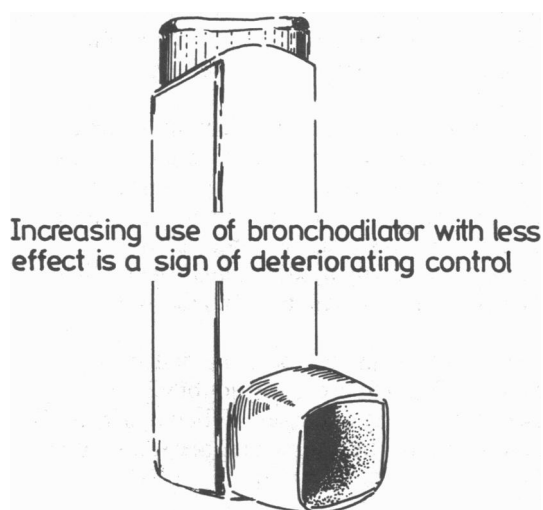


ABC of Asthma

JOHN REES

GENERAL MANAGEMENT

Acute asthma: assessment of severity

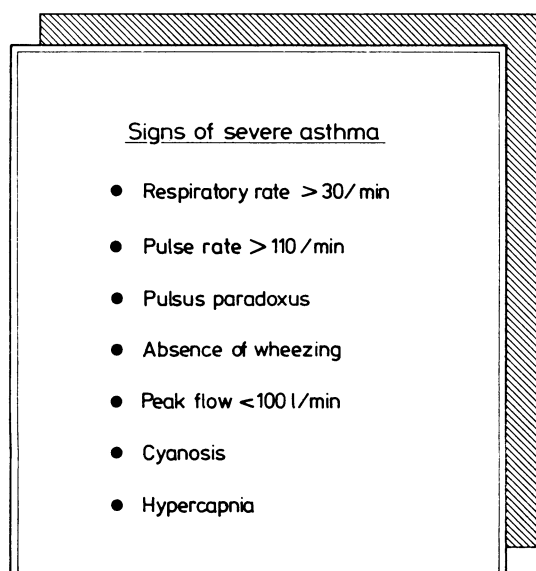


The speed of onset of acute attacks varies. Some severe episodes come on over minutes with no warning, although more often there is a background of deterioration over days or weeks. This period of deteriorating control of asthma tends to be longer in older patients. If the patient has to use his usual bronchodilator more often than usual but with less effect this is an early indication of trouble. All asthmatic patients should be aware of what to do if they fail to get relief from their usual treatment.

The most common symptom is breathlessness—more often difficulty in inspiration than in expiration. Some patients have a poor appreciation of the changes in the degree of their airflow obstruction and may have few symptoms with moderately severe asthma. They are at particular risk during acute attacks.

If a patient cannot move from a chair without difficulty it is certainly time to consider admission to hospital. In more severe asthma eating and drinking and even talking may be troublesome. A knowledge of the pattern of previous attacks is helpful as the progress is often similar in subsequent episodes. Patients must be taught to seek help early rather than late in an acute exacerbation, since it is easier to step in and prevent deterioration into severe asthma rather than treat a full blown attack. Patients and their families should be confident about the management of exacerbations, both their immediate treatment and hospital admission.

Examination



Tachypnoea and inability to speak will be obvious on examination. Cyanosis or confusion caused by hypoxia occurs only in severe asthma and means that admission to hospital and supplemental oxygen are urgently needed. The pulse is a useful guide to severity: a tachycardia of over 110 beats/min is found in severe episodes, although this sign may be less reliable in the elderly, where pulse rates may remain low. Pulsus paradoxus (a drop in systolic pressure measured by sphygmomanometer of over 10 mm Hg on inspiration) is not always present in severe asthma but when it is its level correlates well with progress and should be monitored regularly. Any evidence of circulatory embarrassment, such as hypotension, is an indication for hospital admission.

Examination of the chest itself shows a fast respiratory rate, overinflation, and wheezing. In very severe asthma airflow may be too little for an audible wheeze, so a quiet chest in acute asthma is a worrying feature rather than a reassuring one. It may also indicate a pneumothorax. Although pneumothoraces are not common in acute asthma they are difficult to diagnose clinically, and a chest radiograph must be taken if there is any doubt.

In severe attacks the peak flow rate may be unrecordable. Peak flow or forced expiratory volume in one second (FEV_1) should be monitored throughout the attack as a reliable, simple guide to the effectiveness of treatment.

In hospital blood gas measurements are also often used to assess progress. Some hypoxia is usual and responds to supplemental oxygen. So long as the patient does not have chronic airflow obstruction there is no need to limit

- Problems occur in acute asthma when the patient or doctor fails to recognise the severity of the attack
- Undertreatment is far more dangerous than overtreatment

Where to treat acute asthma



Give initial treatment with bronchodilators, corticosteroids, and oxygen before transfer to hospital

the concentration of supplemental oxygen. The arterial carbon dioxide tension is usually low. Occasionally a high tension is present on admission, but it quickly responds to bronchodilator treatment; this pattern is more common in children. Hypercapnia is, however, an alarming finding in acute asthma, and failure to diminish carbon dioxide retention during the first hour or its development during treatment is an indication that mechanical ventilation must be considered. Ultimately, however, such decisions depend on the overall clinical state of the patient rather than on blood gas measurements.

An acute attack of asthma is very frightening; conceivably transfer to hospital may exacerbate symptoms by producing anxiety, and reassurance that treatment is available to relieve the attack is an important part of management. It is not possible to lay down strict criteria for admission to hospital. The features of severity discussed above should, however, be assessed. Most of the dangers of acute asthma come from a failure to appreciate the severity of an attack and the absence of suitable supervision and treatment to follow up the initial response. Immediate improvement after nebulised salbutamol or intravenous aminophylline may provide false reassurance, being quickly followed by the return of severe asthma. Continued observation is essential.

It may be obvious on first seeing the patient that supplemental oxygen and hospital treatment are necessary. In moderately severe attacks initial treatment should be given and, if the response is inadequate, hospital admission arranged. If the initial response is adequate it may be possible to manage the patient at home if supervision is available. The primary treatment should then be followed up, usually by adequate bronchodilator treatment and corticosteroids, and the response should be assessed by measurement of peak flow.

Deaths from asthma occur when the patient or doctor has failed to appreciate the severity of the attack. When there is any doubt vigorous treatment and admission to hospital are recommended. When treatment is given at home the patient's condition must be assessed regularly and often.

General management of chronic asthma



Obvious precipitating factors should be sought and avoided when practicable. This is possible for specific allergic factors such as animals or foods but is not usually feasible with more widespread allergens such as pollens and dust mites. A common non-specific stimulus is cigarette smoking. About a fifth of asthmatics continue to smoke and strenuous efforts must be made to discourage this.

Fortunately most asthmatic patients can have their disease controlled by safe drug treatment with minimal side effects. Education of the patient in understanding his disease and treatment is often helped by home peak flow recording and written explanations of the purpose of treatment. In particular the differences between symptomatic bronchodilator treatment and regular maintenance treatment must be emphasised. It is all too common to find asthmatic patients increasing their dose of inhaled steroid or cromoglycate when an acute attack develops.

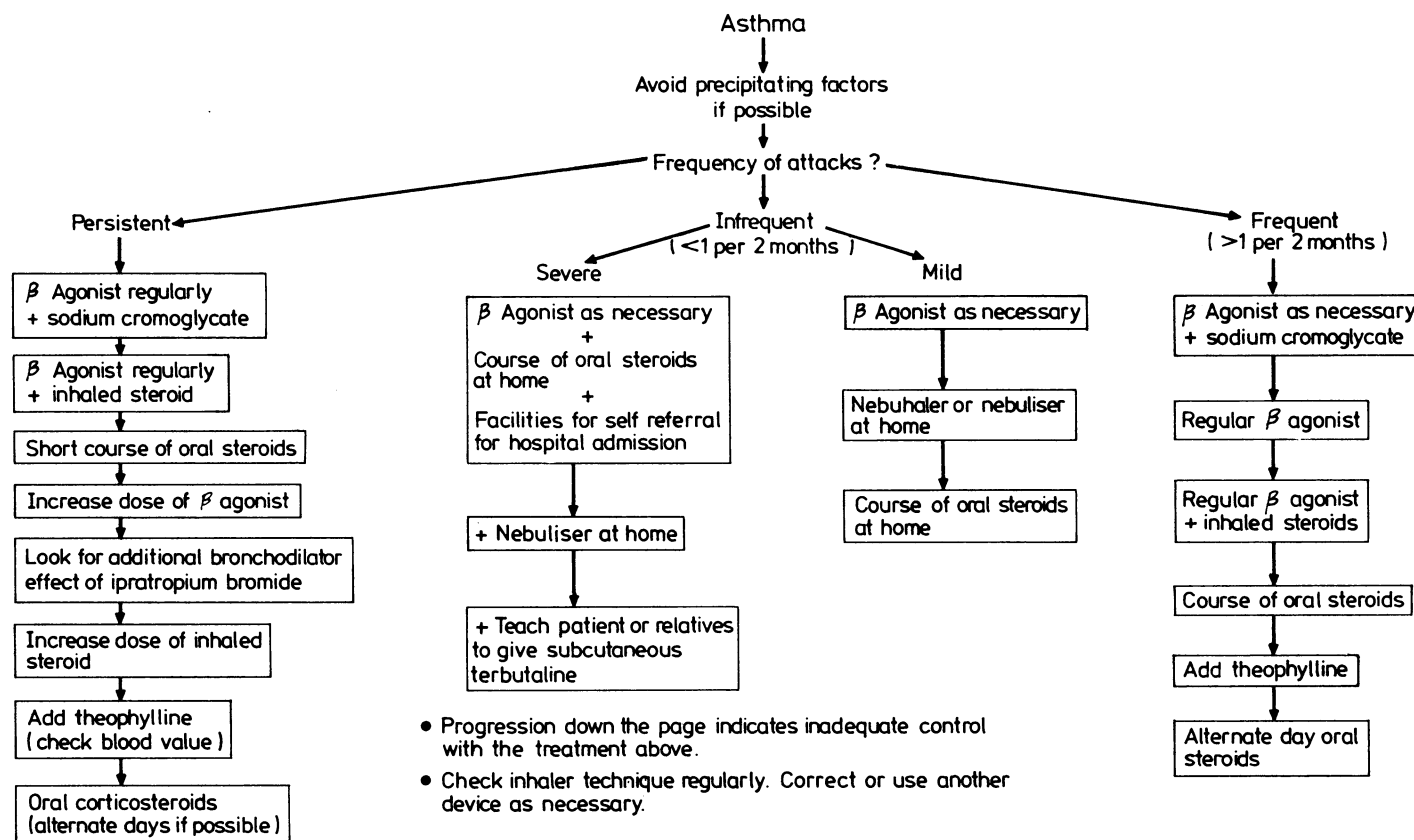
The decision to use regular treatment will depend on the frequency and severity of symptoms. When mild episodes of wheezing occur once or twice a month, then inhaled β stimulants to control the symptoms usually suffice. When attacks are more frequent regular treatment with β stimulants, inhaled steroids, or sodium cromoglycate is necessary. Definite diurnal variation on peak flow recordings or nocturnal waking indicates a high degree of reactivity of the airways and the need for vigorous treatment.

When chronic symptoms persist in the face of appropriate inhaled treatment a short course of oral corticosteroids often produces improvement, which then lasts for many months.

The aims of treatment are to avoid problems from persistent symptoms and to treat acute episodes early and vigorously to prevent deterioration into severe asthmatic attacks. In a variable disease such as asthma where monitoring of the state of the disease at home is comparatively easy, patient education and cooperation are a vital part of management.

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	Morning	Afternoon	Evening	Comments
1	240	300	290	
2	220	290	300	
3	230	295	275	
4	200	260	255	Woke at 3am. Wheezy
5	175	235	230	Woke twice
6	150	190	160	Started prednisolone 30mg
7	190	190	230	
8	250	280	300	
9	330	340	350	
10				
11				
12				
13				
14				



For Debate . . .

Breaking bad news: why is it still so difficult?

ROBERT BUCKMAN

No one seems to find it easy to talk about bad news with a patient and, although much has been published about patients' reactions, there is very little written (other than in specialist journals) about doctors' reactions and feelings. In this article, I try to identify some of the major difficulties and show that they may arise partly because we are (properly) taught to deal systematically with organic medical states in a way that makes it difficult to know how to behave when different services are required by our patients. I venture to suggest that, with relatively minor changes in the medical school curriculum, we can in future produce junior doctors who are better at coping with this awkward (but important) part of clinical medicine.

By "bad news" I mean any information likely to alter drastically a patient's view of his or her future (whether at the time of diagnosis or when facing the failure of curative intention). Naturally, how bad the news is will depend to some extent on the patients' expectations at the time, on how ill they actually

feel, and on whether or not they already know or suspect their diagnosis or current state. I have based many of the ideas on my own reactions and experiences as a medical student and junior doctor. In the past four years I have given and participated in many tutorials and seminars with nurses, students, and doctors. From their reactions I have begun to think that the fears and feelings I describe below are fairly common, though not often talked about.

I consider under two headings the major problems that face us as doctors in breaking bad news: the anxieties and fears that we have, which make it difficult for us to start the conversation; and those factors that drive us into taking responsibility for the disease itself, making it even more difficult once the conversation has been started.

Some of the fears that doctors may have

FEAR OF BEING BLAMED

The worst fear for doctors—particularly junior doctors—is that the patient will blame them personally for the bad news that they bring. Of course, the phenomenon of identifying the bad news with