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## Duke Medical Education Programme Reflection

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I must begin by addressing every one who has made this opportunity of doing medical electives at Duke University Hospital possible for me. Without any of these help, especially the Andrew T. Huang Medical Education Promotion Fund, I would not be able to experience all the incredible education that I've had for past three months in which I was able to see the world with my own eyes. It was extremely hard for me to leave Durham, NC in order to continue with my next medical journey. I feel sincerely blessed to have something precious enough to make it hard to say goodbye.

For the first month, I had general infectious disease consultation as my elective. It was very different from the clerkship trainings I had in the past two years. Seeing both the new patients who have been consulted that day and old patients who I have been following in the morning, rounding with fellow, followed by seeing the new patients with attending physicians. Focusing on history, physical examinations, lab datas and imaging that is relevant to what we have been consulted on. Thinking of assessment and plan before discussing with fellows and attending physicians were also a great opportunities for me to learn. Sometimes, needing to call outside hospitals to get informations of what lab results or antibiotics regimen the patient was on before they came to Duke University Hospital. Although as a medical student, there is a limited amount of things that we can do for the patients but by participating in things that we can do, enabled me to be fully engaged in helping the patients.

At first, presenting brief summary of history, assessment and plan of the patient in front of the both the team and patients and their family was not an easy task to do. Getting it organised with those patient with long medical history or complicated history of present illness which was relevant to our consultation was something I surely needed to work on. Of course at first I struggled and was hard to catch up with my team. However, I took it step by step, never forgetting the attitude of striving to learn because that was the only way that I could improve. Having the presentation ready in a way that everyone can easily understand, leading them to what assessment and plan I had. I had to ask myself what the important information was and what the significant informations attending physicians needed to know to help the patient. In addition, I had to think about what kind of question they will ask after my presentation.

From general infectious disease consulting electives, I also had privileged opportunities to learn great doctor patient relationship and the communication techniques with the patients. This is not something that we can learn through textbook but only by shadowing the experienced attending physicians and fellows who have been practicing medicine for many years. First of all, I was amazed by attending physicians spending almost an hour with each patient by the bed side to take a great detailed history of present illness again. Second of all, doing full physical examinations and last not but least, explaining the assessment and plan in very detailed matter. Another great thing that I've saw during this rotation was the sight of a doctor joking with patients creating a great atmosphere by the bedside, even though the patient had serious illness and it was their first time meeting the attending physicians. I was also amazed by how the attending physicians understand the patients through regular conversation, instead of directly asking their social history.

When I started I was very embarrassed by the lack of knowledge I had of infectious disease, specific questions that I had to focus on when history taking, and antibiotics regimen and its treatment. However, by having one or two new cases a day allowed me to have a fulfilled learning opportunities and was able to enrich my knowledge. I am thankful to the residents, fellows and attending physicians who helped me and be patient with me through out this rotation.

For my second course, I was very lucky to have paediatric surgery as my electives. Paediatric surgery has been my dream job since my high school and so when I found that I can do my paediatric surgery rotation at Duke, I could not ask for something better. Of course, the schedule was very packed everyday. Someday, it was hard to have lunch break or find time to go to bathroom but that did not matter to me because I got to do something that I really enjoy. I was surely more determined that I want to do paediatric surgery in my long run.

Everyday started by going to the hospital by four or five a.m, and getting all the informations that needed for the ward round, which was tough at the beginning. It followed by rounding with residents, going through the patient list with attending physicians, going to the paediatric operation room, going to radiology to check new radiology report, ward round with attending, back to OR, seeing the rest of the patients in the ward and back to OR. It was repeat of this everyday. Initially, I did not imagine myself being able to have this kind of lifestyle without exhaustion, but instead I was extremely excited everyday, waking up thinking about what I was going to learn today. I was exhilarated with all the opportunities that I've had to learn and being able to scrub in.

Not many want to have paediatric surgery as their career now for many reasons, however, with me, it was something that I would never give up no matter how rocky the path is or how many obstacles that I will have to face. Because it is something that I truly enjoy. After the past four weeks of great training I had, I was surely ready for the life long journey that is ahead of me that I very much look forward to because I have a goal of helping those children go through their life storm to see the sunshine.

There were four to five cases everyday, and I was privileged enough to scrub into most of the cases. The amount of cases were enormous compared to what I've seen in Taiwan or Japan so I was very grateful that I had such opportunities. We had a 1.8 kg infant with pyloric atresia. Before operation, we thought the baby had duodenal obstruction or duodenal atresia, however, it turned out to be type three pyloric atresia, and so we have performed exploratory laparotomy and gastrojejunal anastomosis. I was very lucky that I got to scrub in, since it's one in 100,000 cases, and I do not know if I can see such case in this lifetime. There were also several necrotising enterocolitis cases with distal ileum perforation; since the infants were too unstable to go to OR, we've brought our surgical equipments to NICU to perform surgeries. I was very amazed with the rapid pace of technological advancement and also with change in political, social and legal attitudes, the neonatal medicine makes headway. But with those infants, children with uncertain prognosis, it is difficult to make choices of whether or not to treat them; those infants with a variety of congenital anomalies make physicians to face new ethical dilemma everyday.

Another great thing that I've learnt from the paediatric surgeons were that as a doctor it is our job to be honest. It is hard to tell the parents how sick their child is but that is what we have to do, and only parents can decide what they want for their kids. There was one premature baby girl with NEC perforation, she also had brain and lung complication. From paediatric surgeon's perspective, physicians did not think it was the best idea to perform the surgery since with all the other complications she already had an extremely poor prognosis and doing surgery on this girl would not save her life. However, her parents had a strong wish of performing the surgery, therefore, we have performed exploratory laparotomy, resection of small intestine with enterostomy. Surgery went very well, however, she had several pneumothorax episodes and another intestinal perforation episodes afterwards. She was so fragile that we could not even examine her because she would have desaturation. Although she was only a few hundreds of grams, she has tried her best to live, unfortunately she could not make it to being discharged.

I wanted to help sick children go through hardship of their life to see this beautiful world because they deserve a chance to enjoy what we enjoy. However, after this case I asked myself how selfish I was to think that surgery can help them see this wonderful world. Because sometimes helping them only solves their acute issue and prolong their life, but they would suffer longer, and that was not my initial reason of becoming a paediatric surgeon. I've learnt that we cannot decide for the patients nor their family, and sometimes we might have to do things that feel like not ethically right, however, as our professionalism we would still have to perform it as a form of support for the patients and their family.

There was one six years old boy, who has been in pit-bull attack and came to DUH due to large laceration injuries on one leg and several puncture wounds on the other leg. His leg was too swollen to close up so Vacuum Assisted Closure therapy was done for a week. With puncture wounds, strip gauze was placed and I had change the dressing everyday. It was definitely very painful as I had to put in strip gauze into his puncture wounds and whenever I went to his room and remove the bandage he would start crying. I knew he would have cynophobia after the attack, however, I did not want him to have but at the same time I did not after I changed the dressing, and so I decided not to leave the room till his smile comes back and feels comfortable; I stayed after to play play-dough with him. The day he got discharged, his mother shook my

hand and thanked me and told me that the boy really like me. I was very emotional to hear that and that's when I realised the importance of building trust and having communication with patients does not only have to be in form of medical treatment, there are so many other ways that I can build trust, even as a medical student.

After my paediatric surgery electives, I had my day off on weekdays rather than weekends, which allowed me to go to the paediatric operation room during my free time. Fortunately, the paediatric surgeons let me scrub in even though I was not on their rotation anymore. I felt very blessed with good luck to be able to continually learn from them even after the rotation.

Emergency medicine was something that was completely different from past two rotations. I chose Emergency Medicine as my third electives because I wanted to learn more about how to treat any patients, anywhere. Focusing on excluding serious life threatening emergency issues rather than giving an exact diagnosis to the patients. As a medical students, we had a privilege to be the first one to see the patients. Seeing patient only with the given chief complaint, from there we have to understand their history of present illness, past medical history, social history that is important to their chief complaint. For those patient with multiple complaints, we also had to figure out what brought them to the ED specifically, with chronic problem, we had to understand what brought them to ED that day exactly; understanding the patient's issue with so little time and having differential diagnosis, assessment and plan ready. Before seeing the patient, with the chief complaints, need to already have several differential diagnosis and so when we go see the patient we can rule out the critical issues and be more precise. Need to be time efficient and so physical examinations also has to focus on chief complaint. Cannot do every single examinations

From emergency department electives, I've got to learn how to be efficient with history taking and physical examinations which focuses on patient's chief complaints. Much to my great embarrassment with my limited knowledge I had, I knew that I was there to learn so I had to get over my insecurities about not knowing so that I could focus on learning. And the learning was everywhere—on every single shift, I learned from great clinicians not just about diagnosis and treatment, but also how to approach every patients with different background with different chief complaints. I've been incredibly fortunate to have learned from many amazingly skilful and compassionate residents and attending physicians along the way.

As obvious as it may be, the last three months solely evolved around the concept of "learning". What was also a humbling experience, I feel as though I had gained knowledge that will continue to serve as an arsenal in my strive to become a better doctor. I am extremely thankful for the positive learning environment and great teachers I had. I could not ask for a better opportunities that I had been given. What I've learnt is to always have courage to step out of comfort zone because that's how I will reach my dream job and it is called the practice of medicine for a reason, and we should embrace, rather than fear, the learning. I truly love what I do.