

THE SUBTLE NUANCES OF INTRANASAL CORTICOSTEROIDS' USE: INFORMATION FOR THE PHARMACIST

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Introduction. I Intranasal corticosteroids (INCSs) are the mainstay treatment for inflammatory processes within the nasal cavity such as acute and chronic rhinosinusitis and allergic rhinitis. INCSs are also prescribed by ENT specialists in pediatric practice for off-label treatment of adenoid hypertrophy and secretory otitis media. When prescribing INCSs, it is necessary to consider the receptor affinity (high-affinity receptor - potency drug action), systemic bioavailability (safety), and lipophilicity (the degree and rate of penetration through phospholipid membranes, binding with GCS receptor, and stay duration in the nasal cavity). The rheological properties of INCSs are one of the important factors determining clinical efficacy. The nasal spray must have a high initial and final viscosity to keep the drug particles suspended long period. The delivery device structure is also important (how many drug molecules are retained in the nasal cavity, especially in its posterior parts). All of this can impact treatment effectiveness and safety.

Aim. Comparative analysis and discussion in detail of INCSs, which are registered on the pharmaceutical market of Ukraine.

Materials and methods. The theoretical study was conducted as part of the master's thesis «Development of ways to increase compliance and quality of life of patients with the use of intranasal glucocorticosteroids» as a comparative analysis including their indication and off-label use, bioavailability, effects on the intranasal environment, and factors around patient adherence.

Results and discussion. In this abstract, we have presented mometasone furoate in nasal spray. 15 trade names of mometasone furoate (MF) are registered on the pharmaceutical market of Ukraine in «State Register of Medicines of Ukraine» (www.drlz.com.ua). We compared «Instruction for medical use of the drug» of all MF nasal sprays of some aspects (excipients) and results have been shown in table 1.

Table 1

Comparative characteristics of some aspects of mometasone furoate nasal sprays

Trade names	Excipients							
	MC ¹	CS ²	SC ³	⁴ Gl	⁵ CAM	⁶ P-80	⁷ BCh	⁸ PW
M-Spray	+	+	+	+	+	+	+	+
Nazonex®	+ ¹¹		+	+	+	+	+	+
Mometason-Teva	+	+	+	+	+	+	+	+
Allertech® Nazo	+	+	+	+	+	+	+	+
Rialtris ⁹	+	+	—	—	—	+	+	+
Glenspray Active ¹⁰	+	+	+	—	+	+	+	+
Glenspray	+	+	+	+	+	+	+	+
Nazehaler	+	+	+	+	+	+	+	+
Mometasone-Zdorovia	+	+	+	+	+	+	+	+
Momixon	+	+	+	+	+	+	+	+

Trade names	Excipients							
	MC ¹	CS ²	SC ³	⁴ Gl	⁵ CAM	⁶ P-80	⁷ BCh	⁸ PW
Flix	+ ¹²	+		+	+	+	+	+
Forinex	+	+	+	+	+	+	+	+
Mometasone-Teva	+	+	+	+	+	+	+	+
Sanomen								
Etacid	+	+	+	+	+	+	+	+

Notes: ¹MC – microcrystalline cellulose; ²CS – carmellose sodium; ³SC– sodium citrate; ⁴Gl – glycerin; ⁵CAM – citric acid monohydrate; ⁶P-80 – polysorbate 80; ⁷BCh – benzalkonium chloride; ⁸PW – purified water; ⁹Rialtris – combined nasal spray (olopatadine hydrochloride 665 mcg/ MF 25 mcg); ¹⁰Glenspray Active – combined nasal spray (MF 50 mcg/ azelastine hydrochloride 140 mcg); ¹¹ – dispersed cellulose (microcrystalline cellulose and sodium carboxymethylcellulose); ¹² – Avicel RC-591.

The complex cellular adhesive system of Nazonex® (dispersed cellulose is effective in increasing the MF nasal absorption without any nasal tissue damage or any ciliary dysfunction), as original MF nasal spray provides the best suspension adhesion to the nasal mucosa, having an optimal initial and final suspension viscosity. Due to the special structure of the delivery device, MF distribution in the posterior parts of the nasal cavity is greatest in Nazonex® and is 80%.

Conclusions. When choosing INCSs with MF, you should necessary to consider the excipients of composition. This can affect the effectiveness of therapy.

CLINICAL AND ECONOMIC ASPECTS OF USING PREVENTOR IN THE TREATMENT OF PATIENTS WITH HIGH CARDIOVASCULAR RISK

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Introduction. Cardiovascular diseases (CD), especially coronary heart disease, remain the leading cause of disability and death in the world, Europe and, especially, in Ukraine, and are therefore not only a medical but also a socio-economic problem. In Ukraine, the adult mortality rate from CD among all causes of death is 66.5%, the majority of deaths (68.9%) cause of death is coronary heart disease, the pathogenetic basis of which is atherosclerotic coronary artery disease. Despite all the existing international recommendations and domestic protocols governing the appointment of statins to different categories of patients, the situation with the use of these drugs in Ukraine is unsatisfactory.

Aim. To investigate gaps in the provision of medical care in the treatment of dyslipidemia and cardiovascular catastrophes prevention in Ukraine.

Materials and methods. We analyzed epidemiological research, meta-analysis data in the world and results of science research in Ukraine.