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Comparison of the hip prostheses in the Euregio “Tyrol, South Tyrol and Autonomous province of Trento” - a first comparative study of the registers.

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Introduction

Tyrol, South Tyrol and Trentino are autonomous regions from two different countries (Italy and Austria). The resident population of the three regions has a total of 1.8 million people with different linguistic cultures, which are marked, however, still with political, economic and cultural common characteristics. The introduction of the Hip Prostheses Register was done independently, but the responsible persons were in close contact with each other right from the start, in order to set up systems with common basic characteristics/minimum data set.

It was considered useful to compare in a study the hip prosthesis activities of the three regions, which have different and partially comparable health systems.

Method

All data are from the three registers and cover the period 2010-2015. All prosthetic surgeries, primary interventions and revisions were considered. Indicators were compared, similarities highlighted and differences shown and explanations found.

The implementation of the study was made more difficult due to the different starting years, survey methods and datasets of the registers, and methodological solutions had to be developed. Through intensive cooperation between the register, solid methodological solutions were found.

Results

Higher values of elective implantation rate are recorded in Tyrol. Trentino, on the other hand, has the highest joint replacement rate after femoral neck fractures. The South Tyrolean values lie between Tyrol and Trentino for all types of hip-surgery.

We note that there are registered different coding schemes for the type of revisions and for the classification of the cause of revision. So the indicators should be interpreted with caution. The cumulative percentage probability of revision (CPPR) at one and two years (95% CI) is estimated with the Kaplan-Meier method and shows for Tyrol and South Tyrol results similar like the rates known in the literature (CPPR for elective hip prosthesis at 2 years for Tyrol: 3.1% (2.6 – 3.6); for South Tyrol: 2.5 (2.0 – 3.2)). Results for Trentino are not to interpret simply (2 Year CPPR 1.3% (0.9 – 1.8)), because of the difficulty to recover the data for revision for this young register.

Summary/Conclusion

The main objective of the study is to provide a basis for discussion on the quality of hip prosthesis surgery in our EUREGIO, which will be further developed in the planned data report for the period 2014-2016.

The observed differences should be the reason for additional discussions in this alpine region, to continue to improve the high quality of hip arthroplasty.