

Factors That Impact Treatment Completion Of Teriparatide

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PURPOSE

Many patients do not complete the two year course of teriparatide.¹

Reasons for discontinuation include:²

- Clinician decision
- Side effects
- Patient request
- Inadequate response

Nonadherence to osteoporosis therapy increases:³

- Risk of fracture
- All-cause medical costs
- Frequency of inpatient service utilization

This study aimed to identify factors that can be:

Used to predict treatment completion of teriparatide **OR** Modified to increase the likelihood of treatment completion of teriparatide

METHODS

Type: Single-center, retrospective, cohort study

Prescribed teriparatide for the 1st time by a provider at the VUMC Endocrinology Clinic

VUMC: Vanderbilt University Medical Center
VSP: Vanderbilt Specialty Pharmacy

Filled teriparatide with VSP

Filled teriparatide with non-VSP pharmacy

Initial prescription June 2014 – June 2015

Initial prescription January 2009 – December 2010

Medical records were reviewed for the two years following initial teriparatide prescription for the two groups of patients.

Primary endpoint: teriparatide treatment completion rates among:

- Baseline characteristics
- Types of patient contacts by an integrated specialty pharmacist
- Levels of financial assistance

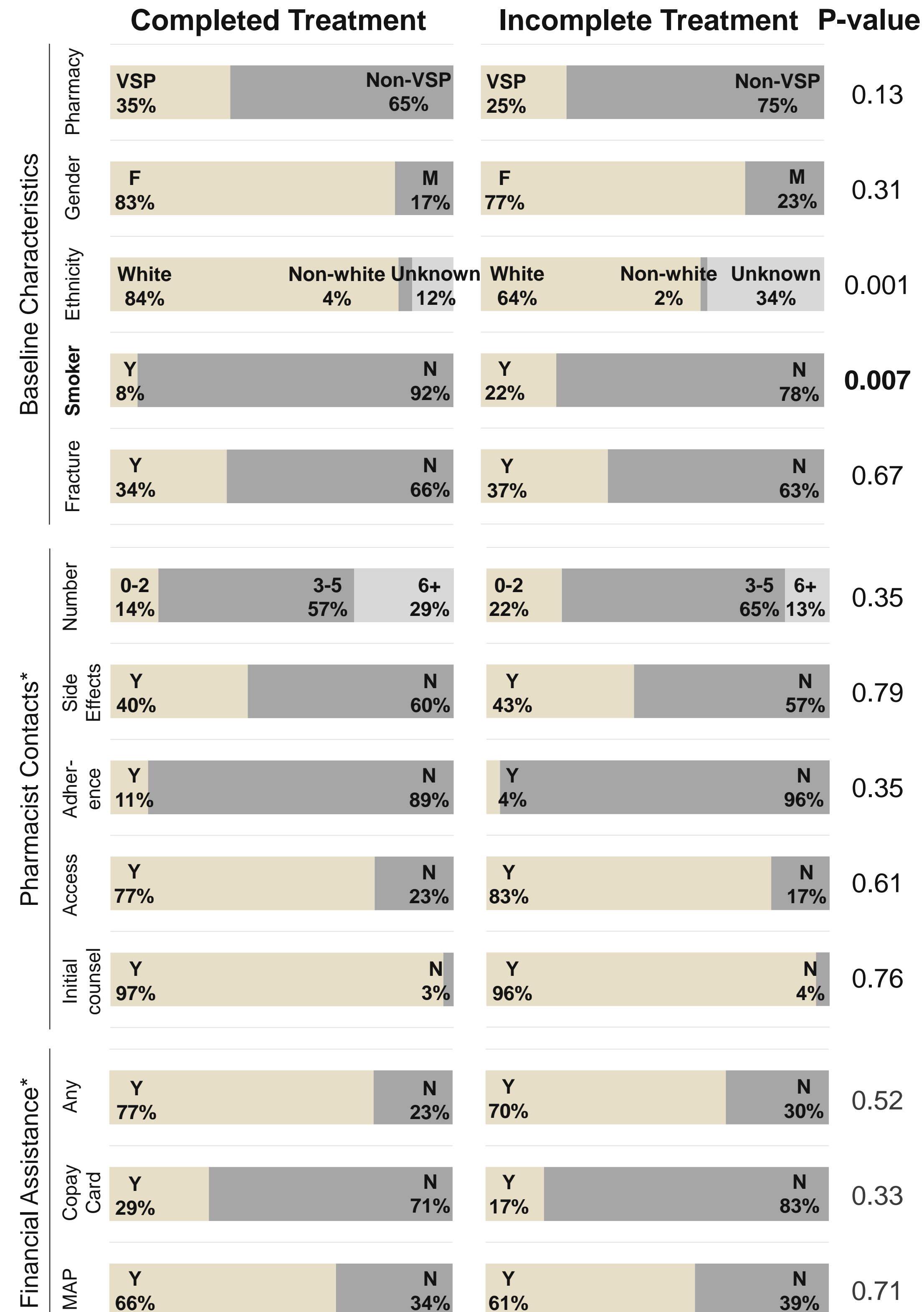
Secondary endpoint: rate of dropout among baseline characteristics

RESULTS

Baseline Characteristics (N = 190)

Gender	Age (mean ±SD)	58 ±13
Female	152 (80%)	Smoker Status
Male	38 (20%)	Current smoker
Ethnicity	Non-smoker	162 (85%)
White	141 (74%)	Fracture at Baseline
Non-white	6 (3%)	No
Unknown	43 (23%)	Yes
		122 (64%)
		68 (36%)

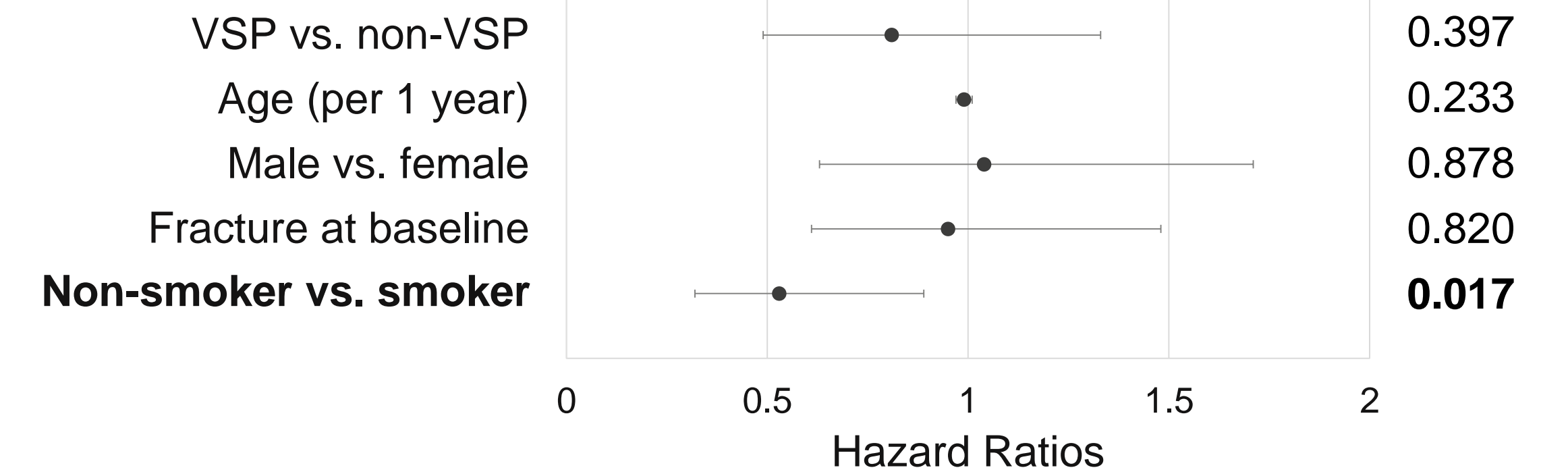
RESULTS



* VSP only F: Female M: Male Y: Yes N: No MAP: Medication Assistance Program

RESULTS

Cox Multivariable Model: Event is Loss to Follow Up



Overall

Included in the study: 190 patients	Completed treatment: 99 patients (52%)	Filled with VSP: 58 patients (31%)
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EVALUATION

Primary outcome: 22% of patients who did not complete teriparatide treatment were smokers, while only 8% of patients who did complete treatment were smokers (p <0.05).

Secondary outcome: When comparing non-smokers to smokers, the rate of drop out decreased by 47%, hazard ratio = 0.53 (p <0.05).

CONCLUSIONS

- Smoker status is significantly associated with whether or not a patient will complete teriparatide treatment and if a patient will be lost to follow up.
- Closer monitoring and more frequent follow up with the smoker population could increase treatment completion rates.
- The majority of VSP patients received some form of pharmacist intervention as well as financial assistance.

REFERENCES

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DISCLOSURES

Authors of this presentation have the following to disclose concerning possible financial or personal relationships with commercial entities that may have a direct or indirect interest in the subject matter of this presentation.
Emily Singleton, Brooke Boils, Kathryn Litten, Steve Burkes, & Autumn Zuckerman: Nothing to disclose