EE568

# DOES THE INTRODUCTION OF AN INFLIXIMAB BIOSIMILAR ALWAYS RESULT IN SAVINGS FOR HOSPITALS? A DESCRIPTIVE STUDY USING REAL-WORLD DATA

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## Background and Importance

- Hospitals have been gradually introducing biosimilars into their formularies due to the expected savings on drug purchasing costs.[1]
- The economic impact of a non-medical switch (NMS) from originator infliximab (OI) to CT-P13 is still subject to debate and additional real-world studies are required.[2]

## Objective

- **To assess the healthcare expenditures of patients who were treated with OI or CT-P13 in a Swiss university hospital.**

## Methods

- Retrospective cohort analysis using routinely collected data, in accordance with the CHEERS statement.[3]
- Gastroenterology (GAS), immunoallergology (IMM) and rheumatology (RHE) patients treated between 09.2017 and 12.2020 were included and divided into seven cohorts based on a decision tree model shown in Fig. 1.
- Costs in Swiss francs were obtained from the hospital's cost accounting department and length of stay (LOS) was extracted from inpatient records.
- Comparisons of costs and LOS between cohorts were performed using random sampling with replacement with 5,000 bootstrap replicates and percentile confidence intervals at 2.5% and 97.5%

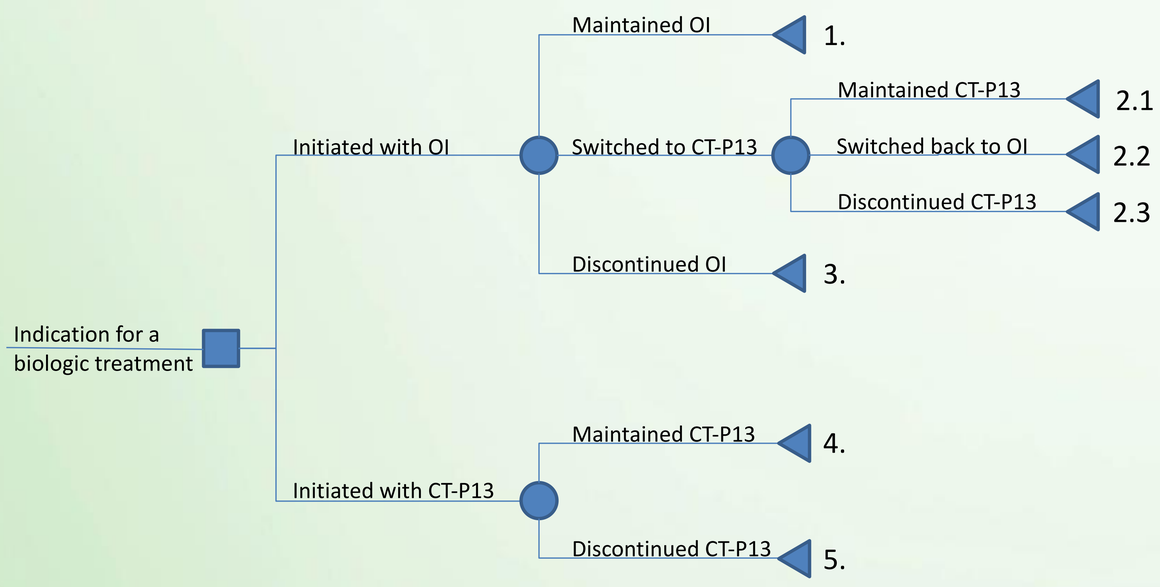


**Fig. 1** Decision tree describing the seven cohorts compared. *OI = originator infliximab*

## Conclusion and Relevance

- **The NMS from OI to CT-P13 was not associated with differences in average outpatient and inpatient costs and LOS, in contrast to the results reported in the the literature.**
- **Future research should focus on the cost-effectiveness of NMS policies and the potential benefits for patients.**

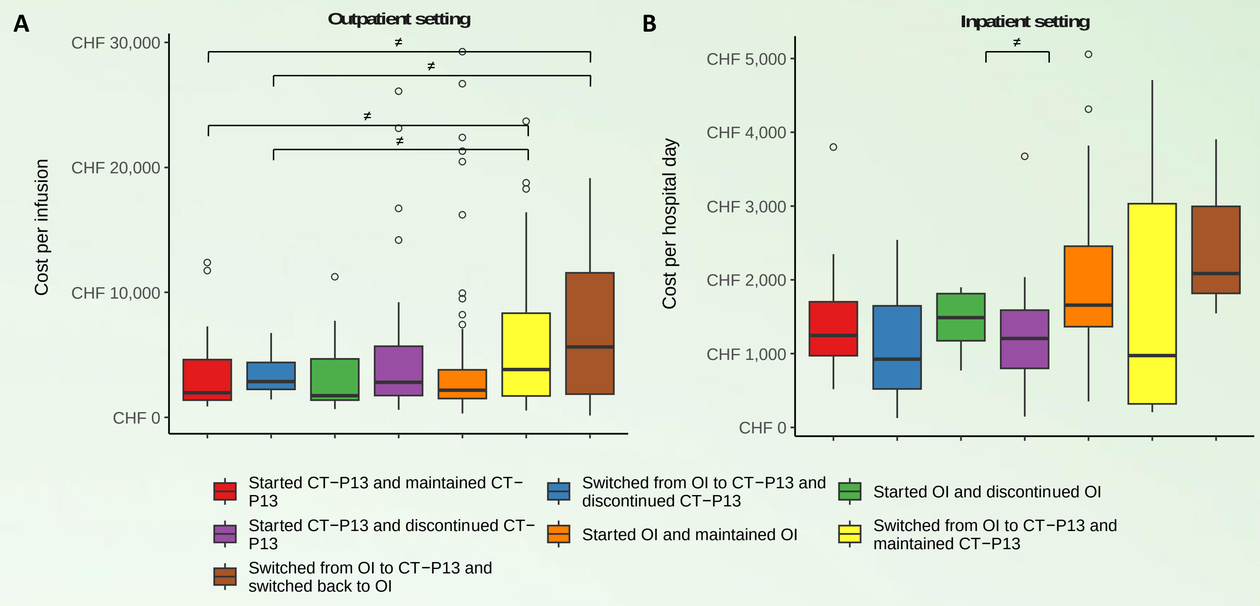


**Fig. 2** Box plots of (**A**) outpatient and (**B**) inpatient costs, per cohort. Outliers were represented by empty circles and hidden *OI = originator infliximab; ≠ significant difference in mean costs*

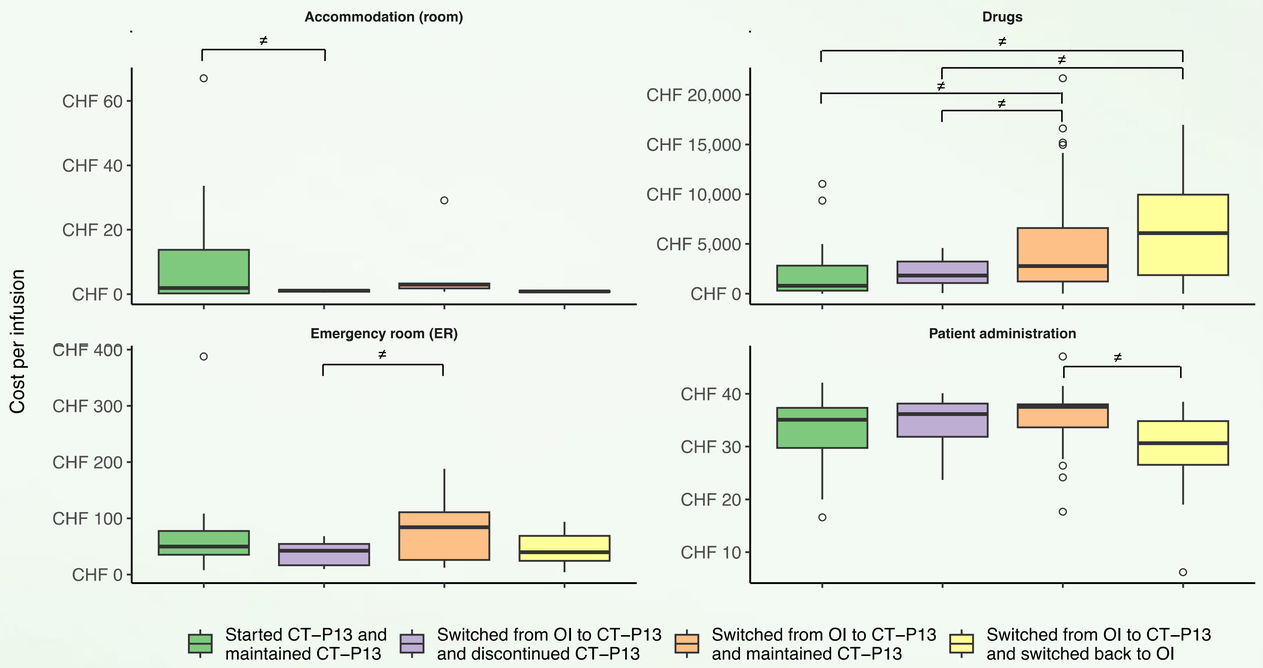


**Fig. 3** Box plots of outpatient expenditure items for which costs differed significantly based on bootstrap analyses. The cost axis was adjusted according to each expenditure item. Outliers were represented by empty circles. *OI = originator infliximab; ≠ significant difference in mean costs*

## Results

- Sixty IMM, 84 RHE and 114 GAS patients were included.
- The differences in overall costs (Fig. 2) and health resource use (Fig. 3) identified between cohorts are only partially explained by biosimilar use or non-medical substitution.
- Multivariable analysis using generalised linear models suggested that disease categories affected both outpatient and inpatient cost ($p < 0.01$), but not LOS.

## References

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3. Husereau D, Drummond M, Augustovski F, de Bekker-Grob E, Briggs AH, Carswell C, et al. Consolidated Health Economic Evaluation Reporting Standards 2022 (CHEERS 2022) Statement: Updated Reporting Guidance for Health Economic Evaluations. Value Health. 2022;25(1):3-9.

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