

Abstract

Adherence to inhalation therapy in patients with asthma bronchiale II

Author: Nikola Janečková

Tutor: doc. PharmDr. Josef Malý, PhD.

Consultant: PharmDr. Tereza Hendrychová, PhD.

Department of Social and Clinical Pharmacy, Faculty of Pharmacy in Hradec Králové, Charles University

Introduction and aims: The basis of asthma bronchiale (AB) treatment is an administration of inhaled medicine. To achieve proper efficiency of AB treatment, the correct application of inhaled therapy is necessary. The aim of the practical part of the thesis was to analyze the inhalation technique in a cohort of adult patients with AB using the Five Steps Assessment (FSA) tool.

Methods: Data collection of the cross-sectional study took place from September 2023 to December 2023 at a pneumology department in the Czech Republic. Adult outpatients who had a stable form of AB and had been taking an inhaled therapy for at least 3 months were included. A guided interview was conducted with a patient and then a patient was asked to demonstrate manipulation with an inhaler. Inhalation was recorded and assessed using the Manual of Correct Use of Individual Inhaler Systems developed by a team of pharmacists and physicians built on the FSA. Information about patients was further obtained from their medical documentation. Data were described by descriptive statistics, and relationships and dependencies between variables were evaluated using selected statistical tests.

Results: 70 patients with a predominance of men, participated in the study with the average age of 64 years. Most often patients were retired people with a high school education. More than a third of them suffered from severe AB and typical comorbidities were gastroesophageal reflux, arterial hypertension or rhinitis, or rhinosinusitis. Most patients were using at least two combinations of inhaled medicines. A total of 112 manipulations with inhalers were recorded and evaluated, the most common being the pressurised metered dose inhaler. Up to 90% of patients made a mistake at least once in manipulation with the inhaler. Patients more frequently made errors in the third step of the FSA with an accuracy of less than 50%.

Conclusions: Results of the study showed that the inhalation technique of the patients is not at a sufficient level. Repeated targeted education led by an expert focusing on the specifics and specific errors in a handling a given inhalation system, or inhaler is demand.

Key words: asthma bronchiale, inhalation technique, patient adherence to treatment