

Pre-Clinical Rotations in Spain: A Comparison to the US Health System

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Introduction

During the summer of 2013 I spent a total of four weeks doing pre-clinical rotations in the University Hospital of Son Espases in Palma de Mallorca, Spain. The overall goal of the trip was twofold: First, I wanted to have more exposure in a hospital setting that included patient interaction as well as the overall feel for what it was like to work in a hospital as a healthcare provider. This was completely achieved by the end of my four weeks after having rotated with physicians on rounds throughout the entire experience. The second goal of the trip was to have a basis for comparison between a healthcare system such as Spain's and the one we currently have here in the United States. This goal was also achieved via my experiences in the hospital, the conversations I had with healthcare providers and my own independent research.

Hospital Universitario de Son Espases

• Located on the Balearic island of Mallorca, Spain, this is the main public hospital of reference for the citizens of Palma de Mallorca and the surrounding communities. (Estimated population of 330,000) It is also the hospital of reference for all of the highly specialized operations required throughout the Balearic Islands.

• Occupies a space of 172,000 square meters and contains:
-1,020 beds
-26 Operating rooms
-107 Intensive care boxes

• Serves as a teaching hospital where Medical Residents from all over Spain can come to train in their respective specialties.



Pre-Clinical Rotations

My four weeks of rotations were split up as follows:

- 2 weeks in Internal medicine under the Infectious Disease Department
- 1 week in Pediatrics Emergency Care
- 1 week in the Obstetrics and Gynecology Department

All of the rotations were done via the accompaniment of different Attending Physicians and Residents on their rounds as well as attending lectures, meetings, consults and surgical operations.



Infectious Disease Rotation

My experience rotating through the Infectious Disease department was an excellent opportunity for me to hone my skills in auscultation and history taking. Rounding with the Attending physicians and the residents I grew familiar with identifying abnormal breathing sounds including wheezing, crackles and ronchi. On several occasions I was asked to perform full histories and examinations on the patients which I later was asked to present. It was also an excellent refresher of microbiology and the variety of different pharmaceuticals used in this particular field.

On this rotation I was also able to spend a significant amount of time with HIV positive patients who came in for consultations and status checks. It was here that I saw the wonders of anti-retrovirals in action as well being taught when they should and should not be used on patients. I was pleasantly surprised to see their effect on keeping viral loads in well controlled patients at undetectable levels even though some of them had been diagnosed over 15 years ago. I also learned of the many co-morbidities typically found in these patients including dyslipidemias and hepatitis.

This rotation was extremely enlightening because of the wide variety of infectious diseases presenting at the hospital. Because of its geographic location, this hospital admitted patients from all over the world including Africa, Europe and Asia.

Interesting cases while on rotation:

- MRSA infections
- Kingella Kingae infection
- AIDS patient with extreme case of oral Candida
- Osteomyelitis
- Pemphigus Vulgaris
- HIV patient with Cryptococcal Meningitis
- Suspected Tuberculosis infection



Pediatrics Emergency Care

This rotation was my first introduction into the proper way of providing healthcare to children. Throughout the week I spent most of my time with the first year residents as we examined and diagnosed one child after the other who came into the emergency room with a variety of health complications. As I expected, treating a sick child is much more complicated than treating an adult, and I learned many different ways of getting children to cooperate with you when trying to perform an exam. It was also a great learning experience in learning how to calm anxious parents, including those who don't speak the national language very well.

Interesting cases:

- Mycosis infections
- Total body exanthema
- Supracondylar fracture of right distal humerus
- Pyelonephritis
- Foot wound due to stepping on a sickle
- Scarlet Fever
- Patient with a prolapsed tricuspid who was admitted due to severe diarrhea and vomiting



OBGYN Rotation

This rotation was a very comprehensive look at the entire OBGYN department. I shadowed attendings and residents in general obstetrical consults, gynecologic consults, the operating room, emergency OB visits and the gestational floor. Through this rotation I was able to see the ultrasound machine used in a variety of ways and learned skills on how to exam the female patient. From soon to deliver mothers to high risk pregnancies, this rotation exposed me to a little bit of everything this specialty has to offer.

Interesting cases:

- Endometriosis
- Human Papilloma virus
- Open Total hysterectomy after finding malignant carcinoma on cyst. Removal of omentum and appendix as well
- Cystocele. Removed via vaginal hysterectomy
- Omphalocele discovered in twin of 12 week gestational age
- HIV infected pregnant mother
- Oligohydramnios

Spanish Healthcare System

In comparison to the United States, Spain has universal healthcare that is based on a single payer system. This means that all citizens of Spain are guaranteed healthcare access without any out of pocket expenses at public hospitals. Prescription medications have a co-payment that is based on individual annual incomes, with a maximum contribution of 60% of cost (1). This previously included unregistered foreigners but as of April 2012, no longer does (2). A private hospital system does exist and a significant portion of the population pays extra to use these services. The World Health Organization ranks the Spanish healthcare system as the 7th best in the world (3).

Fast facts comparing physician training and salaries :

- Medical School is started in Spain after high school and lasts 6 years. In the US, medical school is started after obtaining a bachelors degree and lasts 4 years.
- Medical School enrollment/fees at Spanish public medical schools cost around \$6000 per year. In the US costs per year are closer to \$49,000 at public universities (4).
- Residency programs are similar in length of training however they are organized differently than they are in the US. For example a resident in Spain does not first have to do an internal medicine rotation prior to doing a fellowship in gastroenterology. Instead they place directly into that specialty, but will spend their first year doing 3 month rotations in other internal medicine specialties.
- Emergency medicine does not exist as a residency in Spain.
- Physicians in Spain make much less money than their American counterparts. A general practice US physician average net monthly income = \$8,189 vs. Spanish counterpart = \$2,051 (5).

General thoughts on Spanish healthcare

Compared to my experiences in the United States, I felt like there was an overall laidback atmosphere amongst the physicians that was fantastic. The residents were allowed to wear jeans on rounds much to my envy and it seemed to me like there existed more warmth in the patient-physician interaction compared to what I have witnessed in the US. On the other hand, due the current financial crisis in Spain major cuts were being made in the hospital which required the physicians to take more call even if they didn't want to. Also a system of universal healthcare seems to result in longer waiting times to see specialists or to be discharged from the hospital because of the limited resources at hand. However most would agree that waiting is much more acceptable then not having coverage at all. In the end I believe that a universal health care system like Spain's has its pros and cons, but the quality of care provided by physicians in Spain was on par with anything that I have witnessed here in the US and my experience on a whole was a fantastic one.

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References

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