

INTRODUCTION

KRAS G12C inhibitors have demonstrated clinical activity in randomized trials for KRAS G12C-mutated non-small cell lung cancer (NSCLC). Real-world data comparing treatment characteristics, durability, healthcare utilization and costs in comparison to docetaxel is needed to help guide patient selection outside of clinical trials.

METHODS

We conducted a retrospective cohort study using the Highmark insurance claims database to identify adult patients with advanced NSCLC who received KRAS G12C inhibitors (sotorasib and/or adagrasib) vs docetaxel.

Outcomes included time to treatment discontinuation (TTD), overall survival (OS), adverse events, emergency department (ED) utilization, and total per-member-per-month (PMPM) costs. Survival was estimated using Kaplan-Meier methods. Multivariable Cox models assumed associations with OS.

DISCUSSION AND CONCLUSION

- KRAS G12C inhibitors demonstrated shorter observed treatment durability than docetaxel in a real-world setting likely related to patient selection rather than representing a comparison in efficacy
- PMPM cost burden was significant in those receiving KRAS G12C inhibitors, underscoring the importance of economic factors in treatment selection for patients with advanced NSCLC

REFERENCES & ACKNOWLEDGEMENTS

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RESULTS

In our review of 204 eligible patients, 53 received a KRAS G12C inhibitor and 151 received docetaxel. Patients receiving KRAS G12C inhibitors were older (median age 67 vs 63 years) and more frequently female (64% vs 49%).

The median TTD was shorter with KRAS G12C inhibitors (97 days [IQR 25-300]) compared with docetaxel (189 days [IQR 96-345]).

Median PMPM costs were substantially higher for those receiving KRAS G12C inhibitors (\$21,000 vs \$13,500); this was primarily driven by pharmacy expenditures. ED utilization increased in each cohort.

Outcome	KRAS G12C inhibitors (n=53)	Docetaxel (n=151)
Total cost during baseline, median (IQR)	\$121,055 (\$58,815–\$209,841)	\$103,753 (\$55,452–\$180,558)
Total cost during follow-up, median (IQR)	\$141,843 (\$74,232–\$243,398)	\$129,167 (\$53,877–\$245,811)
Baseline PMPM cost, median (IQR)	\$20,176 (\$9,802–\$34,973)	\$17,292 (\$9,242–\$30,093)
Follow-up PMPM cost, median (IQR)	\$21,272 (\$14,126–\$26,374)	\$13,548 (\$7,454–\$23,524)
Difference in follow-up PMPM cost	\$7,724	Reference
Relative increase in PMPM cost	1.57× higher	Reference

Table 1. Total and PMPM (per-member-per-month) costs of KRAS G12C inhibitors and docetaxel and baseline and follow-up.

Adverse events occurred in 40% of those receiving KRAS G12C inhibitors vs 59% in those receiving docetaxel.

At one year, OS was 17% in those who received KRAS G12C inhibitors compared with 64% for those receiving docetaxel.

