

Clinical clerkship in Indonesia

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Marie Asai, 6 year student of Kobe University School of Medicine

I did my clinical clerkship at Dr. Soetomo hospital in Surabaya, Indonesia from August 26th to September 20th 2013. It was the first year of the exchange program between Airlangga University and Kobe University.

1. About Dr. Soetomo hospital

Dr. Soetomo hospital is the largest public hospital in the east Indonesia which provides people in low income from east area of Indonesia with medicinal care. Many patients visit the hospital not only from the other area of Java Island but also from other islands. In addition, Dr. Soetomo hospital affiliates with Airlangga University and has a role of providing education with medical students and residents.



2. Schedule

I did my clinical clerkship in the internal medicine department. Within four weeks, I spent first two weeks in the internal medicine ward, and other two weeks in the tropical medicine ward. During my clinical clerkship, I mainly shadowed young doctors (4th year medical students) to see their daily work in the hospital.

Day schedule

7:00 Rounds with young doctors
8:00 Morning report
9:00 Patients' care in the ward
11:00 Case presentation
12:00 Lunch
13:00 Patients' care in the ward
14:30 ER

➤ Rounds with young doctors

Every morning, young doctors see the patients, check their vital signs and report their conditions to the residents. Young doctors also give treatment such as insulin injection to patients.

➤ Morning report

In the morning report, the young doctors who did their night shift report the patients who came to the emergency department. A supervisor comments on the report and young doctors have a discussion about the case. We learn the diagnosis and management through the cases.

➤ Case presentation

The young doctors introduce the case they experienced in detail and have a deep discussion on the case.

➤ Patients' care in the ward

Young doctors perform examinations such as blood gas analysis, give treatment to the patients and deal with the sudden change of patients' condition. When new patients are hospitalized through the emergency department, they do history taking, physical examination and provide them with treatment according to the residents' assessment. As for their study, they make a report about the patients whom they focused on.

➤ Night shift

In the emergency room, young doctors help residents see patients by history taking, physical examination, taking ECG or chest X-ray etc.

3. Clinical clerkship in the internal medicine ward

In the internal medicine ward, I saw the patients with diabetes mellitus, chronic kidney disease, cirrhosis, non-Hodgkin lymphoma and SLE. The patients with diabetes came to the hospital presenting diabetic ketoacidosis, cellulitis, septic arthritis or gangrene. The patients came to the hospital after their disease were advanced as they had only small recognition of diabetes mellitus and they didn't care the situation until it was developed even they got a small wound on their feet. Patients with chronic kidney disease came to the hospital with hyperkalemia, metabolic acidosis or overload syndrome as they couldn't receive enough hemodialysis. They usually received hemodialysis once or twice per week under their insurance though it was ideal for the patients with chronic kidney disease to receive hemodialysis for 18 hours per week. Hepatitis B infection was a big problem. Patients became infected with hepatitis B through mother-to-child infection, transfusion, sexual intercourse, or drugs. Patients with cirrhosis came to the hospital with hematemesis or melena. The patients' conditions were usually so advanced that doctors sometimes didn't have many things to do for patients although doctors tried to do their best.

With limited ways of examination under the insurance and facilities, it was important for doctors to make a diagnosis with history and physical examination. The education for history taking and physical examination was often done for students. The confirmation of the diagnosis by specific blood analysis or radiology was often difficult and diagnosis remained based on the clinical presentation.



(With doctors, residents and young doctors in the internal medicine ward)

4. Clinical clerkship in the tropical medicine ward

In the tropical medicine ward, I experienced the patients with dengue hemorrhagic fever, leptospirosis and acute diarrhea. Doctors managed the patients well based on their much experience. For example, doctors estimated the dehydration of the patients with diarrhea by using BJ plasma method. I noticed that management of infectious diseases included not only antibiotics but also stabilization of the general condition by adjusting water balance, acid-base balance and nutrition in the body. It made me more interested in the medical practice for infectious diseases.

There was a ward for HIV/AIDS patients in the hospital, called "Upipi". HIV/AIDS patients had complicated backgrounds as commercial sex workers, drug users, etc. Many HIV patients visited hospital after they had opportunistic infections such as candidiasis, pneumocystis pneumonia, cerebral toxoplasmosis and so on.

Many of HIV patients and non-HIV patients suffered from tuberculosis which was still the second biggest cause for death. Tuberculosis patients were hospitalized in the pulmonary department, MDR-TB center for the tuberculosis with multi-drug resistance, or Upipi for HIV/AIDS patients.



(BJ plasma method to estimate the amount of dehydration)

5. Clinical clerkship in the emergency medicine department

The emergency medicine department was full of patients every day. Patients who visit the hospital receive triage in front of the emergency room and they proceed into the emergency room when they are recognized as they need to be hospitalized. Most of the patients who visit the emergency room need hospitalization as they come to the hospital in the severe condition as their diseases are already advanced. From 2 p.m. until 7 a.m. about 20 patients visited the emergency room as internal medicine patients except patients who came to the cardiology, pulmonology, neurology department. People with low income had a

double burden of diseases: infectious diseases such as tuberculosis, dengue fever and HIV/AIDS and life-related diseases such as diabetes and chronic kidney disease.



(At the emergency medicine department)

6. Medical education in Dr. Soetomo hospital

Students study medicine for five and a half years. In the first to the third year, they have lectures about basic medicine and clinical medicine as medical students. During it, they have a practice of physical examination and observation in the hospital. Students in the fourth and fifth year are called as “DOKTER MUDA” which means a young doctor and they study and work in the hospital. They are allowed to do history taking, physical examination, blood tests and treatment. Under the concept of "Learning is doing", their education seemed to be more practical than that of Japan. The goal of medical education of Airlangga University seemed to be to develop doctors who work as general physicians independently in wide areas of Indonesia regardless of medical resources. As diagnosis and management of the common diseases was important for general physicians, they focused on grab the clinical manifestation of the common diseases. I noticed that systematic diagnostic approach with broad differential diagnosis was not always necessary in the situation where the confirmation of the diagnosis was unavailable and treatment was impossible because of the lack of the medical resources. Young doctors also have a chance to practice blood analysis by themselves instead of using machines so that they can work in the peripheral area where medical devices are not available.

Young doctors not only study but also work for their patients at the same time. I was amazed how hard they worked. Young doctors have night duties 3 days per week. Even on Saturday and Sunday, they have their duty and see the patients every day. It is sometimes difficult to take an enough time to study, but working as young doctors gave them chances to see many patients.



(With young doctors in the internal medicine department)

7. Institute of tropical disease

Kobe University has a long relationship with Institute of tropical disease and has been doing collaborative research as a project of Japan Initiative for Global Research Network since 2007. Currently, three Japanese researchers are working there as project managers. They are researching on hepatitis, influenza, dengue hemorrhage fever and HIV/AIDS, taking advantage of using samples which are difficult to get in Japan. We received the lectures about the topics from them. Through my study in the institution of tropical diseases, I realized that epidemical research was important as well as the research disclosing mechanism of diseases.



(With Dr.Shimizu, Dr.Utsumi and Dr.Kotaki at Institute of Tropical Disease)

8. Life in Surabaya

We stayed at the guesthouse of Airlangga University. It took 10 minutes by car from the guesthouse to the hospital. A university staff kindly drove us to the hospital every morning. In the first half of our stay, we shared it with medical students from the Netherlands. We enjoyed taking about the experiences in Surabaya and medical systems in each country.

Young doctors we met in the hospital were all so kind and friendly that they often hang out with us for dinner and sightseeing. After school, we enjoyed chatting with Indonesian friends at the cafes, bowling, karaoke and seeing mangroves. In the weekends, one of our Indonesian friends showed us around in Yogyakarta where there were old religious structures registered as a world cultural heritage. Mr. Agus, a university staff took us to Mt. Bromo. We appreciated the sunrise and rode horses in the middle of the desert. All were wonderful experiences for me. We enjoyed a lot experiencing Indonesian foods, cultures, natures and languages and communicating with people.



(At the guesthouse with medical students from the Netherlands)



(With Indonesian friends)

9. What I learned from this program

I spent a precious time in Surabaya through this program. At first I was a little confused at the difference of medical situations. As many patients visited hospital after their diseases were advanced, it was often difficult to manage their conditions. But I was impressed by the attitude of doctors who always did their best for the patients in such difficult situations. They did history taking and physical examination carefully and made a diagnosis from the clinical manifestations and easy examinations like blood test, X-ray and ultrasonography with limited medical resources. Their medical practice was based on the accumulation of the clinical manifestations of diseases through their experiences. In the tropical medicine ward, I could experience some tropical diseases which were difficult to see in Japan. The management of infectious diseases was more complicated and delicate than I had ever thought and it made me more interested in the medical practice in infectious diseases. I was also impressed by how the young doctors work and study hard. To see different medical education from Japan broadened my perspective. I felt that they would take an important role to provide people in all over Indonesia with medical care and develop their medicine. I'm looking forward to working with them somewhere in the future.

I appreciate the hospitality of Indonesian people who did their morning conference in English, translated the history of the patients and lectures to English and took us to a lot of places even when they were tired after their night shift. Thanks to them, I could learn a lot through my clinical clerkship despite the language barriers and enjoyed a lot my stay in Indonesia. I would like to do in the same way when doctors or students visit our hospital from overseas.

10. Acknowledgements

Lastly, I would like to express my deepest gratitude to all the people who helped me to have such a wonderful experience, especially Dr.Hotta, Dr. Kuno, Ms.Kiba who coordinated this project, Dr.Shimizu, Dr.Utsumi, Dr.Kotaki, who taught us their research at the institute of tropical disease, Mr.Agus, a university staff who took us to the hospital in every morning and to our guesthouse after school, my supervisors: Dr.Artharia, Dr.Rita, Dr.Pourwati, residents and young doctors.