

P2.285-303: Virtual Proactive Monitoring (VPM) of Patients with NSCLC on Newest Generation Oral Tyrosine Kinase Inhibitors: A Pilot Project

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INTRODUCTION

In a rapidly changing treatment landscape for NSCLC, oral tyrosine kinase agents (TKIs) have become a more effective treatment option.

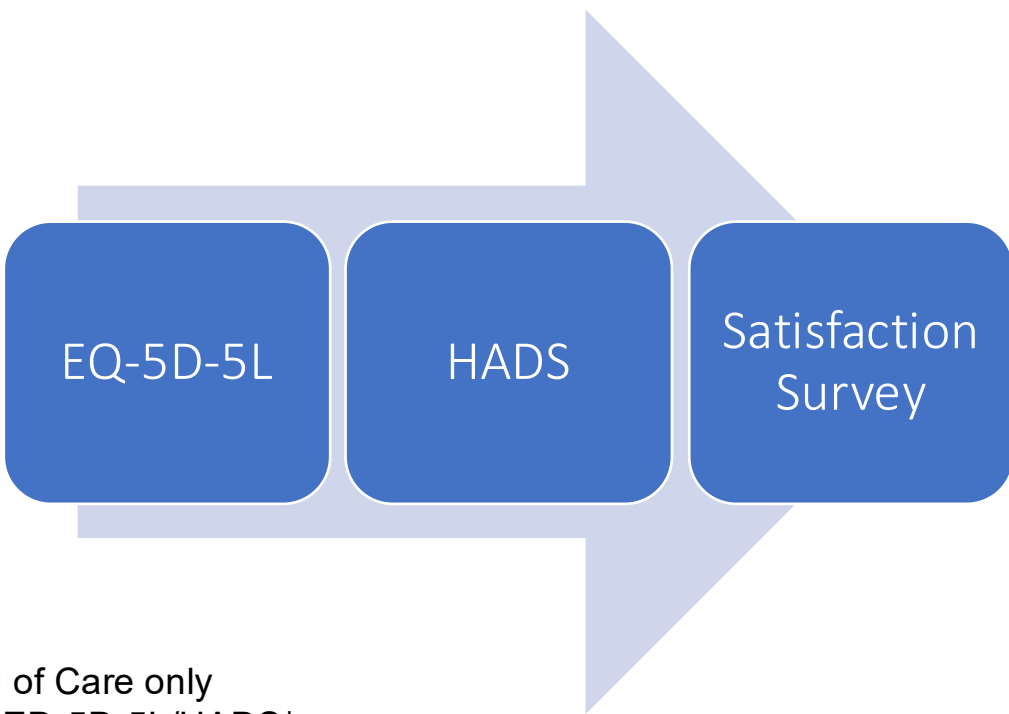
- Patients receiving TKIs for advanced NSCLC often experience reduced in-person follow-up due to convenience and tolerability of oral therapy however; adverse effects can still occur
- Virtual Proactive Monitoring (VPM) nursing care can capture these toxicities early, leading to earlier intervention and reductions in unplanned care.

METHODS

A VPM telephone follow-up pilot program as undertaken in the Thoracic Clinic at PMCC from June 2025-December 2025.

- This pilot project specifically included patients with advanced NSCLC with a targetable mutation who were starting a new oral TKI
- Patients were either assigned to receive VPM or standard of care (no VPM)
- VPM patients were assessed at 5 specific timepoints in 6-month period

VPM patients were given:



Standard of Care only received EQ-5D-5L/HADS*

Our initial results focused on the impact of the VPM pilot on patients starting oral TKIs.

Characteristic	Standard of Care	VPM
Age		
Mean (sd)	66.1 (12.8)	67.8 (13.3)
Median (Min,Max)	65.5 (47.0, 90.0)	70.5 (37.0, 88.0)
Sex		
Female	14 (64%)	14 (54%)
Male	8 (36%)	12 (46%)
Ethnicity		
Black	1 (8%)	5 (25%)
Caucasian	2 (17%)	4 (20%)
East Asian	8 (67%)	5 (25%)
Other	1 (8%)	6 (30%)
Language (other than English)		
Other	8 (100%)	5 (100%)
Smoking Status		
Current Smoker	1 (5%)	2 (8%)
Ex-Smoker	5 (23%)	5 (19%)
Never Smoker	16 (73%)	19 (73%)
Stage at Diagnosis		
Stage I-III	0 (0)	7 (27%)
Stage IV	22 (100%)	19 (73%)
Mutation		
ALK	5 (23%)	6 (23%)
EGFR	14 (64%)	18 (69%)
Other	3 (14%)	2 (8%)
Treatment Category		
Combination Treatment	4 (18%)	2 (8%)
Targeted Therapy	18 (82%)	24 (92%)
Targeted Treatment		
Lorlatinib	3 (14%)	6 (23%)
Osimertinib	14 (64%)	16 (62%)
Other	5 (23%)	4 (15%)

Table 1: Summary of Characteristics of VPM cohort and Control cohort

Questionnaire	Standard Care (n=22)	VPM (n=26)	p-value
EQ-5D-5L Health Utility Score			
Mean (sd)	0.71 (0.23)	0.80 (0.21)	
Median (Q1,Q3)	0.85 (0.54, 0.90)	0.87 (0.79, 0.90)	

Table 2: EQ-5D-5L Health Utility scores for both VPM and Standard of Care cohort

RESULTS

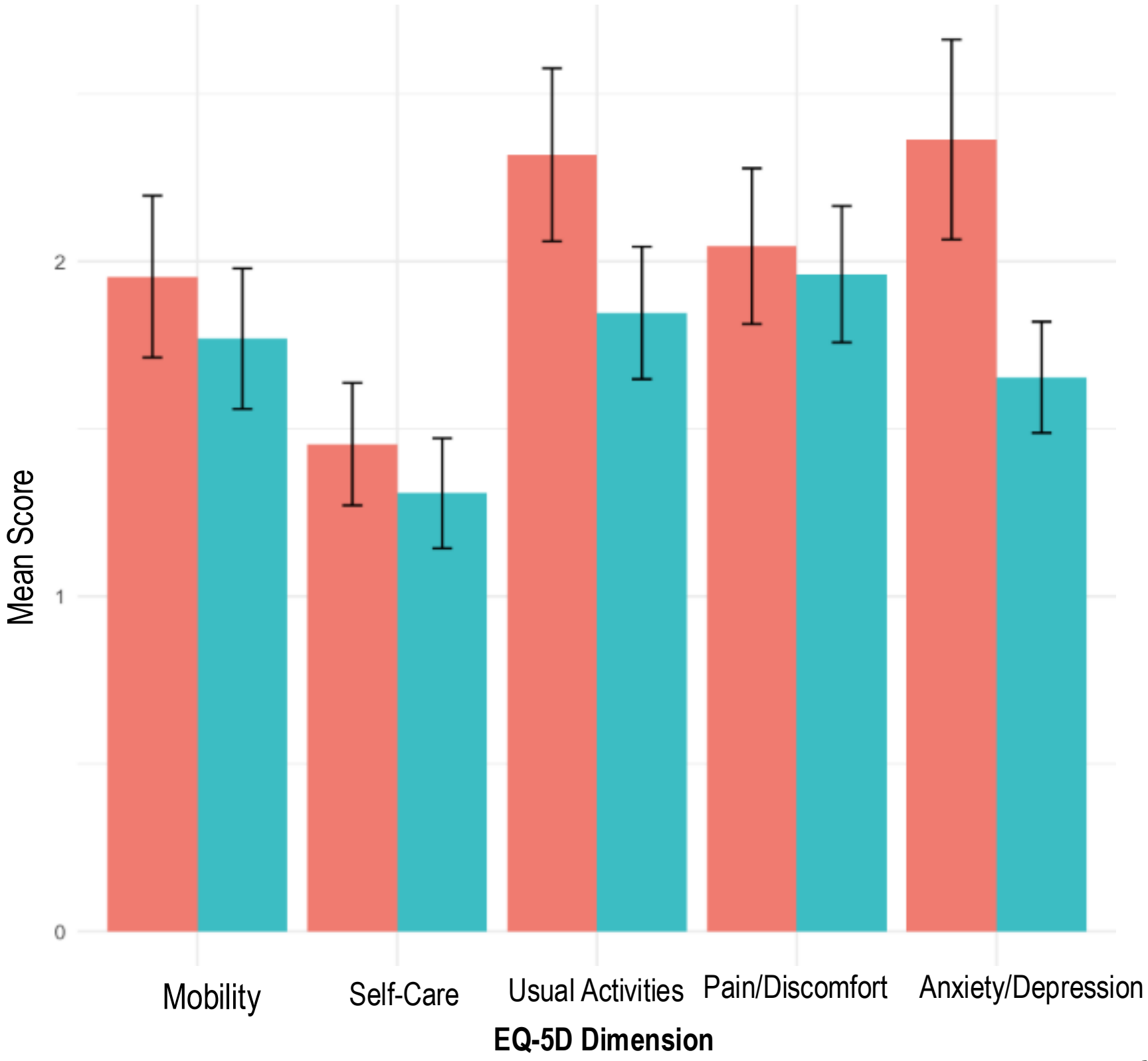


Figure 1: EQ-5D Dimension scores for both VPM and Control cohort

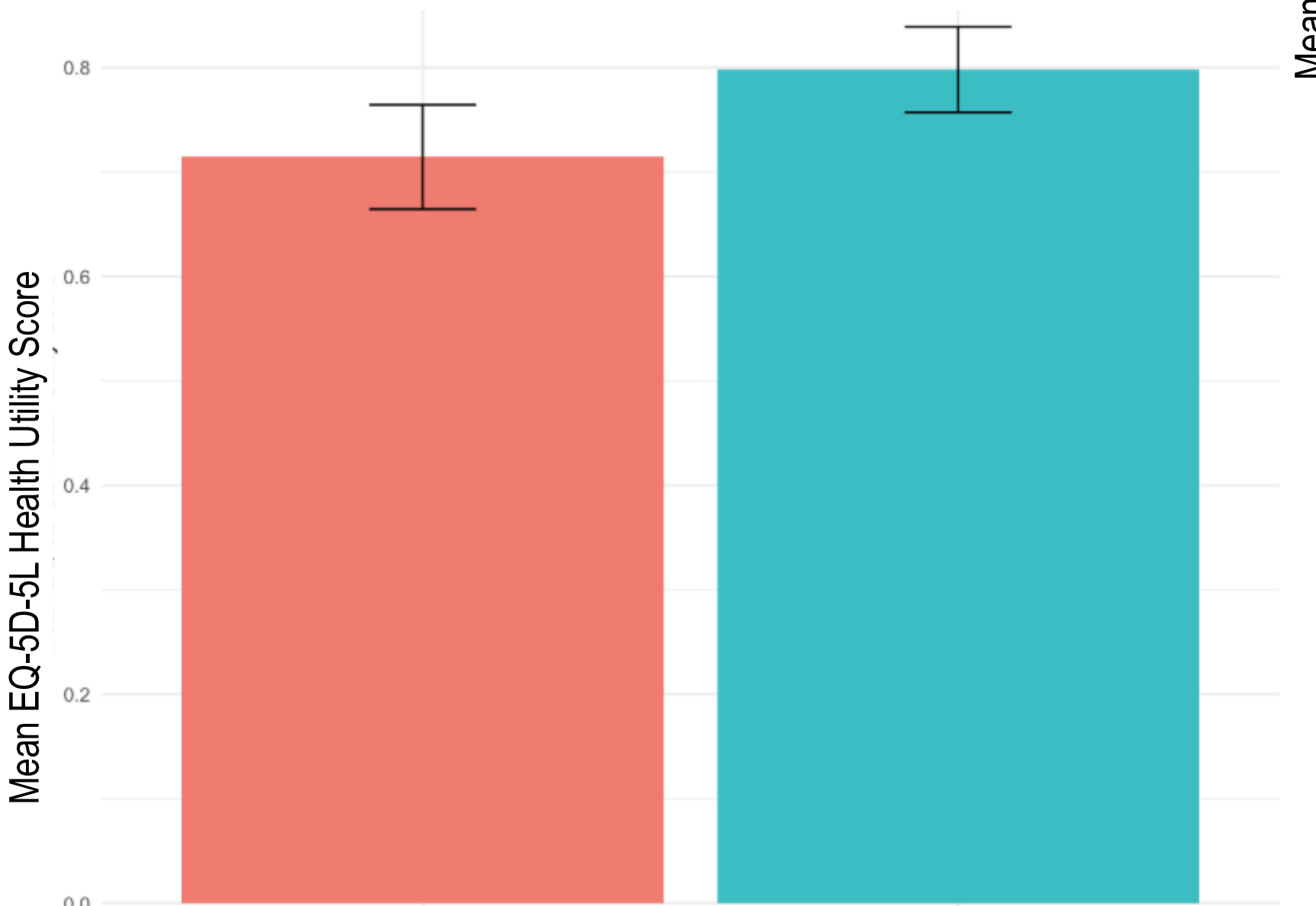


Figure 3: EQ-5D-5L Health Utility scores for both VPM and Control cohort

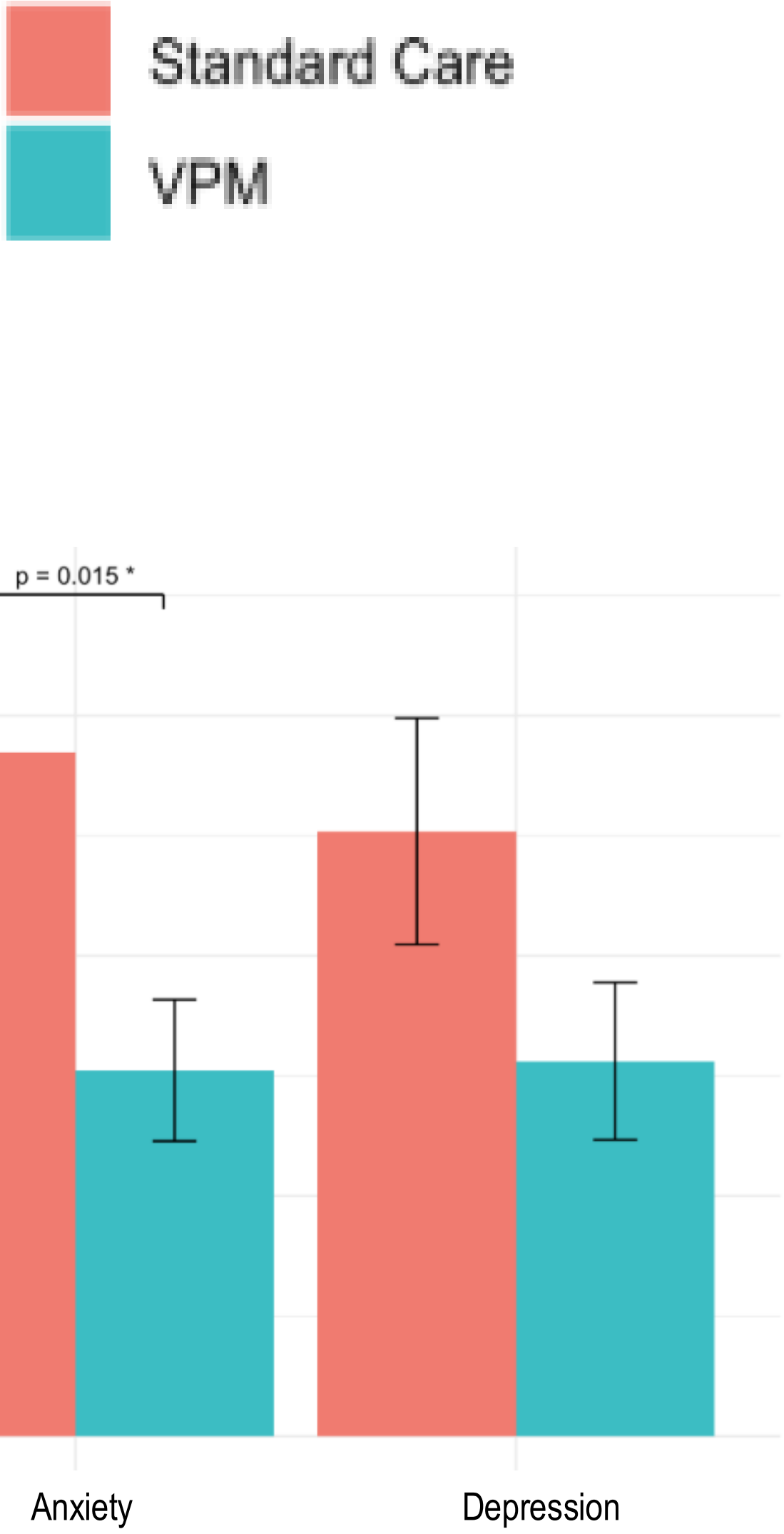


Figure 2: HADS Anxiety/Depression scores for both VPM and Control cohort

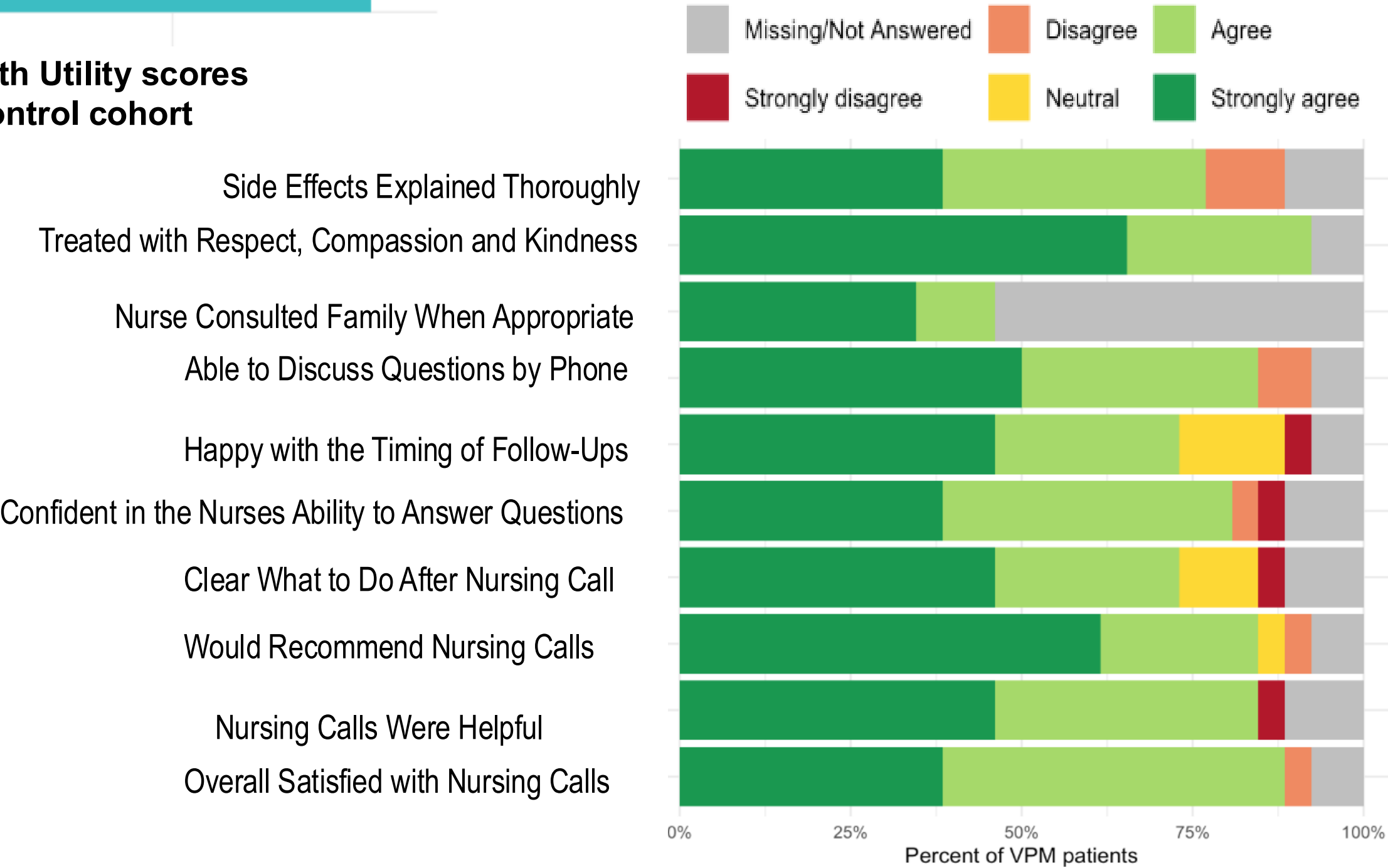


Figure 4: Patient Satisfaction Survey Responses for VPM cohort

RESULTS

VPM:

- VPM was associated with numerically lower mean EQ-5D-5L Dimension scores, suggesting that VPM patients had fewer reported problems in the 5 domains (Figure 1).
- VPM was associated with a more favorable anxiety/depression score in EQ-5D-5L. In Anxiety specifically, the VPM cohort scored more favorably (p=0.015) (Figure 1) (Figure 2).
- Additionally, the VPM cohort was associated with numerically higher health utility scores as calculated from five EQ-5D-5L dimensions. Higher health utility scores are associated with better overall health-related quality of life (Table 2) (Figure 3).
- Toxicities led to TKI interruption 14 times, dose reduction occurred twice. Interdisciplinary interventions were initiated 24 times. Physician escalation occurred 40 times. Nurses utilized the Adverse Event Management Guide 58 times to assess patient side effects/symptoms.
- 91.7% of the VPM cohort either strongly agreed or agreed that the intervention was beneficial (Figure 4).

CONCLUSION

VPM identified a host of early symptoms/toxicities that required management by healthcare providers, even in classically low toxicity agents.

- VPM may be a useful method for toxicity management to further reduce unplanned care, enabling proactive monitoring and timely support to preserve patients' quality of life at home. Compared to the control cohort, VPM was seen to be a strong management strategy. Planned next steps include optimizing call frequency, developing medical directives to support nurse-initiated laboratory monitoring, and integrating VPM into the standard of care.