

Charlotte Nussbaum

This summer, I spent one month doing an observership with Dr. Ira Shah at Bai Jerba Wadia Hospital for Children in Mumbai, India. During my one-month there, I spent most of my time attending various Outpatient Departments (OPDs), clinical readings, and ward rounds, which enabled me to see a wide spectrum of cases. In most of the OPDs, at least half of the patients spoke Hindi, and I could understand most of what they were saying. However, I think knowing Marathi, the main language spoken in that state (Maharashtra), would have helped me in many cases. By the end, because of repetition and similarity to Hindi, I could understand basic words in Marathi about diarrhea, cough, cold, medication, etc., but before I work in Mumbai again, I would try to learn more Marathi. That said, knowing Hindi was enough to understand many cases, and the doctors spoke amongst themselves in English when presenting patients in the ward or any other setting.

In the ward that I was assigned to, Ward 11, I saw a variety of cases but mainly Infectious Disease and Nephrology patients. I was able to see many of the infectious diseases that increase in prevalence during the monsoon season, such as Dengue Fever, leptospirosis, and malaria. There were also less common infectious diseases such as a case of aspergillosis. Aside from the acutely presenting infectious disease cases, I also saw patients coming in with Becker's muscular dystrophy, microencephaly, tuberculosis and neurocystocercosis. There were also many patients admitted with bronchiolitis, pneumonitis and other respiratory problems as well as many nephrotic patients.

In the general OPD, I observed cases with Dr. Rajesh Joshi, Dr. Ira Shah, and two senior residents. The most common complaints I heard were diarrhea, fever, cough, vomiting and cold. There were many cases that were further complicated by malnutrition (Rickets, calcium deficiency and other nutrient deficiencies).

In the Nephrology OPD, I observed cases with the chief nephrology resident and listened to new cases presented to the dean, Dr. Uma Ali. This gave me the opportunity to see various nephrologic and urologic disorders. From the nephrotic patients, I learned about steroid-dependent, steroid-resistant, and endoxan-resistant nephrotic cases as well as some of the symptoms of steroid toxicity. I also saw cases of diabetes insipidus and recurrent urinary tract infections, one of which was associated with a phimosis.

In the HIV OPD, I observed cases with Dr. Ira Shah, Dr. Mamta Lala, and two senior residents. This allowed me to learn about simple rules of preventing other infections in immunocompromised patients (avoiding bottles for feeding, making sure the child is properly weaned, fingernails kept clean, etc.) and to learn a little about perinatal treatment with zidovudine and postnatal prophylactic treatment with septran. I learned about the importance of compliance in ART. I also learned about the great risk of co-morbidity with TB, and I learned about the CDC system of grading severity of the disease and state of the immune system. I saw some of the symptoms used in determining the stage of disease such as hepatomegaly, failure to thrive, oral thrush, dermatitis, and molluscum. At the Indian Academy of Pediatrics seminar on Pediatric HIV in Asian Countries, I had the opportunity to hear lectures on opportunistic infections, recommended regimens involved in preventing perinatal transmission and the latest WHO guidelines on stages of HIV.

In the Endocrinology OPD, I observed cases with Dr. Rajesh Joshi and Dr. Sarika, who showed me how to determine bone age and how to examine a patient for various signs of

hormone deficiencies—upper-to-lower body length ratio, arm span-height ratio, examining percentiles of height and weight for age, examining genitalia for discoloration, and examining the face for any characteristic features of endocrine disorders. I also learned to assess bone age through wrist X-rays. I saw cases of diabetes mellitus, thyroid disorders, hyperparathyroidism, growth hormone deficiency, precocious puberty, propanoic acidemia, undescended testes, a child with Down's syndrome complicated by both a thyroid disorder and an ectopic kidney and a child with a tuberculoma that had severely compromised his pituitary gland functions (as well as his eyesight).

In the immunization OPD, I observed patients with two of the residents, who described the milestones of normal child development in India and immunization schedule for Haemophilus influenzae, Hepatitis B, diphtheria-pertussis-tetanus, polio, measles-mumps-rubella and the combination vaccine Easy 5 and the optional vaccines such as typhoid and varicella. I also observed the nurses giving the shots and saw the routes of administration (intramuscular, oral, etc.).

In the hepatobiliary OPD, I observed cases with Dr. Ira Shah and a senior resident and saw cases of operated choledochal cysts complicated by Hepatitis C, a case of a girl operated on for neuroblastoma and now seeking treatment for HCV, a case of siblings with Wilson's disease and cirrhosis and a patient with thalassemia who had acquired HCV and HBV.

In the statistics seminar, I saw a presentation on iron chelation therapy and in our clinical presentations, I learned about cryptosporidiosis and leptospirosis. In the two case presentations I attended, I saw a case of acute carditis with chronic rheumatic heart disease and another patient with idiopathic neonatal hepatitis. These were especially interesting as I learned about obtaining relevant history and presenting that history in a useful manner and I learned about how to use the patient history to develop suspected diagnoses and how to use the physical exam to narrow down the possibilities and then to use lab results to further clarify the diagnosis. Listening to the deductive process involved in making a diagnosis was very interesting. For example, in the case of neonatal hepatitis, the presenting doctor defended reasons for suspecting and then ruling out various viral or bacterial infections or metabolic or anatomic causes.

Aside from clinical observations, I also learned about the other factors that affect patients here. For example, in the case of the girl in the rheumatic heart disease presentation, her socioeconomic class was a significant risk factor in the progression of her disease, and her father's lack of commitment to therapy led the doctor to predict a poor prognosis. I was impressed by the independence of the patients and their ability to remember what tests had been done and what medications to take. Even one child in the nephrology OPD who had to take 45 pills a day seemed to be compliant. It also was great to see how the doctors counseled the patients and the caretakers, especially in the HIV clinic where compliance is so critical in preventing resistance. This has been a great introduction to pediatrics and to clinical practice in India, especially in relation to health issues that occur in Bombay during the monsoon season.





