The meandering, thundering steel dragon, also known as the No. 1 subway train, rushed on, its belly filled with countless strugglers and dreamers all commuting to the gritty Upper West Side. At crowded 165th street, it disgorged a huge chunk of humanity – patients and families, small children, doctors and nurses – all headed to the NewYork-Presbyterian Hospital, one of the great teaching hospitals in the city.

With so many human lives interlinked with its services, you see that this hospital is the lifeblood, the nerve centre of the urban community. Indeed, it is a landmark in New York, a blending of past, present and future as it provides succour to patients and hope in the form of some of the most cutting edge technologies in medicine.

As I walked from the subway station, I fell into step with a nurse who was headed to the hospital. She mentioned that she had worked there for 27 years and recalled that a parking lot once stood where one of the gleaming new buildings has now arisen. Indeed, the NewYork-Presbyterian Hospital has changed and metamorphosed over the years so that it is now actually five hospitals in one: it is one of the most comprehensive university hospitals in the world, with leading specialists in every field of medicine.

A mini medical city has arisen in the span of an avenue block and several streets, and around it this Washington Heights neighborhood has flourished. It shows the power of collaboration, for what was once a single hospital has multiplied into several. It comprises the NewYork-Presbyterian Hospital/Columbia University Medical Center, the NewYork-Presbyterian Hospital/Weill Cornell Medical Center, a branch in Westchester, the Allen Center in north Manhattan, and the Morgan Stanley Children’s Hospital. All of them are affiliated with two Ivy League medical institutions, Columbia University College of Physicians and Surgeons, and Weill Medical College of Cornell University. And that brings us to the doctors, for what makes a great hospital is a team of great physicians. The hospital is rated #1 in the New York City metropolitan area and #6 in the nation, according to US News Media Group’s 2009-2010 edition of America’s Best Hospitals.

Interestingly, the hospital has many staff members from physicians to trainees who are of Indian origin. There are several physicians of Indian descent who are leading the charge here, and we spoke to some of them to learn about the cutting edge technologies that are being employed.

Dr Laxmi Baxi was probably one of the first Indian physicians to work there and has been at the hospital for 32 years. Dr Baxi, who is the attending ob-gyn at the Sloan Hospital, Columbia University Medical Center, is also a professor of clinical obstetrics and gynaecology at Columbia University. Specializing in high risk pregnancies, she has been listed amongst the best doctors in New York by New York Magazine for the past five years.

“When I joined, I was the only Indian in the entire hospital in the faculty of ob-gyn,” she recalls of those days back in the 70s. “There was only one female and she was about to retire and there was no...
prostateancer is the second most common cancer in America, affecting one in six men, and the NewYork-Presbyterian is one of only three hospitals in the US equipped to treat prostate cancer with robotic surgery, the latest in medical technology. The leading Indian physicians in this department are Dr Ash Tewari and Dr Ketan K. Badani.

other woman in the department." Dr Baxi, who had her education at KEM University and the Seth GS Medical College in Mumbai, has worked with many distinguished physicians on the faculty at the NewYork-Presbyterian, including Dr Henry Clay Frick. She says, "They were people who had seen the world and they had great respect for people who came from outside, and they liked my training and the work I had done."

Her role is recognizing the complications and problems in pregnancies, having a strategy on how to deal with it, and understanding how it will impact the future of the family. There are opportunities for collaboration with research scientists at the hospital, and so she is able to expose the patients to the latest developments and thus offer them better care for themselves and their families.

One of the most dramatic cases she remembers is of a patient from London who had been told her pregnancy was in severe jeopardy. Dr Baxi identified that the foetus had a heart block and was in failure, and with astute management the pregnancy was carried to near term. Says Dr Baxi: "The baby – no longer a baby – is one of the smartest and brightest young girls today."

She finds that difficult pregnancies are often a symptom of other health problems such as lupus or bleeding, clotting or genetic disorders which her patients are not aware of. She is almost an internist amongst obstetries, and likes the role: "I like to be a detective and it gives me a high to identify problems, because now we can go for it and have a good outcome. I like to pass this to my students too so we have better doctors tomorrow."

The Chief of Transplant Surgery and Director of Kidney and Pancreas Transplant programmes at the NewYork-Presbyterian Hospital/Weill Cornell Medical Center is also an Indian, Dr Sandip Kapur. Kidney transplants are vital as in the US alone there are over 90,000 patients waiting for donors. His clinical expertise is in kidney, whole organ pancreas and islet cell transplantations, and he's the first and only surgeon in the tri-state area to perform a successful islet-cell transplant to cure Type 1 diabetes. "Our particular expertise is in offering all known possibilities for transplantation," he says. "We've had very good success in innovating different programmes for living donation."

Kapur led the Weill Cornell Medical Center. He heads the oldest kidney transplant programme in New York State, one of the highest volume programmes in the country, and is a pioneer in developing innovative strategies that allow transplants in difficult situations. An example is the ABO incompatible kidney programme where a patient is able to receive a kidney from a donor when blood types don't match. Kapur led the Weill Cornell transplant team that performed the nation's first three-way living-donor kidney transplant surgery, and this could revolutionize the field of transplants. "One of the things that's developed over the last year is the concept of NEAD – the never-ending altruistic donation. What's involved is people offering to donate a kidney to someone..."
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who they don’t know,” says Kapur. “With an altruistic donor, you can create a chain of transplant where at the end there’s always a donor to start another chain. Mathematically, it becomes a very powerful mechanism for increasing the donor pool. We’ve been able to transplant almost 70 per cent of our waiting list which would otherwise not have been possible.”

He adds, “Without these opportunities many of these people would languish on dialysis for five, six, seven, eight years and potentially have a shorter life span because of it.”

Prostate cancer is the second most common cancer in America, affecting one in six men, and the NewYork-Presbyterian is one of only three hospitals in the US equipped to treat prostate cancer with robotic surgery, the latest in medical technology. The leading Indian physicians in this department are Dr Ash Tewari and Dr Ketan K. Badani. The robotic approach has numerous advantages over conventional prostatectomy. They include smaller, less painful incisions, reduced blood loss and scarring, shorter hospital stay, excellent cancer control, early return of urinary function and low risks of impotency.

Dr Tewari is Director of Robotic Prostatectomy and Prostate Cancer-Urologic Oncology Outcomes at Brady Urology Institute at the Department of Urology, and Associate Professor of Urology. He is also Associate Professor of Public Health and Outcomes in the Department of Public Health and Outcomes at The Weill Medical College of Cornell University. He credits his early medical training in India for preparing him for his posts in some of the premier medical institutions in the US, and has performed more than 2,000 robotic procedures for prostate cancer, and helped develop award-winning techniques that reduce potential risks of surgery, including incontinence and impotence.

Hailing from Kanpur, he was recently named Director of Robotic Surgery at NewYork-Presbyterian/Weill Cornell Medical Center where a three million dollar gift established the LeFrak Center for Robotic Surgery which supports research and a centre to train physicians in robotic surgical techniques. The state-of-the-art equipment includes the da Vinci Surgical System by Intuitive Surgical, which comprises a surgeon console and a patient-side robotic mechanism with an endoscopic camera and miniaturized surgical instrumentation.

As Dr Tewari explains, in prostate cancer surgery this equipment improves the ability of the surgeon to operate around muscles and delicate nerves, thus ensuring a better outcome for patients. He himself was trained by Dr Mani Menon, MD, who pioneered the field of robotic urology and developed the VIP technique of Robotic Prostatectomy.

He says, “There’s always a human side to prostate cancer and one of the most rewarding parts of this career is that you really can make a difference to patients who have early prostate cancer, for the key is to find this cancer early enough so you can get them back to their quality of life and the life expectancy that they deserve.”

While Dr Tewari is at the Weill Cornell Medical Center, Dr Badani is the Director of Robotic Surgery at the NewYork-Presbyterian Hospital/Columbia University and Assistant Professor of Urology at Columbia University. “The most satisfying part is having something that we think will help patients, trying it and finding that it actually does help them,” says Dr Badani, who was born and grew up in the US. He is one of only a few surgeons in the world who has performed over 1,000 robotic surgeries, and has published landmark articles on robotic prostatectomy and enhanced nerve-sparing techniques to preserve sexual function in patients.

“The nice thing is that here is a technology that is actually revolutionizing the way we treat prostate cancer, solely based on technological advancement,” he says. “My generation is more technologically involved, and that’s where my interests lie, so combining medicine, technology and surgery is a perfect fit for me.” Indeed, it will be intriguing to see where the next generation of physicians takes research and innovation in this new technological age.

On a lighter note, the hospital is certainly encouraging the young ones! More than a dozen students enrolled in the NewYork-Presbyterian Hospital’s Lang Youth Medical Program and tested the capabilities of the new robotic surgical machine which allows physicians to conduct prostate and kidney procedures using high-definition 3-D video for improved clarity and detail. The young future surgeons manipulated the arms of the da Vinci System to move, unwrap and sort candies. Surgery was never so sweet!

In fact, the Lang Youth Medical Program of Morgan Stanley Children’s Hospital of the NewYork-Presbyterian is a six-year science education and mentoring programme to motivate future scientists and physicians. Students, still in their teens, get to observe surgeries and go on medical rounds, and are also given mentoring, internships and tuition assistance for a career in science or medicine. It looks like the future of medicine is in good hands.