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Systematic guideline search and appraisal, as well as extraction of new and relevant recommendations, for the DMP "Asthma/COPD"[1]

Executive Summary

[1] Translation of the executive summary of the final report "Systematische Leitlinienrecherche und -bewertung sowie Extraktion neuer und relevanter Empfehlungen für das DMP Asthma/COPD" (Version 1.0; Status: 25.08.2008). Please note: This translation is provided as a service by IQWiG to English-language readers. However, solely the German original text is absolutely authoritative and legally binding.

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Executive summary

Background

The Federal Joint Committee commissioned the Institute for Quality and Efficiency in Health Care (IQWiG) to conduct a literature search for current clinical practice guidelines (CPGs) on asthma and chronic obstructive pulmonary disease (COPD). In this context, the key recommendations extracted from evidence-based CPGs were to serve as a basis for the legally specified regular update of fundamentals of the disease management programme (DMP) for patients with asthma and COPD.

Research questions

The aim of this research was to specify a possible need for revision of parts I (asthma) and II (COPD) of the existing DMP for asthma and COPD by means of a systematic search for evidence-based CPGs and a synthesis of the key recommendations generated.

The procedures were organized as follows:

- Literature search for and selection of current evidence-based CPGs on asthma and COPD;
- Appraisal of the methodological quality of selected CPGs;
- Synthesis of key recommendations and extraction of recommendations relevant to the existing DMP for asthma and COPD;
- Documentation of the evidence on which, according to the CPG, the key recommendations were based.

It was not the aim of the research to issue recommendations in the sense of an IQWiG benefit assessment. The recommendations extracted from the CPGs are therefore to be understood as citations whose underlying evidence, as such, was not reassessed.

Methods

A systematic search for CPGs on asthma and COPD was conducted in the CPG databases Leitlinien.de and Guidelines International Network (G-I-N), as well as in the bibliographic databases MEDLINE and EMBASE. One inclusion criterion specified by the Federal Joint Committee was "Publication between 2004 and September 2007". The additional, and most relevant, inclusion criteria were "German, English or French language publications" and "Documentation of the evidence base of the CPG".

The evidence base of the CPG was based on the following 3 criteria:

(1) conduct of a systematic search for primary and secondary literature for the generation of the CPG;
(2) support of most key recommendations through citations of the underlying primary and secondary literature; and
(3) allocation of a level of evidence and/or grade of recommendation to most key recommendations.

The methodological CPG appraisal was performed with the German Instrument for Methodological Guideline Appraisal (DELBI[2]) and key recommendations were extracted. The key recommendations identified were recommendations labelled as such by the CPG authors. If no recommendations were marked as key recommendations in a CPG, recommendations including a level of evidence and/or grade of recommendation were regarded as key recommendations and extracted. After comparison with the DMP fundamentals outlined in the Act on the Risk Adjustment Scheme (RAS), recommendations were highlighted that implied a potential need for modification of the DMP for asthma and COPD.

Results

A total of 17 evidence-based CPGs on asthma and 15 on COPD were included and appraised, and their recommendations extracted. Three of the 17 CPGs included on asthma and 4 of the CPGs included on COPD were developed in Germany.

The DELBI assessments showed that there was potential for improvement in the documentation of the CPG development, in particular in the areas “General applicability of the CPG” (DELBI domain 5), and “Editorial independence” (DELBI domain 6), as well as in the area “Methodological precision of CPG development” (DELBI domain 3). Even though, according to the authors, the CPGs were based on a systematic literature search and criteria for the inclusion of primary literature were defined, often neither the search (e.g., presentation of a search protocol) nor the inclusion criteria were documented adequately in the CPGs themselves or in methods papers published on them. In addition, the description of the methodological approach regarding the adaptation of other CPGs was frequently inadequate. It is also notable that nearly all CPG developers used different systems to grade evidence and/or recommendations, making a comparative appraisal of key recommendations from different CPGs more difficult.

Recommendations (including the level of evidence and/or grade of recommendation) were extracted from all CPGs included and were compared with the recommendations of Appendix 9 (asthma) and 11 (COPD) of the Act on the RAS. In addition, it was noted in the extraction tables whether the CPG recommendations were linked to the literature.

[2] Deutsches Instrument zur methodischen Leitlinienbewertung

Many of the CPGs included deal with several aspects of health care in a more detailed manner than is the case in Appendices 9 (asthma) and 11 (COPD) of the Act on the RAS. However, these extensions do not represent innovations that imply a necessary modification of the DMP content. Nevertheless, there is a potential need for amendment and specification of the DMP for asthma and COPD. Concerning asthma, this refers in particular to the description of drug therapy (orientated towards disease severity or the degree of asthma symptom control). In addition, in the DMP specifications, the issue of acute asthma attacks could be considered more intensively. Concerning COPD, there is a potential need for modifications particularly regarding the relevance of reversibility testing in COPD diagnosis. Moreover, in particular the recommendations on the procedures for acute exacerbations and the administration of systemic corticosteroids could be presented in a more differentiated manner in the DMP.

Conclusions

Through the comparison of extracted key recommendations from current evidence-based CPGs on asthma and COPD with the content of Appendices 9 and 11 of the Act on the RAS (which are the bases of the DMP for asthma and COPD), no new aspects could be identified that imply a mandatory modification of this DMP. However, various subject areas could be determined where an amendment and specification of the DMP should be discussed.

There is a potential need for amendment and specification of Appendix 9 (asthma) of the Act on the RAS concerning the description of drug therapy (orientation towards the degree of asthma severity or the degree of asthma symptom control) and the consideration of acute asthma attacks in the DMP for asthma.

A further potential need for amendment and specification was identified for the following items: criteria for asthma diagnosis; naming of further drugs or drug classes as potential therapy options; relevance of weight reduction in overweight patients with asthma; information on the lack of effectiveness of certain non-drug therapies (e.g., acupuncture); the detailed consideration of health care issues concerning asthma in pregnancy, work-related asthma, and possible comorbidities; regular check-ups; and recommendations on quality indicators. In contrast to the DMP for asthma, only a few recommendations were found in the CPGs with regard to physical exercise, psychological, psychosomatic, and psychosocial care, as well as pneumologic rehabilitation.

There is a potential need for amendment and specification of Appendix 11 (COPD) of the Act on the RAS regarding patients' medical history, the evaluation of the relevance of reversibility testing in COPD diagnosis, the consideration of acute exacerbations, and recommendations on systemic corticosteroids.

A further need for amendment and specification was identified for the following items: consideration of drug therapy as a component of a multimodal programme on smoking cessation; recommendations on long-term oxygen therapy and non-invasive home ventilation; naming of the specific content of training programmes; naming of indication criteria for surgical procedures; and recommendations on psychological, psychosomatic, and

psychosocial care. In contrast to the DMP for COPD, in the CPGs, the following items were not included: prophylaxis of infections, drugs with potentially serious adverse effects, and inhalation with salt solutions. Finally, the CPGs included contained the following recommendations so far not considered in the DMP for COPD: recommendations on alpha-1-antitrypsine deficiency, palliative care, pulmonary hypertension and cor pulmonale, and sleep disorders.

Key words

Disease management programme, bronchial asthma, chronic obstructive pulmonary disease (COPD), methodological guideline appraisal, evidence-based clinical practice guidelines