Eight-year study of antibiotic utilisation in the Republic of Srpska (2010-2017 years); findings and implications

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Background: There have been multiple initiatives to improve antibiotic utilisation in the Republic of Srpska in recent years including educational activities with all key stakeholder groups, greater scrutiny over self-purchasing of antibiotics and reimbursement restrictions. This study aimed to analyse total antibiotic utilisation following these initiatives including the quality of use and assess whether additional measures are needed.
Methods: Analysis of total outpatient antibiotic utilisation from 2010 to 2017 in DIDs based on data obtained from the Public Health Institute of the Republic of Srpska. Quality indicators based on ESAC, ECDC and WHO recommendations and compared with neighbouring countries in the WHO AMC network.
Results: Antibiotic utilisation ranged from 15.6 DIDs to 23.1 DIDs, which is encouraging versus other similar neighbouring countries. Penicillins were the most used antibiotics, accounting for approximately 50-55% of total antibiotic utilisation, with amoxicillin the most used (29 – 41% of total utilisation) versus low use of co-amoxiclav (7 - 11% of total utilisation). This compares favourably with other countries. Cephalosporins were the second most used antibiotic class (13-14%) followed by macrolides (8-9 %) and quinolones (8-9 %). Low use of third and fourth generation cephalosporins (10-20% of total cephalosporins) versus first and second generation. However, rising utilisation of co-amoxiclav and azithromycin (5-10% per years), and higher rates of quinolone utilisation in recent years are noted and are now being addressed through additional interventions.
Conclusion: Multiple interventions in the Republic of Srpska have helped enhance the appropriate use of antibiotics. Identified concerns are being addressed.