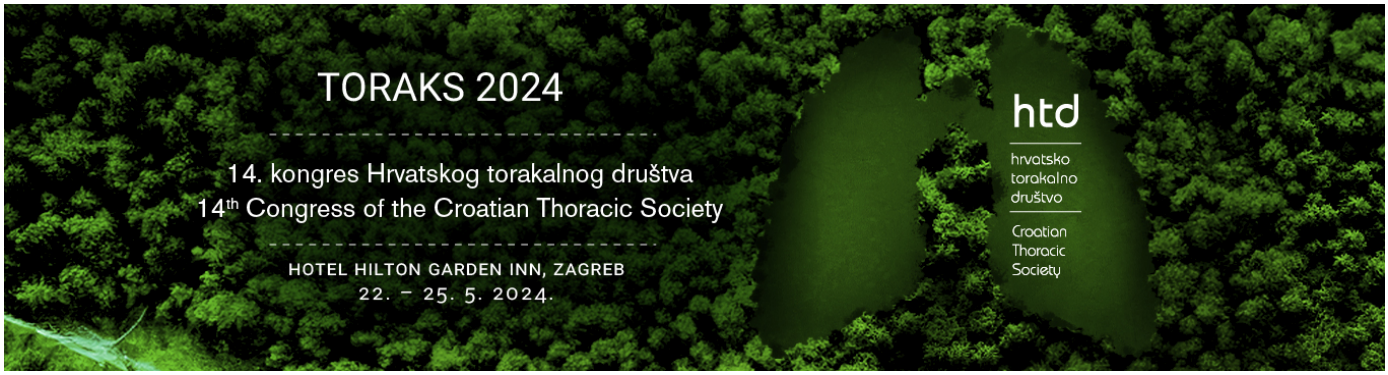

CHALLENGES IN CHOOSING THE MOST SUITABLE INHALER WHEN TREATING AN ASTHMA PATIENT

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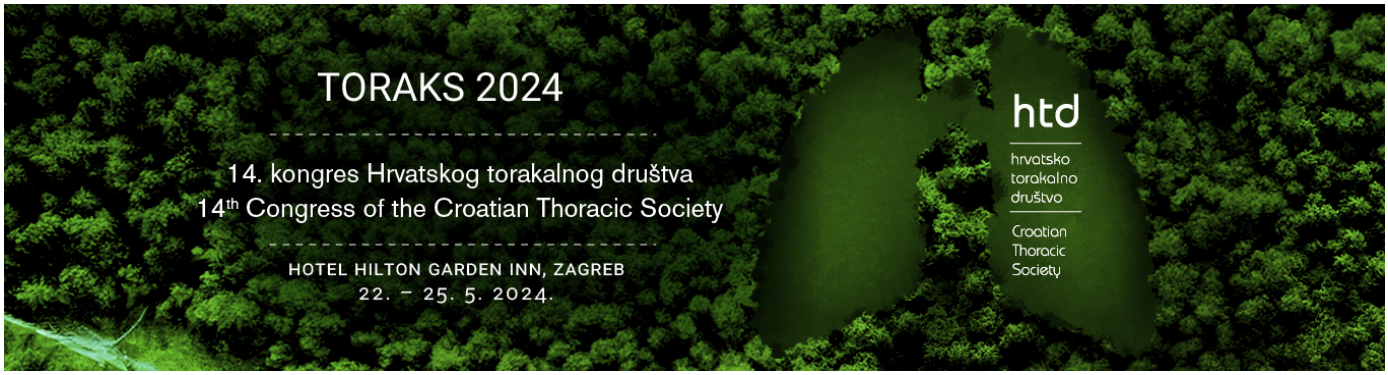
Objective:

Asthma can be onset at any age, from childhood to very old age. Triggers like pollen, exercise, viral infections, tobacco smoke or cold air can exacerbate symptoms, potentially triggering asthma attacks. While asthma has no cure, treatment and an action plan can enable patients to live active lives. A comprehensive approach to patients, considering their lifestyle habits, comorbidities, and socioeconomic status, is crucial for determining the most appropriate inhaler for their treatment.



Methods:

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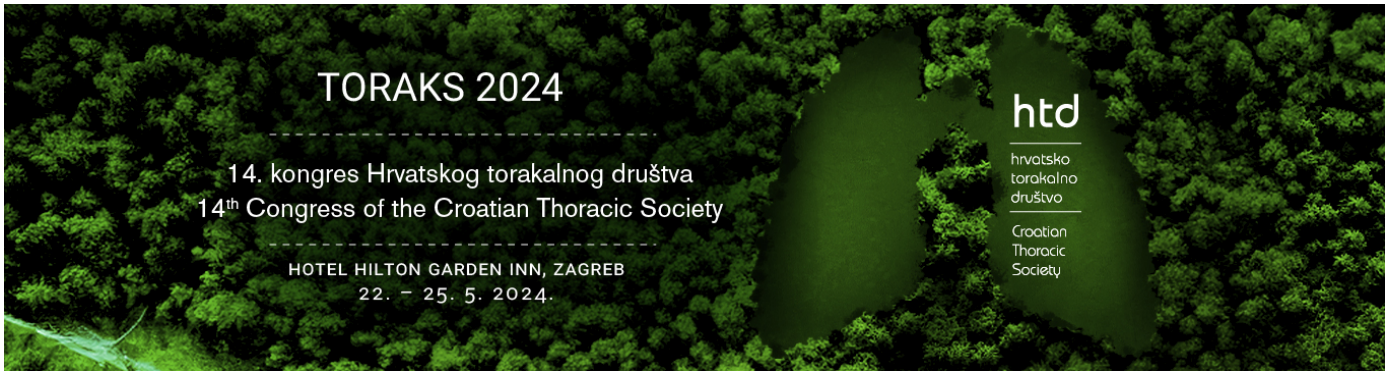
Result:

According to Global Initiative for Asthma (GINA), as well as Croatian guideline, the cornerstone of asthma treatment involves inhaled corticosteroids to suppress airway inflammation. Beta2-agonists provide symptom relief due to bronchodilator effect, while muscarinic receptor antagonists block bronchoconstriction reflexes. Determining the appropriate dosage and combination of medications relies on patients' test results and clinical status presentation. Achieving optimal asthma control also involves selecting the drug administration according to patient’s preferences and ensuring correct inhalation technique, beside the appropriate molecules and drug formulations. Two main devices are available: dry powder inhalers (DPI) and metered-dose inhalers (MDI). Patients physical characteristics, such as reduced lung function and weak muscles may disenable proper inhaler usage due to inadequate inhalation flow rates. Elderly patients, often experiencing clumsiness even have a problem with holding and actuating the inhaler. Poor disease knowledge and awareness diminish treatment adherence. Individual cognitive differences significantly influence patient compliance, with memory loss posing a risk for forgetting doses. For severe asthma cases, '2in1' or '3in1' inhalers may simplify treatment, adjusted to busy lifestyles or work environments. Younger patients also prefer once-daily inhalers to avoid social stigma. Gender differences impact inhaler hygiene, with males less likely to clean inhalers properly, leading to drug agglomeration. Intuitive inhalers with clear dose indicators promote regular usage. Common mistakes when using MDIs and DPIs include improper exhalation before inhalation, improper mouthpiece sealing, and inhaling through the nose. MDI errors often involve hand-lung discoordination issues and incorrect inhaler shaking before use. DPI users commonly lack forceful inhalation. Also, released dose could be impacted by both humidity and temperature in the environment when storage is incorrect. Spacer use aids hand-lung coordination, while soft-mist inhalers (SMI) resolve insufficient inhalation force issues.



Conclusion:

To ensure optimal asthma management, it's essential to involve the patient in treatment decisions and provide comprehensive education about their condition and inhalation techniques, with regular follow-up. This personalized approach, facilitated by clinical pharmacists or physicians, can significantly enhance patient satisfaction, adherence, and overall medical outcomes.