

Khambhat Cardiac Care Center Journal

Week 1: Emergency Care Unit

Initial Impressions:

The Emergency Room here is quite organized and well-run based on initial observations. There are anywhere from 2-4 nurses present during the day and a rotating schedule of doctors that come in from other hospitals in the surrounding area. There is also one resident cardiologist who lives in the hospital and is on call 24/7 except on Sundays. There are 10 rooms for patients that are fully equipped with modern technologies for measuring heart rate/respiration rate/ blood pressure as well as ventilators if needed. Many patients here are referrals from hospitals in small villages and towns and are brought here for further treatment and observation. If the patient is unable to be treated, then he/she is referred to another hospital with the appropriate facilities for that patient. During my time here I was able to witness a number of interesting cases which are detailed in my notes and overall I am glad that I was able to spend a week in this ward of the hospital.

The doctors, as mentioned before, are usually brought in on a rotating schedule from their respective hospitals and serve for 2-3 days during the week before being replaced by another. During my time here, I was able to learn a lot simply by interacting with these doctors and asking them about particular details about the case file of the patient. I picked up valuable skills such as how to read an echocardiogram and deduce which part of an artery is blocked based on the sinus rhythm as well as how to efficiently read a case file. The doctors in general were very willing to help me out with any questions I had and were very thorough in their explanations of various medical jargon which I often did not understand due to my lack of formal medical training as well as some discrepancies in translation from Gujarati to English.

My conversations with the doctors also allowed me to gain a better understanding of the way the medical education system works in India as compared to America. In India, only a very small percentage (1-2%) of students who have chosen Science as their desired field are allowed to gain seats into Medical colleges in India. After 12th grade, these individuals study for 4 years until they earn an M.B.B.S degree which allows them to perform in a clinical setting, yet they have no formal training within that setting. As a result, some doctors work in an ER for a few years so that they have experience interacting with patients before going on to specialize in a particular field such as Cardiology or Anesthesiology and earning their M.D. This was quite surprising to hear as in the United States, clinical training is highly stressed in essentially all medical school programs.

Week 2: Dialysis

Initial Impressions:

- Rooms allow for individual patient attention --> 6-8 patients per room
- Machinery is sanitary and relatively recent in terms of technology
- Water used for dialysis is specially filtered through hospital's own water treatment plant
- Overall, a comfortable setting for patients needing an important procedure

Process takes anywhere from 3-6 hours depending on patient and amount of fluid that needs to be filtered

Uses concentration gradient set up by filtered water flowing around blood in pipes to filter nitrogenous waste from blood into water and then recycle blood back into patient.

Patients that come here tend to be quite poor and ignorant of the healthcare field. It is up to the attendants to ensure that they are comfortable as the dialyzer is set up. Many have swollen veins and arteries on forearms as a result of repeated dialysis as well as fluid buildup due to retention of liquid as a result of dysfunctional kidneys. The doctors here are required to not only assist the patients with anything they need while dialysis is being performed, but they are also responsible for comforting the patients and their families, many of whom have no prior experience with the medical facilities such as those provided by this hospital.

Week 3: Laboratory

The laboratory here provides a large number of comprehensive tests for illnesses such as Typhoid/Malaria/etc as well as for the Biochemistry of an individual's body through the use of lipid panels/urine + stool analysis/ blood serum analysis. The tests provided are very cheap and thus affordable to the majority of patients that desire these services. My time was spent observing and attempting to gain an understanding of the tests that were conducted as well as an understanding of the diseases and disorders experienced by patients. The equipment within the lab appears to be very modern and up to date and as a result it is able to provide quick and efficient results for up to 40 patients when running one cycle. The cheap cost coupled with the quick turnaround time for tests means that the laboratory receives and is able to handle a large amount of daily traffic as well as requests for tests from the Emergency Room and Outpatient wards.

Every Friday: Surgery Observations in Tarapur

Perhaps the most interesting part of my stay at the Cardiac Care Center would be the days when I went to Tarapur with Dr. Pratik, who worked at the center for 5 years before starting his own anesthesiology practice, and was able to observe surgeries performed by a very experienced and well trained surgeon and his staff. The surgeon himself has been doing surgery for almost 25 years and is well equipped to perform surgeries in almost any setting.

The village of Tarapur and the hospital in which these surgeries were performed came as a big shock to me initially. The village is relatively small and the people there tend to be very poor and unable to afford the quality of health care provided by private hospitals in larger cities. As a result, they are forced to go to government hospitals which fail to provide even the most basic facilities for prospective patients. There were no observable waiting rooms, desk service, or any of the things one would expect in a hospital in the United States. Instead, patients simply sat in the hallway outside of the operating room and awaited their turn to be operated on. The number of patients usually exceeded 50 and could sometimes reach 100 and they were all forced to wait in a dirty and crowded hallway until their turn arrived. Oftentimes, they would be waiting with their newborn children since they had no one else to take care of them.

The operating room itself would be considered appalling by medical standards in most developed countries. There were no prep rooms and patients would simply be prepped by the nurse after he/she was asked to strip down and lay on the operating table. There were only 2 operating tables in the OR and they were never cleaned or washed after each surgery. In addition, instead of laying out the tools required for each surgery, the surgeon and his assistant would simply place the tools between the legs of the patient and grab them as needed. This is not to say that the tools were not sterilized and washed after every surgery as there was an alcohol and hot water bath present next to the surgeon to place tools in. Still, the fact that this was the norm in terms of operating procedure was very shocking to someone who is so used to the meticulous standards and methods of operation employed by surgeons in the United States.

The surgeries I observed, however, were very precisely performed and the skill of the surgeon could not be questioned. In addition, I was able to have a first hand view of the work due to the surgeon's insistence that I see the organs as he shifted them around during the surgery. I really appreciated his desire to teach even as he performed the surgery and due to this, I was able to learn a lot more about anatomy than if I had simply just watched him perform the surgery methodically. By the end of my time in the Tarapur operating room, I had observed 22 surgeries and I felt a new desire to specialize in surgery pending my acceptance into medical school. The proficiency as well as the demeanor of the surgeons that I observed really sparked my interest towards pursuing an eventual specialization in surgery, though I am still not quite sure what kind of surgeon I desire to be.

Overall:

I am extremely glad that I was able to be a part of a hospital such as the Khambhat Cardiac Care Center which seems to place compassionate and affordable care as its number one priority. Due to the cost of health care in India, as well as the inability for most people to afford it, it seemed a nice and refreshing change from the norm. The doctors and nurses here truly seem to care about something other than just a paycheck and do their utmost in order to ensure that patients are taken care of to the best of their abilities. In addition, the staff of the hospital are some of the friendliest and kindest people I have ever met because of all of the things that they did to ensure that I was comfortable during my stay there, even though they had many other things to take care of in terms of the day to day business of running the hospital. Every staff member I encountered was more than willing to answer any questions I had about the way the hospital was run and towards the end it seemed that I had become a part of the hospital family. In the future, if I ever become a doctor in the United States, I promise to do my best not to forget everything I have learned here as well as to visit from time to time to see how the hospital is running. Hopefully something as unique and beneficial as this hospital will continue to run for quite some time, provided that there are still enough compassionate people in the future such as the ones who work and run this hospital.