

Objectives

The ESMO Magnitude of Clinical Benefit Scale (MCBS), which is informed by stage III clinical trials or meta-analyses, anticipates the level of benefit from new cancer drug treatments. For this purpose, parameters like absolute survival gain, quality of life, and tolerability/ toxicity profiles are considered. A score from 1 to 5 is assigned to each drug, where 1 is the lowest and 5 is the highest (i.e. more positive) evaluation.

In 2016, the ESMO-MCBS issued relative scores to 8 new drugs/label extensions to treat IIIb/IV NSCLC.

Ipsos compared these scores with real world data on prescribing share and average satisfaction with these drugs/ regimens when prescribed in clinical practice, in the EU5 markets (France, Germany, Italy, Spain, UK). For an appropriate comparison with ESMO-MCBS grades, we focused the analyses on the same patient types that had been enrolled in the clinical trial leading to the assignment of rankings.

These real world data were supplemented by additional research to understand the impact of several value-based scores (including ESMO-MCBS) on treatment decisions.

Methodology

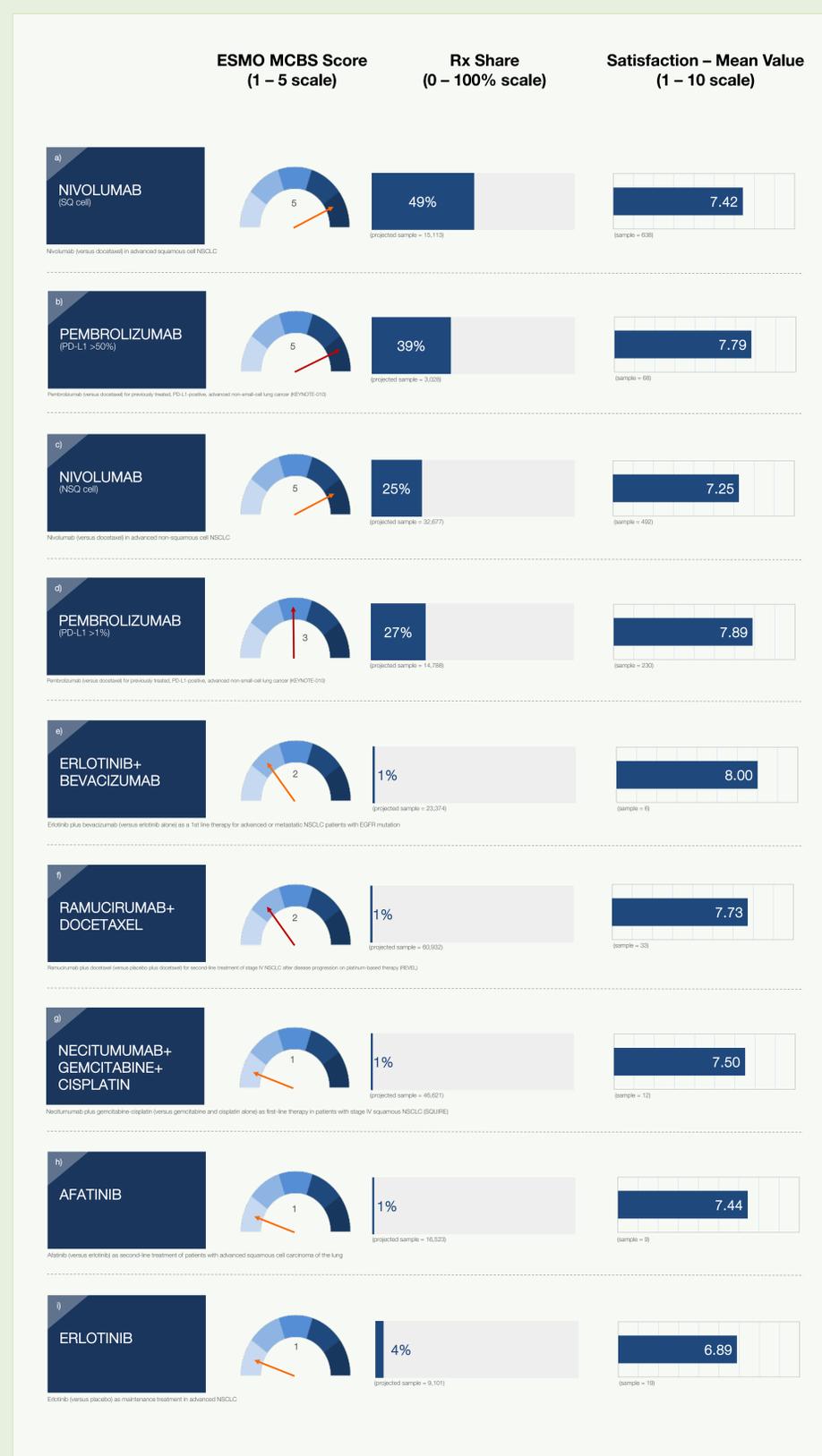
The prescribing share and level of satisfaction analyses were conducted from data reported from the EU5 Oncology Monitor. Over the 12 months January 2017 - December 2017, the EU5 sample consisted of 930 physicians reporting on 9,491 non-clinical trial drug treated IIIb/IV NSCLC patients, and their treatments, through the submission of online de-identified record forms. Physicians taking part in the study had to be the main decision takers, and reported on their IIIb/IV NSCLC patients seen in consultation during the study's fieldwork period.

The impact of value-based scores on treatment decisions analysis was conducted by additional online research with the EU5 Oncology Monitor panel. The sample consisted of 151 EU5 doctors, all of whom were drug-treating 5+ III/IV NSCLC patients in the last month.

Specific samples sizes and time periods related to any patient cohort used for this analysis are highlighted within the text and on individual graphs.

Results

ESMO-MCBS scores vs IPSOS Real World Data



Impact - % Top 3 Box (1 - 10 scale)



Correlation between Rx SHARES and ESMO scores 1-5

There is a correlation between volumes of prescribing and ESMO-MCBS scores: drugs with the highest scores are associated with higher levels of prescribing and vice-versa. This is in line with the results of the additional research conducted to understand the impact of several value-based scores (including ESMO-MCBS) on treatment decisions: 3 in 5 (59%) EU5 physicians stated that ESMO-MCBS scores have a high impact on their prescribing activity [(59% (±7.84% at 95% CI) reflects the Top 3 Boxes on a 1-10 scale, i.e. scores of 8, 9 or 10]. No statistical differences were found between the individual EU5 countries on how the ESMO-MCBS scores impact on their prescribing activity.

Regimens with the lowest ESMO-MCBS scores (1 or 2) presented Rx shares no higher than 4%, while regimens with the highest ESMO-MCBS score (5) showed higher Rx activity, with nivolumab in squamous patients standing out with the highest Rx share of 49%, which is significantly higher than shares of regimens scored 1 or 2.

Correlation between Rx SHARES and ESMO score of 5

There were also differences in shares within regimens that were given the highest ESMO-MCBS score of 5:

- Pembrolizumab usage among PD-L1 >50% is 39%, and is significantly higher than nivolumab among non-squamous patients showing 25% patient share;
- Nivolumab's usage among squamous patients at 49% is significantly higher than that of non-squamous at 25% share.

Correlation between SATISFACTION and ESMO scores 1-5

However, physicians' stated level of satisfaction shows no significant difference between drugs with low or high scores:

- Ramucirumab+docetaxel was graded 2 in the ESMO-MCBS scale, and show a Rx share of 1%, however the mean level of stated satisfaction is high (7.73 points on a 1-10 scale, where 1 is the lowest and 10 is the highest score). This high level of satisfaction is not significantly different to the levels of satisfaction stated for regimens that were given higher ESMO-MCBS score, nor those with higher Rx share.
- Pembrolizumab approved for patients with PD-L1 >1%, or PD-L1 >50% was graded 3 and 5, respectively; corresponding satisfaction levels were 7.89 and 7.79, respectively, on a 1-10 scale.

Correlation between SATISFACTION and ESMO score of 5

Pembrolizumab for patients with PD-L1 >50% and nivolumab in non-squamous patients were both given an ESMO-MCBS score of 5. Both drugs show high mean satisfaction scores (7.79 and 7.25, respectively) but the difference in scores is statistically significant in pembrolizumab's favour.

Pembrolizumab and Nivolumab - correlation between SATISFACTION

Pembrolizumab for patients with PD-L1 >1% was given an ESMO-MCBS score of 3 and nivolumab was given an ESMO-MCBS score of 5 in both squamous and non-squamous settings. Interestingly, the higher level of mean satisfaction for pembrolizumab is statistically significant compared to the mean levels of satisfaction calculated for nivolumab in both settings.

Conclusion

The results suggest physicians prioritize prescribing drugs with the highest ESMO-MCBS scores. However, they show similar levels of satisfaction between drugs given lower (1 or 2) or higher scores (5).



Please scan here to download or share with your colleagues