Pharmacoeconomic evaluation of the antibiotic prophylaxis in orthopedic surgeries

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Abstract

Infections in orthopedic surgery are large problem in the medicine and are present all around the world.The main objective of the antibiotic prophylaxis in orthopedic surgeries is to prevent infection during the surgical intervention with antimicrobial agent that is safe, effective, and has a spectrum of activity that covers the most common pathogens that may occur during surgical procedures. Rational use of antibiotic prophylaxis in orthopedic surgeries has an important role in the prevention of the surgical infection.

Patients who have undergone orthopedic surgery represent a high-risk group for postoperative infection.

The aim of this study was to estimate the consumption and cost of antibiotics at Public Hospital – Orthopedic – Shtip in comparison with antibiotic therapy for orthopedic prophylaxis recommended by The Guides for Evidence-Based Medicine published by Ministry of health – Republic of Macedonia.

Retrospective pharmacoeconomic study has been carry out in orthopedic patients.For evaluation of rationale use and cost of antibiotics for surgery prophylaxis are used relevant literature data and recommendations: guidelines for evidence-based medicine issued by the Ministry of Health of RM, guides from European and American associations and recent published research.

Statistically used data have shown significantly higher cost in Public Hospital – Orthopedic – Shtip than the cost for antibiotic therapy recommended by Medicine Based Data, almost fourfold higher amount. This not rational use of antibiotics at Orthopedic – Shtip leads to more expensive and less effective therapy in response to recommendations from MBD.

Our recommendation is to follow the guide from MBD for rational use of antibiotics to achieve better and cheapest treatment

Keywords

Infections, MBD, orthopedic surgery.