

Change in proportion of surgical procedures in inpatient versus outpatient settings in Switzerland

Beat Brüngger¹, Caroline Bähler¹, Matthias Schwenkglenks², Agne Ulyte², Holger Dressel³, Viktor von Wyl², Oliver Gruebner^{2,4}, Wenjia Wei², Eva Blozik^{1,5}

¹Department of Health Sciences, Helsana, Zurich, Switzerland, ²Department of Epidemiology, Epidemiology, Biostatistics & Prevention Institute, University of Zurich, Zurich, Switzerland ³Division of Occupational and Environmental Medicine, Department of Epidemiology; Epidemiology, Biostatistics & Prevention Institute, University of Zurich and University Hospital Zurich, Zurich, Switzerland ⁴Department of Geography, University of Zurich, Zurich, Switzerland ⁵Institute of Primary Care, University of Zurich, Zürich, Switzerland

Introduction and Aim

In Switzerland, cantonal and national efforts to slow down the increase in healthcare spending include the implementation of legislations to promote a shift of surgical procedures from the inpatient to the outpatient setting. National legislation concerning six surgical procedures has been implemented by 2019. However, in some cantons similar legislations entered into force earlier (between 2017 and 2018).

For five of these six surgical procedures we examined the proportion performed in inpatient versus outpatient settings for the years 2014, 2016, and 2018. Particular focus was on potential differences between cantons with versus without early legislations.

Results

Across the whole study population (69% female, median (IQR) age 52 (39, 65)) the proportion of procedures in the inpatient setting decreased from 49.2% to 45.8% to 37.5% in the years 2014, 2016 and 2018. This decrease was more pronounced in cantons with a cantonal legislation, and differed between the procedures (**Figure 1**).

The costs of the initial procedure were higher in the inpatient compared to the outpatient setting for all selected procedures. The one-year follow-up costs per procedure varied widely. They did not differ between cases carried out in the inpatient versus the outpatient setting. Even in procedures with a large decrease of procedures in the inpatient setting, e.g. «varices», no increase of the follow-up costs could be observed (**Figure 2**).

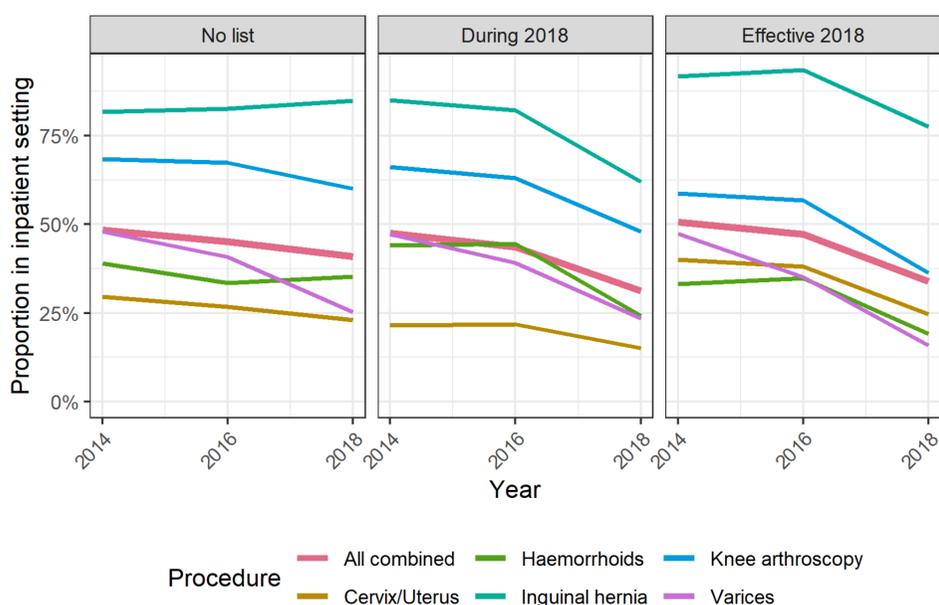


Figure 1: Proportion of procedures in inpatient setting .

Three groups of cantons: "No list" = Cantons without a cantonal list, "During 2018" = Cantons with a cantonal list implemented during 2018, "Effective 2018" = Cantons with a cantonal list effective in 2018.

Methods

The present analysis is based on claims data of the Helsana Group, a leading health insurance company of Switzerland. The population consists of insurees aged > 18 years who had one of the following surgical procedures during the years 2014, 2016, or 2018: **haemorrhoids; inguinal hernia, unilateral; varices (of the lower limbs), unilateral; knee arthroscopy / (arthroscopic) meniscectomy; surgery of the cervix/uterus.**

A total of **13'145, 12'455, and 12'875 patients** were finally included in the cross-sectional study populations of **2014, 2016, and 2018**, respectively. We present the number of cases in the inpatient versus the outpatient setting, raw health care costs of the initial procedure as well as during the one-year follow-up. Analyzed costs comprised those reimbursed by mandatory insurance including those covered by the cantons for inpatient procedures. Results were stratified by procedure, in-/outpatient setting, and the presence of cantonal legislation during or effective in 2018.

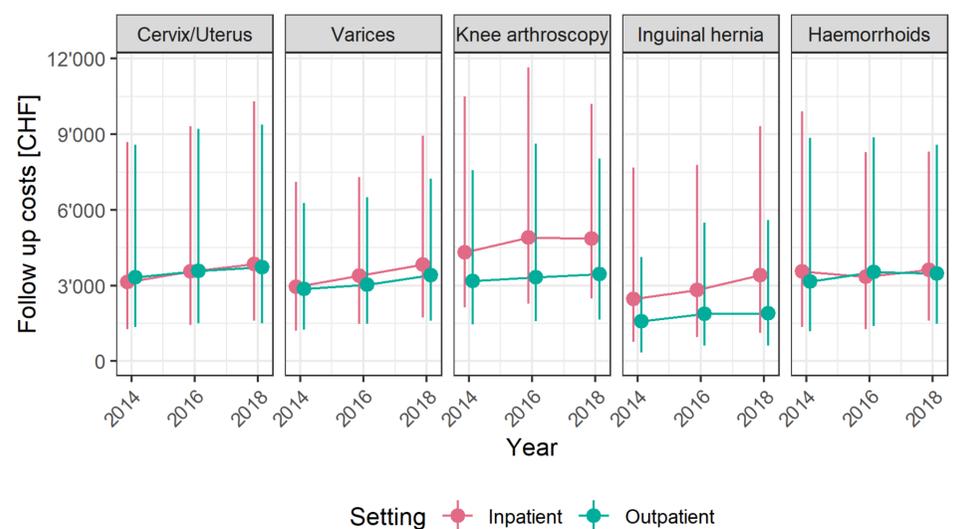


Figure 2: Follow-up costs per procedure.

Point: Median, Range: Interquartile range

Conclusions

The overall trend in five selected procedures towards outpatient service provision was more pronounced in those cantons with a corresponding legislation in 2018. No difference in the average follow-up costs was observed between patients initially treated in the out- versus the inpatient setting. We therefore conclude that the triage process of medical service providers is conducted appropriately. Further research regarding health care costs and health outcomes comparing both settings is needed.

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Contact information

Beat Brüngger, MPH, Department of Health Sciences, Helsana, Zurich, Switzerland
Email: beat.bruengger@helsana.ch