Product Proposal

Introduction and Statement of Purpose

My final product will be a hypothetical situation detailing the job of an anesthesiologist from pre-op to the surgery to post-op. I will be going through each step in the best-case scenario (without abnormal complications). My final product will include a checklist of things I would need to consider/do before the surgery, some possible complications, patient and physician expectations, a postoperative complications/checklist (to-do), and a detailed description of items used during the procedure. My final product will also include a hand-drawn step-by-step process of how anesthesia affects the area where the procedure takes place. I would also need a patient sheet, to check for past procedures, allergies, and potential complications. I will either be reviewing a craniotomy or a posterior fossa decompression to be able to further explore my interest in neuroscience. I would need to ask my mentor to help advise me on certain aspects of this procedure and I would also ask him how he would speak to a patient about to/after undergoing surgery. I will try to keep this as realistic as possible, and will use my knowledge of past assessments, mentor visits, and the information I gained on writing papers from my original work. I hope that through these methods, I will be able to gather sufficient data and properly simulate an anesthesiologist's role during a procedure in the brain. This product allows me to put my knowledge into a real-world application and exercises my critical thinking skills, because I will have to be creative in finding solutions to potential problems and in my drawing of the procedure.

Review of Skills and Research

Admittedly, I haven't done many assessments on brain surgeries, but for this final product, I will review many articles before writing up my hypothetical patient case. I have, however, observed proper anesthesiologist etiquette and researched how anesthesiologists give amounts of medication and look for allergies/potential complications. I will be able to use this research in my hypothetical patient case, and see how these practices would be applied to real patients in an actual surgical setting. I believe I will have the most trouble researching the actual procedure and researching how to draw anesthesia affecting the procedure. I would also need to conduct further research on the complications anesthesia would bring to this type of surgery. I would need to properly ascertain how much medication the patient needs.

What I believe will help me more than anything is my mentor visits, where I will be allowed to observe actual surgeries and see exactly what an anesthesiologist would do in this setting. According to my mentor, I will be able to observe electroconvulsive therapy, which are induced seizures, where shock waves are sent through the brain. Through the observation of this procedure, I will be able to better understand the role of anesthesia in brain surgery. I will utilize my first-hand account and apply the skills I have learned in the workplace into my paper. Through the creation of this product, I will learn skills such as patience, researching, and critical thinking to creatively and properly introduce all necessary aspects of anesthesia in this paper.

Methodology

- **Materials**
  - Mentor Visit notes/accounts

- Previous assessments
- Research on brain surgery (specifically craniotomies or posterior fossa decompressions)
- Research on how to assign proper dosages
- Research on general anesthesia (anesthesia used in this case) and potential complications
- Research on how anesthesiologists talk to patients and let them know of discomforts or problems
- PubMed, American Society of Anesthesiologists, etc (articles)
- Insight from Dr. Aleem
- Textbooks (potentially)
- Diagrams of the brain during this procedure
- Digital programs for the creation of these images

- **Description of Process and Procedures:**

Before I do any of my other research, I will need to determine whether I am analyzing a craniotomy or a posterior fossa decompression. After this, I will create a hypothetical patient and create a patient sheet for them. After I do this, I will create the drawings of the procedure to prepare myself for actually writing about the procedure. After I finish the drawings, I will research proper medication dosages and complications that could arise from the patient chart. I will confirm that I would (hypothetically) be using general anesthesia. I also plan on researching proper bedside etiquette for anesthesiologists and explaining how I would talk to patients

(consultations). In order to do this, I will use mentor visits, assessments, and additional research done solely for the purpose of this final product.

After conducting this extremely detailed research, I would create an outline for my patient's procedure (and the before and after). I will directly follow the patient chart in addressing potential concerns, and I will spend most of this time outlining what would happen during the procedure. Then, I would make notes of details like how long the procedure would take, its cost, specific amounts of medications, etc. After I write about the procedure, I would create the post-op checklist, taking the components from my outline and refining them, to properly simulate what would happen after this procedure. I would need at least a week to revise/look for any gaps or mistakes in the final product. By the end of this, the culmination of these components should create a highly detailed and informative hypothetical surgical scenario, where I can show the roles of an anesthesiologist during a specific type of surgery.

Utilization of Higher-Level Thinking Skills

In order to properly simulate this patient case (the anesthesiologist's role), I will utilize higher level thinking in analyzing research, finding proper solutions, avoiding potential problems, etc. Among other skills, I will use problem-solving, designing (the drawing of the procedure), analyzing, and evaluating. I believe the skill I will use the most is analyzing, simply because of how much research will need to go into this project; in every component of the product. I will use evaluating for the parts of the project like deciding amounts of medications,

complications, and monitoring patient vitals (role during surgery). Design, like mentioned before, will be used in my drawn images/computer renditions of how anesthesia affects the procedure. Lastly, problem-solving will need to be used in every area, especially those involving surgical complications.

Conclusions

Since my final product is so detailed with so many components to it, I believe it will take me multiple weeks to complete, and a potentially long time to revise. The time from now to when I need to finish this will definitely make for a tight deadline, but I can complete it (as long as I adhere to my schedule). First, i need to identify the procedure being done, the patient, and make the patient sheet, which will explain the medical history of my hypothetical patient. Only after I do this, I can make my drawings and procedural scenario. This product will be very realistic and is a perfect example of me implementing my knowledge into a real-world application. It also teaches me proper bedside manner (how anesthesiologists speak to patients) and how to respond to problems that might develop from the procedure (part of the real world application because it teaches me how to deal with unexpected situations).

Through this project, I will learn how an anesthesiologist behaves in a hospital setting, the work the have to do, and how they respond in emergency situations. I will grow many skills along the way; especially problem-solving and analyzing. In the future, I will be better equipped with dealing with situations of this sort, having researched it in extreme detail and going through the process step-by-step. This product could be useful to other people who are interested in

anesthesiology because it could help them understand the role of an anesthesiologists and everything they have to do for a patient. It would also help them decide if they like everything the anesthesiologists have to do (work load, use of math, etc) to decide if this is a career one might want to pursue. This could even potentially help anesthesiologists who would need to review the specifics of this procedure, or any who are interested in seeing what a student knows about the responsibilities of an anesthesiologist.

1st week

- Find procedure
- Finish drawing of procedure
- Make patient sheet

2th week

- Do all of the research for the procedure
- Make outline of hypothetical patient case

3th week

- Review outline and finalize
- Refine details of pre-op and post-op