



# Prescribing Patterns of Anti-CD20 Monoclonal Antibodies for Multiple Sclerosis: A Five Year, Single Center Experience

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## INTRODUCTION

- Multiple Sclerosis (MS) is a chronic neuroinflammatory disease of central nervous system (CNS) that is associated significant disability and diminished quality of life.
- The introduction of anti-CD20 monoclonal antibodies for disease modifying treatment (DMT) has revolutionized treatment paradigms for patients with multiple sclerosis. Several randomized placebo-controlled trials have shown profound efficacies of Anti-CD20 agents such as ocrelizumab and rituximab for treating both relapsing-remitting multiple sclerosis (RRMS) and primary progressive multiple sclerosis (PPMS).<sup>1</sup>
- In relation to other DMT agents, anti-CD20 monoclonal antibodies provide multiple advantages for the patients and clinicians, including less frequent dosing schedules, prolonged duration of medication effect, reliable adherence monitoring parameters, and generally well tolerated adverse reaction profile.<sup>2</sup>
- Despite the advantages of anti-CD20 therapies, the usage of anti-CD20 therapies can be limited by infection risks, infusion reactions, malignancy, pregnancy complications, financial burden, and ability to travel to an anti-CD20 therapy infusion sites.<sup>3-6</sup>
- In light of the COVID-19 pandemic, national MS centers have observed significant reductions in anti-CD20 utilization, citing the pandemic as a casual factor for stopping or not prescribing anti-CD agents.<sup>3,4</sup>

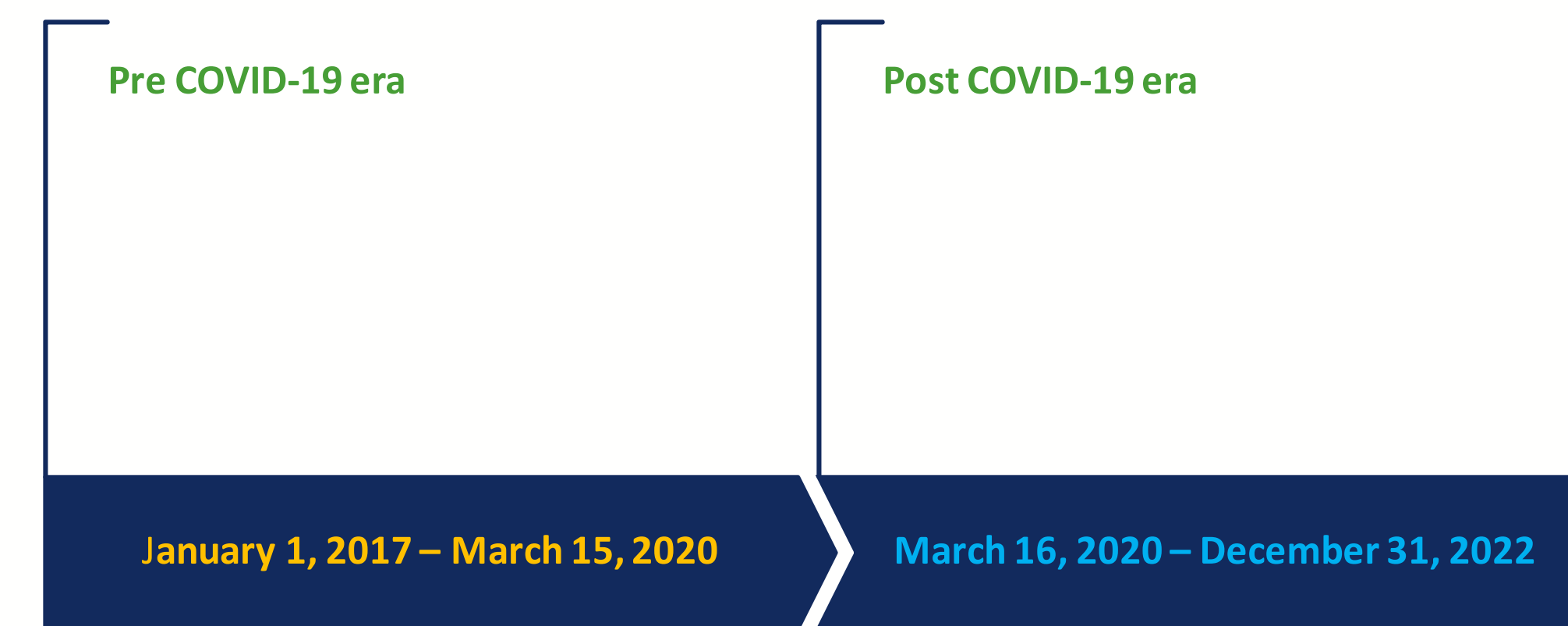
## OBJECTIVES

The main purpose of this study is to define the MS population receiving anti-CD20 therapies at the OHSU MS center before and after the start of the COVID-19 pandemic.

The overall objective of this project is to compile a database that will be utilized for all future retrospective analyses of patients prescribed anti-CD20 DMTs at OHSU.

## METHODS

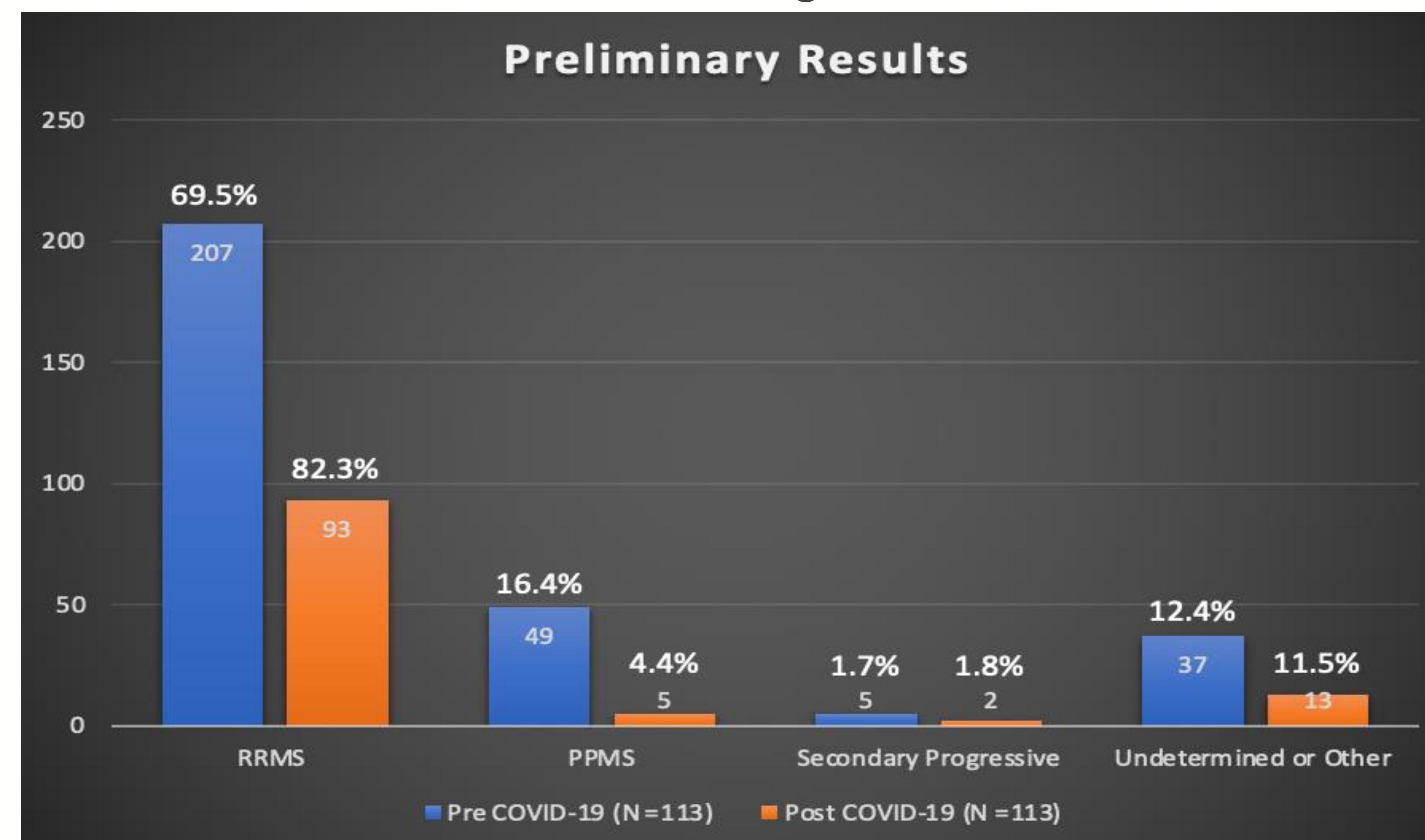
- The study will be a retrospective, single center observational study in which we will map the prescribing patterns in 411 subjects with newly prescribed intravenous anti-CD20 therapies (ocrelizumab and rituximab) to patients with Multiple Sclerosis at the Oregon Health & Science University MS center from the pre and post COVID-19 era.



- Data will be obtained from manual chart review, using Electron Health Records.
- Using descriptive statistics, we will compare the pre and post COVID-19 era of anti-CD20 scripts by comparing patient age, sex, language, race, MS subtype, ambulation status, and prior DMT prescribing history before anti-CD20 therapy in patients with MS in both eras.
- H<sub>0</sub>: Anti-CD20 therapies were prescribed to older patients with more progressive forms of MS in the pre-pandemic era whereas anti-CD20 therapies were prescribed to younger and more relapsing forms of MS after the onset of the pandemic.

## RESULTS

Pending



## CONCLUSIONS

Pending

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## CONTACT / DISCLOSURES

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No authors of this study have any commercial relationships to disclose.