Harvard Exchange Rotation Reflections

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I feel privileged that I had the opportunity to experience a rotation at the Pediatric ICU (PICU) at Mass General Hospital (MGH) from Sep 28 to Oct 25, 2015. Though the PICU program is not as big as that of Boston Children's Hospital, there are eight attendings rotating every week on service in the PICU unit, along with three pediatric residents, one emergency department resident, and one fellow. The teaching and working atmosphere at Mass General PICU is great– nearly everyone knows each other, just like one big family.

Q: How do they run PICU there? What does everyday schedule look like?
A: The day starts early. Everyone arrives PICU before 6AM to examine his/her patients and check out any new data and overnight events with the nurse.

- 6:30AM Sign-off overnight events from night-shift resident. The night-shift resident lists all the AM and PM events of each patient and prints it out before hand for everyone. He/she tells the day team what complaints occurred overnight, what needs to be followed-up, and gives a heads-up about new admissions overnight.
- 7:30AM – 10:30AM Morning round with the Attending of the week, fellow of the month, two to three residents, another local medical student and a pharmacist. The team goes to the new admissions first and then the old patients. The presentation flows with:

  1) One line summary of the patient including age, gender, underlying diseases, reason of admission. Three or less most important overnight events.

  2) The nurse reports vital signs.

  3) Presenter updates lab data and images with interpretation

  4) From the above make an assessment of the patient.

  5) Make plans according to the assessment. Discussion among team.

  The attending asks more questions for detailed information and to pull out more thinking process from the students. This is the most

powerful part of this presenting \learning method. The attending lays out his/her flow of thoughts while making comments. You get to see what is in their head and learn to think and assess and make plans from them.

- 8:00AM Radiology round happens in the middle of the morning round. The radiologist reviews and discusses with the team every image from the previous day anything from a chest x-ray confirming the placement of NG tube or endotracheal tube to a CT scan revealing pulmonary embolism. A resident or medical student in charge of the associated patient presents the case briefly first: one line summary about the patient and why the PICU team ordered the image. Then the radiologist explains what he/she sees.
- The rest of the day: follow-up the patients and communicate with different consult teams. Admit new patients. The fellow is always around and open for discussion on any topic you would like to learn. Sometimes there will be a simulation where a fake baby has difficulty breathing or heart arrest for all the staff in the PICU to practice team work and rescue abilities when there is an emergency. It is held in one of the PICU room so you get to learn where or whom to go to exactly in the PICU when something real happens.

Q: The biggest challenges?

A: Language was one. It took me about three days to learn the tricks of language – "touch base with" means to discuss with someone, "chem10" are the electrolytes, "WWP" equals warm and well perfused (of the extremities, nothing to do with WPW)… etc. I asked questions and repeated what I heard to confirm my understanding so it was not too bad.

Another was to make assessment and plan. In Taiwan, this is considered something not stressed during clerkship so I did not feel comfortable doing that. Learning from listening to others helps, but sometimes people spoke fast. I hope there was a workshop where someone could go over it with me step by step.

Q: Differences of the medical systems between Mass General and KMU.

A: 1. Manpower - The Mass General PICU team size is relatively huge compared to the limited manpower we have here at KMU – two second-year residents and one attending in charge of both day and night for the whole month. Applause to our KMU attendings and residents – you have worked so hard and done a wonderful job taking care of an even bigger PICU here. With more manpower, they have more hands to help out and more time to do research and teaching.

2. Consult system: the US uses the consult system, where you consult endocrine team when the blood sugar too high, consult renal when creatinine rises, consult infectious disease when bacterial meningitis is confirmed, consult pain team if there is a pain problem, consult speech and swallow specialist when the baby chokes on drinking milk. There is no such thing as renal ward or an endocrine ward. Different team goes to the patient for examination. On the other end, in Taiwan the patients are placed at a specific department according to their chief complaint. Moreover, if the AKI patient in the renal ward has high blood sugar and a foot wound, the renal man is expected to take care of them as well.

Consult system

	Consult system	Taiwan: ward system
Advantages	1. Double check by different teams means less things missed out 2. Less loading on the primary team	1. Every physician is a superman - trained to be able to take care of every problem: CV, renal, liver, infections, echo, every procedure 2. More efficient 3. More cost-effective 4. Less disturbance to patients
Disadvantages	1. Too specialized 2. Less efficient 3. Costs more 4. Much disturbance to patients	1. Loading on each physician is too heavy

3. Private health insurance vs national health insurance: the medical fee in the US is enormous, especially the Harvard-affiliated hospitals. If you self-pay without insurance, one day in the PICU can cost as high as 10000 USD. The insurance fee is expensive too – about 400-600 USD per month, and you still need to pay tens to hundreds each hospital visit.

Q: Differences of the medical training process?
A: In the US, the medical students have more hands-on learning experiences. Freshman year, the seniors will take them to the hospital to practice real history taking and give feedback. Second year, they practice physical examination on real patients in the hospital. During clerkship, they make assessments and plan with the assistance of residents, present on rounds, and get feedback from the fellows and attendings.

In Taiwan, all these seem to happen two years later in the training process. Interestingly, with that said, perhaps because our residency training is more intense in patient number and workload, I feel like our residents' clinical ability is not inferior, sometimes even superior to the residents there. However, research wise, they have more fund and time and resources to expand.

Q: One thing that will really benefit our medical education?
A: I think the presentation structure during rounds is very helpful for the medical students to have deeper discussion on each patient and learn how to make assessment and plans from the attendings and residents thinking process. I would appreciate if our attendings can think out loud and let us peek into their head.

I am really thankful to my school KMU for the training I receive and the opportunity to widen my vision in the world famous Mass General Hospital. I hope my reflection will inspire some of you to take up the challenge and grow to appreciate more of our precious National Health Insurance system and see the strength in our superman residency training we have here in Taiwan as I do.
Thank you！