Assessment of Handling of Inhaler Devices in Real Life:
An Observational Study in 3811 Patients in Primary Care.

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**RESUMO DO ARTIGO**

The correct use of inhalation devices is an inclusion criterion for all studies comparing inhaled treatments. In real life, however, patients may make many errors with their usual inhalation device, which may negate the benefits observed in clinical trials. Our study was undertaken to compare inhalation device handling in real life. A total of 3811 patients treated for at least 1 month with an inhalation device (Aerolizer®, Autohaler®, Diskus®, pressurized metered dose inhaler (pMDI), or Turbuhaler®) were included in this observational study performed in primary care in France between February 1st and July 14th, 2002. General practitioners had to assess patient handling of their usual inhaler device with the help of a check-list established for each inhaler model, from the package leaflet. Seventy-six percent of patients made at least one error with pMDI compared to 49–55% with breath-actuated in-halers. Errors compromising treatment efficacy were made by 11–12% of patients treated with Aerolizer®, Autohaler®, or Diskus® compared to 28% and 32% of patients treated with pMDI and Turbuhaler®, respectively. Overestimation of good inhalation by general practitioners was maximal for Turbuhaler® (24%), and lowest for Autohaler® and pMDI (6%). Ninety percent of general practitioners felt that participation in the study would improve error detection. These results suggest that there are differences in the handling of inhaler devices in real life in primary care that are not taken into account in controlled studies. There is a need for continued education of prescribers and users in the proper use of these devices to improve treatment efficacy.