

SUBTLITIES OF USING INHALATION DEVICES IN PEDIATRIC PRACTICE

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Abstract. Inhalation therapy plays an important role in the treatment of a number of respiratory diseases. Due to the direct delivery of drugs to the respiratory tract, the development of systemic side effects is minimized, which is extremely important for pediatric patients. Today, inhalation therapy is the basic method of treating bronchial asthma. But about 1/3 of patients with bronchoobstructive diseases perform inhalations with serious technical errors. As a result of improper inhalation technique, the drug enters the respiratory tract in insufficient quantities, which leads to poor disease control and frequent exacerbations. Particular difficulties in the use of inhalation devices arise in pediatric practice. Children under 3 years of age are usually unable to perform specific breathing maneuvers. Therefore, for children under 5 years of age, the best choice among delivery devices is metered-dose inhaler (MDI) with a valve spacer. An alternative method of drug delivery is nebulizer therapy. Children older than 5 years can already use dry powder inhalers (DPI). This literature review presents the classification and types of DPI, considers their main technical characteristics, the criteria of the “ideal” delivery device. Based on the literature, it is established that the most optimal inhalation device for children older than 5 years is Easyhaler, which has a number of advantages. It is easy to use. The MDI-like design contributes to the commitment and correct, without technical errors, use of the inhaler. Easyhaler has the appropriate aerodynamic characteristics of the released dose, safe and efficient delivery of the drug.

Key words: inhalation therapy, delivery devices, dry powder inhalers, children, bronchial asthma.

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Asthma and Allergy, 2021, 4, P. 55-63.