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Filling the Void of Knowledge

Assessment 1 - Research

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Subject: Interventional Radiology

MLA 8 Citations:

Aldhafery, Bander. "What Family Physicians Should Know about Interventional Radiology?" *Journal of Family & Community Medicine*, vol. 27, no. 2, May 2020, pp. 85–90. *EBSCOhost*, doi:10.4103/jfcm.JFCM_290_19.

Antti Pekkarinen, Teemu Siiskonen. "Potential Occupational Exposures in Diagnostic and Interventional Radiology: Statistical Modeling Based on Finnish National Dose Registry Data - Antti Pekkarinen, Teemu Siiskonen, Maaret Lehtinen, Sauli Savolainen, Mika Kortesniemi, 2019." *SAGE Journals*, journals.sagepub.com/doi/full/10.1177/0284185118770902.

Chandy, Poornima Elizabeth, et al. "Interventional Radiology and COVID-19: Evidence-Based Measures to Limit Transmission." *Diagnostic and Interventional Radiology (Ankara, Turkey)*, Turkish Society of Radiology, May 2020, www.ncbi.nlm.nih.gov/pmc/articles/PMC7239364/.

Assessment:

Most people do not know much about the specifics of interventional radiology, including the procedures that are done, or what kind of diseases it mainly focuses on. Well, up until this week, I was one of those people. The void of detailed knowledge on this topic was glaringly obvious, including not knowing some of the specific terminology or procedures that interventional radiologists commonly conduct. This void needed to be filled, especially so that the proper amount of knowledge could be acquired to go out into the field and speak with potential mentors in this discipline. Demonstrating a sufficient knowledge of the terminology and procedures can also potentially impress possible mentors and may even earn an interview opportunity.

The first area of knowledge that needed to be explored was the specific procedures commonly performed by radiologists. Interventional radiology primarily consists of minimally invasive procedures, including image-guided biopsies, aspiration and drainage of fluids, peripheral vascular interventions, dialysis access intervention, interventional oncology procedures, and the recanalization of Fallopian tubes. Lots of knowledge was accrued on each of these procedures. This article went in depth into each of these procedures, which will prove helpful throughout the course of the year as I enter the field and start interviewing. This knowledge on procedures will be especially useful in discussions with potential mentors to demonstrate sufficient knowledge on the topic, as well as to ask questions about different procedures that they have performed in the past. Additionally, discovering that interventional radiologists get to perform so many interesting procedures was quite exciting. The fact that interventional radiology is sort of a blend between diagnostic radiology, surgery, oncology, and

other medical fields makes this profession the perfect fit for me, due to my wide range of interests in the medical field. Many medical specialties captured lots of interest, which is why a medical specialty that blends many different medical disciplines is so exciting. Again, this information will be used to demonstrate knowledge to potential mentors to possibly persuade them to interview as well as background knowledge to gain even more information about different, more advanced procedures that interventional radiologists perform. Another area of knowledge that needed to be explored, but is similar to the previous area that was discussed is the diseases that are commonly seen in interventional radiology. Again, much information was accrued on this topic as well, including some specific diseases and the procedures used to address them. For example, peripheral vascular disease is common in diabetic patients and requires a peripheral vascular intervention, which is a procedure conducted by an interventional radiologist. This knowledge will be used in a similar manner to how the previous area of knowledge is going to be used. It will be very useful when talking to potential mentors and interviewing them; for example, being able to ask if they have encountered certain diseases and to describe the procedures that they used to combat them would be very helpful in gaining more knowledge on the topic. Furthermore, a third area of knowledge that was pretty broad and will need to be expanded on more and more as the year goes on is the terminology used in the interventional radiology field. For example, knowing the word “biopsy” will be very helpful for asking questions about biopsy procedures and learning about the general interventional radiology experiences. The attempt to gain knowledge in all three of these areas was very successful and will be extremely beneficial as background knowledge in future research and experiences.

Another area of knowledge that was worth exploring is the amount of overlap between oncology and interventional radiology. Lots of minimally invasive procedures deal with interventional oncology, including thermal/cryo ablation of focal tumors in different parts of the body. Again, lots of questions will be asked about interventional oncology and how much of it is typically done in the interventional radiology profession, so this background knowledge will be extremely helpful. Discovering that there is lots of overlap between oncology and interventional radiology was probably the most exciting discovery of this entire week. My grandmother dying of leukemia was my inspiration for wanting to become a physician and to save as many lives as possible, so finding out that cancer diagnoses and treatment are a large part of interventional radiology was a huge excitement.

Two more areas of knowledge that specifically concerned the job occupation itself of being an interventional radiologist were the potential health concerns of being an interventional radiologist as well as the current trends and advances currently occurring in interventional radiology. It was very pleasing to learn that in the 20 year experiment on interventional radiologists, not a single case exceeded the 6 mSv (yearly effective dose) Category B limit of radiation exposure, which means minimal risk for radiation exposure as an interventional radiologist. Also, learning about certain trends, such as advances in ultrasonography, will be good for developing talking points for discussions with professionals out in the field. Knowledge of these trends can even impress a potential mentor and can earn an interview.

The last area of knowledge that needed to be filled for this week was the relationship between interventional radiology and COVID-19. Due to the fact that we are in the middle of COVID-19 right now, knowledge about this very relevant topic in today's society and how it

relates to interventional radiology can prove very useful when talking to professionals and trying to learn more about the experiences of being an interventional radiologist in a pandemic-ridden world. The article chosen to provide this knowledge was very successful in doing so, and gave a very good idea of the necessary precautions and procedures for dealing with COVID-19 as an interventional radiologist.

In conclusion, all of this knowledge that I acquired will be very useful in learning more about the topic of interventional radiology and this week was very successful for providing lots of background information. This topic seems very exciting thus far and this week's research has done its job of filling the void of knowledge. Future research will elaborate on the background knowledge that was acquired this week.

Notes:

What Family Physicians Should Know About Interventional Radiology?

Interventional Radiology and COVID-19: evidence based measures to limit transmission

Potential occupational exposures in diagnostic and interventional radiology: statistical modeling based on Finnish national dose registry data