Quality meets quantity

Cancer Center in India
Tata Memorial Centre in Mumbai is the only comprehensive cancer center in India. Tata radiologist's everyday challenge is to keep up medical quality for a huge number of patients.

1 Tata's address is Dr. Ernesto Borges Road in Mumbai. The address is more than adequate for a cancer center - Ernest Joachim Joseph Borges was a well-known cancer surgeon from the village of Ucassaim in the Indian province of Goa. Borges died in Mumbai in 1969.
photographer: Britta Radike

2 Tata's radiology team took quite some time to explain how cancer care works at Tata Memorial Center – despite a very busy schedule. A big "thank you" to the team!
photographer: Britta Radike

3 Dr. N. Merchant, Pro[illegible]r and former HOD, ex[illegible]s t challenges Tata is facing – t of patients flocking in from India being the major conce
photographer: Britta Radike

Anybody looking at Indian cancer data would think radiologists at Tata Memorial Hospital in Mumbai have a nine-to-five job: The overall cancer risk in India is even lower than in Japan, the country with the highest life expectancy on the globe. Tata doctors would indeed get home early, if it weren't for two factors: India is home to more than a billion people and Tata Memorial Hospital is the only comprehensive cancer center on the Indian subcontinent.

Cancer rates in India are increasing. Due to substandard hygiene and pollution in many parts of the country, oral and ENT (ear, nose, throat) cancers are even more common than in other parts of the world. "The large number of patients from all over India, especially from the North and North-East, is our biggest challenge", says professor emeritus and former head of department Dr. Nikhil Merchant. Last year, Tata doctors have seen more than 66,000 patients. "This is the equivalent of patients seen in five major US hospitals – but with a fifth of doctors in US hospitals," adds radiologist and department vice-chairman Dr. Subhash Desai. Many Tata radiologists have received at least part of their education abroad. Whenever they hear Western colleagues complaining about heavy workloads, they chuckle slightly.

Quality for all

It can be hard to convey to outsiders how medicine in India works. Prejudice is an obstacle. Desai gets annoyed when he meets foreigners who

hardly care about what doctors really do, but come to see poverty instead: “I still remember a radiologists who came here for a conference with a sightseeing list including roadside surgeons and Mumbai’s outdoor laundry – he did not come to discuss or modify anything”.

Other times, healthcare structures may combat medical quality: Desai’s younger colleague Dr. Abhishek Mahajan explains why some of the people staying outside Tata Hospital on Dr. Ernesto Borges Road are patients waiting for an appointment. The reason lies within India’s healthcare system: Less than ten percent of Indians have medical insurance. The others need to bear their own costs. Although the government does provide some support for people below the poverty line, cancer drugs are usually out of reach.

Families will still do anything to get a sick family member diagnosed and treated. Sometimes they spend all their money, some sell their property. “Often patients cannot even afford to go through the whole treatment – chemotherapy and drugs are very expensive”, says Mahajan. If patients have to choose between treatment and housing, they will likely put living off the streets second on their list. Cancer remains a big social and economic problem.
Every patient gets the best evidence-based medicine (EBM) Tata has to offer, emphasizes Desai. EBM is a key quality feature at Tata. The cancer center hosts EBM conferences every year and publishes the results in an annual book. Tata also distributes these guidelines free-of-charge to every regional cancer center in India asking for them.

Decentralization is key

The Tata team wants to push this initiative further to the level of capacity building. “Coming to an expensive city like Mumbai for treatment drains our patient’s resources – and it puts pressure on our infrastructure”, says Desai. One Tata project called NABAYI uses digital infrastructure to decrease the burden on both sides. The team provides second opinions on top of the workload they already face.

People can send in their anonymized data and Tata specialists will send them their input on optimal diagnosis and treatment.
The Tata radiology team also wants to teach and further distribute skills to provide better cancer care in other Indian regions. “We are trying to replicate some of the qualities of Tata in these new centers”, says Desai. Tata is spreading its model. A center in the very North of India, in Punjab, has already been set up. Another one in Andhra Pradesh on the southeastern coast of the country is about to come. Centers in Kolkata in the East and Assam in northeastern India are in a planning state. Tata wants to act as an educational hub for doctors serving these regional centers.

It will get something else in return: a lot of patient data. While Tata Memorial Cancer Centre already has a center for cancer epidemiology, it is far from a national register. “By decentralizing, we will be able to get the data from all over India – which will give better information on incidences as a basis for policy making”, says Desai. The project is ambitious.

The team knows from experience that the data can have huge impact. Cohorts have already been formed in different regions of India to locate cancers types and understand their etiology. The Tata researchers found that cervical cancer is less in areas with plenty of water, and increases in regions where water is scarce. Cervical cancer is basically related to hygiene. “Initiatives like that increase our knowledge enormously – for example about genital hygiene”, says Desai. “Apart from screening we now do something like pre-prevention, we teach people.”

Research

Besides epidemiologic studies, the hospital engages in a lot of clinical trials. “About 30 to 40 percent of Tata’s patients take part in a trial. Most of the large data pool is accessible for all Tata research teams. We prefer investigator initiative trials over pharma trials”, says Desai.
This is possible, because Tata Memorial Cancer Centre is a so-called aid organization of the government: a sort of hybrid – a private philanthropy project, which has been increasingly augmented by governmental support. Tata’s capital expenses like equipment are funded by the Department of Atomic Energy, which is part of the Indian government. The institute’s founders, the Indian multinational holding Tata, also still give some funds. Daily expenses need to be generated by treating private patients, which make up for 35 to 40 percent of all clients.

While research money may not be available in abundance, there is enough to make Tata a leading cancer research center in the region. The radiology team sees another challenge limiting research: There is no special time for research within the workload of clinicians.
“Tata gives research time to its medical employees”, says Desai. Department chair Dr. Meenakshi Thakur is proof. Desai is filling in for his boss, because Thakur is at another university abroad to share knowledge with colleagues and, in turn, bring new insights back. The department frequently deputes its radiologists to various renowned institutes abroad for training; it also has an agreement with MD Anderson Cancer Center in Houston in the USA.
Radiology relies in exchanging information, within the scientific community, but also within the hospital and within communities. “This hospital is a little different from other hospitals in radiology,” says Desai. ”Our approach is multidisciplinary – clinicians are heavily involved in imaging and radiologists play big part in treatment decisions.” The Tata team is hoping to replicate this across India.

About Tata Memorial Hospital

Tata Memorial Cancer Centre in Mumbai, India, is a specialist cancer treatment and research center. It is closely associated with the Advanced Centre for Treatment, Research and Education in Cancer (ACTREC), an institution established by the Department of Atomic Energy. While ACTREC focuses on basic cancer research, it also holds about a hundred beds and operation theaters for clinical research. ACTREC is located in Kharghar, close to Mumbai.

Further resources

The website of Tata Memorial Centre gives further information on the institution’s various clinical and scientific activities.

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