

Abstract

Consumption of biologic drugs (biologics) in the Czech Republic

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Introduction:

Biological treatment is modern alternative to chemotherapeutics especially in patients with difficult-to-treat diseases of autoimmune origin, as well as patients with other diseases as is cancer. They are heavily used in oncology for their wide range of indications. They are used as a monotherapy as well as in combination with traditional chemotherapy. Use of biological treatment can reduce the amount of treatment cycles of chemotherapy and reduce unwanted adverse effects.

Objective:

The aim of the diploma thesis was to analyze the consumption of biological treatment rituximab, bevacizumab, cetuximab and alemtuzumab.

Methods:

A retrospective analysis of the consumption of biosimilars rituximab, bevacizumab, cetuximab and alemtuzumab was performed from 1. 1. 2010 to 31. 12. 2020. The selection of specific biosimilars was made on the basis of their wide indication spectrum. Consumption data were obtained from the database of the State Institute for Drug Control (SÚKL). Descriptive statistics were used for the analysis. Consumption, given in the number of packages. For alemtuzumab the consumption is also given in defined daily doses (DDD), was then converted to relative consumption (DID), which is a defined daily dose/1000 inhabitants/day. Population data were obtained from the Czech Statistical Office.

Results:

The consumption of the studied original biological treatments in the Czech Republic is decreasing. Consumption of rituximab decreased 3,6 times. Consumption of alemtuzumab decreased 2,1 times. Consumption of cetuximab decreased 1,8 times. Consumption of bevacizumab decreased 1,6 times. We were comparing the highest consumption of the treatment with the consumption in the year 2020.

Conclusion:

After data analyzing we see decreasing of chosen biological treatments.

Key words: consumption, rituximab, cetuximab, alemtuzumab

