

# Gastrointestinal Adverse Events in Lung Cancer Patients Treated With Ipilimumab And Nivolumab Using Real-world Data

Qian Li, M.S., Yunpeng Zhao, Ph.D., Jiang Bian, Ph.D., Yi Guo, Ph.D.

UF College of Medicine  
Health Outcomes and Biomedical Informatics  
UNIVERSITY of FLORIDA

## Background

- Lung cancer patients who receive nivolumab (PD-1 inhibitor) plus ipilimumab (CTLA-4 inhibitor) in combination have higher overall survival rate than those treated with ipilimumab alone
- Adverse events (AEs) are still a concern, especially gastrointestinal (GI) AEs
- GI AE is one of the most common reasons for patients stopping immunotherapy
- We utilized real-world data to gain insight in the incidence and severity of GI AEs among lung cancer patients treated with nivolumab and ipilimumab

## Methods

### Study design

- A retrospective study

### Data source

- OneFlorida clinical research network
- Electronic health records (EHR) data

### Cohort

- Lung cancer patients
- Prescribed with:
  - ipilimumab alone
  - nivolumab alone
  - combination of ipilimumab and nivolumab

### Analysis

- Multivariate cox proportional hazard model
- Time to GI AEs

## Results

- A total of 1,519 patients were identified.
  - 6 ipilimumab alone (removed from further analysis)
  - 1,313 nivolumab alone
  - 200 combination of ipilimumab and nivolumab
- Demographics
  - $63 \pm 10$  years old at lung cancer diagnosis
  - 47% female
  - 56% non-Hispanic White, 13% non-Hispanic Black, 14% Hispanic
- 553 (36.4%) of the patients had at least one GI AE
- Among those GI AEs, 131 (23.7%) of them had led to hospitalizations
- The median GI AE free time was 272 days (95% CI: 242 – 343 days)
- The hazard ratio of having GI AE for patients with combination treatment verse with nivolumab alone was 1.36 (95% CI: 1.08 – 1.71)

## Conclusions

- GI AEs are common in lung cancer patients treated with nivolumab and ipilimumab
- Patients treated by combination treatment have significantly higher hazards than those treated by nivolumab alone

## References

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