Why are Clinical Trials important in Portugal

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**Group.** B1 **TP.** 2

**Abstract.** A short summary of your project with a maximum of 250 words.

**Keywords.** Write three keywords that best describe your project, separate keywords with a semi-colon

# Introduction

This is a template for the project report. Please follow the styling used in this document. Text should use Times New Roman font with size 11pt and 1,15 space between lines.

Do not use subsections.

Figures and Tables should have a caption and be numbered. Less figures are better than too many figures. Figures and Tables are here to communicate particularly relevant findings. You are not expected to report everything you did, for that we will have access to your Jupyter Notebooks. A thumb rule is that you should be able to report your project using only 5 figures/tables.

What is the problem you decided to study? Why do you think it is a relevant problem? How does it connect with Data Science?

At a time of increasing average life expectancy, we observe the emergence of new diseases that are, in part, associated with an aging population as well as other external factors to which it is now exposed. Consequently, there is the growing need for new drugs, which are safe and effective.

In a highly regulated ethical and legal framework, Clinical trials are essential for assessing the safety and efficacy of new drugs, representing an important step for these to be approved and made available for patients. Clinical trials also play a pivotal role in advancing medical knowledge, improving patient care, apart from ensuring the safety and effectiveness of new medical treatments, devices, and interventions, through carefully designed studies in human subjects.

Our project aims to explore the clinical trials landscape in Portugal and understand how they can be important to serve two specific conditions of the Portuguese population. With Stroke being one of the leading causes of death and disability at a global level, Portugal has seen improvement in incidence and subsequent prevalence rates possibly by improvements in health systems, case detection and clinical diagnosis1. Depression is one of the most frequent psychiatric disorders, with a prevalence in Portugal among the highest in European countries2. The WHO ranks depression as the largest contributor to global disability with the observations of increased prevalence in the first year of the COVID-19 pandemic. By understanding the disease landscape and available therapeutic options, considering conditions such as Stroke and Depression, our team aims to investigate how Clinical trials are serving to provide future therapeutic solutions for these conditions?

# Data and Methods

How did you acquire the data? What characterizes the dataset? Size, features, sources of the data, which steps did you have to perform to transform the raw data into your working data? Did you use an interesting Python library to achieve your results? Describe it here.

# Results and Discussion

Use this section to discuss and report your main findings. Summarize the methods used and describe your main findings. Focus on reporting results that are relevant.

# Conclusions

Use this section to connect the Results with the problem you discussed in the introduction. What have been the main challenges in the development of your project? What would be the next steps?

# Statement of contribution & Acknowledgments

Use this section to specify what was the contributions of each group member. Did some else also helped in the project development, perhaps with useful insights or in the data acquisition? Use this section to acknowledge their role.

# References

References should follow the APA 6th edition, consider using a reference manager such as Zotero or Mendeley. Use academic references. Avoid referencing blog posts.

1 [Burden of Stroke in Europe, Stroke, 2020 Aug; 51 (8): 2418-2427](https://www.ncbi.nlm.nih.gov/pmc/articles/PMC7382540/)

2 [Depression and Other Common Mental Disorders, Global Health Estimates, WHO, 2017](https://apps.who.int/iris/bitstream/handle/10665/254610/WHO-MSD-MER-2017.2-eng.pdf?s)