



# Prescription Patterns and Drug Interactions of Corticosteroids in Prescriptions of Patients Attending the Teaching Pharmacy of Imam Khomeini Hospital, Urmia, in the Second Half of 2022

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## ABSTRACT

**Introduction:** Corticosteroids are synthetic analogs of naturally produced adrenal cortex steroids. They are broadly prescribed in various clinical settings due to their anti-inflammatory and immunosuppressive properties. The misuse of corticosteroids can lead to severe systemic side effects, highlighting the necessity for careful prescription practices. This retrospective cross-sectional study analyzed outpatient prescriptions collected from the Imam Khomeini Hospital's teaching pharmacy over six months in 2022.

**Methods and Materials:** The study focused on prescriptions containing at least one corticosteroid, assessing the frequency and type of prescribed corticosteroids, the specialties of the prescribing physicians, and potential drug interactions using the Lexicomp software.

**Results:** A total of 47,846 prescriptions were analyzed, revealing that 8,990 contained at least one type of corticosteroid, indicating significant usage in outpatient care. Dexamethasone was the most frequently prescribed drug, appearing in 2,772 prescriptions, followed by betamethasone, mainly as 0.1% eye drops in 1,312 prescriptions, and methylprednisolone in 923 prescriptions. General practitioners were the top prescribers, issuing corticosteroids in 3,999 prescriptions. Specialty-wise, ophthalmologists, ENT specialists, and nephrologists were the leading prescribers of corticosteroids, with 557, 371, and 347 prescriptions, respectively. The prescriptions included 5,497 covered by insurance and 3,493 private prescriptions. Notably, significant potential drug interactions were identified through an analysis using Lexicomp software, primarily involving the concurrent use of corticosteroids with other immunosuppressives and certain antibiotics. This issue highlights crucial safety and efficacy concerns regarding therapeutic outcomes.

**Conclusion and Discussion:** The widespread and varied prescription of corticosteroids across different specialties indicates the need for stringent prescribing protocols and regular physician education to mitigate adverse effects and drug interactions. The study emphasizes the importance of continuous monitoring and managing corticosteroid use to enhance patient safety and treatment efficacy.

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