

Abstract

Analysis of anticoagulant utilization in the Czech republic in the period from 2007 to 2016

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Introduction: Anticoagulants are drugs that reduce blood clotting and prevent the formation of blood clots. In the Czech Republic – antagonists of vitamin K-warfarin, direct oral inhibitors of factor Xa-rivaroxaban, apixaban, edoxaban, direct oral inhibitors trombin – dabigatran, parenteral anticoagulants – heparin, low-molecular heparin, fondaparinux, oral and parenteral hirudin are used.

Objective: The objective of this diploma thesis was to assess the consumption of oral and parenteral anticoagulants in the Czech Republic from 01. 01. 2007 to 31. 12. 2016, based on the data from the State Institute of Drug Control (SIDC).

Methods: ATC/DDD methodology was applied. The research consisted of a retrospective analysis of the SIDC database. All oral and parental anticoagulants approved in the CR were included in the study. Drug utilization was calculated as number of defined daily doses per thousands of inhabitants per day (DID). The data on the number of residents was acquired from the Czech Statistical Office.

Results: Oral anticoagulants hold a dominant position. Especially warfarin continuously holds a dominant position among anticoagulants. Its consumption remains almost constant, from 2007 to 2016 raised from 10.03 DID to 11.61 DID. Group of DOACs has been available on the Czech market since 2008. The consumption of DOAC grew rapidly from 2012. Total consumption of DOACs increased from 2007 to 2016 from 0.002 DID to 5.27 DID. Total consumption of LMWH increased from 2007 to 2016 from 3.46 DID to 9.38 DID.

Conclusion: conclusion, the results showed a generally increasing trend in anticoagulant consumption. Warfarin, despite its many disadvantages, has kept its primacy in consumption. The group of DOAC is an alternative to anticoagulation therapy, but we are still confronted with its limitation. Despite the parenteral administration, the LMWH group still has an irreplaceable place.