Jillian Rork
Holmes Society
Harvard Medical School
Class of 2013

Neil Samuel Ghiso Fellowship Final Report

The format of this final report was derived from the SMO 2012 guidelines for Community Service Final Reports

1) A summary of what you did and how the site(s) benefited from your work there.

My Ghiso Fellowship was spent in three different clinical settings. Two of the clinical electives were at Harvard Medical School hospitals (Pediatric Anesthesiology and Palliative Care). The third clinical elective was at Hopital Robert Debre, a pediatric hospital in Paris, France.

During my pediatric anesthesiology rotation at Children's Hospital Boston (CHB) in June 2011, I saw patients in a variety of different clinical settings. I spent a considerable amount of time in the operating room, assisting anesthesiologists with general and regional anesthesia cases. I spent time with the "Block Team" which specializes in regional anesthesia techniques, such as femoral or popliteal nerve blocks. I also tried to assist in cases where other regional anesthesia techniques were implemented, such as epidural or spinal anesthesia. I also spent time with the inpatient pain management team. Many of the service's patients were using patient-controlled anesthesia (PCA) and/or other regional anesthesia techniques and I gained experience with the inpatient management of these devices, including medication dosing and appropriate clinical application.

During my palliative care rotation at Brigham and Women's Hospital (BWH), Dana Farber Cancer Institute (DFCI), and CHB in February 2012, I spent time with both the medical palliative care and psychiatric palliative care team. The first two weeks were primarily spent at BWH/DFCI working with the inpatient medical palliative care team. The majority of our patients had end-stage cancer from a variety of sources including breast, ovarian, prostate, and lung. The second half of the rotation, I spent several days with the palliative care team at Children's Hospital Boston and the remaining time with the psychiatric palliative care team at BWH/DFCI. My role as a medical student was to manage several patients with the help of fellows and initiate inpatient consultations. I did have exposure to outpatient palliative care appointments, but my role was mostly as an observer.

For my third clinical elective, I completed a four week exchange at Hopital Robert Debre in Paris, France in April 2012. I worked with the pediatric palliative care/pain management team at Robert Debre for the entirety of this clinical exchange. The team was composed of four physicians, three nurses, and three psychologists. My role on the team was primarily as an observer. I always saw patients with other clinicians and was not required to write or dictate notes, which was the policy of Robert Debre for foreign exchange medical students. Nonetheless, I was very involved in the care of patients. I was warmly welcomed by every provider on the team and encouraged to ask questions or give my opinion regarding treatment plans.

At Hopital Robert Debre, each day was divided into morning and afternoon activities. In the morning, I typically rounded with the nurse practitioners and doctors on inpatients. The majority of these patients needed post-operative pain management, mostly in the setting of orthopedic surgeries. Many patients were managed with morphine PCAs, but oral regimens of

tramadol/morphine were also common depending on the clinical situation. In the afternoon, the nurse practitioners would return to the floor and perform hypnosis or massage on the patients they thought could benefit from these techniques. The doctors would then proceed to the clinic where they would see patients with chronic pain. The population was composed of a wide variety of patients including Chronic Regional Pain Syndrome (CRPS), migraines, and chronic low back pain. Many of these consultations would last between 1-2 hours, especially if they were the initial evaluations. I was always encouraged to ask pertinent questions and examine patients.

The site did not benefit from my presence in the sense that I wrote notes or initiated consults. Instead, I provided papers and recommended new books from the United States about pediatric pain and palliative care. I also formally presented during a staff meeting about the pain and palliative care teams at Children's Hospital Boston.

2) A summary of any data you may have collected or any evaluation that you completed. Please note whether or not you achieved any of the goals or objectives that you laid out in your funding proposal.

An additional component to my fellowship was to write a review article on the use of regional anesthesia techniques in the pediatric palliative care setting. Starting April 2011, I have been working with Dr. Richard Goldstein, a pediatric palliative care physician at CHB/DFCI and Dr. Charles Berde, a pediatric pain management specialist at CHB to write this article.

In my initial fellowship proposal, I had hoped to submit the article by February 2012 to a medical journal. We are currently working on the final draft and will submit the article (entitled: Regional anesthesia approaches to pain management in pediatric palliative care: A review of current knowledge) by the middle of June 2012 to the Journal of Pain and Symptom Management, a palliative care journal. We are very pleased with the article and it has been well-received by colleagues. The delay in the submission is multi-factorial. I personally underestimated the amount of time it would take for me to research and write the article and I was not able to submit a formal draft to Dr. Goldstein until late January 2012, almost one month behind my anticipated deadline. We then debated for several months about which topics to exclude/include and the proper journal to submit to. We ultimately decided to write the article for palliative care providers rather anesthesiologists, which necessitated a change in narrative voice and the addition of several sections. I am currently waiting final approval on several of the tables and figures by Dr. Berde and after these details are decided, we will submit the article.

To summarize the article: we review the evidence of regional anesthesia techniques in commonly encountered, but difficult to treat, presentations of pain in pediatric palliative care. We review the literature on regional techniques in patients with both life-limiting and chronic conditions including pain from tumor infiltration, chest pain in advanced pulmonary disease, chronic abdominal pain, phantom limb pain, and spasticity and dystonia. For each section we provide an overview of the current knowledge drawn from published medical literature and clinical experience in order to highlight the types of pain scenarios encounter, regional techniques attempted, and general outcomes. Familiarizing palliative care providers with clinical scenarios where regional anesthesia may be utilized will help identify future candidates for these techniques and facilitate timely collaborations with pain management specialists.

Our conclusion is that numerous clinical scenarios exist where regional anesthesia techniques have been applied. Despite this variety, a common indication for regional approaches to be considered is the patient with intolerable side effects to systemic opioids and we highlight these scenarios extensively throughout the review. Since the current medical

literature on this topic is mostly limited to case reports and case series, additional evidence must be compiled before proposing general recommendations. Given the presented literature and clinical experience of the authors, we encourage careful thought and discussion on the application of these techniques in patients where pain symptoms are inadequately relieved or treatments produce side effects that outweigh the benefits.

3) A critical assessment of what went well and what did not go well both programmatically and administratively.

Regarding my clinical electives at CHB, BWH, and DFCI, the only programmatically challenging aspect was spending time with the pediatric palliative care team at CHB. The formal clinical elective is meant to mainly provide exposure to adult palliative care. I was only able to work with the pediatric team on several occasions. I did not realize I was limited to such a small amount of time before starting. Nonetheless, my experience was extremely valuable in both the adult and pediatric setting. I did not encounter any specific administrative barriers during my other Harvard-based electives.

Prior to my arrival in France at Hopital Robert Debre, there were multiple hurdles to overcome. I started organizing the exchange over one year before my arrival and I definitely needed this amount of time to prepare. One of my mentors, Dr. Charles Berde who is a pain management specialist at Children's Hospital Boston, knew several physicians in France who specialized in pain management and palliative care, in particular Dr. Chantal Wood at Hopital Robert Debre. Dr. Berde asked Dr. Wood if she would accept an American medical student for one month. She accepted and then I began organizing the exchange through MICEFA. This international organization, specifically Nancy Merritt, was wonderful to work with. They researched the required paperwork for an exchange at Hopital Robert Debre in Paris and I sent in my application to the hospital around 8 months before the exchange.

As part of the application, I had to take a national French language test (TEF) and receive an intermediate level grade. I must warn that this test was extremely expensive (around $500) and was only offered every 3-4 months at the French Cultural Center in Boston, MA. At the time I did not mind taking this test and understood the purpose of screening exchange students for language level.

Several months passed after submitting my application and I still had not heard from Hopital Robert Debre. In the end, I never heard back from the administration that I was formally accepted, despite persistent nagging by MICEFA. I basically showed up at Hopital Robert Debre knowing that Dr. Wood expected me and I made sure to have all necessary application documents with me (vaccinations, transcript, malpractice insurance documentation, etc). When I went to the administrative office to receive an identification card on my first day, it turned out that Hopital Robert Debre did not require the TEF French test. Considering the fact that the test was so expensive, I found this really frustrating. My recommendation to future students who want to participate in this exchange: start early and make sure you confirm multiple times that you have to take this language exam.

Once I arrived in France, everything went well both programmatically and administratively. I was quickly integrated into the team. The nursing staff was particularly welcoming and always found me before rounds and consults. To be honest, I found this team more welcoming than most teams at the Harvard hospitals. I was always asked if I had questions or comments. I was also always invited to lunch and coffee runs. They medical team appeared to

be very excited to have a foreign medical student working with them and they always kept me in mind.

4) A self-reflection piece that refers back to the personal statement you provided in your funding proposal about the impact of this fellowship on your future career. Did anything change as a result of your participation in this program?

Participating in the Ghiso Fellowship has only enhanced my belief that medicine, at its core, is a communication-based art which serves to individualize, educate, and empower patients. Managing pediatric patients must be built upon a compassionate, communication-based care model. In many circumstances, this is model is best demonstrated by palliative care and pain management physicians.

After completing this fellowship, I have a new-found appreciation and skill-set to properly assess pediatric pain and goals-of-care. My rotations with anesthesiologists and palliative care physicians have changed the direction of my career. I have ultimately decided not to pursue a career in anesthesiology. This was a difficult decision, but was made for several reasons. While the technical aspects of the field were very rewarding, I found the relationships with patients were too superficial and short-term. I was craving follow-up and long-term rapport. However, while I find great pleasure in working with chronically ill patients in the pain management clinic, I found myself missing the more 'acute' appointments. I never realized how much I enjoyed seeing otherwise healthy patients with more short-term medical problems.

I would now like my medical career to be a combination of these two patient populations, with more of an emphasis on managing patients with chronic illness. During my fourth year, I completed a pediatric dermatology rotation to improve my 'skin diagnostic skills' before starting pediatric internship. I never thought I would be head-over-heels for dermatology, but I fell in love. I particularly enjoy this field because it is a combination of these two patient populations. I am currently completing a research year with the Children's Hospital Boston Dermatology Department where I am working on several research projects on chronic skin disease, both acquired and genetic. I have a particular interest in graft-versus-host disease (GVHD), a devastating skin disease in bone marrow transplant patients, and I frequently attend clinics for these patients at the Dana-Farber Cancer Institute. Many shrug-off the link of pain management and palliative care in pediatric dermatology, but I use my skills acquired during this fellowship on a daily basis. Vision-guided imagery and hypnosis is an extremely useful tool during pediatric procedures and pain management is a challenge in many of our patients with disfiguring vascular disorders. Most of all: pediatric dermatology, just like any field in medicine, is about communicating with patients and preserving quality of life. I feel blessed the Ghiso Fellowship has provided me with this perspective.

5) A comment on the value of your interactions with your faculty mentor and your site mentor.

I feel very fortunate to have Dr. Richard Goldstein and Dr. Charles Berde as my formal mentors for the Ghiso Fellowship. Dr. Goldstein was particularly supportive throughout the review article research, writing, and drafting process. He allowed me to take control of the paper, but knew when to take the reins and pull me in. I have learned tremendously from his mentoring style. He is passionate about teaching others how to take ownership of their ideas, instead of 'just going with the flow.' This can be a challenging concept for a medical student and he allowed me to grow, both as a clinician and academic.

I had excellent interactions with my France site mentor, Dr. Chantal Wood, at Hopital Robert Debre. Despite her busy schedule, she was always excited to teach. She was particularly passionate about teaching her students and staff about the importance of properly evaluating pain and communicating with parents. Dr. Wood was also very welcoming; the first day she handed me the keys to her office and told me to make myself at home. She always encouraged that I read her books during down time. She was conscious about making follow-up appointments with patients when I would be present so I would have increased continuity of care. She was also very welcoming outside of the hospital and we ate dinner together on several occasions with other medical colleagues at the hospital.

6) **Your suggestions on how we can improve this program**.

I do not have any immediate suggestions on how to improve the program. I would just like to thank the Ghiso Foundation for allowing me to participate in this fellowship. I cannot fully express my gratitude towards the Ghiso family for their generosity and commitment to improving palliative care and pain management in the pediatric population.