

Kolkata first

LAST OF A FIVE-PART SERIES

The future of medicine



A lab technician at work at the National Institute of Biomedical Genomics. SUBHANKAR CHAKRABORTY PHOTO

LOOKING AHEAD All may not be well with healthcare in the city and its fringes, but there's hope yet. Increasing awareness about stemcell banking and progress in gene therapy may give a new life to the ailing. **MOU CHAKRABORTY** reports

October 2009: Bengal cricket all-rounder Anik Chowdhury is seriously injured as his car runs into a divider. The accident left him paralysed waist down and he had to be flown to the National Spinal Injury Rehabilitation Centre in Delhi for treatment.

At the National Institute of Biomedical Genomics (NIBMG) in Kolkata, about 50 km to the north of Kolkata, to have their ailments analysed for genetic disorders.

NIBMG is a two-year-old research institute set up by the department of biotechnology, Government of India, which has its lone state-of-the-art laboratory at Kolkata.

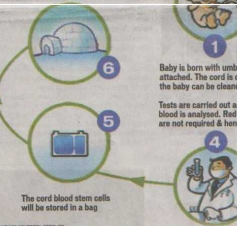
This institute is not the only one; centres of excellence that are coming up in and around the city promise to trigger a big leap forward in the future of healthcare.

And, surprise of surprises, the state will soon have a first-of-its-kind total healthcare solution for newborns in the country, courtesy the much-derided government-run SSKM Hospital that will have an ultramodern Neonatal Institute by 2012-13.

"Grown-ups have specialists for every part of their body but a newborn is almost always treated by a paediatrician, irrespective of the nature of trouble. But this field, too, needs doctors specialised in every organ of a child. Not only that, we would also require specialised machines to detect their problems and start treatment and this is what our institute would do," said Arun Singh, who will head the

BLOOD CYCLE

The cord blood cells will be kept in a liquid nitrogen storage tank at -190°C.



SKSMM COURTESY: COOPLA

HOPE IN SIGHT

Cancer & genetic disorder

Those suffering from cancer in the city can visit the National Institute of Biomedical Genomics (NIBMG) at Kalyani, about 50 km to the north of Kolkata, to have their ailments analysed for genetic disorders.

Neonatal care

The state will soon have a first-of-its-kind total healthcare solution for newborns in the country, courtesy the much-derided government-run SSKM Hospital that will have an ultramodern neonatal institute by 2012-13.

Stem cell therapy

Another crucial area that is about to open up for Kolkata's citizens is a breakthrough in the world over in stem cell therapy.

A stem cell bank is already in operation, but its functioning is confined to storage and preservation of stem cells.

The demand for stem cell banking has risen so fast in the city that Cordlife has come up with monthly instalment options as low as ₹1,700.

Cancer care

The Tata Medical Centre for cancer patients is coming up in Kolkata. At present in the final phases of construction, this facility is fashioned on the Tata Memorial Cancer Hospital in Mumbai and will be spread over 13.90 acres at Rajarhat.

Coming together

Another important development is collaboration between research institutes. NIBMG along with Tata Medical Centre is representing India in the International Cancer Genome Consortium (ICGC), one of the most ambitious biomedical research efforts since the Human Genome Project.

in medical equipment and management practices.

"Diagnosis and treatment will be offered through a multi-disciplinary approach with disease management teams, wherein experts from different streams like surgery, radiation oncology, medical oncology, pathology, radiology, paediatrics, medical social work would participate," he said.

Another important development in the horizon is collaboration between research institutes. "NIBMG along with Tata Medical Centre is representing India in the International Cancer Genome Consortium (ICGC), one of the most ambitious biomedical research efforts since the Human Genome Project. ICGC has been launched to coordinate large-scale studies to generate high-resolution catalogues of genomic alterations in tumours of 50 different cancer types/stages that have clinical and societal importances across the globe," said Majumder.

Fortunately, the government is trying to raise the number of doctors passing out from the state's medical colleges. "Till date, we have 1,000 medical seats in the state. In the near future, it may rise to 1,500. We are adding three medical colleges in Malda, Jalpaiguri and Beharipore and all the existing medical colleges would increase capacity," said M. N. Roy, principal secretary, department of health. "The intake for post-graduation, too, would go up. We are also emphasising several speciality areas such as liver disease, rheumatism, neonatal care and neurology."

Keeping pace with the promise of good treatment, support services are also improving. "Over the past two months, we have started operating our private jet which carries patients from all over Bengal, Bihar and Assam. The service costs just ₹10,000 an hour and since the launch we have been air-lifting at least one patient everyday," said Alok Roy, chairman of Medical Superspecialty Hospital.

The hospital gets emergency facilities at the airport during take-off and landing and doesn't need to wait in queues. One hopes the wait for advanced treatment would also end in the near future.

TALK TO US

Do you think stem cell research and cord blood banking will help common healthcare? Write to us at kolkata@hindustantimes.com

Our grand vision is to provide personalised, preventive, prognostic and therapeutic healthcare through genomic knowledge. If someone has cancer, we would detect the gene and help in treatment

PARTHA PRATIM MAJUMDER
National Institute of genomics director

Grown-ups have specialists for every part of their body but a newborn is almost always treated by a paediatrician irrespective of the nature of trouble. But his field, too, needs doctors specialised in every organ of a child

ARUN SINGH
SSKM neonatal institute head

Soon, stem cells will be commonly used for treatment of cancer, thalassemia, renal problems, diabetes and cerebral palsy. With the demand for stem cell banking going up, the city will start offering stem cell therapy too

MEGHAD ROY CHOWDHURY
Cordlife managing director

SEAT OF SCIENCE



(From far left) Partha Pratim Majumder, director of the National Institute of Biomedical Genomics. The two-year-old research institute



has brought a new ray of hope for the ailing. SUBHANKAR CHAKRABORTY PHOTO