of the IT systems in place," he says.

Within first year of operations, he saw various fresh graduates from the training institutes visiting the centre and continuously working on the RIS. However, according to him, there was no change. "It was unreliable on day one and unreliable after 18 months. Then one fine day I realised that while I thought I was experimenting with IT, the training institute was actually experimenting on healthcare. And it cost me dearly when we lost one corporate client who incidentally visited our centre to find that the special rates that we negotiated with them were not automatically applied by the software and were manually modified as discounts. I instantly stopped the experiment and switched back to good old manual methods," he shares.

On the other hand, he was comfortable with imaging workstation. "I was sure that I am not being experimented because it was tried out by our radiologists before we procured. Mini PACs was a cost effective choice of a local solution, but it worked without glitches for a long time. So I was tempted to conclude this as my first ICT victory," he says.

The businessman in him suddenly woke up. "When I played the role of Devil's advocate, I found that the purpose that it served for the radiologist was to read examinations from CT and MR sitting at one place. It did not result into saving of cost on films as all PACS systems proclaim. They rarely checked prior studies from mini PACS. The excuse was that the name of the patient did not always match for revisits. Unlike hospitals, diagnostic centres did not follow unique patient number and we were happy treating patient as a new registration even if the patient had earlier visited us. So, while we satisfied a popular demand of radiologists, I did not find any other value add in terms of benefit to patient, efficiency improvement of the centre and cost optimization," says he.

Then he added Tele-radiology to Mini PACS. The centre has good association with eminent radiologists like Dr Patkar from Mumbai who provides second opinion. This is of great value add because the referring physicians have appreciated this facility and at times they insist on the second opinion. The centre can handle situations like radiologists leaving the centre or going on leave etc. It was extremely difficult to find competent radiologist as a replacement.











## ICT Implementation for the Centre

Ajit Scanning & Diagnostic Centre is now are revamping the IT systems to lay out foundation for the next decade. It has allocated space for server room and redone the entire network to suit our expansion plan. According to Sanjay Paralikar, "Cabling is a very small fraction of the IT expenditure, but it cost dearly if not done at right point in time. One of our drawbacks was cutting corners on IT implementation such as employing qualified administrator for IT systems. ICT today are no way ancillary systems but main backbone for growth for the next decade. While I was sarcastic about RIS earlier, if the solution is right and implemented in correct manner, it results in very streamlined operations and helps management to focus on expansion rather than fire fighting on daily basis." After three failed attempts, he was sure about what he needed and where to look for right solution. "Most importantly, we realised that we have a very important role in deciding policies clearly and take responsibility for IT implementation. A good IT solution always ensures that the reasonable need always gets incorporated in the solution and a good IT consultant always points out better processes rather going by our practices," he quips.

## RIS

It is interfacing modalities to its RIS. Says Sanjay Paralikar, "With this, we do not have to register patient name again in the modality. This avoids mismatches in the name and our guests can be identified uniquely." Another big advantage is that no service can be actually given unless it is authorised by the billing or accounting function. Emergency registration is always possible, but thanks to RIS that detects running scans number on CT / MRI and reports pilferage in the form of unauthorised scans done at technician's level.

Structured reporting is important and the RIS generates it in Microsoft Word. Easy to train to users and completely secured. Turn around time for reports will not be a concern anymore, as we grow. All my management reports are in the form of Microsoft excel which can give me charts, graphs the way I need. What I like about the system is that I get reliable management reports fast and summarised when ever I ask for and critical alerts even before I ask."

Diagnostics				
1	M.R.I. 1.5T		Signa	
2	64 Slice Cardiac CT		VCT	
3	2 D Echo		Vivid 5	
4	USG Machine		Logicq 5	
5	Mammography		Senographe 700 T	
6	Holter Monitor System		GE	
7	Laser Imager		Carestream HEALTH 	Kodak Dryview 8900 & Konica Dry Pro 793
8	Digital X-ray Machine		KONICA MINOLTA 	Konica Minolta Regius with Siemens Klinoscope H
9	PC Based TMT		RMS	
10	E.M.G. / EEG / ECG		RMS	
11	Spirometer PFT		RMS	
12	Pathology cell counter		Ranbaxy	
13	Autoanalyser		Tulip Diagnostics	
Therapeutic				
1	Lithotripter Machine		Dornier	
2	Ophthalmic Surgico		Bosch and Lomb	
3	Operating Microscope		Meditronics	
4	C-Arm		Wipro Biomed	
5	Endoscopy			
5	Obesity Clinic : IFT, Body Liner, Cellotherm Heat, Vacuum Toner, Body analyser			
ICT Partners				
1	Servers		Dell	
2	Switches		Cisco	
3	Consulting and Informatics - Integrated RIS-PACS. - Workflow system - iBox ( DICOM services ) - Blu Ray Archive - Integration with Tally - Physician's portal - Teleradiology		21st Century Health Management Solutions	

## Importance of ICT for imaging, Archival and Distribution

According to Sanjay Paralikar, "At the moment when we have done our homework on four front." Firstly, on budgeting for ICT. "This was basically a mindset issue. When you have never done a thing before you try to go progressively. A modest 0.5 per cent of the revenue I felt is good enough if it has potential to increase five per cent efficiency. Secondly, employing new staff to meet ICT challenge. Thirdly, selecting right solution provider more like a partner than a vendor and taking responsibility of implementation of new ICT regime rather than expecting ICT magic wand to do the job. "It is more of our commitment than technical ability of the solution provider that succeeds," says Sanjay Paralikar, adding, "Now I think we are placed to take full advantage of ICT in terms of clinical excellence."

It is implementing image archival and distribution. "Well, we are not a hospital to talk about distribution within, but we have a larger plan to distribute it to our referring physicians, hospitals. With our solution, the hospital gets images soon after the scan, or let go a step further, even during the scan to confirm the position etc. The result will not be different than having their own equipment. We are providing the images on line for about a year and subsequently they will be archived. But any scan that takes place in our centre will be available in the revisit. Patients with malignancies undergo a number of scans and tests. It's a definite value add to clinical quality of report if we preserve earlier images for comparison," adds Sanjay Paralikar.

The referring doctor's portal, a new addition to its ICT vocabulary, is the most exciting that happened to the centre. With this the clinicians will be able to register the patient for which ever scan with clinical background. This process will take place on internet and even before the patient arrives at the centre; it would be equipped to proceed for scan right away. The referring physicians get to access the entire data and report on line for their patients. Considering the busy schedules of the clinicians, the centre realised that going through the entire study is too much of an expectation. So, it gave quick preview of key images specially arranged by the expert radiologist to spot the pathology right away.

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### Road Ahead

This is age of consolidation and scaling. That has been its mantra all these years. "Our ICT solution is already enterprise ready. As far as taking business decision is concerned, I leave entry into the next orbit of setting up of chains to the new generation of our family," signs off SS Paralikar. ■