Treatment patterns in advanced gastric cancer (GC) across racial and ethnic groups in the immunotherapy era: a retrospective claims data analysis in the United States

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ABSTRACT

Background: Treatment for advanced GC has evolved in recent years, with anti-programmed cell death protein 1 (PD-1) immunotherapy emerging as a standard of care. This study aimed to assess the adoption of immunotherapy and treatment patterns across race/ethnic groups among first-line (1L) GC patients using administrative claims data.

Methods: Adult patients with advanced or metastatic GC who received 1L treatment between 04/01/2021 and 02/28/2025 were selected from the Symphony Integrated Dataverse (IDV). Continuous enrollment for ≥ 12 months pre- and 3 months post-treatment initiation was required. Baseline characteristics, 1L treatment distribution, duration of therapy (DoT), and treatment sequencing from first to second line was reported among non-Hispanic White (NHW), non-Hispanic Black (NHB), and Hispanic cohorts. DoT was estimated by the Kaplan-Meier method.

Results: A total of 2,054 patients were included. The mean age among patients receiving 1L systemic treatment was 66.7 years. Over half of patients were male (57.1%) and most (62.8%) were commercially insured. Hispanic (n=220) and NHB (n=228) patients were slightly younger compared to NHW (n=762) patients (median age at 1L: 68 and 69 vs. 71) and had higher Charlson Comorbidity Index score (mean: 6.5 and 6.4 vs 6.0).

Systemic chemotherapy only was utilized by 63% of 1L-treated patients. The utilization rate of 1L anti-PD-1 increased marginally during the study period (29% of treated patients in 2021; 35% in 2024), and was highest among NHW (30.2%), followed by Hispanic (29.5%) and NHB (25.4%) patients (Table). The median 1L DoT was 4.3 months among all patients and varied slightly across racial groups (NHB: 4.4 months, Hispanic: 4.3, NHW: 4.1). The majority of patients (74%) did not have an observed 2L treatment.

Conclusion: Utilization of PD-1 inhibitors is limited, with approximately one-third of patients receiving immunotherapy in the 1L setting. This underuse highlights an opportunity for increased uptake of novel therapeutic approaches as additional immunotherapy treatments are approved. No significant differences in the utilization of PD-1 inhibitors by race were observed, suggesting equitable access among treated populations. Effective 1L therapy is imperative to promote positive patient outcomes, particularly due to low advancement to 2L therapy.

Table. Treatment Utilization in 1L Among GC Patients by Race

Treatment	NHB (n =228)	Hispanic (n =220)	NHW (n =762)
	%	%	%
Chemotherapy	61.8	65.0	62.1
Anti-PD-1 Regimens	25.4	29.5	30.2
PD-1 Monotherapy*	7.0	10.0	8.0
PD-1 Combination therapy	18.4	19.5	22.2
Other (e.g., trastuzumab-based regimens)	12.7	5.5	7.7

*Anti-PD-1 monotherapy is not approved as 1L treatment for GC; this likely represents off-label use or misclassification of claims data.