

SUMMARY

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Project Description: The purpose of this research was to study the competition among biologic products which have been approved for sale in the US. More specifically, the aim of this project was to assemble datasets obtained from different sources (Hospitals and Retail sectors) into one dataset in order to analyze the prices of biologics to determine patterns across drugs and time. This would allow us to see how pharmaceutical firms adjust prices in response to consumer behavior. According to the FDA, biologic products include blood components, vaccines, tissues and proteins that are isolated from natural sources like animals and microorganisms using biotechnology.

Student Responsibilities: During the first 2 weeks of the project, my task was to find out the names of all biologic products approved for sale in the US including the brand and generic names associated with the drugs through the FDA website and other various sources. My next step was to find out the different versions that these biologics came in, as well as their dosing information, which included the length of time that these drugs are typically used for. This was essential to determine the expense of the drugs for a patient over the course of a year. For example, Insulin has to be taken every day for a long period of time while Amevive has to be taken for 12 weeks only.

Finally, I was responsible for sorting and merging datasets in Microsoft Excel to produce one dataset which contained the names and prices of these drugs to be used for analysis. I organized the data in terms of what the drugs are used to treat and converted the dataset into a Stata file which would be used to run regressions in order to find out the relationship between prices of drugs over time. I conducted some preliminary analysis but did not find anything concrete. Due to the time constraint I was unable to conduct a detailed analysis about the competition among biologic products in the US pharmaceutical industry.

Through this SRO, I got exposure to the concept of academic research. While working with Professor Scott-Morton I gained a great deal of knowledge about the pharmaceutical industry. It was a perfect opportunity for me to further my interest in the field of research as I learned how to conduct data analysis using the statistical software Stata, a skill that will be useful to me in my future research and academic endeavors.