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## Corticosteroids and hip fracture risk in elderly respiratory patients

The authors declare no financial disclosure

**Adv. Respir. Med. 2017; 85: 124****Dear Editor,**

We read with interest the report by Karakatsani and associates on corticosteroids and hip fracture risk in elderly respiratory patients: EPIC-Greece cohort [1]. We would like to ask four points. First, there are many “others” evaluated in this study, we do ask what the diagnoses of these patients were. Second, long-acting muscarinic antagonist is considered as a standard treatment for COPD patients. Therefore, we would like to ask what the purposes of administration of steroids for COPD patients were. Third, we do wonder whether not only the amount of steroid administered but also the period during which the drug was administered may be related to exacerbation of osteoporosis. Please let us know whether there were data on the administration period of steroids. Fourth, we were surprised to read that the occurrence of hip fracture in patients treated with inhaled steroids was the same as that in those treated with oral steroids. If it is true, should the risk of hip fracture in patients who are treated with inhaled steroids be considered the same as that in those treated with oral steroids?

**References:**

1. Karakatsani A, Katsoulis M, Klinaki E, et al. Corticosteroids and hip fracture risk in elderly respiratory patients: EPIC-Greece cohort. *Adv Respir Med.* 2017; 85(1): 22–27, doi: [10.5603/ARM.2017.0005](https://doi.org/10.5603/ARM.2017.0005), indexed in Pubmed: [28198990](https://pubmed.ncbi.nlm.nih.gov/28198990/).

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## Corticosteroids and hip fracture risk in elderly respiratory patients: EPIC-Greece cohort

The authors declare no financial disclosure

**Adv. Respir. Med. 2017; 85: 124–125****To the Editor,**

We appreciate Drs. Tamura and Satoh’s interest in our work and the opportunity they give us to respond to their four questions.

Firstly, as mentioned in the section methods of our study “... participants were selected based on age and self-reporting of ‘a doctor’s diagnosis’ of respiratory disease (ICD-10-CM diagnosis codes J00-J99). Individuals using inhalers (short or long acting  $\beta$ 2 adrenergic and/or anticholinergics and/or corticosteroids) without ever having reported in the questionnaires ‘a doctor’s diagnosis’ of respiratory disease were also included as having ‘possible obstructive pulmonary disease’. Finally, among participants, those reporting chronic obstructive pulmonary disease (J44), asthma (J45) and emphysema (J43) were identified in order to perform additional subgroup analyses” [1]. Also, in Table 1 we present separately the characteristics of participants reporting a respiratory disease with ICD-10-CM diagnosis code J44, J45, J43 as well as those having “possible obstructive disease” (see above for definition). The category “others” refer to those reporting any other ICD-10-CM diagnosis code from J00-J99.

Secondly, in the EPIC-Greece study no information has been collected so far on the reasons a specific medication is prescribed by doctors for any disease, COPD included.

Thirdly, due to the study design no data are available on the administration period of steroids.

Fourthly, probably there is a misunderstanding because we did not draw such a conclusion in our study. Comparing the risk of hip fracture between participants treated with inhaled steroids versus those taking oral steroids was not among the objectives of the current study. Other studies, specifically designed, should further address this issue.

### **Conflict of interest**

The authors declare no conflict of interest.

### **References:**

1. Karakatsani A, Katsoulis M, Klinaki E, et al. Corticosteroids and hip fracture risk in elderly respiratory patients: EPIC-Greece cohort. *Adv Respir Med.* 2017; 85(1): 22–27, doi: [10.5603/ARM.2017.0005](https://doi.org/10.5603/ARM.2017.0005), indexed in Pubmed: [28198990](https://pubmed.ncbi.nlm.nih.gov/28198990/).

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