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INTERNATIONAL CONGRESS 2018

PARIS France, 15-19 September

Poster Discussion (2 minutes)

Osteoporosis onset in patients prescribed ICS for COPD

Matched cohort study

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Disclosure

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- This work was supported by Novartis

Jaco Voorham

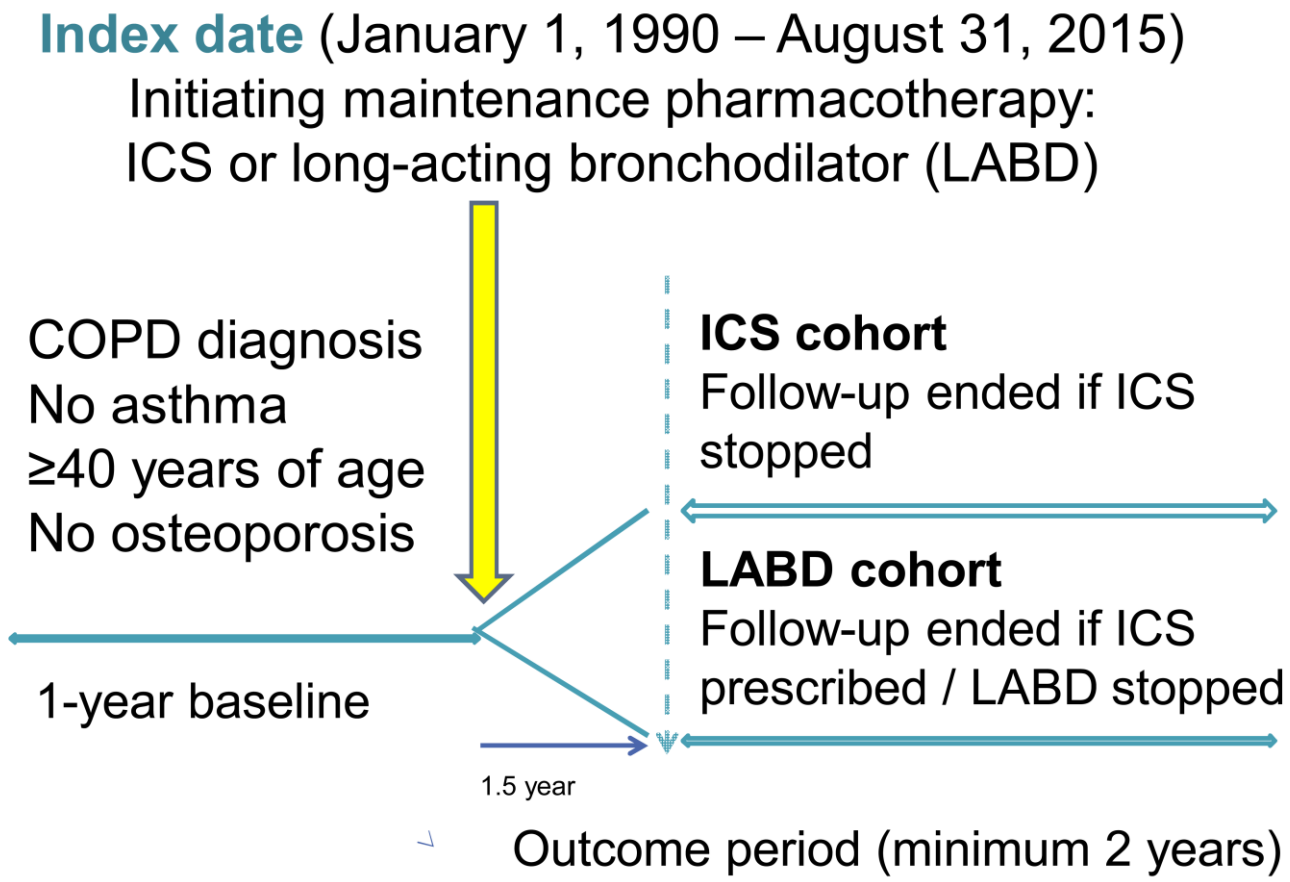
- Employee of the Observational and Pragmatic Research Institute, which conducted this study and which has conducted paid research in respiratory disease on behalf of the following other organizations in the past 5 years: Aerocrine; AKL Ltd.; Almirall; AstraZeneca; British Lung Foundation; Boehringer Ingelheim; Chiesi; GlaxoSmithKline; Mylan; Mundipharma; Napp; Novartis; Orion; Respiratory Effectiveness Group; Takeda; Teva; and Zentiva, a Sanofi company

Rationale

Prior study results are discordant regarding the risk of fracture or osteopenia associated with inhaled corticosteroid (ICS) therapy for patients with chronic obstructive pulmonary disease (COPD)

- Many observational studies suffer from important limitations or include insufficient numbers of patients with COPD
- Most randomized controlled trials are not sufficiently powered or long enough to evaluate adverse effects
- The Global Initiative for Chronic Obstructive Lung Disease (GOLD) strategy publication notes the need for further investigation of dose-response and of the long-term safety of ICS therapy for COPD

Design



Aim: to assess whether ICS therapy for patients with COPD is associated with osteoporosis onset

- Historical matched cohort study using two large, unselective UK medical record databases
- Onset of osteoporosis compared between patients initiating ICS vs. long-acting bronchodilator (LABD) for COPD from January 1990 through August 2015

Results

Risk of osteoporosis onset: greater, but not significantly so, amongst all ICS initiators compared with LABD initiators

Dose response evident amongst ICS initiators:

- Significantly greater risks of osteoporosis onset ranged from 47% to 342% at mean daily ICS exposures of ≥500 µg/day in fluticasone propionate–equivalents, as compared with the reference value of <250 µg/day
- This dose-response relationship was present also for patients in GOLD A/B and C/D subgroups and for women analysed separately