

# Chronic adult asthma care – maximising the potential of the consultation

**The family practice consultation is an important component of good asthma care.**

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The consultation in family practice is a complex and often unpredictable interaction between the doctor and the patient. No two consultations are ever exactly alike and every patient is unique in the way they experience their illness. One model for making sense of a patient's illness experience is to consider not only the biological but also the individual and contextual dimensions. Consulting patients with asthma is not therefore a predictable series of rigid steps or just a matter of following a recipe from the

latest guidelines. Nevertheless, there are some components of the consultation that can, with some degree of certainty, be identified as useful and which in general terms will lead to better outcomes.<sup>1</sup> This article attempts to describe these components and to present them in a logical, although not prescriptive, sequence (Fig. 1).

The success of the consultation is also partly determined by the conditions in which it takes place. Asthma is a chronic disease and consultations will therefore work best in an environment that supports chronic as opposed to acute episodic care.<sup>2</sup> At the end of the article I will briefly outline some of the elements of a model for chronic care that may be particularly important in maximising the potential of the consultation with an asthmatic patient.

## Is it asthma?

When looking back in the medical record of patients with chronic asthma it is not uncommon to find a variety of diagnostic labels such as 'asthma', 'COPD', 'wheezy bronchitis' and even 'asthma/COPD'. This uncertainty in diagnosis may translate into uncertainty in terms of treatment and overall management. This also implies that when patients labelled as asthmatic are seen for the first time, one should first ask the question 'Is it asthma?'. One of the main diagnostic decisions to make is between

THE ASTHMA CONSULTATION	
<p><b>CONFIRM DIAGNOSIS OF ASTHMA</b> In particular differentiate clearly between asthma and COPD</p>	
<p><b>ASSESS CONTROL OF ASTHMA</b> See criteria below in Table I -- the aim of asthma management is to obtain complete control of all features of asthma</p>	
<p><b>MANAGE ASTHMA ACCORDING TO STEPS BELOW</b></p>	
<p><b>Well-controlled</b></p> <ul style="list-style-type: none"> <li>Continue current medication</li> <li>Reassess in 3 months</li> <li>If total control at next visit, consider stepping down treatment: reduce oral steroids first and inhaled steroids last</li> </ul>	<p><b>Partly controlled / uncontrolled</b></p> <ul style="list-style-type: none"> <li>Check inhaler technique</li> <li>Check adherence to and understanding of medication</li> <li>Consider aggravation by:                             <ul style="list-style-type: none"> <li>Exposure to triggers or allergens at home or work</li> <li>Co-morbid conditions: gastro-oesophageal reflux disease, rhinitis, sinusitis or cardiac failure</li> <li>Other medications: beta blockers, NSAIDs/aspirin</li> </ul> </li> <li>Consider stepping up treatment (Fig. 4)</li> <li>Consider need for short course of oral prednisolone for exacerbations</li> <li>Review self-management plan</li> </ul>

Fig. 1. Summary of the key components of the asthma consultation.

**Table I. Levels of asthma control over the last 4 weeks**

Characteristic	Controlled (all of the following)	Partly controlled (any measure present in any week)	Uncontrolled
Daytime symptoms	≤2/ week	>2/ week	
Limitation of activities	None	Any	3 or more features of partly controlled
Nocturnal symptoms/awakening	None	Any	asthma in any week
Need for reliever/rescue treatment	≤2/ week	>2/ week	
Lung function (PEF/FEV <sub>1</sub> )	Normal	<80% predicted or personal best (if known)	
Exacerbations	None	1 or more/ year*	1 in any week†

\* Any exacerbation should prompt review of maintenance treatment to ensure that it is adequate.  
† By definition, an exacerbation in any week makes that an uncontrolled week.

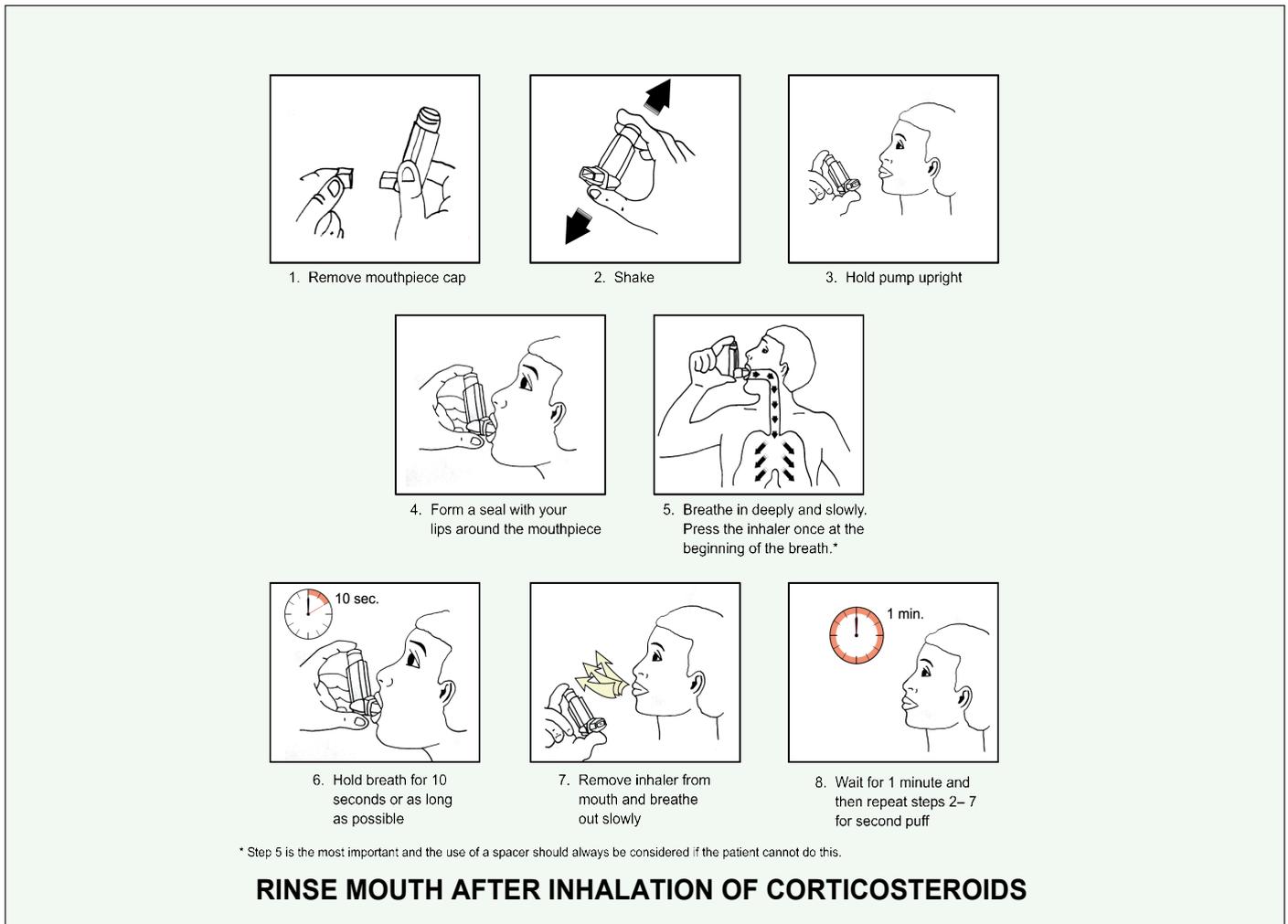


Fig. 2. Inhaler technique.

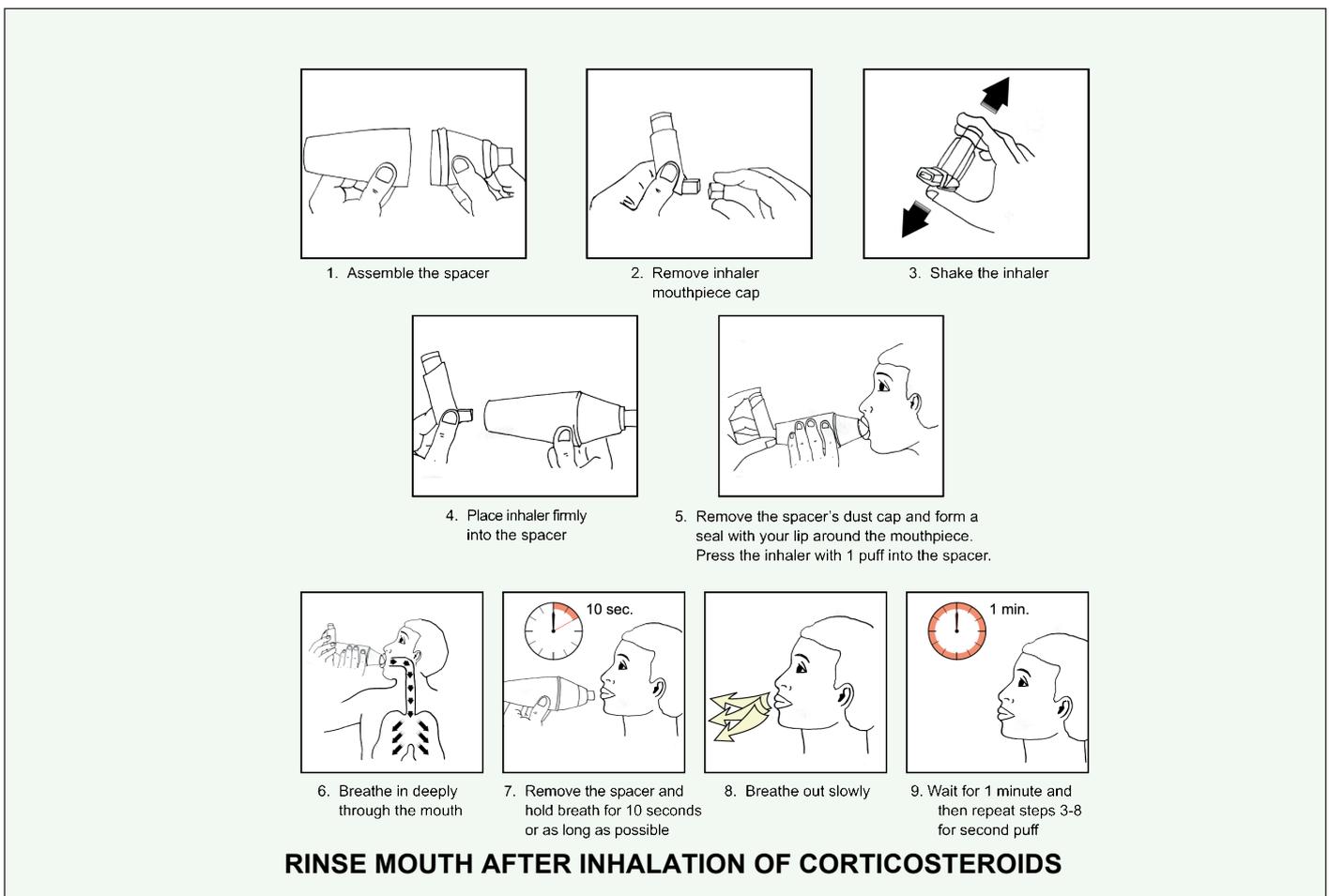


Fig. 3. Inhaler with spacer technique.

## Consultation

asthma and COPD. In our context COPD may not only be due to prolonged smoking, but also to previous tuberculosis, working in the mines or prolonged exposure to the burning of biofuels in informal housing. The differentiation of asthma from COPD is dealt with in more detail in the article on this subject. The next most common diagnostic dilemma is between asthma and cardiac disease. Cardiac disease may present with both wheezing and shortness of breath and may appear superficially to be similar to asthma. Beware, for example, the middle-aged patient with hypertension who is later labelled as asthmatic, but in fact has developed cardiac failure. In making these diagnostic decisions a chest radiograph is useful, not because asthma has distinctive features, but because alternative pathology such as previous tuberculosis or cardiac failure may be obvious.

### *How well controlled are you?*

Previous asthma guidelines have recommended a rather complex approach to classifying the severity of asthma with categories of intermittent, persistent, mild, moderate and severe. Conceptually this has also been problematic as it is difficult to classify a patient who has been diagnosed with persistent severe asthma, but is now well controlled on treatment. In the new guidelines the classification of severity is only used for the newly diagnosed asthmatic to guide initial treatment and after this the doctor must only decide if the patient is controlled or not. It has also been shown that when the current guidelines are followed one can expect up to 70% of patients to achieve control.<sup>3</sup>

Control (Table I) is assessed by asking 5 simple questions regarding day-time and night-time symptoms, use of the reliever, limitation of daily activities and number of exacerbations.<sup>1</sup> An exacerbation is defined as an asthma attack that required the attention of a health worker. Control is assessed over the last 4 weeks for all the features except exacerbations, which are counted over the previous year. Finally the peak expiratory flow is measured and interpreted as either above or below 80% of the predicted or personal best value. If the patient has less than the ideal for any one of the 6 components they are classified as partly controlled and if they have 3 or more partly controlled criteria, they are classified as uncontrolled.

The assessment of control should be communicated to the patient and recorded in the medical record at each routine follow-up visit. For well-controlled patients the current treatment should be maintained and

if after 3 months they are totally controlled then treatment can be stepped down. When stepping down treatment, start with oral steroids, then other controllers, but reduce inhaled steroids last.

### *Check inhaler technique*

When it comes to inhaler technique there is often a 'collusion of anonymity' between doctors, clinical nurse practitioners, pharmacists and others who are each too busy to take responsibility for teaching and checking the patient's inhaler technique. Each professional assumes that it is someone else's responsibility – consequently the patient receives the medication with little idea of how to use the inhaler. In the partly controlled and uncontrolled patient therefore it is important to have them demonstrate their inhaler technique and to receive constructive feedback. It is also useful for the health worker to have a placebo inhaler and to simulate the correct technique. The most important step in use of the metered-dose inhaler (MDI) inhaler is the co-ordination of inspiration and actuation of the inhaler (Fig. 2).

Although some patients will immediately improve once shown how to use the MDI inhaler, there are many who continue to struggle and for them a spacer should be prescribed. The spacer technique should also be taught (Fig. 3). When using the spacer single actuations should be used at a time and normal tidal breathing is as effective as single deep breaths in drug delivery. For some patients unable to use the MDI a breath-actuated device or a dry-powder device may enable better drug delivery.

Teaching and checking inhaler technique is not a once-off activity but should form part of the ongoing review of the asthma patient.

### *Check adherence and understanding of medication*

In one recent study the patient's ability to appreciate the difference between their controller and reliever medication was associated with better adherence.<sup>4</sup> Misunderstanding often leads patients to believe that the controller is ineffective, as it does not provide immediate relief, or that the controller should only be added to the reliever when you are really desperate. Evaluating patients' use of, ideas and concerns about their medication should therefore be a routine part of care, especially in the partly controlled or uncontrolled patient. Although the factors that affect adherence are complex, the attainment of basic health literacy regarding asthma and

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medication will lay a solid foundation for better adherence.

### *Consider hidden aggravating factors*

In the partly or uncontrolled patient there may be a host of aggravating factors that can be modified.<sup>1</sup> Consider if the patient is being exposed to triggers or allergens at home or in the workplace, e.g.:

- personal or second-hand tobacco smoke
- furry animals
- pollen
- burning of biofuels
- house dust mite
- dust or fumes in the workplace
- foods or beverages containing preservatives
- drugs that aggravate asthma such as NSAIDs, aspirin or beta-blockers (including eye drops)
- emotional upset or psychosocial stress.

There may be co-morbid medical conditions such as gastro-oesophageal reflux, rhinitis, or sinusitis where better management will also improve control of asthma.

### *Consider treatment options*

From the above discussion it will be clear that simply changing the prescription is not the only or necessarily the most important aspect of management in the partly or uncontrolled patient. On the other hand, there are many asthma patients who are under-treated and, particularly, not on inhaled steroids. In the new guidelines the appropriate steps and different options in treating asthma are well described (Fig. 4).<sup>1</sup> Once the patient's current treatment regimen has been established one can consider whether it is necessary to step up the treatment. The latest recommendations on treatment options have been well described in the other articles in this edition.

For the partly or uncontrolled asthma patient it will also be necessary to consider whether a short course of oral steroids is required. Short courses are indicated when symptoms and/or lung function progressively deteriorate, with more frequent and less effective use of the reliever, night-time symptoms and the need to consult as an emergency. Prednisone can be given as 30 - 40 mg/day for 7 - 14 days

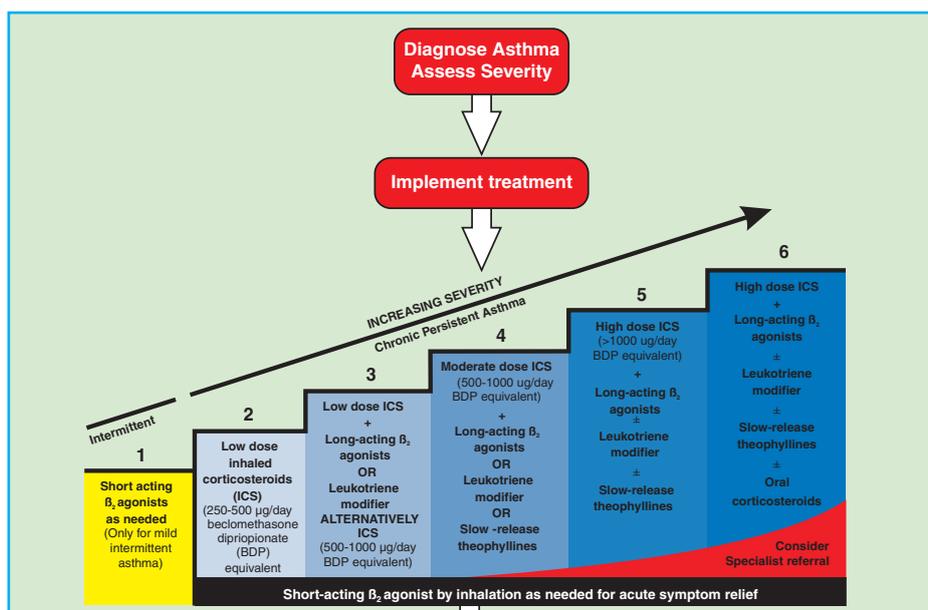


Fig. 4. Treatment steps for chronic asthma.

as a once-daily dose in the morning. There is no need to tail off the course gradually and it can be stopped abruptly at the end. Short courses should not be given in isolation and attention should be given to the other issues raised in this article, appropriate safety netting and follow-up.

### Empower patient self-management

One of the goals of asthma management is to empower the patient to manage their own asthma better between visits to the doctor. This has remained a somewhat theoretical goal in many parts of South Africa, but there is evidence to show that personalised action plans result in fewer days off work, fewer emergency visits, less hospitalisation and a better quality of life.<sup>1</sup>

Self-management requires the patient to be well informed about asthma, have confidence in themselves and the necessary skills to implement their own decisions. Realistic goals for asthma care should be set with the patient. Key information includes:

- Knowledge regarding the classification (controller/reliever), name, strength, dose and frequency of each medication.
- Knowledge on how to assess control of asthma. This can be done on the basis of symptoms and does not necessarily require a PEF meter.
- Knowledge on what to do when control deteriorates and how to initiate a short course of oral prednisone. Options should be pre-determined, clearly defined and written down.

- Knowledge of when and how to obtain emergency help.

### Chronic care and asthma

A health centre or practice that nurtures the conditions for chronic care<sup>2</sup> will be in a better position to offer effective asthma management. Some of the important factors are outlined below.

#### Relational, management and informational continuity

Ideally an asthma patient should be managed in the context of a long-term personal relationship where a repository of personal knowledge and trust maximises the effectiveness of the consultation. This is a pipe dream for many settings in South Africa where continuity is more within a team of health workers who aim for coherent and co-ordinated management over consecutive visits. This management continuity requires effective teamwork, so that team members work from the same guidelines, understand each other's complementary roles and meet regularly to share successes and solve problems. Information continuity is also needed so that key information is easily accessed and compared over time. This may require more structured medical records and identification of asthma-related information.

#### Organisational learning and quality improvement

Health centres and practices should define criteria for quality asthma care. Criteria may relate to structural elements such as the availability of placebos, spacers, PEF meters,

patient education materials, guidelines or medications. Criteria may also relate to the key processes of care discussed above, such as diagnostic certainty, assessment of control, consideration of aggravating factors, appropriate treatment and patient empowerment. Criteria may also assess the outcomes of care in terms of the number of patients actually controlled, seen for exacerbations or hospitalised. Regular assessment and reflection on the quality of care should foster organisational and personal learning and changes to improve quality. The Asthma Guidelines Implementation Project (AGIP) have created a template for assessing the quality of asthma care and simple software to support the calculation of criteria.

#### Attention to patients' health literacy and empowerment

The attainment of better outcomes in chronic care requires collaboration between health professionals, community partners and patients and their families. Health professionals should ensure that the key components of asthma education are consistently and systematically offered at their facility. This does not all have to happen in the consultation itself, but can be shared with other team members such as the nurse, health promoter or pharmacist. Community support groups or non-government organisations can assist with raising awareness, reducing stigma and supporting adherence. Patients and their families can provide feedback on their experience of asthma care and be empowered to take more responsibility for their own management.

#### Further resources

A number of tools to support the recommendations in this article are available from the Asthma Guidelines Implementation Project via the South African Thoracic Society website at <http://www.pulmonology.co.za>

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