

CURRENT TRENDS IN THE USE OF CHECK-POINT INHIBITORS FOR NON-SMALL-CELL LUNG CANCER

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BACKGROUND AND IMPORTANCE

Over the last years, immunotherapy has changed the treatment paradigm of non-small cell lung cancer (NSCLC). The number of patients treated with immune check-point inhibitors (ICI): atezolizumab, durvalumab, pembrolizumab and nivolumab has dramatically increased.

AIM AND OBJECTIVES

The main objective was to evaluate the current trends in the use of ICI for NSCLC in a third level hospital.

MATERIALS AND METHODS

A retrospective observational study was conducted, including patients with NSCLC who had received treatment with ICI (atezolizumab, durvalumab, nivolumab or pembrolizumab) between 2016 and 2021. The data collected were drug, date and number of administrations, days between each administration and clinical response.

RESULTS

During the study period, there were 606 patients being treated for NSCLC, and 255 of them received ICI (41.91%).

	Atezolizumab	Durvalumab	Nivolumab	Pembrolizumab
Number of patients (%)	26 (10.24)	24 (9.45)	85 (33.46)	120 (47.24)
Median number of administrations (IQR)	4 (3-8)	13 (5-24)	7 (3-22)	6 (3-13)
Mean days between administrations (SD)	24 (7.43)	18 (7.67)	22 (31.38)	25 (15.99)

Table 1. Number of patients, administrations and days between each administration of ICI.

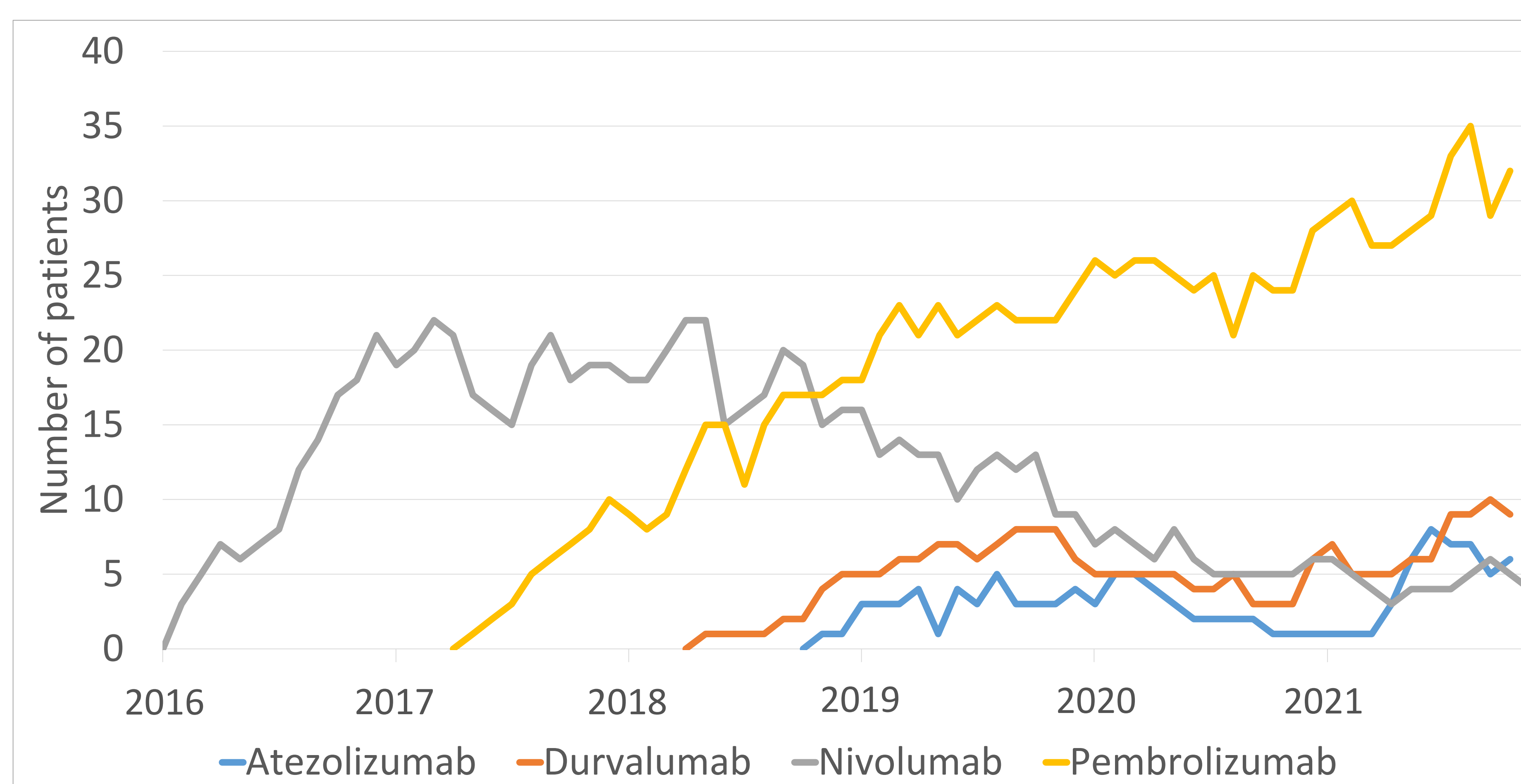


Figure 1. Trend in the use of ICI for NSCLC between 2016 and 2021.

CONCLUSION AND RELEVANCE

The total number of patients treated with ICI for NSCLC has increased constantly during this period of time (49.15% increase between 2016 and 2021). Moreover, immunotherapy entails the treatment of nearly half of the NSCLC patients. During the time period studied, the use of nivolumab has decreased, favouring pembrolizumab, probably because of the rise of its new approved indications. Secondly, the number of patients who have received atezolizumab and durvalumab has kept comparable.

We can see a significant decrease on the number of patients treated with an ICI between May 2020 and August 2020, possibly influenced by the decrease in the number of patients diagnosed with NSCLC during the COVID-19 pandemic.

The mean days between each ICI administration was slightly above the approved posology, possibly due to delays because of adverse effects.

