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A Comparison of Ireland and The United States Health Care System and How My Experiences With Each Have Shaped My Future Goals

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The people we meet and opportunities we choose to partake in are all experiences that shape us to the person we are and hope to become. My experiences in Ireland, and shadowing a family practice doctor in Michigan, have given me valuable knowledge about the type of doctor I aspire to be.

My dream of becoming a doctor began when I was just five years old. During that time my Aunt Pam was diagnosed with Mantle Cell Lymphoma and my family went to visit her during one of her stem cell transplant procedures. I watched with wonderment as the doctors guided her through the treatment and after my visit I decided that one day I wanted to be a doctor just like them. Since that day my passion for helping those battling cancer has not changed. My Aunt battled cancer twice and later passed away in 2013 from the side effects of her treatments. Her journey with cancer will always be the biggest influence on my decision to become a oncologist.

Not only has my Aunt influenced me but my six-week internship in Ireland had a big impact on me as well. While I was in Ireland, I primarily assisted with research in the gyne-oncology lab that is associated with St. James Hospital. St. James Hospital is the largest hospital in Dublin and is used as the primary teaching hospital for Trinity Medical students. Gynecological oncology is an area of medicine that focuses specifically on cancer of the female reproductive tract and during my time in Ireland I was able to observe the treatment plans and research done on patients with cervical, endometrial and ovarian cancer. The lab was primarily collecting pre and post operation and/or pre, mid and post chemotherapy blood and tissue samples to see the changes in the patients CA125 and HE4 levels.

CA125 and HE4 are two of the main biomarkers that are overexpressed in patients with these cancers and tend to be one of the main ways the cancer is diagnosed. A biomarker is defined as a characteristic that is objectively measured and evaluated as an indicator of normal biological processes, pathogenic processes, or pharmacologic responses to a therapeutic intervention.[i] Ovarian cancer, for example, is very hard to diagnose and is often not identified until later stages of the disease. It is not diagnosed until late due to the fact that symptoms and signs are not often easily identifiable, making it one of the most deadly cancers around. In fact, studies have shown that over 70% of patients aren't diagnosed with ovarian cancer until later stages (stage 3 and 4) in which there is only a 20-30% survival rate.[ii] This is why research on human biomarkers is a strong area of interest, because they are hoping to use them as a way to identify the cancer at earlier stages. The lab I worked in collected, centrifuged, and stored serum, whole blood and citrate samples for testing. Samples were stored in a special freezer and documented with a testing number, which could be looked up in a computer system for more information on the patient. The main tests performed in the lab were ELISA protein assays, but other protein extractions were performed as well to collect results. ELISA, which stands for enzyme-linked immunosorbent assay, is a plate-based assay that uses an antibody-antigen interaction to measure peptides, proteins, antibodies or hormones. Like other researchers, the lab is finding that HE4 is a more accurate biomarker than other common ones like CA125.

Although my internship was primarily based in the research lab, I was also able to observe surgeries at the Coombe Women and Infants Hospital every

Thursday. Under the guidance of Dr. Nikolay Nikolov, an anesthetist, I was able to stand in on fourteen different cesarean sections, ectopic pregnancy removals, dilation and curettages, mirena coil insertions and cyst removals. At St. James Hospital I was able to watch a laparoscopic hysterectomy with a bilateral salpingo-oophorectomy (BSO) and adjacent lymph node removal and was also able to scrub in on an open ovary debulking surgery and laparoscopic hysterectomy with a periotic lymph node removal. When I scrubbed in I was able to hold different tools for the doctors as well as the camera. These experiences taught me where different items are located in the body, how the body works together, what it looks like for a body part to be normal or cancerous, and proper surgery techniques. I found these surgeries and experiences to be the most fascinating and where I learned the most. While I learned about many of these things in my classes, like anatomy and physiology, seeing it in person really put it all into perspective and gave me a deeper understanding.

Not only did I learn a lot of medical information during this time, but also it was another situation that showed me what I did and didn't want for my future. The biggest thing I realized is that I didn't like the small amount of interaction surgeons have with their patients. The surgeon saw the patient momentarily when they came into the room, did the surgery and then left. There was very little pre-surgery and post-surgery time spent with the patient and this interaction is something that I definitely want. I feel it is important to develop a trusting relationship with the patient and to take the time to really understand their case and the implications and

problems they are facing. This has caused me to realize that I want to have a job that is more clinically based.

While I loved the challenge of the operating room and the swiftness in which they moved and handled changes, I didn't like the long hours and stressful environment. During the open ovary debulking surgery that I scrubbed in on, the doctor originally thought that it would be a short and simple procedure in which they removed the small polyps of cancer spread on the ovary. When we opened the patient up the doctor was shocked to see that the cancer had spread all throughout the woman's abdomen. They were forced to remove her ovary, sigmoid colon, lymph nodes and all of the peritoneum covering her organs and intestines. The surgery went from an hour-long procedure with one doctor to a five-hour surgery with four different doctors working on her. This is something that I did not like about the operating theater. I did not like how the doctors were forced to work on the one patient causing them to take time away from their other surgeries and patient visits to fix this problem. The doctors worked without a water, food or bathroom break from 7:30am-3pm. When I left at 3 pm they were onto their next surgery without a break because the other one took so long. I do not think I could handle the long hours of standing without food or water and the chaos that can come from the unknown of the patient's condition.

Another disadvantage for me is the way these doctors had to balance their on-call shifts with their regular day shifts. Sometimes the doctors I shadowed would be on call the night before and then work all throughout the next day. Dr. Field's, for example, had to respond to an on-call emergency at 4:30am, operate on the women,

and then stay at the hospital for the rest of the day for her normal patient visits and surgeries. After talking with Dr. Nikolov and Dr. Steve, who are both anesthetists, I learned that many doctors in Ireland work at both private and public hospitals. They do this to ensure that they can make a decent income since private hospitals pay more than public hospitals. The problem with this is that their on-call shifts only take into account one of the hospitals they work at and not both, which causes them to face times where they must work through the night and into the next day, or work weeks in a row without a break.

While I discovered many things I did not want for my future as a doctor, I also discovered a lot of things that I do want and like. I loved the research aspect and learning about the new advances being made in the realm of oncology. I think that even as a doctor you can always be learning something new and I hope that I can continue to participate and attend lectureships and seminars to stay up to date on research happening at that time. I also enjoyed the multi-disciplinary meetings and watching the ways in which the team of highly trained doctors worked together to come up with a solution that was in the patient's best interest. I know that pediatric oncologists participate regularly in multi-disciplinary meetings and that is something that I am looking forward to doing in the future. Thirdly, I enjoyed visiting the clinics before some of the surgeries where the doctors checked in on their post-operative patients to make sure the recovery process was going well. This exposure made me realize that I want to be able to spend a lot of time in a clinical setting. Lastly, I realized that my passion lies in working with kids rather than adults. Many times during the multi-disciplinary meetings they would decide to give

the patient palliative care instead of surgery, chemotherapy or radiation because of their advanced age or previous history with illness. I realized that by working with children I could give the child an opportunity for a long life and ability to achieve future goals rather than contemplating these opportunities because of advanced age. I also enjoy the positive attitude of the younger generation and fun atmosphere of the floor as well, which I have seen from various hospital and clinic visits.

I also learned a lot in Ireland by attending various seminars, grand rounds (lectures and informational sessions), and meetings conducted by leading doctors, pathologists and researchers. This helped to broaden my knowledge on gynecological cancers and the current status of healthcare in Ireland. During one of the grand round lectures the speaker noted that Ireland is about ten years behind other leading countries in the medical field. She noted that it is a problem they are currently trying to address, but are struggling with the proper funding to achieve their goals, since healthcare spending was reduced drastically following their economic downfall. Ireland only spends 8.9% of their GDP on healthcare, which is exceedingly different from the United States, which spends 17.1% of its GDP.[iii] Per capita Ireland spends $3,890, while the United States spends $8,745.[ivv] The United States is one of the largest spenders on healthcare when compared to most other countries, and I could see definite differences between the two systems during my time in Ireland, especially in terms of hospital updates and pay for employees.

Ireland's healthcare system is a two-tier system that consists of both private and public health insurance. Through my experiences at St. James, I was able to see the differences between the public and private sectors. With private insurance,

patients are able to avoid waiting for treatment and can get into specialists sooner.[vi] Those on the public sector may have to wait months to get into a doctor if their primary visit deems them a low risk to be urgently seen. A study done in 2013 found that those waiting over a year for surgery had increased from 36 to 931 in just six months, 48,279 people were on waiting lists for in-patient or day-care appointments, and 377,000 patients were waiting for outpatient treatment.[vii] To add to the problem, some general practitioners only choose to see those on private health insurance, making it even more difficult for those with public insurance. Ireland has one of the lowest rates of general practitioners according to statistics done on the Organization for Economic Cooperation and Development (OECD) and its primary care infrastructure was noted as being comparably poor according to the European Observatory on Health Systems and Policies.[vi] Sometimes a patient's appointment may be moved sooner if the doctor decides the patient needs to be treated promptly. If this is the case, they work hard to fit them in to their already booked schedules. I saw this occur once during one of the multi-disciplinary meetings. The patient's blood work and scans revealed that her cancer was much worse than expected and after the group of oncologists, pathologists and chemotherapists discussed the results of the scans, they decided it was necessary to make the patient a priority and get her appointment moved up to as soon as possible. Without discussions like these the patient would have had to wait weeks to be seen and her condition may have progressed to an even worse stage. I felt this to be a major disadvantage to heaving public health care in Ireland.

Like Ireland, the United States' healthcare system has both private and public health insurance. The healthcare system in the United States isn't as straightforward though and can be thought of as a hybrid system made up of private, federal and state funding.[viii] Only 48% of health spending in the United States is publicly funded which contrasts greatly with Ireland's 68%. Another contrast that sets the United States apart from Ireland is the wait time for appointments. In the United States patients are able to get into general practitioner, specialty appointments and surgeries much sooner. As stated above, in Ireland hundreds are forced to wait over a year for surgery, while in the United States the average wait time in fifteen different metropolitan cities was only 9.9 days.[ix] It should also be noted that the average cumulative wait time to see a physician was only 18.5 days, which included family physicians and specialists.[viii] Lastly, in Ireland private insurance allows a patient to get in quicker and be seen by more doctors. While the same sometimes occurs in the United States studies have shown that the average Medicare acceptance rate is 76%, meaning that most patients are able to see the family physicians and specialists they need to without too much concern.[viii] Overall, while both countries have advantages and disadvantages to their healthcare systems, statistics and my personal experiences with both have shown me that the United States ranks higher on quality and appointment accessibility than Ireland's.

My experiences with the United States healthcare system have come from shadowing Dr. Barb Merrill, DO. Shadowing her has given me valuable insight into what it's like to be a primary care doctor. One thing that I really enjoy about working in a family practice is the amount of patient interaction the doctor gets. Dr.

Merrill was able to sit down with every patient and really take the time to listen and ask him or her questions to get to the root of the problem. I saw that this helped the patient to feel more confident when leaving the appointment and ready to address the issue at hand. I also liked that as a family practice doctor you are able to have contact with these patients over a prolonged period of time and are able to build up a relationship with them. This created a sense of trust and confidence and helped the doctor to further understand what problems the patient may be having since she is aware of their previous medical history and lifestyle. This helped her to be very understanding when a patient called and said they needed to be seen urgently and she was always able to fit patients into her schedule for the day. A third thing I enjoyed about the clinical setting is that as a family practice doctor you are always seeing different cases everyday. During the course of a couple hours Dr. Merrill would see anything from a medicine refill to severe migraines to a problem that needed a further specialists key insights. I like the challenge of always having something new and the opportunity of unknown. While I liked the variety of the family practice clinic I also found it as a negative too. As I observed, I found that I didn't enjoy the types of cases she was seeing and wasn't as intrigued by it as I was when I saw cancer patients in Ireland or watched my Aunt go through her various appointments. This experience has shown me that I would not enjoy family practice as a career and that I want a specialty that intrigues me more. With oncology I know I will always be challenged because every patient is unique in their diagnoses and the way they respond to treatments and every treatment I set up with them will be a new learning opportunity within itself.

My hands on experiences in Ireland and Michigan have given me valuable insight into the doctor I yearn to be. These opportunities have shown me that I prefer to work in a clinic instead of the operating room. I have also learned that my interests' lie in oncology and that I enjoy learning about new updates in research and what findings are being published. Lastly, I was able to see what the positives and negatives are to both healthcare systems and how each affects the patient. Without experiences like these I still would be unaware of what I want for my future and I am grateful for the opportunities I have had to learn in a real-world setting.

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[ix] "Physician Appointment Wait Times and Medicaid and Medicare Acceptance Rates." *Merritt Hawkins* (2014): 1-31. Web. 20 July 2015.

Blog posts written during my time in Ireland

Links to blog posts written about my medical experiences in Ireland

http://jennyjess.weebly.com/blog/mysteries-of-the-operating-room

http://jennyjess.weebly.com/blog/surgery-success

http://jennyjess.weebly.com/blog/the-best-day-yet

http://jennyjess.weebly.com/blog/living-like-a-dubliner

http://jennyjess.weebly.com/blog/not-for-the-faint-hearted