When and how to step down asthma treatment?

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Introduction

The Swedish National Board of Health and Welfare published new guidelines in treatment of COPD and asthma 2015. These guidelines recommend to correct and step down unnecessary combination therapy with ICS and LABA. Current international guidelines from GINA presents a general stepwise treatment in 5 steps. The model is widely accepted internationally including by the Swedish Medical Product Agency. Clear instructions of how and when to step up asthma treatment is given by GINA, the Swedish MPA guidelines state that:

- The stepwise model can be used both for stepping up and stepping down asthma treatment
- The treatment should be adapted so that the asthma patient is well controlled with the lowest medication possible.

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- That 120.000 patients in step 3 treatment should step down from combination therapy (Step 3).

The Swedish statistical report “Oppna jämförelser av hälsos- och sjukvård”, comparing regions and development in different medical fields, showed 2013 that new asthma diagnoses accounted for ≈50% of all combination therapy initiated in Sweden. The prescription pattern contradicts the indication of combination therapy medication. All combination medication in Sweden is indicated to be considered first after asthma control is not achieved with regular use of ICS.

Here we present an evidence based treatment algorithm for Step 1-3 in adults for use in clinical practice (Fig. 1 and 2), including instructions of how to step down asthma treatment. The algorithm is presented as a tool to follow current guidelines to achieve optimized treatment, as the best alternative for the patient and the most cost-effective alternative for the health care system.

Study analysis

In our screening of studies that addresses a step down approach of asthma treatment in step 1-3, we found 3 published meta-analyses [1-3], 2 Cochrane reviews [4, 5] and 10 RCT trials and 2 observational studies. The meta-analyses differ in their conclusions. When carefully studying every single RCT study we found some scientific shortcomings:

- Studies not showing negative outcome from step down were not always included in the meta analyses.
- Shown significant outcome was not clinically relevant.
- Several studies included low numbers of patients and gave wide confidence intervals.
- Primary outcome was often PEF or FEV1, in which the actual clinical relevance can be discussed.

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When to step down asthma treatment?

It is recommended that clinicians discuss the option of stepping down asthma treatment with patients when asthma symptoms are under control, lung function is near normal, and biomarkers (if measured) are near normal [1]. We suggest that the patients should have shown full asthma control for at least 3 months before considering to step down.

Risks

When initiating step down, the physician should be aware that step down is mostly initiated and executed by the patient her/himself. First the physician must make sure that a step down has not recently been made by the patient already.

We consider some patient categories being at higher risk of complications when conducting step down. These categories includes patients with:
- co-morbidity (rhinitis/sinusitis, severe food allergies), allergen contact, work exposure, smoking and season has to be considered for those patients with seasonal asthma allergy

The medical risks for the patient while being in the process of a step down includes exacerbations and worsening of asthma control.

We therefore suggest to follow up these symptoms while stepping down.

References