Asthma and COPD

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Pharmacotherapy alone is insufficient for optimal management of most chronic illnesses, making education, lifestyle modification and adoption of a collaborative self-management strategy essential.

What is collaborative self-management education?

Traditional patient education imparts disease-specific information and technical skills (*e.g.*, inhaler technique), whereas collaborative self-management education teaches problem-solving skills and emphasizes the establishment of a partnership between the healthcare professional and the patient. The goal of the partnership is guided self-management of the disease.[1,2] A key element of this approach is to shift from a disease-oriented to a patient-centred disease management style.

What are the problems of non-adherence and the need for patient-centred disease management?

Nearly all encounters between healthcare professionals and patients end with some form of advice regarding disease management, but for several reasons, adherence to this advice is often poor.[3] In asthma, adherence to controller medication (*i.e.*, inhaled corticosteroids) is often between 60% and 80% of the prescribed dose, taken on 50% to 60% of days prescribed.[4] The implications can be serious, as poor asthma control and even death have been shown to be associated with very low levels of adherence (> 40%).[5,6] COPD patients may also have challenges with self-management, often relating to their advanced age, the frequent existence of comorbid illness, depression and on occasion an apparent inability or even an unwillingness to change behaviour, (*e.g.,* to adhere to advice to increase activity levels or to exercise). Adopting a more collaborative patient-centred management style in which both parties set the goals of care and commit to certain actions can help to improve these barriers to adherence.

The traditional disease management approach tends to be centred on the healthcare professional and is mainly disease-focused (*e.g.*, the progressive nature of COPD, the importance of trigger avoidance in asthma). Patients, on the other hand, are concerned with the impact that disease has on their daily lives (*e.g.*, breathlessness, reduced exercise tolerance, fear, stress on family, embarrassment of taking medications in public, *etc.*).

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Table 1

Self-management goals checklist for patients with asthma and COPD

Self-management goal	Discussed	Asthma	COPD
Smoking cessation	√	Essential	Essential
Effective inhaler technique (all relevant types)	√	Essential	Essential
Tools for monitoring disease control	√	Essential	Essential
Written action plan for attacks/exacerbations	√	Essential	Essential
Awareness of local educational resources (lung health educator *etc.*)	√	Essential	Essential
Emphasis that asthma and COPD are chronic diseases	√	Essential	Essential
Allergies and environmental control	√	Essential	As needed
Dyspnoea relief strategies	√	Rarely needed	Essential
Management of comorbid illness	√	As needed	Essential
Readily available support (family, caregivers *etc.*)	√	As needed	Essential
Advanced directives and/or end-of-life issues	√	Rarely needed	Essential

Table 2

Potential barriers to successful collaborative self-management education in asthma and COPD

Patient/family factors	• Low reading comprehension level • Poor concentration or forgetfulness • Anxiety and stress • Excessive breathlessness and fatigue • Unwilling or unable to take control • Lack of adequate family or social support • Cultural or ethnicity issues
Healthcare professional (physician, pharmacist, nurse) factors	• Lack of understanding, or fear of patient self-management • Sense of too much time and cost • Insufficient support personnel (*e.g.,* lung health educator) • Lack of space • Lack of educational materials • Lack of awareness of local resources (*e.g.,* personnel, rehabilitation program, educational materials) • Lack of motivation
Healthcare system factors	• Lack of awareness of system benefits and cost-effectiveness of this approach • Inadequate community resource personnel • Lack of educational material • Local resources poorly publicized • Inadequate financial resources • Lack of a champion to lobby for change

Table 3

Clues to identifying patients at risk for worsening disease control or impending flare-up in asthma or COPD*

Observation	Present
Patients who always appear symptomatic	√
Increasing use or prescription refill of quick reliever bronchodilator	√
Infrequent use or prescription refill of inhaled corticosteroid inhaler	√
Frequent requests for OTC cough and cold remedies	√
Frequent antibiotic and/or oral corticosteroid prescriptions	√
Patient without a regular primary care physician	√
Prescriptions from multiple physicians/nurse practitioners	√
Frequent coughing or production of purulent or blood-tinged phlegm	√
Obvious breathless or audible wheezing	√
Bluish colour (cyanosis) of lips, fingers	√
Patient appears unwell or complains of difficulty sleeping because of disease	√

*Presence of one or more clues suggests a patient at risk for poor disease control and should prompt a reassessment of you and your patient's management strategies

Thus, in order to be truly effective as healthcare professionals, our communication must be designed to elicit not only the disease-related needs of our patients, but also their psychosocial and self-learning needs. For example, asking open-ended questions such as "What worries you most about your illness?" or "In what way could things be better for you?" as well as more focused questions such as "Are you concerned about taking steroids?" or "What type of physical activity do you do each day?" are likely to be more effective than simply asking about medications, or asking non-focused questions such as "How are things today?"

Who should deliver collaborative self-management education?

Because the goals and methods of asthma and COPD patient education are clearly outlined in evidence-based guidelines, self-management education can be delivered by a variety of healthcare professionals, including physicians, nurses, physiotherapists, pharmacists and others. The Canadian Network for Asthma Care conducts certification examinations leading to the designation of certified asthma educator , or if also interested in COPD, certified respiratory educator. Qualified individuals must hold a degree or diploma from a recognized healthcare profession, or have an education degree or certificate, or equivalent background and experience and have completed an approved respiratory educator program. Increased access to these certified and other educators will facilitate a collaborative self-management approach and so is needed in a variety of patient contact environments.

What are the essential goals of care for successful self-management education in asthma and COPD?

A comparison of some of the essential goals of care for successful self-management collaboration in asthma and COPD is shown in Table 1.

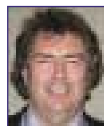
Because asthma and COPD are both diseases with a predilection for exacerbation, an essential component for successful collaborative self-management is a written action plan.[7,8] When

used, action plans enable patients to respond to changing symptoms and also promote successful collaboration by requiring that patients and healthcare professionals collaborate to formulate specified treatment goals and contract for regular re-evaluation and reassessment. To be effective, action plans must be in writing[9] and should be part of a collaborative educational discussion. Canadian data confirm that simply handing out an action plan is not effective in improving asthma control.[8] Action plans for COPD have been less well studied, but can also be useful for both patients and their healthcare professionals if included as part of a comprehensive self-management education program.[10]

Essential elements for a COPD action plan include advice on how to minimize breathlessness, how to recognize the early warning signs of an exacerbation, how and when to empirically begin antibiotics (and oral corticosteroids if appropriate) and when to seek help. There are many examples of simple asthma action plans available at:

- www.asthmaguidelines.com/downloads.html
- www.lung.ca
- www.bc.lung.ca.

The best developed and researched action plan for COPD is part of the "Living Well with COPD" programme developed by Bourbeau and colleagues.[10] This is a comprehensive collaborative self-management education programme for patients with COPD which can be reviewed in detail at www.livingwellwithcopd.com (a password is required for healthcare professionals which is: copd).



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Also key to successfully implementing collaborative self-management is to be aware of potential barriers to this disease management strategy (Table 2) and to be aware of signs indicating poor disease control and the need for a collaborative self-management approach (Table 3).

How is collaborative self-management education effective in asthma and COPD?

Implementation of collaborative self-management can begin with providing your patient with a written action plan and making arrangements for regular review. A discussion with the patient's caregiver should occur if appropriate. If a local respiratory educator is available, a referral to such an individual can be very helpful and will facilitate regular review and troubleshooting.

A series of Cochrane and other systematic reviews have clearly shown that collaborative self-management education in asthma[2,11] and COPD[1,12] significantly improves important clinical outcomes including reduced need for hospitalization and ER visits, less missed days from work and better symptomatic control. Patient satisfaction with the healthcare professional is also improved.[13]

In summary, collaborative self-management education is relatively easy to implement and represents a proven way forward to improve disease control in asthma and COPD. Of equal importance, collaborative self-management education provides a framework to expand and improve communication amongst all varieties of healthcare professionals and the patients we strive to help.

For references, please contact **cme@sta.ca**