

中文題目：吸入器的處理不當對慢性阻塞性肺病患者的效果

英文題目：Effect of mishandling of inhalers on management of subjects with COPD

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Incorrect usage of inhaler devices might have a major influence on the clinical effectiveness of the delivered drug. The objective of this study was to assess the incorrect technique with established inhalers in subjects with chronic obstructive pulmonary disease (COPD), to highlight the common errors observed in inhalation technique and to discuss implications for clinical efficacy.

First, recruited subjects completed a standardized questionnaire; each questionnaire consisted of a general section and specific parts, each related to a specific inhaler. Then, each patient demonstrated the inhalation technique with all used devices to the investigator in a quiet area using a placebo device.

We have collected 100 records of inhaler technique. At least one critical mistake was distributed among users, ranging from 21% for Evohaler<sup>®</sup>, 21% for Accuhaler<sup>®</sup>, and 32% for Turbuhaler<sup>®</sup>. There were significant differences between inhaler misuse and older age ( $p = 0.01$ ), lower schooling ( $p = 0.01$ ) and lack of instruction or check-up received for inhaler technique by health caregivers ( $p = 0.03$ ). Inhaler misuse was associated with increased risk of hospitalization ( $p < 0.001$ ), emergency room visits ( $p < 0.001$ ), courses of oral steroids ( $p < 0.001$ ) and antimicrobials ( $p < 0.001$ ) and poor disease control evaluated as an COPD Assessment Test (CAT) score for the COPD ( $p < 0.001$ ).

Inhaler mishandling continues to be common in experienced outpatients referring to chest clinics and associated with increased unscheduled health-care resource use and poor clinical control. Instruction by health caregivers maybe the modifiable factor useful for reducing inhaler mishandling.