COST SAVINGS IMPACT OF BIOSIMILARS: A LOCAL INDIRECT COMPARISON OF BRIGATINIB VERSUS ECTRABUMAB

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10.1136/ehjpharm-2021-eahpconf.1

Background and importance Boosting biosimilars is an indispensable approach in conducting cost savings management in healthcare systems. In fact, biosimilars can provide similar effectiveness and safety to originators but with lower costs, and can increase market competition.

Aim and objectives The purpose of this paper was to demonstrate the economic advantage of a trastuzumab biosimilar in real practice, showing and comparing costs and consumption during the period 2018–2019.

Material and methods To conduct this analysis, patients, type of prescription (originator or biosimilar), number of cycles, administered milligrams and purchase prices, during the period 2018–2019, were extrapolated from pharmacy software and matched. A simulation was also performed to estimate potential savings, based on three scenarios of different biosimilar penetration rates (50%, 75% and 100%) and using actual costs.

Results Compared with 2018, during 2019, the number of treated patients remained similar (102 vs 98) and both a reduction of administered units of trastuzumab originator (TO) (1–1383) and a growing number of prescriptions of trastuzumab biosimilar (TB) (+833 units) were observed. Costs of TO decreased from 3.28€/mg to 2.58€/mg, while average TB cost was 1.07€/mg in 2019. TB accounted for 24% of trastuzumab prescriptions but with only 11% of total costs, resulting in a reduction in total expenditure of 1 045 540€ from 2 294 366€ in 2018 to 1 248 826€ in 2019. In addition, a simulation was performed considering three hypothetical scenarios with different penetration rates of TB in the market share (50%, 75% and 100%). The achievable savings would be 236 836€, 468 382€ and 698 183€, respectively.

Conclusion and relevance Currently, cost savings and rationalisation policy are playing an essential role in healthcare systems, and biosimilars represent a great opportunity to reallocate available resources. This study demonstrated that enhancing a trastuzumab biosimilar is a good strategy for the sustainability of care. Trastuzumab costs decreased while the number of patients remained similar. This positive result was due to both the introduction of new biosimilars and the reduction of the costs of the originators. In summary, biosimilars constitute an efficient strategy for the sustainability of national health services, allowing resource reallocation and access to care to a larger number of patients.

REFERENCES AND/OR ACKNOWLEDGEMENTS

Conflict of interest No conflict of interest

Background and importance ALK gene mutation occurs in 3–5% of patients with non-small cell lung cancer (NSCLC). Brigatinib and alectinib are potent ALK tyrosine kinase inhibitors, indicated in NSCLC.

Aim and objectives The aim of this study was to perform an adjusted indirect treatment comparison (ITC) of the efficacy of brigatinib and alectinib in patients with NSCLC using a common comparator, and to establish whether both ALK inhibitors can be declared equivalent therapeutic alternatives (ETA).

Material and methods A search was carried out to detect clinical trials (CTs) with brigatinib or alectinib with similar populations, endpoints and follow-up periods. If multiple studies were found for the same drug, the results were combined in a meta-analysis using the Metasurv calculator. ITC was done according to Bucher’s method. To establish the positioning, ETA guidelines were applied. Delta value, maximum acceptable difference as a clinical criterion of non-inferiority, was set at 0.64 (and its inverse, 1.57) (the value used in the calculation of the sample size) for progression free survival (PFS). Shakespeare’s calculator was used to calculate the probability of the 95% confidence interval exceeding the delta margin.

Results Four CTs were included in the ITC for brigatinib (n=1) and alectinib (n=3). The CTs included were: phase III, randomised, open label, crizotinib controlled and ALK positive NSCLC. The endpoint was PFS (for Asian and non-Asian patients). Alectinib trials were pooled for Asian patients for PFS. The results of each trial, the combination and the conducted ITC are summarised in table 1.

The probability of the result being above or below the delta margin was, respectively, 10.28% and 15.7% for Asian patients, and 5.92% and 14.43% for non-Asian patients.

Conclusion and relevance ITC showed no statistically significant differences in PFS between brigatinib and alectinib for Asian and non-Asian patients. The extent of the 95% CI