



Title: Treating Asthma and COPD – a systematic review

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Reference: SBU Report 151, 2000 ISBN/ISSN 91-87890-67-4

Aim:

To systematically review the evidence on the current treatment methods for asthma and COPD (chronic obstructive pulmonary disease) in adults and children. Socio-economic and cost-effectiveness analyses are also included.

Results and Conclusions:

- The cause behind the increase in asthma is unknown. However, the dominant, confirmed cause behind COPD is tobacco smoking. To prevent the advancement of COPD, it is important to detect the disease early. The most important preventive measure is to intervene effectively against smoking.
- COPD is associated with substantial limitations in everyday life and a lower quality of life despite medication. Although asthma also leads to a lower quality of life, individuals with asthma have a greater chance of becoming symptom-free through modern medication. To assess the treatment of asthma and COPD, it is essential to use outcome measures that reflect the impact of the disease on an individual's life (health-related quality of life, symptom scales, need for acute care, mortality).
- The new drugs for treating asthma have major advantages. They also have contributed toward a dramatic decline in the cost of hospitalization for asthma patients.
- Smoking cessation is the single most important intervention against COPD. Smoking cessation increases survival substantially and reduces symptoms. For many individuals with severe COPD, drugs provide only limited relief for their medical, psychological, and social situation.
- Current maintenance treatment for asthma using long-acting beta-2 stimulants and inhaled steroids is based on solid scientific evidence that shows a positive effect.
- Treatment as needed with short-acting beta stimulants for asthma symptoms and exacerbations is well founded.
- Other treatment principles for asthma such as chromoglicate, antileukotrienes, and immunotherapy have documented effects.
- The benefits of cough medications in obstructive lung diseases are inadequately studied.
- Treatment with theophylline tablets is not beneficial
- Continual treatment with short-acting beta stimulants is not effective.
- Preventive measures against asthma symptoms, such as allergen elimination, need to be assessed.
- Scientific evidence on alternative medicine as a complementary treatment method for asthma and COPD is either weak or completely lacking.

Methods:

The search was based on MEDLINE, 1996 through 1999, and a review of reference lists. For some chapters additional searches were conducted through the Cochrane Library, CATS, Cinahl, Embase, Psycinfo, Swemed, and Spriline. Selection was based on protocol-defined criteria. The literature was searched for 1966 through 1999.

Further research/reviews required:

There is a major need for controlled, well-executed studies on complementary treatment methods. Methods for improving patient compliance with treatment regimens need to be developed and can be strengthened when patients themselves participate in decisions on treatment methods. There is also a major need to assess special asthma clinics and home treatment methods for severe COPD. Different forms of COPD rehabilitation play an important role, but need to be developed and assessed.

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