

TOBACCO CONSUMPTION AMONG ADOLESCENTS IN THE REPUBLIC OF CROATIA

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Abstract

Introduction: Smoking among adolescents represents a significant public health problem due to the frequency and adverse effects of tobacco on health. Long-term smoking as a risky factor is associated with the development of many diseases. In the growing age, adolescents tend to experiment and are often exposed to peer pressure.

Aim: The aim of this paper was to analyze the frequency of smoking among adolescents in the Republic of Croatia.

Methods: By review of the literature we analyzed the frequency of smoking in the Republic of Croatia compared to other countries. The European Report on Smoking, Drinking Alcohol and Other Drugs (ESPAD) and the Health Behavior in School-aged Children (HBSC - WHO) have been analyzed.

Results: According to ESPAD research in 2015, 62% of fifteen year olds (61% of boys and 63% of girls) in Croatia smoked one or more times in life. Both in Europe and in Croatia, there is a decreasing trend in smoking among students from 1995 to 2015. In the European countries, in 1995, 67% of students smoked, and in 2015, 47%, while in Croatia, in 1995, 69% of students smoked, and in 2015 62%, which is still above the European average. Age of first cigarette consumption for 32% of adolescents was 13, while for 31% of them was 14 and more. From the age of 14, 23% of adolescents smoke every day. According to the HBSC - WHO survey in 2014, 14% of boys and 5% of girls reported having started smoking at 11 and under. At 12 and 13 years, 19% of boys and 21% of girls started to smoke, with 14 and more 20% and 25% respectively. Research conducted among first year students of School of Medicine, University of Zagreb, in academic year 2015/2016 showed that 11% of boys and girls smoked daily, and occasionally 17% and 11% respectively. Age of first cigarette consumption for the highest percentage of females was 17 years (18%), and for males 16 years (17%).

Conclusion: The results of these surveys indicate that smoking among adolescents is a major challenge for the Croatian health care system. Prevention should focus on quality education of the school population, increase in cigarette prices and change of society's attitude towards social acceptability of smoking.

Keywords: adolescents, smoking, risk behavior, prevention

USPOREDBA POTROŠNJE LIJEKOVA IZMEĐU GRADA ZAGREBA I POŽEŠKO-SLAVONSKE ŽUPANIJE U RAZDOBLJU OD 2010. DO 2017. GODINE

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Sažetak

Uvod: Racionalna potrošnja lijekova preduvjet je održivog i učinkovitog zdravstvenog sustava. Praćenjem kretanja potrošnje lijekova možemo analizirati njihov status te na taj način evaluirati stanje pojedine skupine lijekova.

Cilj: Cilj ovog rada bio je usporediti potrošnju lijekova u Gradu Zagrebu i Požeško-slavonskoj županiji te analizirati razlike u potrošnji.

Metode: Korištenjem podataka Hrvatske agencije za lijekove i medicinske proizvode (HALMED) analizirali smo potrošnju lijekova prema anatomsko-terapijsko-kemijskoj (ATK) klasifikaciji izraženu u definiranoj dnevnoj dozi na 1000 stanovnika po danu (DDD/1000/dan) i novčano (HRK). Skupine lijekova koje su analizirane su sljedeće: lijekovi koji djeluju na probavni sustav i mijenu tvari (ATK skupina A), kardiovaskularni sustav (ATK skupina C), lijekovi za liječenje sustavne infekcije (ATK skupina J) i za respiratorni sustav (ATK skupina R).

Rezultati: Grad Zagreb bilježi rast potrošnje lijekova koji djeluju na probavni sustav i mijenu tvari sa 118.10 DDD 2010. godina na 179.39 DDD 2017. godine. Novčano, potrošnja je porasla s 105,062,656 HRK na 135,642,231 HRK. U istom razdoblju u Požeško-Slavonskoj županiji zabilježen je pad potrošnje iste skupine lijekova s 158.72

DDD na 130.49 DDD. Izraženo u kunama, ostvaren je pad s 8,768,315 HRK na 8,013,176 HRK. U Gradu Zagreb je od 2010. do 2017. godine zabilježen je blagi pad potrošnje lijekova koji djeluju na kardiovaskularni sustav s 368.44 DDD na 354.07 DDD. U financijskom smislu ostvareno je smanjeno opterećenje s 174,866,121 HRK na 138,363,227 HRK. U istom razdoblju u Požeško-Slavonskoj županiji smanjena je potrošnja s 518.77 DDD na 249.97 DDD. Izraženo u kunama, potrošnja je smanjena s 14,873,979 HRK na 10,114,315 HRK. Potrošnja lijekova za liječenje sustavnih infekcija ostala je stabilna tijekom vremena u Gradu Zagrebu - 21.59 DDD, odnosno 22.93 DDD. Međutim, financijsko opterećenje je značajno poraslo s 40,579,840 HRK na 114,858,971 HRK. U Požeško-Slavonskoj županiji njihova potrošnja je prepolovljena, s 26.06 DDD na 18.14 DDD te s 3,153,539 HRK na 1,888,795 HRK. U Gradu Zagrebu zabilježen je porast potrošnje lijekova koji djeluju na respiratorni sustav s 55.59 DDD na 64.65 DDD. Prevedeno u novac, potrošnja je porasla sa 60,643,520 HRK na 67,842,946 HRK. Požeško-Slavonska županija bilježi pad potrošnje iste skupine lijekova s 64.23 DDD na 53.69 DDD, odnosno s 4,682,399 HRK na 3,921,239 HRK.

Zaključak: Grad Zagreb bilježi rast potrošnje 3 skupine lijekova i u DDD i u HRK. Pala je samo potrošnja lijekova koji djeluju na kardiovaskularni sustav. Za razliku od toga, Požeško-Slavonska županija bilježi pad u sve 4 skupine lijekova u oba parametra. 2010. godine potrošnja sve 4 ATK skupine lijekova u Požeško-slavonskoj županiji izražena u DDD bila je veća nego u Gradu Zagrebu, dok je 2017. godina ona manja u svim promatranim skupinama.

Ključne riječi: potrošnja, lijekovi, DDD

DIFFERENCES IN DRUG CONSUMPTION BETWEEN CITY OF ZAGREB AND POŽEGA-SLAVONIA COUNTY FROM 2010 TO 2017

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Abstract

Introduction: Rational drug consumption is essential for a sustainable and efficient health system. By monitoring drug consumption trends, we can analyze and evaluate the state of a particular group of drugs.

Aim: The aim of this paper was to compare drug consumption in the City of Zagreb and Požega-Slavonia County and analyze the differences in consumption.

Methods: Data were acquired from the Agency for Medicinal Products and Medical Devices of Croatia (HALMED). We analyzed the consumption of drugs according to The Anatomical Therapeutic Chemical (ATC) Classification System and expressed in the defined daily doses per 1000 inhabitants per day (DDD/1000/day) and money (HRK). The following groups of drugs were analyzed: drugs affecting the alimentary tract and metabolism (ATC group A), cardiovascular system (ATC group C), antiinfectives for systemic use (ATC group J) and drugs affecting the respiratory system (ATC group R).

Results: City of Zagreb documented a rise in the consumption of drugs that affect alimentary tract and metabolism, from 118.10 DDD in 2010 to 179.39 DDD in 2017. In terms of money, consumption increased from HRK 105,062,656 to HRK 135,642,231. During the same period, in the Požega-Slavonia County, there was a decrease in consumption of the same drug group from 158.72 DDD to 130.49 DDD. Expressed in HRK, a decrease from HRK 8,768,315 to HRK 8,013,176 was recorded. In the City of Zagreb, from 2010 to 2017, there was a slight decrease in the consumption of drugs that affect the cardiovascular system, from 368.44 DDD to 354.07 DDD. In financial terms, there was a cost reduction from HRK 174,866,121 to HRK 138,363,227. In the same period, consumption in Požega-Slavonia County decreased from 518.77 DDD to 249.97 DDD. In Croatian kunas, the cost decreased from HRK 14,873,979 to HRK 10,114,315. The consumption of antiinfectives for systemic use remained stable over the observed time period in the City of Zagreb -21.59 DDD in 2010 to 22.93 DDD to 2017. However, the financial burden increased significantly from HRK 40,579,840 to HRK 114,858,971 respectively. In the County of Požega-Slavonia the consumption and cost were reduced almost 50%, from 26.06 DDD to 18.14 DDD and from 3.153.539 HRK to 1.888.795 HRK respectively. In the City of Zagreb there was an increase in the consumption of drugs affecting the respiratory system, from 55.59 DDD to 64.65 DDD. Converted into mon-