



Clinical effectiveness and safety of Pembrolizumab in patients diagnosed with non-small cell lung cancer in a Colombian health insurance provider: a real-life study

| AUTHORS:

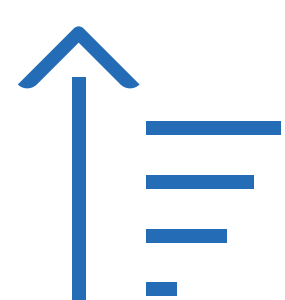
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Objectives:

To evaluate the clinical effectiveness and safety of pembrolizumab in patients diagnosed with non-small cell lung cancer (NSCLC) within a Colombian health insurance provider.



Methods:

This retrospective study analyzed NSCLC patients treated with pembrolizumab at a Colombian health insurance provider between 2018 and 2023. Data were obtained through a comprehensive review of electronic medical records, focusing on demographic, clinical characteristics and outcomes.



Results:

Between 2018 and 2023, 386 NSCLC patients treated with pembrolizumab were identified. The median age was 67 years, with 51.3% being men. Most patients belonged to the contributory health insurance regimen (94.3%) and resided in Antioquia (78.76%). Pembrolizumab was administered as first-line therapy in 72.28% of cases and in combination therapy in 79.79%. (Table 1) The median number of hospitalizations and emergency visits was 0. Survival rates were 58.61% at one year, 39.04% at 24 months, and 17.82% at 60 months (Figure 1). Significant results were observed in patients over 65 years ($p=0.045$). Adverse events were limited, with infections being the most common, affecting 25.91% of patients.



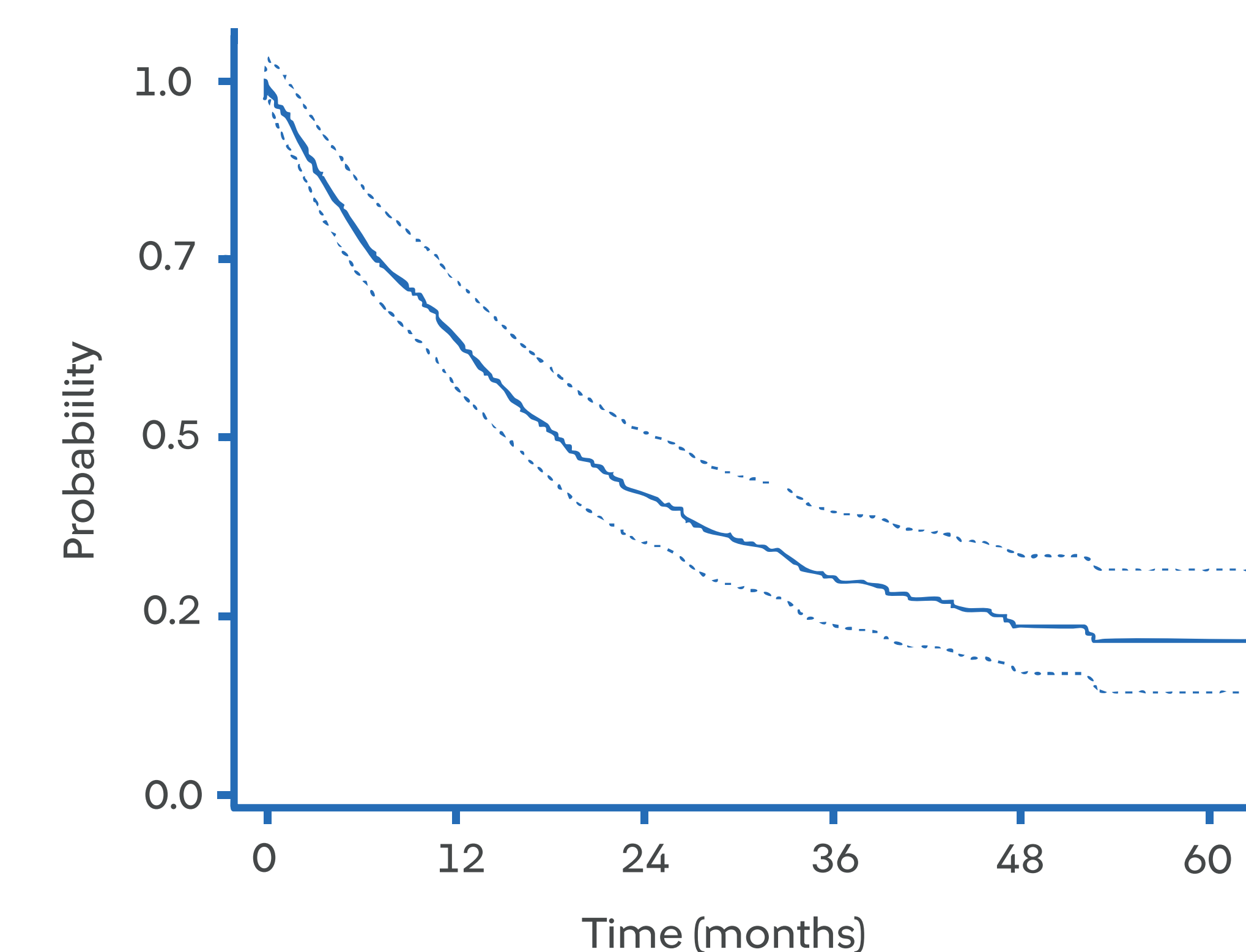
Conclusion:

Pembrolizumab improves short-term survival in Colombian NSCLC patients, showing a favorable hematologic safety profile. However, the high incidence of infections highlights the need for ongoing clinical monitoring. Study limitations include incomplete data on clinical care and potential underreporting of adverse events compared to controlled trials. Access to advanced therapies remains a significant challenge, underscoring the need for improved safety surveillance and resource allocation.

Table 1. Sociodemographic and Clinical Characteristics of Patients Treated with Pembrolizumab

Characteristic	N=386
Age at diagnosis*	67 (60–74)
Age at treatment initiation*	67.5 (60–74)
Sex n (%)	
Male	198 (51.30)
Female	188 (48.70)
Insurance n (%)	
Contributory	364 (94.30)
Subsidized	22 (5.70)
Place of residence (department) n (%)	
Antioquia	304 (78.76)
Atlántico	9 (2.33)
Caldas	5 (1.30)
Cundinamarca	14 (3.63)
Quindío	3 (0.78)
Risaralda	4 (1.04)
Santander	2 (0.52)
Valle del Cauca	45 (11.66)
Pembrolizumab indication n (%)	
First line	279 (72.28)
Other treatment line	107 (27.72)
Treatment with pembrolizumab n (%)	
Monotherapy	78 (20.21)
Combination therapy	308 (79.79)

*Median – IQR



Number at risk

All 386 173 58 86 19 6

Cumulative number of events

All 0 144 218 280 324 380

Figure 1. Kaplan - Meier - Survival Curve for Patients Treated with Pembrolizumab