

Abstract

Use of inhaled drugs in obstructive pulmonary diseases

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Introduction and objectives: Chronic respiratory diseases are emerging health problem. The administration of the medication is mostly performed by the process of inhalation. Therefore, a proper inhalation technique plays a crucial role in symptom reduction and achievement of adequate control over the disease. The aim of the thesis was partly to assess the level of inhalation technique in elderly patients in nursing home settings, partly to evaluate the knowledge of nurses and their role in advice provision related to the proper inhalation technique.

Methods: The data were collected from June to September 2016 from 18 nursing homes located in South Wales (Great Britain). The study was realized in two arms. The evaluated group (first arm) was composed of patients (residents) with having asthma bronchiale or chronic obstructive pulmonary disease diagnosed and being older than 65 years. Second arm consisted of nurses responsible for giving advices about inhalation technique to the residents. Nursing home visits were composed of three parts. First one was a controlled interview based on the questionnaires that were proposed separately for each type of subjects of the study. The second part of the visit consisted of practical measurement of inhalation technique using Vitalograph AIM™. The third part was a training available to all participants included in the study. The data collected through controlled interviews and outcomes of Vitalograph AIM™ were converted into electronic form and processed by means of descriptive statistics and selected nonparametric statistic test.

Results: Total number of the residents was 575. Corresponding diseases developed in 8.7 % of the residents. 18 residents took part in the study. Seven of them suffered from asthma bronchiale, nine residents from chronic obstructive pulmonary disease, two residents suffered from both. The average level of inhalation technique was suboptimal. The value was 1.9 for dry powder inhalers; in the case of pressured-metered dose inhalers it was 2.3 (1-Optimal, 2-Suboptimal, 3-Fail). Second arm of the study was composed of 27 nurses (corresponding to 49 % of invited nurses). Almost half of all nurses demonstrated inadequate knowledge about inhalation technique and inhalers.

Conclusion: The results provided information about suboptimal level of inhalation technique related to the elderly residents in nursing homes settings and the active participation of nurses in providing advices on inhalation technique. The knowledge of nurses related to the inhalation technique and

inhalers was inadequate in every other case. There is a need for training related to inhalation technique of the residents and the development of an effective system of continual education of nurses.

Key words: Use of inhaled drugs, obstructive pulmonary diseases, adherence