

## SPECIFICITY OF ANTIMICROBIAL CONSUMPTION IN BOSNIA AND HERZEGOVINA

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Presentation of continuous monitoring of antimicrobial drug consumption, since consumption is associated with antimicrobial resistance. Data are collected and processed to be valid, representative and comparable to data on antimicrobial drug consumption in other countries. Valid 2010-2020 total antimicrobial use data of Bosnia and Herzegovina were analysed according to the WHO Anatomical Therapeutic Chemical (ATC)/Defined Daily Doses (DDD) methodology and expressed in DDD/1000 inhabitants/day (DID). Consumption was also analyzed using the WHO AWaRe (*Access, Watch, Reserve*) classification. Total antibacterial consumption was 18.1 DID in 2010, and 19.2 DID in 2020. The top 5 antibacterial subgroups (ATC level 3) in 2020 were: penicillins, ATC group J01C (5.8 DID, 30.2% of all antibacterials); macrolides, lincosamides, streptogramins, J01F (4.5 DID, 23.4%); other beta-lactam antibacterials, J01D (3.2 DID, 16.7%); quinolones, J01M (2.5 DID, 13%); tetracyclines, J01A (1.3 DID, 6.8%) and sulfonamides and trimethoprim, J01E (1.3 DID, 6.8%). The top 5 antibacterials (ATC level 5) in 2020 were: azithromycin (3.36 DID), amoxicillin and enzyme inhibitor (co-amoxiclav, 2.56 DID), amoxicillin (2.29 DID); ciprofloxacin (1.9 DID); sulfamethoxazole and trimethoprim (1.29 DID). During the monitoring of consumption using the AWaRe classification in the period 2015-2020. year, the relative consumption of antibiotics from the Access group is over 60%. Standardised and validated data set of antimicrobial use suggests good antibiotic prescribing practise (would have met the WHO target of at least 60% of total consumption being Access agents, according to the WHO AWaRe classification) but also offers opportunities for quality improvement (appropriate use of co-amoxiclav, azithromycin and ciprofloxacin).

### References

1. [http://www.almbih.gov.ba/\\_doc/publikacije/Promet2020.pdf](http://www.almbih.gov.ba/_doc/publikacije/Promet2020.pdf)
2. <https://www.who.int/publications/i/item/2021-aware-classification>

## SPECIFIČNOSTI POTROŠNJE ANTIMIKROBNIH LIJEKOVA U BOSNI I HERCEGOVINI

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Predstavljanje kontinuiranog praćenja potrošnje antimikrobnih lijekova, budući da je potrošnja povezana sa antimikrobnom rezistencijom. Podaci se sakupljaju i obrađuju tako da predstavljaju validne, reprezentativne i podatke uporedive sa podacima o potrošnji u drugim državama. Podaci o ukupnoj potrošnji antimikrobnih lijekova u Bosni i Hercegovini za period 2010-2020 su analizirani primjenom anatomsko terapijsko hemijske (ATC)/definisanog dnevnog dozi (DDD) metodologije Svjetske zdravstvene organizacije (SZO) i izraženi su u DDD/1000 stanovnika/dan (DID). Potrošnja je analizirana i primjenom *AWaRe* (*Access, Watch, Reserve*) klasifikacije SZO. Ukupna potrošnja antimikrobnih lijekova je bila 18,1 DID u 2010, a 19,2 DID u 2020. Prvih 5 podgrupa antibakterijskih lijekova (na trećem nivou ATC-klasifikacije) po potrošnji u 2020. su bili: penicilini, ATC grupa J01C (5,8 DID, 30,2% ukupne potrošnje antibakterijskih lijekova); makrolidi, linkozamidi i streptogramini, J01F (4,5 DID, 23,4%); ostali β-laktamski antibiotici, J01D (3,2 DID, 16,7%); hinoloni, J01M (2,5 DID, 13%); tetraciklini, J01A (1,3 DID, 6,8%) i sulfonamidi i trimetoprim, J01E (1,3 DID, 6,8%). Prvih 5 antibakterijskih lijekova po potrošnji (na petom nivou ATC-klasifikacije) u 2020. su bili: azitromicin (3,36 DID), amoksisilin i enzim inhibitor (2,56 DID), amoksisilin (2,29 DID), ciprofloksacin (1,9 DID), sulfametoksazol i trimetoprim (1,29 DID). Tokom praćenja potrošnje upotrebom *AWaRe* klasifikacije u periodu 2015-2020. godine, relativna potrošnja antibiotika iz *Access* grupe je preko 60%. Standardizovani i validirani podaci o potrošnji antimikrobnih lijekova ukazuju na dobru propisivačku praksu (postignut je cilj SZO da najmanje 60% ukupne potrošnje budu antibiotici iz *Access* grupe), ali takođe nude mogućnost za poboljšanje (odgovarajuća upotreba amoksicilina i enzim inhibitora, azitromicina i ciprofloksacina).

### Literatura

1. [http://www.almbih.gov.ba/\\_doc/publikacije/Promet2020.pdf](http://www.almbih.gov.ba/_doc/publikacije/Promet2020.pdf)
2. <https://www.who.int/publications/i/item/2021-aware-classification>