Should recommendations about starting inhaled corticosteroid treatment for mild asthma be based on symptom frequency: a post-hoc efficacy analysis of the START study - The Lancet



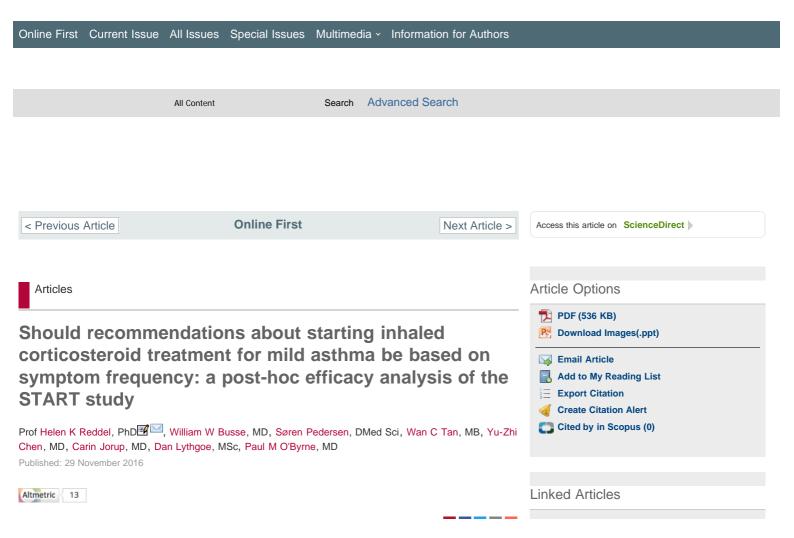


 Home
 Journals ×
 Specialties ×
 The Lancet Clinic ×
 Global Health ×
 Multimedia ×
 Campaigns ×
 More ×
 Information for ×

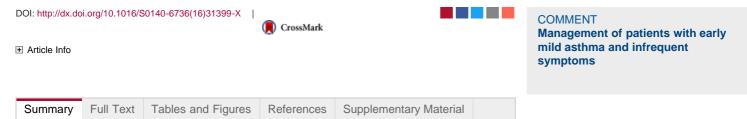
 Submit a Paper **

THE LANCET

Login | Register | Subscribe



Should recommendations about starting inhaled corticosteroid treatment for mild asthma be based on symptom frequency: a post-hoc efficacy analysis of the START study - The Lancet



Summary

Background

Low-dose inhaled corticosteroids (ICS) are highly effective for reducing asthma exacerbations and mortality. Conventionally, ICS treatment is recommended for patients with symptoms on more than 2 days per week, but this criterion has scant evidence. We aimed to assess the validity of the previous symptom-based cutoff for starting ICS by establishing whether there was a differential response to budesonide versus placebo for severe asthma exacerbations, lung function, and asthma symptom control across subgroups identified by baseline asthma symptom frequency.

Methods

We did a post-hoc analysis of the 3 year inhaled Steroid Treatment As Regular Therapy (START) study, done in 32 countries, with clinic visits every 3 months. Patients (aged 4–66 years) with mild asthma diagnosed within the previous 2 years and no previous regular corticosteroids were randomised to receive once daily, inhaled budesonide 400 µg (those aged <11 years 200 µg) or placebo. Coprimary outcomes for this analysis were time to first severe asthma-related event (SARE; hospital admission, emergency treatment, or death) and change from baseline in lung function after bronchodilator. Interaction with baseline symptom frequency was investigated, with patients grouped by more than two symptom days per week and two or fewer symptom days per week (divided into no days to 1 day, and more than 1 day to 2 days). Analysis was done by intention to treat.

Findings

Of 7138 patients (n=3577 budesonide; n=3561 placebo), baseline symptom frequency was 0-1 days per week for 2184 (31%) participants, more than 1 and less than or equal to 2 symptom days per week for 1914 (27%) participants, and more than 2 symptom days per week for 3040 (43%) participants. For budesonide versus placebo, time to first SARE was longer across symptom frequency subgroups (hazard ratios 0.54 [95% CI 0.34-0.86] for 0-1 symptom days per week, 0.60 [0.39-0.93] for >1 to ≤2 symptom days per week, 0.57 [0.41-0.79] >2 symptom days per week, pinteraction=0.94), and the decline in postbronchodilator lung function was less at 3 years' follow-up (pinteraction=0.32). For budesonide versus placebo, severe exacerbations requiring oral or systemic corticosteroids were reduced (rate ratio 0.48 [0.38-0.61] 0-1 symptom days per week, 0.56 [0.44-0.71] > 1 to ≤ 2 symptom days per week, and 0.66 [0.55–0.80] >2 symptom days per week, pinteraction=0.11), prebronchodilator lung function was higher, and symptom-free days were more frequent (p<0.0001 for all three subgroups), with no interaction by symptom frequency (prebronchodilator pinteraction=0.43; symptom-free days $p_{interaction}$ =0.53). Similar results were noted when participants were classified by any guidelines criterion as so-called persistent versus so-called intermittent asthma.

Interpretation

In mild recent-onset asthma, once daily, low-dose budesonide decreases SARE risk, reduces lung function decline, and improves symptom control similarly across all symptom subgroups. The results do not support restriction of inhaled corticosteroids to patients with symptoms on more than 2 days per week and suggest that treatment recommendations for mild asthma should consider both risk reduction and symptoms.

Funding

AstraZeneca.

To read this article in full you will need to make a payment

Already registered? Please login.

Payment Options

Popular Articles

Most Read Most Cited

Most read in *The Lancet* within the past 30 days.

EDITORIAL President Trump

Vol. 388, No. 10059 Published: November 19, 2016

ARTICLES

Worldwide trends in blood pressure from 1975 to 2015: a pooled analysis of 1479 population-based measurement studies with 19-1 million participants

Published: November 15, 2016 Open Access

REVIEW

Interpretation of the evidence for the efficacy and safety of statin therapy Vol. 388, No. 10059 Published: September 8, 2016

ARTICLES

Measuring the health-related Sustainable Development Goals in 188 countries: a baseline analysis from the Global Burden of Disease Study 2015 Vol. 388, No. 10053

Published: September 21, 2016 Open Access

ARTICLES

Screening and brief intervention for obesity in primary care: a parallel, two-arm, randomised trial Vol. 388, No. 10059 Published: October 24, 2016 Open Access

The Lancet Choice



The Lancet Choice is a new payment

Should recommendations about starting inhaled corticosteroid treatment for mild asthma be based on symptom frequency: a post-hoc efficacy analysis of the START study - The Lancet

| Email/Username: | Purchase this article for \$31.50 USD Online access for 24 hours PDF version can be downloaded |
|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|--------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Password: | as your permanent record |
| Remember me | Subscribe to The Lancet Purchase a subscription to gain access to this and all other articles in |
| Forgot password? | this journal. |
| Register Create a new account | Options include:Personal online only subscription |
| The Lancet Choice Access any 5 articles from The Lancet family of journals Full text and PDF access to 5 paywall articles of your choice Valid for 365 days from date of purchase Find out more about The Lancet Choice | Institutional Access Visit ScienceDirect to see if you have access via your institution. |
| | Already a print subscriber? Claim online access |
| | Have a free trial code? Activate your free trial |

option that gives you the freedom and flexibility to access any 5 premium articles of your choice from across *The Lancet* family of journals - all for a one-off payment of \$49.00 USD.

Simply purchase your Lancet Choice pass from the Summary or Full Text page of an article you wish to access. This will count as the first of 5 article credits, or 'Allowances', and you can use your 4 remaining Allowances to access other articles from any of *The Lancet* journals.

Find out more about The Lancet Choice

The Lancet Journals

The Lancet The Lancet Diabetes & Endocrinology The Lancet Gastroenterology & Hepatology The Lancet Global Health The Lancet Haematology The Lancet HIV The Lancet Infectious Diseases The Lancet Neurology The Lancet Oncology The Lancet Psychiatry The Lancet Public Health The Lancet Respiratory Medicine EBioMedicine

Information & Support

About Us Information for Authors Information for Readers The Lancet Careers Customer Service Contact Us Privacy Policy Terms and Conditions

Subscription

Your Account Subscription Options Existing Print Subscribers

Copyright © 2016 Elsevier Limited except certain content provided by third parties.

The Lancet is a trade mark of RELX Intellectual Properties SA, used under license.

The Lancet.com website is operated by Elsevier Inc. The content on this site is intended for health professionals.

Cookies are set by this site. To decline them or learn more, visit our Cookies page.