



INTRODUCTION OF RITUXIMAB BIOSIMILAR: AN OPPORTUNITY TO IMPROVE HEALTH SYSTEM EFFICIENCY?

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Background and importance

The introduction of a biosimilar drug represents similar efficacy at a lower cost, providing savings without compromising patient treatment. Moreover, their quality is certified by regulatory agencies and high quality clinical trials.



In 2017, rituximab biosimilar (RB) was approved in Italy. At the end of 2017, our hospital implemented a new policy for using biologics, and decided to invest in RB with the aim of obtaining price reductions, and to promote the switch not only in naïve patients but also in those already being treated with an originator.



The purpose of the study was to evaluate prescription adherence, safety profile and economic impact of RB.

Material and methods

A retrospective analysis was conducted over two periods: 2017 (period 1: pre-switch) versus 2018 (period 2: post-switch). Clinical data were collected from the hospital prescription database, Farmasafe, to identify the number of patients receiving rituximab treatment, and the hospital pharmacovigilance's database to evaluate the safety profile. Costs considered were hospital prices, after price renegotiation.

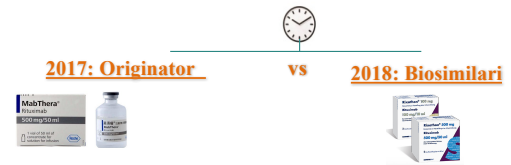


Fig. 1 Originator and Biosimilar

Results

In period 1, 202 patients were treated, 196 with rituximab originator (RO) and 6 with RB. In period 2, 193 patients were treated, 52 with RO and 141 with RB.

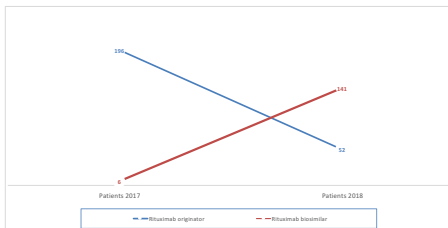


Fig 2. Number of patients treated 2017 vs 2018



During period 2, the switch was performed in 47 patients, 94 were naïve and there were no switch reversions. The switch to RB was not performed in all patients as some were randomised on clinical trials and others were completing RO treatment.

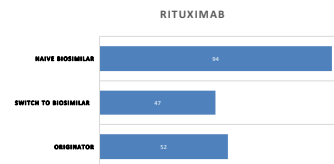


Fig 3. Number of patients treated during 2018: naïve, switch to biosimilar or originator

The biosimilar proportion increased by 63% of the total amount of rituximab used. Analysis of adverse drug reactions showed no significant safety problems. In period 1, the total cost of RB+RO was € 1 456 647, and during period 2, € 721 370. RB introduction translated to a 50% cost reduction of € 735 370

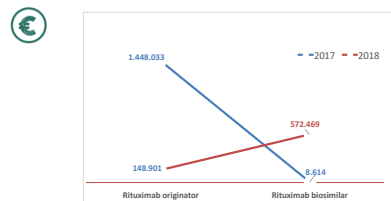


Fig 4 . budget impact Rituximab at ASST GOM Niguarda

Conclusion and relevance

The hospital's biosimilars policy was associated with substantial and rapid incorporation and use of biosimilars. Moreover, introduction of RB resulted in significant cost savings with no major changes in safety profile. The use of rituximab will release funds that can be invested elsewhere within the healthcare setting. This is relevant for all pharmacists involved in hospital pharmacy, particularly those working in therapeutic areas where biologics are used.



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