

Evaluation of age and gender-specific patterns of antibiotic utilization in dental infections

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Introduction: Irrational utilization of antibiotic is controversial issue in all around the world. In this regard, the position of Turkey is more negative. Recently, Turkey has taken place in the first row in using antibiotics¹. In the literature, 9% of antibiotics were prescribed by dentist². The aim of this investigation is to examine demographic patterns of the patients that use antibiotics for dental problems.

Method: Data between 1 January 2013 and 31 August 2015 were obtained from Prescription Information System (PIS) administered by Turkish Medicines and Medical Devices Agency of the Ministry of Health of Turkey were examined. Prescriptions recorded to the PIS by dentists were analyzed retrospectively; they were evaluated based on the age groups and sex of the patients. Antibiotic subgroups were investigated according to ATC (anatomical therapeutic chemical) classification.

Results: A total 7034907 (53.9%) items of systemic antibiotic were prescribed for women and 6044378 (46.1%) for men by dentists. Nearly $\frac{3}{4}$ of total antibiotics (73.5%) were prescribed for adults (18-64 years), 22.3% for children (<18-year), and 4.2% for elderly (≥ 65 -year). Among children more antibiotics were prescribed for boys (52.3%), among adults and elderly more antibiotics were prescribed for women (55.8% and 51.1%, respectively). "J01C" ATC coded "beta-lactam-penicillin" is the first ranked antibiotic in all age groups. Up to frequency ranking "J01D and J01F" were 2. and 3. (10.1% and 4.3%, respectively) for children while in adult and elderly group "J01F" (16.2% and 16.8%) and "J01D" (13.1% and 12.8%) were prescribed.

Conclusions: Demographic properties of the patients to whom antibiotics were prescribed for dental problems were showed firstly in Turkey with this study. More antibiotics were prescribed for adults, for boys among children and for women in other groups. Other interesting finding that, antibiotics were much more prescribed to children than elderly. These findings highlighted that demographic variations should be considered while planning rational antibiotics use in dentistry.

References:

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