

# Does the introduction of an infliximab biosimilar always result in savings for hospitals? A descriptive study using real-world data

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## Abstract

**Objectives:** Biosimilars are biologic drugs that have the potential to increase the efficiency of healthcare spending and curb drug-related cost increases. However, their introduction into hospital formularies through initiatives such as non-medical switching must be carefully orchestrated so as not to cause treatment discontinuation or result in increased health resource utilization, such as additional visits or laboratory tests, among others. This retrospective cohort study aims to assess the impact of the introduction of CT-P13 on the healthcare expenditures of patients who were treated with originator infliximab or CT-P13.

**Method:** Gastroenterology, immunoallergology and rheumatology patients treated between September 2017 and December 2020 at a university hospital in Western Switzerland were included and divided into seven cohorts, based on their treatment pathway (i.e., use and discontinuation of CT-P13 and/or originator infliximab). Costs in Swiss francs were obtained from the hospital's cost accounting department and length of stay was extracted from inpatient records. Comparisons of costs and length of stay between cohorts were calculated by bootstrapping.

**Result:** Sixty immunoallergology, 84 rheumatology and 114 gastroenterology patients were included. Inpatient and outpatient costs averaged (sd) CHF 1,611 (1,020) per hospital day and CHF 4,991 (6,931) per infusion, respectively. The mean (sd) length of stay was 20 (28) days. Although immunoallergology and rheumatology patients had higher average costs than gastroenterology patients, differences in costs and length of stay were not formally explained by treatment pathway. Differences in health resource utilization were marginal.

**Conclusion:** The introduction of CT-P13 and the disruption of patient treatment management were not associated with differences in average outpatient and inpatient costs and length of stay, in contrast to the results reported in the rest of the literature. Future research should focus on the cost-effectiveness of non-medical switching policies and the potential benefits for patients.

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