

## Background

- COVID-19 has impacted several areas of oncology patient care, most notably the reduction of patient visits for treatments
- Standard treatment of multiple myeloma (MM) involves a combination of intravenous (IV) and oral therapies.

## Objective

- The purpose of this study is to assess the impact COVID-19 had on IV and oral medication prescribing patterns pre and during the COVID-19 pandemic among MM patients.

## Methods

- Retrospective review of adult MM patients insured by a large commercial and Medicare health plan in the United States who started a new IV or oral MM agent during the study period
- To assess the impact of COVID-19 on IV and oral medication prescribing patterns, we compared a pre-COVID period (March 1-August 31, 2019) to a COVID period (March 1-August 31, 2020)
- We utilized medical and pharmacy claims to identify patients and calculated new therapy starts per newly diagnosed patient (defined as the number of patients starting a new IV or oral medication for MM divided by the total number of patients with a first indication date of MM within the study timeframe)
- We compared rates using a Chi-square test
- p-values  $\leq 0.05$  were considered statistically significant

## Results

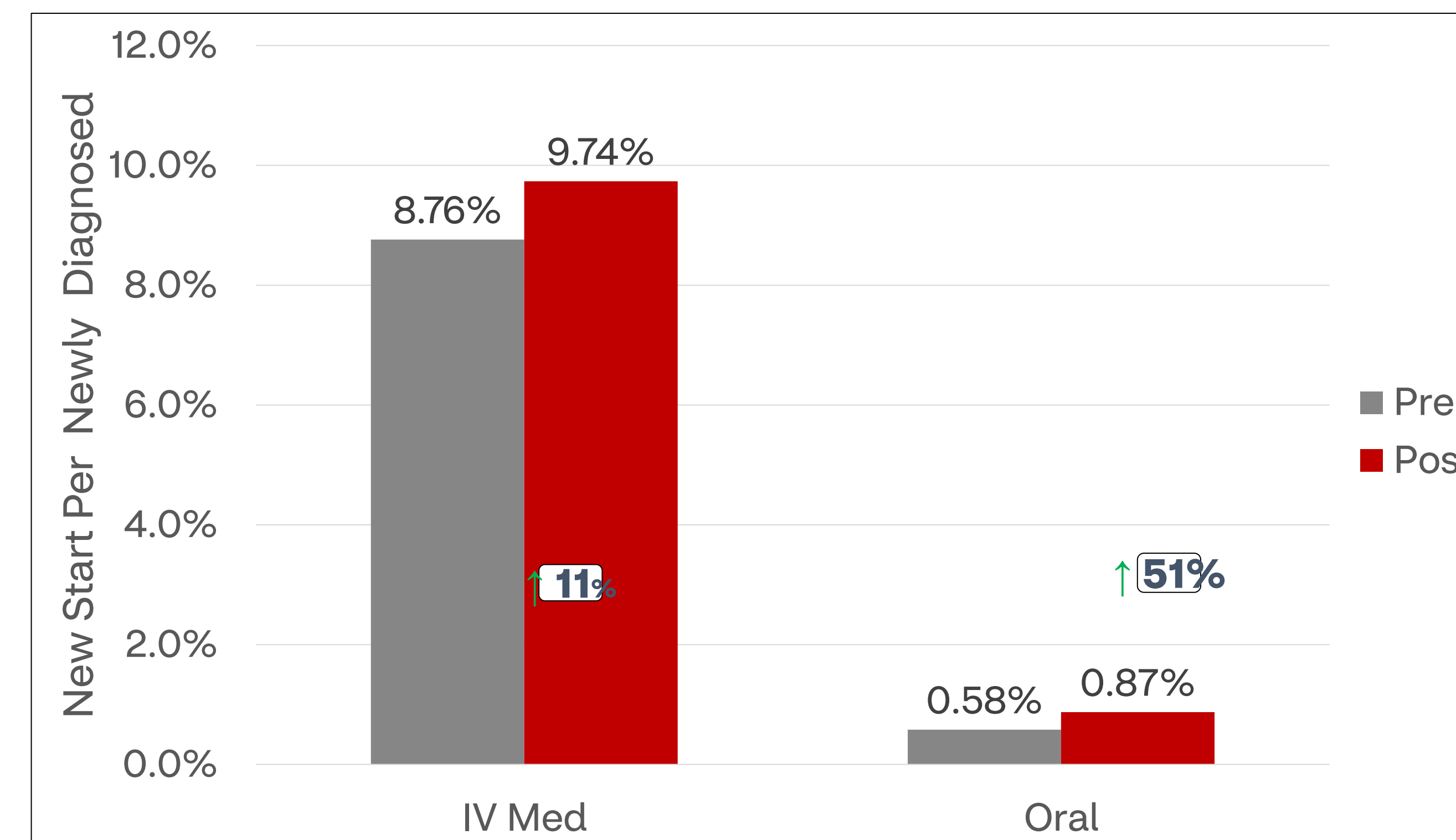
- 1,754 patients were enrolled in the study
- There were no significant differences in demographic characteristics pre and during COVID-19 between the two groups with respect to age (67.05 vs. 66.64; p = 0.45), gender (p = 0.80), insurance plan type (p = 0.17), geographical region (p = 0.26) and medication (p = 0.59)
- During COVID-19, the number of newly diagnosed MM patients decreased by 22% (9,657 to 7,560) and the total number of new therapy starts decreased by 11% (930 to 824)

**Table 1. Patient Demographics Among COVID Study Groups**

Variable	N = 930	N = 824	p-value
Age (mean (SD))	67.05 (10.93)	66.64 (11.52)	0.449
Male gender (n,%)	517 (55.6)	464 (56.3)	0.799
Line of Business (n, %)			0.170
Commercial Fully Insured	56 (6.0)	68 (8.3)	
Commercial Self Insured	293 (31.5)	262 (31.8)	
Medicare	581 (62.5)	494 (60.0)	
Region (%)			0.255
Mid America	230 (24.7)	200 (24.3)	
Northeast	316 (34.0)	267 (32.4)	
Southeast	237 (25.5)	197 (23.9)	
West	147 (15.8)	160 (19.4)	

SD, standard deviation

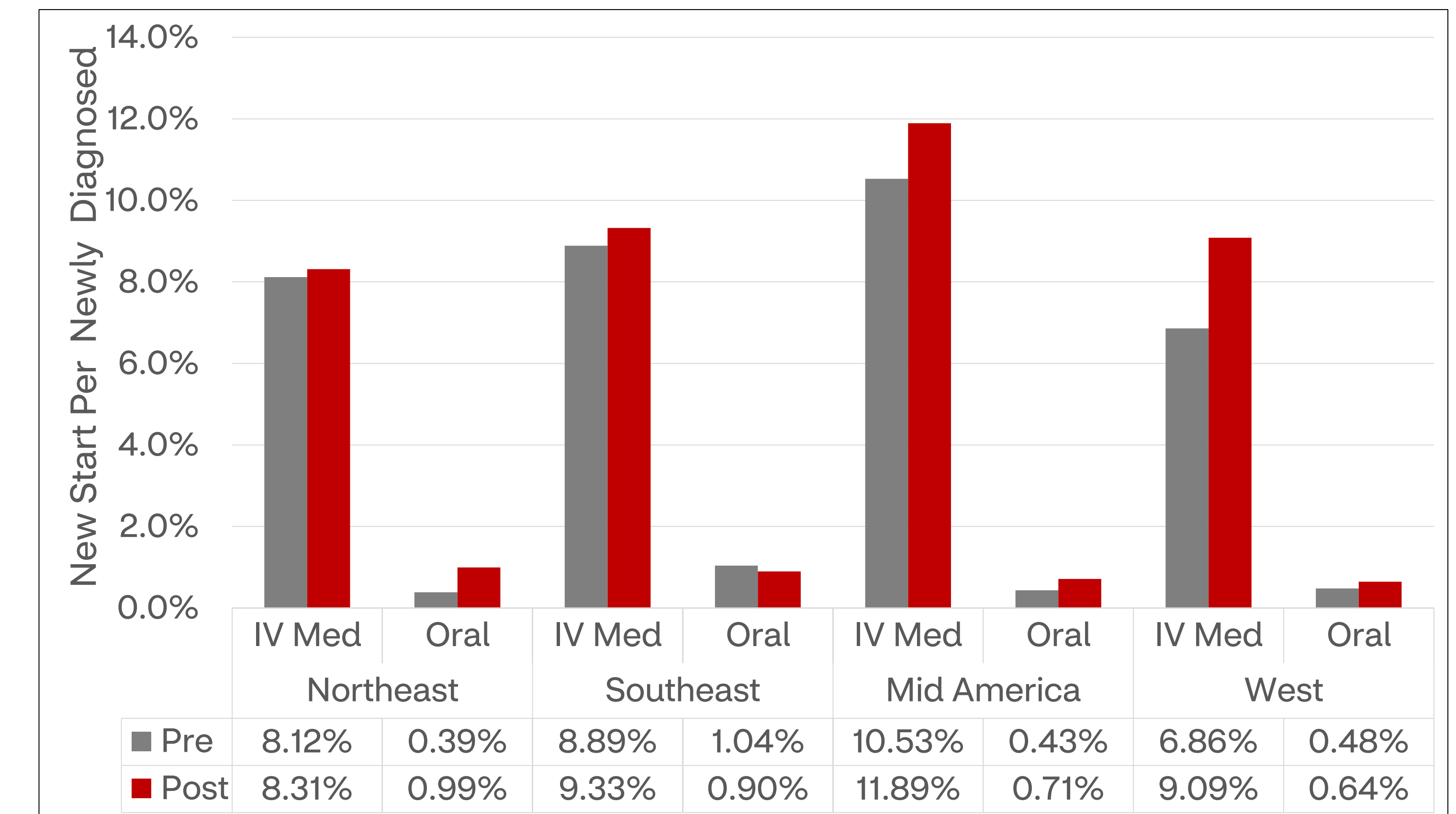
**Figure 1. Medication New Starts Per Newly Diagnosed By Pre- and Post-COVID**



IV, intravenous

- When looking at rates of new therapy starts per newly diagnosed patient, both IV (11%; p = 0.03) and oral (51%; p = 0.03) medication rates significantly increased

**Figure 2. Medication New Starts Per Newly Diagnosed By Region, Pre- and Post-COVID**



IV, intravenous

- There were significant increases in new therapy start rates by region in the Northeast for oral (157%; p < 0.01) and West for IV (32%; p = 0.02) medications

## Conclusions

- While the total count of new therapy starts, a proxy for new diagnoses, decreased during COVID-19, the rate of new starts for both IV and oral therapies for patients diagnosed with MM significantly increased
- These increased start rates may be explained by a remarkable 22% drop in the total number of newly diagnosed MM patients during COVID-19
- As the pandemic continues, further study is warranted to understand how COVID-19 may impact IV vs. oral usage in MM

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