

# Comparative effectiveness of atezolizumab (Atz) versus docetaxel (Dtx) or nivolumab (Niv) in previously-treated patients with advanced non-small cell lung cancer (aNSCLC) – a US real-world study

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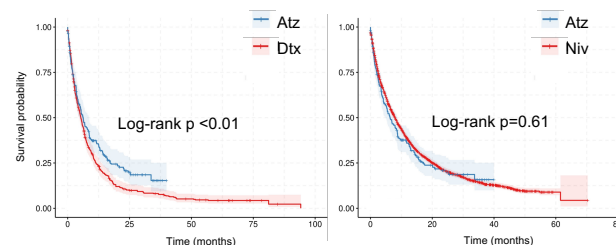
## Introduction

- In patients with aNSCLC lacking recorded mutations in EGFR, ALK or ROS1 who progress on platinum doublet chemotherapy as first-line treatment, key second-line therapeutic options are
  - Dtx, a cytotoxic chemotherapy drug
  - Niv, an anti-PD-1 immune checkpoint inhibitor, and
  - Atz, anti-PD-L1 immune checkpoint inhibitor
- A head-to-head comparison of the real-world effectiveness of Dtx, Niv and Atz is currently lacking

## Results

- A total of 206, 500 and 2630 eligible patients with complete data for baseline covariates were identified for the Atz, Dtx and Niv arms
- Balance was achieved across all baseline covariates after applying IPTW (standardized mean difference <0.1)

**Figure 1.** IPTW-weighted KM curves for Atz vs Dtx, and Atz vs Niv with robust 95% CI and log-rank p-values.



## Conclusions

- Atz was on par with Niv and significantly better than Dtx at improving overall survival in the overall eligible population and amongst all subgroups tested
- Results were robust to plausible assumptions about missing values for baseline confounders

## References

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## Objectives

To compare **overall survival** in patients previously exposed to platinum-based chemotherapy who initiated (1) Atz vs Dtx, or (2) Atz vs Niv using real-world data from US clinical practices

## Methods

- Treatment arms were selected from Flatiron Health database
- Inverse probability of treatment weighting (IPTW) was used to adjust for imbalances in 16 potential baseline confounders
- Adjusted KM curves, hazard ratios were estimated along with robust 95% confidence intervals (CI) and p-values

**Table 1.** Unadjusted sample sizes and adjusted hazard ratios (HR), 95% confidence intervals (in parentheses) and p-values for comparisons of Atz vs Dtx and Atz vs Niv in the overall eligible population and within subgroups examined.

		Complete case analysis (overall population)	Multiple imputation (overall population)	Index date ≥2015	Cancer stage at diagnosis ≥IIIB	Non-squamous histology	No recorded ALK/EGFR/ROS mutations or prior targeted therapies
Sample sizes	Atz	206	269	206	175	144	185
	Dtx	500	966	166	446	359	453
	Niv	2630	3910	2624	2249	1715	2401
Atz		<b>HR=0.79</b>	0.8	0.75	0.77	0.7	0.78
	Dtx (ref.)	<b>(0.64-0.97)</b>	(0.67-0.95)	(0.59-0.97)	(0.61-0.98)	(0.54-0.90)	(0.62-0.97)
		<b>p=0.02</b>	p=0.01	p=0.03	p=0.03	p=0.005	p=0.02
Atz		<b>HR=1.07</b>	1.08	1.08	1.05	0.94	1.08
	Niv (ref.)	<b>(0.89-1.28)</b>	(0.92-1.27)	(0.9-1.29)	(0.87-1.28)	(0.75-1.18)	(0.89-1.32)
		<b>p=0.47</b>	p=0.33	p=0.43	p=0.61	p=0.59	p=0.41

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